

Department of Environmental Quality

Division of Air Program Coordination

**Article 6 –  
Minor New Source Review  
Permit Program Manual**

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## **Chapter 1- Introduction**

### **A. Purpose**

The purpose of this manual is to improve consistency in the permit application review process by:

1. Standardizing the Minor NSR (New Source Review) permit application review and permit issuance process,
2. Providing a coherent topical description of what should occur during each step in that process,
3. Providing a summary of the regulatory requirements, policy and guidance applicable to each step in the process, and
4. Referring the permit writer to the available resources during each step in that process.

The primary audience for this manual is intended to be the permit writer who is generally familiar with the Minor NSR permit application review process, but needs a one-source document for reference and guidance. The topical mode of the manual was selected to most directly meet this need. However, the topics have been arranged in a step-by-step manner so that the less experienced permit writer may follow the manual through the complete review of a permit application through to the successful issuance of a Minor NSR permit.

In the interest of being a one-source document Minor New Source Review, this manual covers some material that is clearly applicable only to Major New Source Review. This is appropriate for several reasons.

First, in order to determine if the requirements of Minor NSR apply, it is necessary to first evaluate whether other requirements of Major NSR apply instead. 9 VAC 5-80-1100, paragraph H.3 states: "In cases where the provisions of the major new source review program conflict with those of this article, the provisions of the major new source review program shall prevail." It is not possible to determine if the requirements of the Minor NSR regulation conflict with the requirements of the Major NSR regulations unless this evaluation is completed. It is therefore critical to review the permit application for Major Source NSR applicability BEFORE reviewing the application for applicability under Minor NSR rules.

Secondly, previous versions of the NSR manual dealt with both Major and Minor NSR review. Since there is yet no Major Source NSR manual, some active guidance document is needed to store the policy material applicable to these sources that had previously been in the combined NSR manual. Once a Major NSR manual is completed, it is expected that much of the "stored" guidance will no longer be included in this manual.

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Finally, the permit writer reviewing the application should have an understanding of the differences between the Major and Minor NSR programs. Information that points out those differences is included in this manual for that reason. Where there is material in this manual that ONLY applies to the Major Source NSR program, it has been indicated.

This manual interprets some regulations. To the extent that such interpretation is consistent with the regulations, the interpretation found in this manual is to be considered an official policy statement.

### **B. Definitions**

The minor NSR permit program has terms and concepts that are important to an understanding of the permit application and to development, issuance, and enforcement of minor NSR permits. The "Terms Defined" section of the General Definitions chapter of the Regulations (9 VAC 5-10-20) provides the meanings of some of these terms but is by no means a comprehensive list of the concepts necessary for proficiency in the New Source Review program. Additional definitions appear in the following rules:

- New and Modified Stationary Sources, 9 VAC 5-50-70, 9 VAC 5-50-170, 9 VAC 5-50-250, and 9 VAC 5-50-440.
- Minor New Source Review, 9 VAC 5-80-1110.

Additional definitions from the following sections of the regulations are referenced in the Minor NSR regulation:

- PSD Major Permits, 9 VAC 5-80-1710.
- Non-attainment Major Permits, 9 VAC 5-80-2010.

Definitions found in regulations concerning State Operating Permits (9 VAC 5-80-810) Federal Operating Permits (9 VAC 5-80-60), and Acid Rain Operating Permits (9 VAC 5-80-370) may be used for interpreting terms that are not defined in 9 VAC 5-10-20, 9 VAC 5 Chapter 50, or 9 VAC 5-80-1110, except when they conflict with definitions for the same terms found in 9 VAC 5-80-1710 or 9 VAC 5-80-2010 and referenced in 9 VAC 5-80-1110.

Definitions found in the existing stationary sources rules (9 VAC 5-40-10 through 9 VAC 5-40-7940) may be used for terms otherwise undefined in the Minor NSR regulation, except where the definition conflicts with a duplicate term defined in Chapters 50 or 80. Care should be taken so that the terms are not inappropriately applied across different source types.

Definitions found in the NSPS subparts (listed in 9 VAC 5-50-410) and in the NESHAPS subparts (listed in 9 VAC 5-60-70 and -100) were intended to apply only to those affected facilities subject to the respective subparts. However, where an applicable regulation

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otherwise fails to define a term used in the regulations, an NSPS or NESHAPS definition may be used as a resource in understanding the term to the extent that the NSPS term can reasonably be applied to the stationary source type undergoing new source review.

### C. Regulations

In April, 1995, Virginia began reorganizing its regulations and converting them to an administrative code system. Environmental air pollution regulations that were designated as part of Virginia Regulations Part 120 (VR 120-01) became Title 9, Agency 5 (State Air Pollution Control Board) of the Virginia Administrative Code. All state regulations have now been converted to the new Virginia Administrative Code (VAC) citations.

The reorganization continues. Previously, the basic regulations governing the permitting of minor stationary sources were contained in Chapter 80, Part I, in 9 VAC 80-10 and -11. With Revision YY, 9 VAC 5-80-10 (Permits for New and Modified Stationary Sources) and 9 VAC 5-80-11 (Stationary Source Exemption Levels) join the other permitting procedures in Part II (Permit Procedures) as new Article 6 (9 VAC 5-80-1100 et seq.).

*Table 1 –1. Regulation Conversion Chart*

<b>Old Regulation Number</b>	<b>Regulation Title</b>	<b>New Regulation Number</b>
9 VAC 5, Chapter 80	Permits for Stationary Sources.	[unchanged]
9 VAC 5, Chapter 80, Part I	Permits for New and Modified Sources	9 VAC 5, Chapter 80, Part II, Article 6
9 VAC 5-80-10 A.	Applicability.	9 VAC 5-80-1100
9 VAC 5-80-10 B.	Definitions.	9 VAC 5-80-1110
9 VAC 5-80-10 C.	General.	9 VAC 5-80-1120
[New]	[Reserved.]	9 VAC 5-80-1130
9 VAC 5-80-10 D.	Applications.	9 VAC 5-80-1140
9 VAC 5-80-10 E.	Application Information Required.	9 VAC 5-80-1150
9 VAC 5-80-10 F.	Action on Permit Application.	9 VAC 5-80-1160
9 VAC 5-80-10 G.	Public Participation.	9 VAC 5-80-1170
9 VAC 5-80-10 H.	Standards for Granting Permits.	9 VAC 5-80-1180
9 VAC 5-80-10 I.	Application Review and Analysis.	9 VAC 5-80-1190
9 VAC 5-80-10 J.	Compliance Determination.	9 VAC 5-80-1200
9 VAC 5-80-10 K.	Permit Invalidation.	9 VAC 5-80-1210
9 VAC 5-80-10 L.	Existence of Permit No Defense.	9 VAC 5-80-1220

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Old Regulation Numbe	Regulation Title	New Regulation Numbe
9 VAC 5-80-10 M.	Compliance with Local Zoning.	9 VAC 5-80-1230
9 VAC 5-80-10 N.1	Reactivation and Shutdown.	9 VAC 5-80-1320 A.1.d.
9 VAC 5-80-10 N.2-4	Reactivation and Shutdown.	9 VAC 5-20-220
9 VAC 5-80-10 O.	Transfer of Permits.	9 VAC 5-80-1240
9 VAC 5-80-10 P.	Circumvention.	9 VAC 5-80-1100 G.
[New]	General Permits.	9 VAC 5-80-1250
[New]	Changes to Permits.	9 VAC 5-80-1260
[New]	Administrative Permit Amendments.	9 VAC 5-80-1270
[New]	Minor Permit Amendments.	9 VAC 5-80-1280
[New]	Significant Amendment Procedures.	9 VAC 5-80-1290
[New]	Reopening for Cause.	9 VAC 5-80-1300
[New]	Pollution Control Projects.	9 VAC 5-80-1310
9 VAC 5-80-11	Permit Exemption Levels.	9 VAC 5-80-1320

### D. List of References

Permit writers may find the following references useful in evaluating a permit application or drafting a permit. These materials may help the permit writer quantify emissions, identify appropriate air pollution control requirements and equipment, ascertain applicable regulatory requirements and develop consistent permit limitations.

1. The **Clean Air Act** (42 U.S.C. 7401-7626, Public Law 101-549).
  - a. The Clean Air Act is updated for amendments and searchable on the internet web page: <http://www.epa.gov/oar/caa/contents.html>
2. The **Code of Federal Regulations** - (Most useful for Minor NSR are 40 CFR Part 60 (NSPS) and Parts 61 and 63 (NESHAPS and MACTs)).
  - a. The e-CFR provides the latest updated versions of the CFR and is searchable by subpart, section, and appendix citation from the internet search web page: <http://www.access.gpo.gov/ecfr/>.
  - b. The updated CFR is also searchable by keyword or section on the internet web site: <http://www.access.gpo.gov/nara/cfr/index.html>.

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3. The **Federal Register** publishes proposed and final federal regulations, and a great deal of valuable background information and interpretations may be found in the preambles to those published regulations.
  - a. Electronic copies of FR citations back to 1994 are searchable and available from the internet web page:  
[http://www.access.gpo.gov/su\\_docs/aces/aces140.html](http://www.access.gpo.gov/su_docs/aces/aces140.html).
  - b. The FR is also available on microfiche at most state libraries, and many county and city public libraries. Many university libraries also keep microfiche copies. Call the reference desk at the library to determine what is available.
4. The State **Air Pollution Control Law** (*Code of Virginia* §§ 10.1-1300 et seq. and §§ 10.1-1182 et seq.) may be found as follows:
  - a. On DEQNet2, §§ 10.1-1300 et seq.:  
[http://deqnet/docs/main/policy/policy\\_regaffairs/air\\_statutes\\_2001.doc](http://deqnet/docs/main/policy/policy_regaffairs/air_statutes_2001.doc)
  - b. On DEQNet2, §§ 10.1-1182 et seq.:  
[http://deqnet/docs/main/policy/policy\\_regaffairs/deq\\_statutes\\_2001.doc](http://deqnet/docs/main/policy/policy_regaffairs/deq_statutes_2001.doc)
  - c. On the searchable internet web site:  
<http://leg1.state.va.us/000/src.htm>
5. The Commonwealth of Virginia **Regulations for the Control and Abatement of Air Pollution** (especially 9 VAC 5 Chapters 10 through 80, and 170):
  - a. The official Virginia Administrative Code is searchable on the internet web site: <http://leg1.state.va.us/000/srr.htm>.
  - b. The copyrighted air regulation portion of the Virginia Administrative Code is available (Volume 6 of Title 9, Pt. I) in published form from the WestGroup by calling 1-800-328-4880.
  - c. DEQ personnel may access pdf files containing the current regulations on K:\agency\programs\final regs\ and in the near future may be able to find them on DEQNet2 air\air\_regulatory\_development\final\_regulations (M:\air\air\_regulatory\_development\final\_regulations).
6. DEQ permit boilerplate and boilerplate procedures.
  - a. Approved permit format and language is contained in the air permit boilerplates. These documents are in MS Word merge file format on the DEQ file servers at M:\air\air\_permitting\Boilerplates\Conditions and (at least temporarily) K:\agency\Air\_Permitting\Boilerplates\Conditions.

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- b. A procedure for assembling and merging the permit document is contained in the file named INSERTPRO.doc in a read-only MS Word format on the VADEQNET file server at M:\air\air\_permitting\Boilerplates\Conditions and (at least temporarily) on K:\agency\Air\_Permitting\Boilerplates\Conditions.
  - c. Procedure documents describing the applicability and use of the permit boilerplate for each individual source category are available in a read-only MS Word file format on the VADEQNET file server at M:\air\air\_permitting\Boilerplates\Procedures and (at least temporarily) on K:\agency\Air\_Permitting\Boilerplates\Procedures.
  - d. Although the boilerplates are accessible to DEQ employees on DEQNet2, merging files on DEQNet2 is not possible without copying them to another file server first.
7. EPA publication AP-42, "Compilation of Air Pollutant Emission Factors".
- AP-42, Volume I, contains a discussion and emissions information for over 200 stationary source categories. This information includes a description of the process, the potential sources of air emissions, emission control methods and procedures for estimating emissions. Usually, emission factors are offered for estimating the quantity of air pollutant emissions. Each chapter covers a different major industry or source category and contains one or more sections describing a different type of operation for that source category. The latest copy of each chapter of AP-42 may be downloaded from the EPA OAQPS web site at <http://www.epa.gov/ttn/chief/ap42/index.html>.
8. **EPA technical and scientific documents** - The Technology Transfer Network maintained by EPA's Office of Air Quality Planning and Standards contains several web sites with information useful to permit writers during the permit development process. Some of these sites are described below:
- a. **CHIEF** - CHIEF provides access to tools for estimating emissions of air pollutants in various geographic domains (e.g. urban areas, regions, or the entire nation). It serves as EPA's central clearinghouse for the latest information on air emission inventories and emission factors. The most recent version of each chapter of AP-42 is available from this web site.
  - b. **NSR** - The NSR TTN Web site is designed to provide material and information pertaining to New Source Review (NSR) permitting.
  - c. **OAR P & G** - The OAR Policy and Guidance Web site is designed to provide access to rules, policy, and guidance documents produced by EPA's Office of Air and Radiation (OAR). This site allows regulators, the

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regulated community and members of the general public to easily obtain access to both current and historical regulatory information.

- d. **UATW** - Unified Air Toxics Web site. This web site is a central clearinghouse and repository for air toxics information from all of the entities within EPA working on Toxic Air Pollutant issues. Toxic air pollutants are also referred to as air toxics or hazardous air pollutants (HAPs).
  - e. **Region VII NSR Policy and Guidance searchable database** - A full-document- searchable compendium of NSR policy and guidance has been developed by EPA Region VII and is accessible by selecting R-VII NSR and Permits compendium. Region VII currently up-dates this database on a quarterly basis. OAQPS will continue to make new policy and guidance documents (as well as historical ones) available on this NSR web site as they become available.
  - f. **EPA Policy Guidance Documents** - A number of EPA guidance memos, proposed regulations, MACT rules, and other sources of permitting policy guidance can be found (at least temporarily) on the subdirectory K:\agency\Epabull and its sub-directories. One file, K:\agency\Epabull\Air\Listing.sum, is a table of directory contents, complete with descriptions of the documents. These resources are also available through the Region VII database described above.
9. **DEQ Permitting Policies** - The Office of Air Permit Programs (OAPP) maintains a listing of current DEQ policies and OAPP guidance that direct or support the permit process.
- a. **Policy Guidance Memos** - Policy guidance memos signed by the Director of the Division of Air Programs Coordination may be found on the DEQNet2 and on the VADEQNET file server (M:\) at \air\air\_permitting\Memos, and (at least temporarily) in K:\agency\Air\_Permitting\Memos. Guidance memos are listed by the two-digit year and sequence number, beginning with 1001 every new calendar year.
  - b. **Air Quality Program Policies and Procedures (AQPs)** - The approved Air Quality Program Policies and Procedures (AQPs) may be found on the DEQNet2 and on the VADEQNET file server (M:\) at \air\air\_permitting\Policy&Guidance\AQPs, and (at least temporarily) in K:\agency\Air\_Permitting\Policy&Guidance\AQPs. These files are listed as "AQP-01.F, AQP-02.F," etc.
  - c. **Guidance from OAPP** – The Office of Air Permit Programs (OAPP) issues guidance and information on permitting matters from time to time,



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usually upon request of one or more regional offices. This information may be found in several places. The first place to look is in M:\air\air\_permitting\Policy&Guidance\Policy and (at least temporarily) in K:\agency\Air\_Permitting\Policy&Guidance\Policy. Another place is M:\air\air\_permitting\Policy&Guidance\Guidelines and (at least temporarily) in K:\agency\Air\_Permitting\Policy&Guidance\Guidelines. OAPP can assist with inquiries regarding other OAPP and Air Division guidance.

### E. Delegation of Authority

#### 1. DEQ authority

DEQ's authority to administer both state and federal regulations derives from the Code of Virginia. Section 10.1-1322 (known as the Air Pollution Control Law) gives DEQ the authority to issue, amend, revoke or terminate and reissue permits consistent with regulations adopted by the Board. DEQ does not have authority to administer or enforce federal regulations that have not been adopted into Virginia regulations by the Board in accordance with the Administrative Process Act.

#### 2. Delegation of Authority to the Regional Offices:

Section 10.1-1307.3 requires the Director to supervise, administer and enforce the provisions of the Air Pollution Control Law, including section 10.1-1322. To properly issue, amend, revoke, or terminate and reissue a permit, the director may delegate to the Regional Offices the authority to process air permits.

The Minor NSR permit program is a decentralized permit program in which the regional offices are responsible for implementing the permit process in a consistent manner, and the Office of Air Permit Programs is responsible for coordinating and communicating the legal, regulatory, and policy determinations instrumental to proper implementation of the air permitting program.

In his January 22, 1999 Delegation of Authority Memorandum (**Appendix B**), the Director stated "the Regional Directors and the Regional Permit Managers... shall have the authority to process the following permits: ... Air permits." The issuing, amending, revoking, and terminating and reissuing of Minor NSR permits is a delegated authority performed in the Regional Offices, with OAPP acting as technical and procedural consultants to the process as requested by regional personnel.

The Regional Offices and the OAPP collaborate on issues related to permit development to create permitting approaches that are protective of the health of

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the citizens of the Commonwealth and protective of the environment of the Commonwealth.

It is also incumbent upon both the Regional Offices and the OAPP, when performing these functions, to ensure proper customer service for the regulated community as well as the citizens of the Commonwealth.

### 3. DEQ's Authority for Delegated Federal Programs

- a. PSD and Non-attainment: Both of Virginia's Major Stationary Source New Source Review permit programs are fully delegated programs. Because Virginia's PSD and Non-attainment programs are approved by EPA, DEQ's review of permit applications under the state PSD and Non-attainment NSR regulations are subject to EPA comment, but not EPA approval, before the permit is issued.

DEQ's determinations of Minor NSR applicability (and therefore of PSD and Non-attainment non-applicability) are not subject to EPA comment or approval prior to issuance. Thus, changes to an existing PSD or Non-attainment permit through the Minor NSR program (changes that would not meet the criteria of a "major modification") does not require prior EPA review or approval either. However, the permit is still subject to EPA review after issuance. If EPA later reviews the permit and determines that DEQ made an inappropriate determination of major source NSR applicability, EPA may deem the permit invalid and sue the source for construction without a permit and subsequently use the incident to require that Virginia review its major source NSR program.

- b. NSPS, MACT and NESHAPS: EPA has delegated to Virginia the authority to administer and enforce the provisions of 40 CFR, Part 60 (NSPS), 61(NESHAPS) and 63 (MACT) that are incorporated by reference into state regulation (9 VAC 5-50-410, 9 VAC 5-60-70 and 9 VAC 5-60-100), except where EPA has specifically reserved that authority to itself. DEQ intends to fully exercise those delegations.

Since this delegated authority is subject to certain conditions and reporting requirements, all deviations from NSPS, MACT or NESHAPS requirements (such as requests for waivers, and requests for approval of alternate standards, compliance, testing, monitoring, reporting and recordkeeping requirements) should be referred to OAPP.

EPA reserves the authority to make applicability determinations under NSPS, however it is not desired that the DEQ regional office refer all applicability determinations to EPA.

- i. Applicability determinations should be made at the DEQ

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regional office in accordance with the subpart when the determination is clear and straightforward or where there are previous EPA determinations that clearly apply.

- ii. OAPP should be consulted:
  - (A) When the determination is not clear and straightforward from the descriptions in the applicability section of the subpart,
  - (B) When previous EPA determinations of similar sources indicate that an EPA determination may deviate from a clear and straightforward interpretation of the applicability of the subpart, or
  - (C) When the permit applicant disagrees with a preliminary determination made by the permit writer. OAPP will research applicable background documents, refer to previous EPA determinations, and consult with the EPA regional office in order to produce an authoritative determination. If the source then appeals the DEQ determination to EPA, or if someone at EPA reviews the applicability determination, DEQ can be confident that EPA will return a determination consistent with the DEQ determination.

### **F. Using these Guidelines**

This document is intended to keep up with the evolving permit process and there is no better source to judge its helpfulness than the people who use it. Where some part of this document is discovered to be incorrect, inaccurate, or unclear, permit writers should notify OAPP by E-mail or phone. In this manner, the department can quickly update the manual so that other users will not experience the same problems.

## **Chapter 2 - Permit Processing**

### REFERENCES

#### Applicable Regulations for this chapter include:

- 9 VAC 5 Chapter 40
- 9 VAC 5 Chapter 50
- 9 VAC 5 Chapter 60
- 9 VAC 5 Chapter 80
- 9 VAC 5-10-20
- 9 VAC 5-80-1100 et seq.
- 9 VAC 5-80-1110
- 9 VAC 5-80-1170
- 9 VAC 5-80-1180
- 9 VAC 5-80-1190
- 9 VAC 5-80-1240
- 9 VAC 5-80-1270
- 9 VAC 5-80-1280
- 9 VAC 5-80-1290
- 9 VAC 5-80-1320
- 40 CFR Part 60 (Standards of Performance for New Stationary Sources)
- 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants)
- 40 CFR Part 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories)

#### Applicable Appendices for this chapter include:

- P** - Minor Source Permit Review Procedures and Checklist
- Q** - State Major Source Permit Review Procedures
- FF** - Hazardous Air Pollutant and Toxic Pollutant Tables

### **A. Purpose of a Minor NSR permit**

The Minor New Source Review program is intended to ensure that regulated facilities properly adhere to the State Air Pollution Control Law and the Regulations for the Control and Abatement of Air Pollution (“Regulations”) by establishing the framework for issuing minor NSR permits, when such permits are required. These permits are drafted consistent with the minor NSR permit regulation, 9 VAC 5 Chapter 80 Article 6 (9 VAC 5-80-1100 et. seq.). This regulation applies to the construction, reconstruction, relocation or modification of any stationary source located throughout the Commonwealth of Virginia. A "stationary source" is defined by the Regulations to mean any building, structure, facility or installation which emits or may emit any regulated air pollutant (9 VAC 5-80-1110). The term "pollutant" is defined in the Regulations as substances the presence of which in the outdoor atmosphere is or may be harmful or injurious to human health, welfare or safety, to animal or plant life, or to property, or which unreasonably interferes with enjoyment of life or property (9 VAC 5-10-20). No one may begin actual construction, reconstruction or modification of a stationary source; relocate an emissions unit, except as provided in 9 VAC 5-80-1320 A.1.c for portable emissions units; or

## Permit Processing

reduce a stack or chimney height without obtaining a permit issued pursuant to the Regulations.

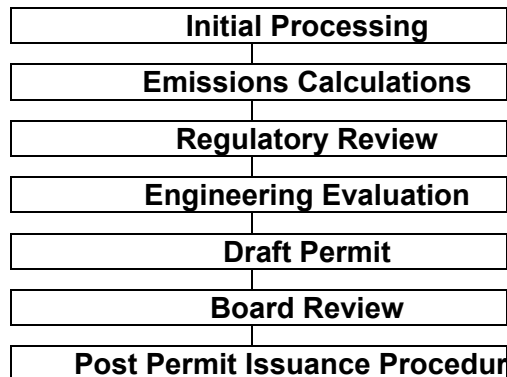
There are two general categories of facilities that are regulated under Virginia's air pollution regulations: "Existing sources" and "new and modified sources." "Existing sources" (9 VAC 5 Chapter 40) were constructed prior to March 17, 1972 or reconstructed prior to December 10, 1976 (the original NSR rules adopted these dates as threshold requirements for the application of the rules). These are also referred to as "grandfathered sources." In general, existing sources do not require a permit to construct and operate since they were in existence prior to promulgation of the applicable regulations.

Some existing sources require registration. As an example, for a natural gas boiler 9 VAC 5 Chapter 40 Article 8 sets emission limits if the heat input is less than the permit exemption limit of 50 million BTU per hour (9 VAC 5-80-1320 B.1.d) but more than 10 million BTU per hour (9 VAC 5-40-880 C.3); 9 VAC 5-40-1020 specifically, in combination with 9 VAC 5-20-160, requires registration of such a source.

"New and modified sources" (9 VAC 5 Chapter 50) are defined as being constructed, modified, or relocated, after March 17, 1972 or reconstructed after December 10, 1976. All new and modified sources not exempted by 9 VAC 5-80-1320 require a permit. If an existing source relocates, it should be evaluated as a new source and a permit may be required. Note that definitions of "new" and "existing" in federal regulations such as New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants for Source Categories (known as Maximum Achievable Control Technology requirements, or MACT) may vary from the definitions in state rules.

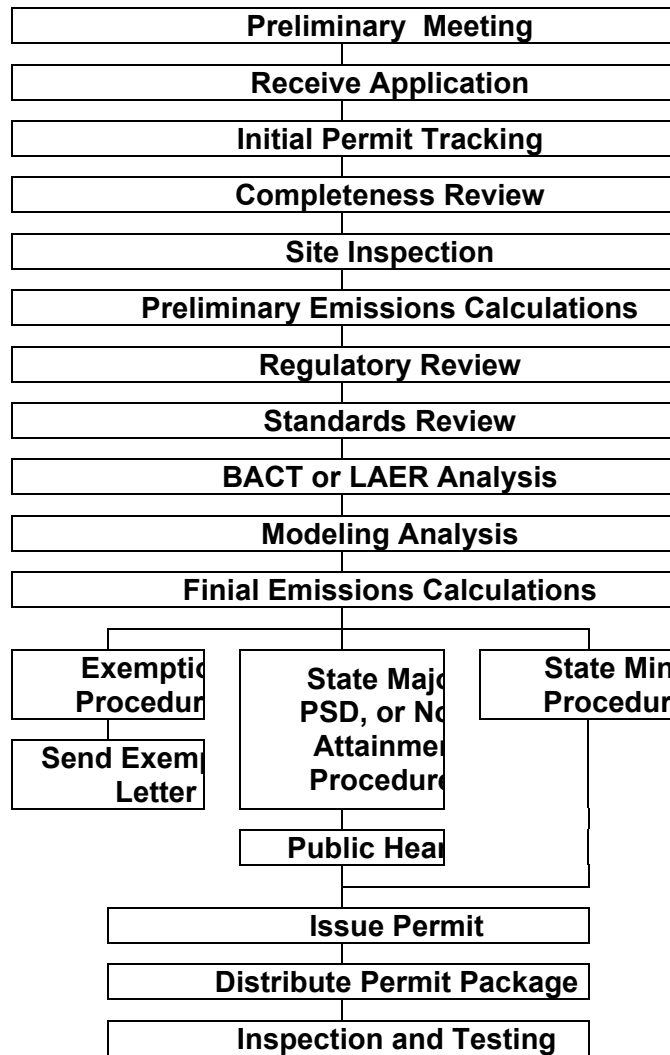
Processing time for a minor NSR permit is normally 90 days following the receipt of a complete application. If a public comment period is required the processing time is extended but is normally 180 days after receiving a complete application. The following flow charts outline the steps to be followed when processing any typical permit application. Specific factors regarding an application may involve deviation from the ideal flow of processing. The complexity of the permit process depends on the type of permit, the location of the source, and the degree of public interest and controversy.

### PERMIT PROCESSING OVERVIEW



### PERMIT APPLICATION FLOW CHART

Permit Processing



Appendix P gives a step-by-step permit processing procedure for minor NSR permits as well as a checklist of items to be considered during the permitting process. Appendix Q gives a step-by-step permit processing procedure for State Major permits.

**B. Application - Form 7**

Any facility requesting a minor New Source Review permit under 9 VAC 5-80-1100 et seq. must fill out an application. The Form 7 is designed to provide information needed to determine whether a permit is needed, and if so, what is required by the Air Pollution Control Law and the Regulations. A copy of the Form 7 application is located in "K:\Agency\Air\_Permitting\Forms\Current & Active Forms\Forms - DOC format" and "...\Forms - PDF format". The form contains informational pages, a local government certification form and the air permit application, with instructions on the back of each page of the application. Table 2-1 below provides a list of some of the additional items that may be required before an application is deemed complete. A further discussion of what constitutes a complete application is provided in **Chapter 4**.

*Table 2-1 List of items supplied by the source with the Form 7 application*

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1. <b>FORM 7</b>	Form 7, including Document Certification Form signed by a responsible official.
2. <b>MAP</b>	Source location map including all USGS UTM coordinates.
3. <b>FACILITY</b>	Site plan of facility including dimensions of all buildings (length, width and height), all stack and emission point locations by stack number, property and fence line.
4. <b>PROCESS</b>	Process flow diagram/schematic, with material balance including requested permit limits, and narrative description.
5. <b>MSDS</b>	Material safety data sheets indicating the percent by weight of each ingredient, and, for coatings, the VOC content in pounds per gallon.
6. <b>CALCULATIONS</b>	Calculations of emission estimates. Control technology justification to include economic analysis, if required.
7. <b>STACK TEST</b>	Stack test data if applicable.
8. <b>MODEL</b>	Air quality modeling based on consultation with the applicable regional office and the Office of Air Permit Programs, if required.
9. <b>LOCAL GOVERNING BODY CERTIFICATION FORM</b>	The source should forward the form to the local governing body, if applicable (new "greenfield" sources and major modifications).

### C. Processes Requiring an Application

The process initiated by the submittal of the Form 7 reflects the specific activity that the source proposes for review by DEQ. The process may result in a determination that the activity is exempt from permitting, requires only an amendment to an existing permit, or requires a completely new permit. In addition to these permit processes, the Form 7 may be used to request a registration update, detail a change of ownership, or describe some other change to an existing permit. Briefly, an application may need to be submitted if the source undertakes any of the following:

1. **Modification** - The applicant has a source with an existing permit and the process or equipment is subject to permit review based on a modification made to that process or equipment. A "modification" is any physical change in, change in the method of operation of, or addition to, a stationary source which results in a net emissions increase of uncontrolled emissions of any regulated air pollutant emitted into the atmosphere by the source or which results in the emission into the atmosphere of any regulated air pollutant not previously emitted. The term "modification" describes the change at the facility, not the change to the permit. See **Chapter 4, section F** for exceptions to this definition.
2. **New Source Construction** - The applicant is applying for a permit for a new facility. Construction here means fabrication, erection or installation of an emissions unit. The applicant must have the permit issued prior to initiation of permanent physical on-site construction of an emissions unit, i.e., prior to "beginning actual construction". An emissions unit is any part of a stationary source that emits or would have the potential to emit any regulated air pollutant. An alternative reason for permitting would be the addition of a new emission unit to a previously unregistered facility.

## Permit Processing

3. Exemption - The applicant is applying for a written exemption letter to cover the addition of an emissions unit that under 9 VAC 5-80-1320 is exempt from needing a permit.
4. Registration Update - The applicant is updating the registration data describing the operations of the facility. 9 VAC 5-20-160 requires all sources to which permits are issued under 9 VAC 5 Chapter 80 (9 VAC 5-80-1100 et seq. and other permit rules) and for which emission standards are given in 9 VAC 5 Chapter 40 (9 VAC 5-40-10 et seq.), 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.), and 9 VAC 5 Chapter 60 (9 VAC 5-60-10 et seq.) when requested by the DEQ to register the sources operations and to update the registration information. The Form 7 application can provide the informational requirements of this registration process.
5. Ownership Change - The applicant is updating the registration data describing the facility ownership. Under 9 VAC 5-80-1240 B if the ownership of a stationary source changes the new owner must comply with any current permit issued to the previous owner. Also the new owner is required to notify the DEQ within 30 days after the change of ownership. Under 9 VAC 5-80-1240 C if the name of a stationary source changes the owner must comply with any current permit issued under the previous name. Also the owner is required to notify the DEQ within 30 days after the name change. This is accomplished by filling out the first three pages of Form 7. The facility registration is transferred to the new owner automatically upon change of ownership, provided that the DEQ is properly notified. A change of name or ownership requires an administrative amendment to the permit under 9 VAC 5-80-1270 (see further discussion below).
6. Permit Amendment – The applicant is applying for an amendment to an existing permit to reflect changes in conditions of a permit. (If new equipment is being added, a permit for a modification would be sought.) An application, or at least part of one, is in order. There are three types of amendments 1) administrative, 2) minor, and 3) significant.
  - a. Administrative permit amendments (9 VAC 5-80-1270) are used to:
    - i. Correct typographical or other errors.
    - ii. Change the name, address, or phone number of any person identified in the permit, or similar minor administrative change.
    - iii. Change of ownership or operational control of a source.
  - b. Minor permit amendments (9 VAC 5-80-1280) are used only for those amendments that:
    - i. Do not violate any applicable federal requirement.
    - ii. Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements that would make the permit requirements less stringent.
    - iii. Do not require or change a case-by-case determination of an emission limitation or other standard.
    - iv. Do not seek to establish or change a permit condition that 1) has no regulatory requirement and 2) that the source has assumed to avoid a regulatory requirement.



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- v. Are not modifications under the new source review program.
  - vi. Are not required to be processed as significant amendments.
  - vii. Involve the use of economic incentives, emissions trading, etc. provide for in a regulation of the board or federally approved program.
  - viii. Require more frequent monitoring or reporting by the permittee or reduce an emissions cap.
  - ix. Designate any permit condition that meet the criteria as state-only.
  - x. Rescind a provision of a permit by mutual determination because the underlying requirements are no longer applicable.
- c. Significant permit amendments (9 VAC 5-80-1290) are used for amendments that:
- i. Do not qualify as a minor or administrative amendment.
  - ii. Involve significant less stringent changes to existing monitoring, reporting, or recordkeeping requirements.
  - iii. Require or change a case-by-case determination of an emission limitation or other standard.
  - iv. Seek to establish or change a permit condition that 1) has no regulatory requirement and 2) that the source has assumed to avoid a regulatory requirement.

There may be other reasons for filling out and submitting the Form 7 application that are not described above. In some cases, the permit writer will have to make a reasoned judgment as to when to require submittal of an application. In making this determination the permit writer should consider that the application requires a certification from the applicant that the information contained in the application is true and accurate. Where a case-by-case judgment must be made regarding the need for a completed application, the criteria for the decision must be based on the requirements in the regulations, 9 VAC 5-80-1140 and 1150.

### D. Applicable Regulations

The Regulations prohibit construction of a new stationary source and reconstruction or modification of an existing stationary source without a permit (9 VAC 5-80-1120 A). In reviewing a permit application for various regulatory requirements, some specific questions the permit writer should ask are:

1. Does the new source, reconstruction, or modification fit any of the permit exemptions in 9 VAC 5-80-1320?
2. Is the application for a permit to construct and operate [9 VAC 5 Chapter 80 Article 6 (9 VAC 5-80-1100 et seq.)], a state operating permit [9 VAC 5 Chapter 80, Article 5 (9 VAC 5-80-800 et seq.)], or a federal (Title V) operating permit [9 VAC 5 Chapter 80 Article 1 (9 VAC 5-80-50 et seq.)]? If it is for a Title V permit a Form 805 application is required.

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3. Are the uncontrolled emissions (or the potential to emit, in the case of a PSD permit) sufficient to require review as: a state major source (9 VAC 5-80-1170 A.), a Prevention of Significant Deterioration (PSD) source (9 VAC 5-80-1700 et seq.), or a non-attainment source (9 VAC 5-80-2000 et seq.)?
4. Is the source of the type category that is subject to permitting as a:
  - a. New Source Performance Standards (NSPS) (40 CFR Part 60, 9 VAC 5-50-410) source;
  - b. National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Part 61, 9 VAC 5-60-70) source; or
  - c. National Emission Standards for Hazardous Air Pollutants for Source Categories [Maximum Achievable Control Technology (MACT)] (40 CFR Part 63, 9 VAC 5-60-100) source?
5. Is the proposed source a boiler, incinerator or industrial furnace subject to 9 VAC 20 Chapter 60 (9 VAC 5-80-1320 C)? If yes, the source is not exempt from permit requirements.
6. Is there a minor source boilerplate that applies? See those listed in [K:\Agency\Air\\_Permitting\Boilerplates\Conditions](K:\Agency\Air_Permitting\Boilerplates\Conditions).
7. What governing body notifications are required (9 VAC 5-80-1160 A, 9 VAC 5-80-1170 F.2 and F.3.)?

The Regulations are divided into 8 chapters designated as Chapters 10 through 80. There are also Chapters 150 (Transportation Conformity), 160 (General Conformity), 170 (General Administration), and 190 (Merck Variance). The Regulations can be found in <K:\Agency\Programs\Final Regs>; the official version is in the Virginia Code Commission's web site at <http://legis.state.va.us/codecomm/codehome.html> or the DEQ web site at <http://www.deq.state.va.us>.

Pursuant to the Clean Air Act, the Environmental Protection Agency has set standards referred to as National Ambient Air Quality Standards (NAAQS) for certain air pollutants typically emitted from stationary sources such as manufacturing facilities. These "criteria pollutants" include sulfur oxides, particulate, carbon monoxide, ozone, nitrogen dioxide, and lead. These standards are the basis for evaluation of air quality analysis associated with any permit application and are located in Chapter 30 of the Regulations.

Existing sources are regulated through the application of source rules contained in 9 VAC 5 Chapter 40 entitled "Existing Stationary Sources". The chapter contains rules for various source categories that regulate visible emissions, odor, and standards for general process operations. Chapter 50 contains the new source rules, the bulk of which are incorporated by reference from 40 CFR part 60. Chapter 60 contains the NESHAP and MACT standards that have been incorporated by reference from Parts 61 and 63, respectively, of 40 CFR. Chapter 60 also contains the case-by-case MACT determination regulation and the state toxics regulations for new and existing sources.

Chapter 80 contains all the permit regulations for permits issued by DEQ. These include:

- Federal Operating Permits Regulation (9 VAC 5-80-50 et seq.);

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- Acid Rain Operating Permits (9 VAC 5-80-360 et seq.);
- State Operating Permits (9 VAC 5-80-800 et seq.);
- Minor NSR Regulation (9 VAC 5-80-1100 et seq.);
- Major HAP NSR (9 VAC 5-80-1400 et seq.);
- PSD Major NSR Permits (9 VAC 5-80-1700 et seq.);
- Non-Attainment Major NSR permits (9 VAC 5-80-2000), and

Permit applicability for a regulated facility is usually determined after reviewing an application submitted by the source and comparing the application to several sections of the Regulations including 9 VAC 5-80-1320, 9 VAC 5 Chapter 40, and 9 VAC 5 Chapter 50. Exemption levels are listed in 9 VAC 5-80-1320 and if the emissions from the proposed source are below the exemption levels, the source is not required by regulation to obtain a permit. An exemption, however, does not relieve any owner of the responsibility to comply with any other applicable provisions of the Board's regulations or other laws, ordinances and orders of the governmental entities having jurisdiction.

### E. Initial Application Review

9 VAC 50-80-1190 states that no minor NSR permit shall be granted unless compliance with the standards described in 9 VAC 5-80-1180, "Standards and conditions for granting permits" is demonstrated to the satisfaction of the board by a review and analysis of the application performed on a source-by-source basis. For stationary sources this includes a control technology review for criteria and hazardous air pollutants and air quality impact analysis where deemed applicable. Where a source proposes to reduce a stack height in the application, the source must perform the air quality impact analysis. In reviewing a permit application for various technical requirements, some specific questions the permit writer should ask are:

1. What method was used for calculating emissions? Where were the emission factors found? Was the calculation method appropriate, and do the calculated emissions accurately reflect those that one might expect from the process?
2. What is the impact of toxic pollutant emissions? Hazardous Air Pollutants? (9 VAC 5 Chapter 60) (Appendix FF)
3. Does the proposal have Best Available Control Technology (BACT) (9 VAC 5-50-260)?
4. Is public participation required? (9 VAC 5-80-1170)
5. Is dispersion modeling required for criteria or toxic pollutants (9 VAC 5-80-1190, 9 VAC 5-60-250, 9 VAC 5-60-350)?

Existing sources are required to meet emission limitations established by the Regulations and may be required to conduct periodic emission testing in order to determine compliance with the standards. New and modified stationary sources are required to demonstrate their use of best available control technology (BACT). Sources within specific categories listed in the Regulations must also comply with the EPA New Source Performance Standards (9 VAC 5

## Permit Processing

Chapter 50; 40 CFR Part 60), the National Emission Standards for Hazardous Air Pollutants [NESHAP](9 VAC 5 Chapter 60, Part II, Article 1; 40 CFR Part 61), and the Maximum Achievable Control Technology [MACT] standards (9 VAC 5 Chapter 60, Part II, Article 2; 40 CFR Part 63).

### F. Public Notification

The term “public notification” means the process by which the general public is notified that the application for the proposed stationary source has been received and that DEQ has analyzed the application for regulatory applicability and technical requirements. The permit covered by the public notice should contain all the requirements prescribed by the Regulations that apply to the proposed source. Documentation for the public notice should also include the control technology review and any air quality analysis undertaken. The purpose of the public participation period is to gather any comments that the general public (interested or affected citizens, environmental groups, and otherwise interested parties) may have regarding the permit being drafted for the proposed source.

Public notification for minor NSR permits is limited to permits that fit into the “state major” category, or other permits determined to be controversial. The term “state major” is not specifically defined in the Regulations but has developed through common agency usage to identify those permits that are considered minor NSR permits but meet the requirements of 9 VAC 5-80-1170 D. The criteria for public notification of applications for permits are stated in the Regulations under 9 VAC 5-80-1170. Minor NSR permits do not routinely go through a public participation period. More extensive discussion of public notice and participation requirements appears in **Chapter 12** of this Manual.

### G. Permit issuance and signature authorities

Once permit processing is complete and the public participation process (if applicable) is finished, the permit is “issued”. This means that the permit has been signed by the appropriate Regional Official based on the most recent delegation of authority memorandum issued by the Agency Director.

### H. Permit Processing and CEDS

CEDS (or the **C**omprehensive **E**nvironmental **D**ata **S**ystem) is designed to help track the various steps of the permit process. This tracking information includes: dates integral to the process; (i. e. application submittal date, application complete date, issuance date, etc.); facility information; process codes; and other information developed as part of the permit generation process. CEDS is a data storage system intended to store the important dates in the permitting process, store important permit-related determinations such as BACT, and store air quality-related permit conditions. The CEDS system is to be used for tracking all permit applications. When a permit application is received the tracking process in CEDS should begin. See CEDS training materials for additional information.

## **Chapter 3 - Application Submittal**

### REFERENCES

#### Applicable Regulations include:

Clean Air Act, Section 112(g)  
Air Pollution Control Law of Virginia, §10.1-1307 E.3  
Air Pollution Control Law of Virginia, §10.1-1321.1  
9 VAC 5-20-205 C.1.  
9 VAC 5-20-230  
9 VAC 5 Chapter 40  
9 VAC 5 Chapter 50  
9 VAC 5 Chapter 60  
9 VAC 1140 A.  
9 VAC 5-80-1320  
9 VAC 5-80-1320 A.1.c.(4)  
9 VAC 5-80-1710  
9 VAC 5-80-1710 C.  
9 VAC 5-80-2010  
9 VAC 5-80-2010 C.

#### Applicable Appendices (of this manual) include:

Appendix C – MOU with Shenandoah National Park  
Appendix D – MOU with Jefferson National Forest  
Appendix E – SAPCB Suitability Policy  
Appendix F – Permit Application Site Evaluation

### **A. Communication with the Source**

1. Pre-Application Meeting - Prior to submitting an application, an applicant may request a preliminary meeting with Department staff. The purpose of this Pre-Application Meeting is usually to provide DEQ staff with an understanding of the proposed project and to provide the applicant with an opportunity to obtain information on regulatory requirements and the permitting process. The meeting is usually conducted at the regional office and may involve Central Office staff for more complex projects.
2. Meeting Content - Elements of this meeting may include, but are not limited to, those items listed in Table 3-1.

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Table 3-1. Pre-Application Meeting Sample Topics

(1)	Specific regulatory applicability;
(2)	Control technology strategies and analysis;
(3)	Modeling requirements;
(4)	On-site meteorological data collection;
(5)	On-site monitoring data requirements;
(6)	Potential regulatory changes within the time frame of the application review;
(7)	Documentation needed for application completeness;
(8)	Length of permitting process;
(9)	Public participation process.

If appropriate, it should be explained to the applicant that a single application may be submitted for multiple units, and a single application should be used for a phased project. However, a separate application must be submitted for each stationary source, i.e., facilities on separate properties cannot share a common application.

3. **Communication of Meeting Results** - Preliminary meetings are essential for complex projects to clarify what data the applicant needs to submit for timely evaluation of the application. Such meetings are also important for early identification and resolution of potential issues. A copy of Form 7 can be provided to the applicant during this meeting as well as, for complex projects, a copy of the Department's Modeling Procedures Guidance. If the meeting indicates that the source is going to submit a PSD permit application, the regional office should communicate this information to the affected Federal Land Manager (FLM) prior to receiving the application. The Federal Land Manager should be invited to the preliminary meeting, anyway, if there is any likelihood of a PSD permit.

### **B. Application Receipt and Completeness**

1. **Application Receipt Date** - The receipt date is the date the application is received in the regional office. The Regulations require that the board notify the applicant of the status of the application within 30 days after receipt of an application. The receipt date is also significant for tracking the initial determination of application status as well as for measuring the overall time for permit processing. Each application will have a signature date but this should not be used as the receipt date.
2. **Notification of Application Status** - As indicated in paragraph (1) above, the Regulations specify 30 days for DEQ to respond to an applicant with an initial determination regarding the status of the application. This notification is required to be in writing and shall include the following information:

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- a. A determination of which provisions of 9 VAC 5 Chapter 80 of the Regulations is applicable. Within 30 days of receipt of an application, the regional permit writer is required to tell the applicant whether the proposed project (a) is exempt from permitting, (b) requires a Minor NSR permit, (c) requires a PSD permit, or (d) requires a Non-Attainment permit. For section 112(g) sources, the time frame is 45 days, as stated in 9 VAC 5-80-1450. If the source has not provided sufficient information to make the determination regarding the applicability of Chapter 80, the permit writer should communicate with the source within the 30 days to gather the information necessary to make this determination. This determination is, in any case, an initial one, subject to change as the permit application review progresses. Note: if additional information is needed to make the determination, the permit writer should request it and set a reasonable deadline, not necessarily within these first 30 days, for a response.
  - b. The identification of any deficiencies. The permit writer should not consider this initial identification of deficiencies as necessarily comprehensive or as the only opportunity to review the application and request additional information. The focus at this point should be the scope of the information provided, i.e., has the applicant provided the Local Governing Body Certification Form, is the information certified by a responsible official (as defined), is all the proposed equipment listed and described in the application, etc.
  - c. A determination of whether the application contains sufficient information to begin application review. The determination that the application has sufficient information to begin review is not necessarily a determination that it is complete.
3. Application Review - In order to be considered complete for the purpose of measuring length of processing time against procedural requirements, an application for a permit must be completely filled out and have sufficient accompanying information to allow all necessary engineering and air quality analyses, and to meet all applicable information requirements. Permit applications are usually reviewed and evaluated in two ways: The first is a review for administrative completeness and the second is a technical evaluation that ensures that the technical basis for all conditions in the permit is documented. The Regulations do not distinguish types of completeness, but do require that certain elements are present, or else the application cannot be complete; see sub-section (C) of this paragraph.
- a. An application is *Administratively Complete* as of the date the last information is received in the regional office which completes the application and has sufficient accompanying information to allow all

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necessary engineering and air quality analyses, and to meet all applicable information requirements. Items which are explicitly needed for the application to be Administratively Complete include the information found on the first three pages of Form 7, the Local Governing Body Certification Form (when applicable), the Document Certification (when applicable; see legal requirements for completeness), and the following certification:

“I certify that I understand that the existence of a permit under this article does not shield the source from potential enforcement of any regulation of the board governing the major NSR program and does not relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations.”

- b. An application is *Technically Complete* as of the date the last information is received at the region that is required to finish the draft permit. This means the date the last information was received, in the form of a letter, fax, or telephone log, from outside the DEQ (the applicant, EPA, etc.). The technically complete date is subject to change. For example, if the applicant reviews the draft permit and submits new information that results in changes to the draft permit, the technically complete date is the date of arrival of the new information. The date would also change if, after review of the draft permit by other DEQ staff or as a result of comments from public notice, it is found that additional information is needed to put the permit in final form.
- c. *Application Completeness* - The permit cover letter and the first permit condition should both indicate the “deemed complete” date, which is the date all required and necessary information, including the Local Governing Body Certification Form and the certification of truth and accuracy, is in hand. The content of those certifications is described in §10.1-1321.1 of the Air Pollution Control Law and 9 VAC 5-20-230, respectively. In many cases the Administratively Complete and Technically Complete date will be the same, but in some instances they will differ. Examples:
  - i. If the source received a deficiency letter which requested only emissions calculations, the date the region received the calculations is both the Administratively Complete and Technically Complete date.
  - ii. If the source has submitted a complete permit application, but the region has not received a requested decision by the EPA, the permit is Administratively Complete but not Technically Complete.



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- iii. If a source has submitted a complete application except for the Local Governing Body Certification Form or the Document Certification, the application is neither Technically Complete nor Administratively Complete because it is missing essential elements of completeness.

### C. Communication with Federal Agencies

1. Class I areas - A "Class I area" means any prevention of significant deterioration (PSD) area in which any deterioration of existing air quality is considered significant and is designated as such in the Regulations. Class I areas are defined in 9 VAC 5-20-205 C. 1. There are two Class I areas in Virginia: Shenandoah National Park and the James River Face Wilderness area in the George Washington & Jefferson National Forests. These are the only two Class I areas for which there may be a requirement to notify their respective Federal Land Managers (FLM's) when applications are submitted for minor new source review. (See paragraph (6) below.) Class I areas that are outside of Virginia, but close enough to portions of it that they may bear consideration when applications are submitted for new major sources or major modifications in Virginia include Great Smoky Mountains National Park in North Carolina and Tennessee, Dolly Sods and Otter Creek National Wilderness areas in the Monongahela National Forest in West Virginia, Linville Gorge, Joyce Kilmer-Slickrock, and Shining Rock Wilderness areas in North Carolina, and the Swanquarter National Wildlife Refuge in North Carolina. Some or all of these Class I areas outside Virginia may need to be evaluated for Air Quality Related Values (AQRV's) impacts. Contacts and addresses for all of the Class I areas above are presented in Appendix U.
2. Notification Requirements for PSD Applications - Notification to the Federal Land Managers (or their environmental staff contacts) must include copies of all information relevant to the permit application. The permit writer should make a copy of the permit application along with any attachments and send it to the appropriate contact listed in Appendix U.
3. Memorandum of Understanding - There are two Memoranda of Understanding (MOU) documents which are used to define the working relationships between the former Department of Air Pollution Control (DAPC) and (1) the Superintendent of Shenandoah National Park and (2) the Forest Supervisor of the Jefferson National Forest (now named the George Washington & Jefferson National Forests), in which the James River Face Wilderness area is located. These MOUs have lapsed but DEQ's policy is to continue to honor the requirements of the existing MOUs until new agreements can be negotiated. The MOU between DAPC and the Jefferson

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National Forest is stored in

K:\agency\Air\_Permitting\Policy&Guidance\MOUs\JeffersonNationalForest.doc and

M:\air\Air\_Permitting\Policy&Guidance\MOUs\JeffersonNationalForest.doc,

and the MOU between DAPC and the Shenandoah National Park is in the same subdirectories in the file ShenandoahNationalPark.doc. In addition, see Appendices C (Shenandoah) and D (James River Face) in this Manual.

4. Notification for the Shenandoah National Park - The MOU with Shenandoah National Park states that the regional office will provide a copy to the Park Superintendent of the applications for all major new sources or major modifications, either of which would result in a net increase of 100 tons per year of any one pollutant within 100 kilometers of the Park. In addition, copies of applications for all sources within ten kilometers of the Park must be provided. The MOU requires that the copy be provided within 7 days after receipt of the application. This time frame should be viewed as a target to be met when the permit writer is satisfied that the application will be an appropriate representation of the proposed project. Do not send misleading application information to the Park just to meet this 7-day target. Early communication with the NPS is important in the initial stages of the application review.
5. Notification for the James River Face Wilderness - The MOU with the Jefferson National Forest states that the regional office will provide a copy to the Forest Supervisor of the applications for all major new sources or major modifications, either of which would result in a net increase of 100 tons per year of any one pollutant within 100 kilometers of the James River Face Wilderness. In addition, copies of applications for all sources within ten kilometers of the Wilderness must be provided. The MOU requires that the copy be provided within 7 days after receipt of the application. This time frame should be viewed as a target to be met when the permit writer is satisfied that the application will be an appropriate representation of the proposed project. Do not send misleading application information to the Forest Service just to meet this 7-day target. Early communication with the Forest Service is important in the initial stages of the application review.
6. Notification Requirements for Non-PSD Applications - Paragraphs (4) and (5) above discuss the notification procedures among DEQ, the National Park Service (for Shenandoah National Park), and the U.S. Forest Service (for the James River Face Wilderness) with respect to non-PSD applications. In regard to non-PSD applications, the federal agencies want to be notified about (a) applications for major new sources and major modifications within 100 km, and (b) applications for all non-major sources within 10 km of the Class I areas. Within the 100 kilometers, the communication/notification requirements apply only to facilities that emit more than 100 tons per year or

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that are intending to modify their facility such that the increase is greater than 100 tons per year. The federal agencies are interested in all applications within 10 kilometers of the Park or Wilderness Area irrespective of the annual emissions level.

7. Additional MOU Requirements - There are several additional requirements in the MOUs:
  - a. The federal agencies are to inform DEQ in 2 weeks if they want to see information on BACT, the engineering analysis, modeling information, or the draft permit. If so, DEQ is to send the information within 10 days after it is available.
  - b. DEQ is to tell the applicant that the federal agencies are available for a pre-application meeting. (This is more likely for major modifications.)
  - c. The Public hearing notice is due to the federal agencies at least 30 days prior to hearing. For minor sources (i.e., no public hearing required) within 10 km of either Shenandoah National Park or the James River Face Wilderness, the federal agency is to tell DEQ within 5 days of receiving the application if it wants a public hearing.

### D. “Greenfield” Sources

1. Definition, and Inspection Requirement - The term “greenfield source” is any new site (not previously designated as a stationary source) on which equipment undergoes initial construction, installation, or relocation. The Air Pollution Control Law (*Virginia Code* §10.1-1307 E.3.) requires that the Board consider the suitability of an activity to the area in which it is located. For greenfield sources which have no existing emission units at a location this law requires that DEQ perform some preliminary inspection of the proposed location to ensure that there are no obvious threats to public health and safety, that the source can be built consistently with the legal and regulatory requirements for a new source, and that the source has not begun actual construction prior to the issuance of the permit. (See the State Air Pollution Control Board’s “Suitability Policy Statement,” reprinted as **Appendix E.**)
2. Doing the Inspection - The preliminary inspection should be performed as a collaborative effort between the permitting and compliance sections of the regional office. A sample preliminary inspection form, the Permit Application Site Evaluation Form, is included in **Appendix F.** In addition to performing this inspection for greenfield sources, 9 VAC 5-80-1320 A.1.c.(4) requires that DEQ determine, for a portable facility, that the portable unit to be relocated is suitable to the area in which it is to be located.

**E. Use of letter versus application form**

9 VAC 5-80-1140 A. requires a single application to identify, at a minimum, each emissions point within the emissions unit subject to 9 VAC 5 Chapter 80, Part II, Article 6. This means that whenever a project proposed by any source requires permitting under the minor NSR program, the source must submit a permit application describing that project. The application should include a Form-7 with the applicable pages filled in and must be signed and certified consistent with the requirements of 9 VAC 5-20-230. Where several emissions units are included in one project, a single application covering all units in the project may be submitted. A separate application is required for each location.

1. Phased Development Projects - For projects with phased development, a single application should be submitted covering the entire project. A project with phased development means a project where the source intends to build or modify one or several emissions units over a scheduled period of time. However, construction activities may not be stopped for more than 18 months at a time.
2. Application Required - The Regulations require an application when a proposed project is subject to permitting. This means that a permit application must be completed, signed, and certified when a new source is constructing or an existing source is modifying. Applications should also be filed for amendments to new source review permits. Whether to require an application from a proposed project that is exempt from permitting is up to the discretion of the permit writer.
3. Exemption Application Requirements - The amount of information necessary to properly exempt an emissions unit from permitting varies from one exemption request to another. Where the emissions unit technology is well understood and the emissions level highly predictable, it may be sufficient to request only a letter detailing the proposal, the first three pages from the Form 7, and a document certification pursuant to 9 VAC 5-20-230. In other cases where the proposal is complex and the relationship between emission unit operation and the emission rates are not well known it may be in the best interest of DEQ to have an application completed with the information certified by a responsible official.
4. When to request an application form for an exemption - It is up to the judgment of the permit writer and regional policy when to request an application for an exempted piece of equipment. The permit writer should take into account the facility location, the process type, and the type of pollutant emitted, as well as welfare concerns such as odor, when making this decision. The permit writer should also review the files associated with the facility making the exemption request. If the source has requested and

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received several exemptions over a limited period of time, it may be worth requesting an application to review the combined effect of the emissions for possible compliance implications, because the PSD and Nonattainment NSR Regulations contemplate that permitting will be required for incremental construction if it is deemed “contemporaneous” (within five years in the past) with the construction under review. This applies to construction increments which, though not subject to permitting in themselves, add up to a size or potential to emit requiring a PSD or Nonattainment NSR permit. See definition of “Net emissions increase” in 9 VAC 5-80-1710 and 9 VAC 5-80-2010.

### F. Source Registration

1. Existing Source Registration - The Regulations specify that any existing source which is subject to an emissions standard in 9 VAC 5 Chapter 40 shall register the source upon request of the Board. Thus a facility could be registered with DEQ but does not have a permit because it is either “grandfathered” (i.e., constructed before any permitting regulations were adopted) or it is exempt (under 9 VAC 5-80-1320). It may nevertheless be subject to Chapter 40 of the Regulations. Regional offices are responsible for determining the applicability of source registration requirements for sources. New registration numbers will automatically be generated through CEDS, once the required data is entered by the regional office and provided, as before, to the Office of Data Analysis.
2. New and Modified Source Registration - 9 VAC 5-20-160 also specifies that stationary sources to which emissions standards in Chapter 50 and Chapter 60 apply shall register such source operations and update such registration information. The imposition of a new source standard from Chapter 50 or Chapter 60 requires that the source comply with the standard, irrespective of its permit status. If the new standard takes effect during permit processing, it must be included in the permit. The Form 7 application is used as the source of information for the registration. An application submitted for an amendment to an existing permit is intended to provide the information necessary to update the source registration information.
3. Annual Emissions Update - The Department, on an annual basis, sends a request to each registered major and synthetic minor source to update the throughput, equipment specifications, and pollution control equipment information maintained in the Department’s database. True minor sources are updated every three years. As a result of reviewing this information, it may be necessary to update the source’s registration information even though the source has not submitted an application for permitting or requested an exemption.

## **Chapter 4 - Application Review**

### **REFERENCES**

#### Applicable Regulations include:

9 VAC 5-20-230 - Applicability  
9 VAC 5-80-1110 - Definitions  
9 VAC 5-80-1120 - General  
9 VAC 5-80-1140 - Applications  
9 VAC 5-80-1150 – Application Information Required  
9 VAC 5-80-1160 – Action on Permit Application  
9 VAC 5-80-1170 – Public Participation  
9 VAC 5-80-1190 – Application Review and Analysis  
9 VAC 5-80-1270 – Administrative Permit Amendments  
9 VAC 5-80-1280 – Minor Permit Amendments  
9 VAC 5-80-1290 – Significant Amendment Procedures

#### Applicable Appendices (of this manual) include:

Appendix G – Application Completeness Checklist  
Appendix I – “Designed to Accommodate” Memo  
Appendix GG (if not deleted; if GG is deleted, Section E of this Chapter should probably be deleted as well)

#### Other References

DEQ Form 7 Permit Application  
§10.1-1321.1 of the Virginia Air Pollution Control Law  
Chapters 12 and 13 of this manual

### **A. Introduction**

For non-exempt sources of air emissions, a permit from DEQ is a pre-requisite to construction, reconstruction, or modification (9 VAC 5-80-1120 A). For registered sources, the permit is also a pre-requisite to relocation of an emission unit from one stationary source to another or to the reduction of the outlet elevation of any stack which discharges any pollutant from an affected facility (9 VAC 5-80-1120 B, 9 VAC 5-80-1120 C).

The Regulations specify that a single application is required identifying at a minimum each emissions unit involved in the project for which a permit is sought (9 VAC 5-80-1140 A). The basic air permit application form, DEQ Form 7, is to be used for this purpose; the form is accompanied by other information and analysis required by the Department to process the permit. Each application must be complete, as a pre-requisite to permit issuance (see 9 VAC 5-80-1160 B).

Other specifications of 9 VAC 5-80-1140 include:

- A separate application is required for each stationary source
- For projects with phased development, a single application should be submitted covering the entire project.

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- Any application, form, report, or certification submitted to the board shall comply with the provisions of 9 VAC 5-20-230.
- Any application submitted shall contain a certification signed by the applicant as follows: "I certify that I understand that the existence of a permit under this article does not shield the source from potential enforcement of any regulation of the board governing the major NSR program and does not relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations."

Note: 9 VAC 5-20-230 contains specifications and requirements for the proper certification of documents submitted to the Board; i.e. the Document Certification Form within DEQ's Form 7 air permit application. In effect, 9 VAC 5-20-230 replaces 9 VAC 5-80-10 D (of the pre-2002 regulations) as the basis for the Form 7 Document Certification Form. See Section J, below.

### **B. Application Completeness Review**

9 VAC 5-80-1150 B specifies that each application for a permit shall include any such information as may be required by the board to determine the effect of the proposed source on the ambient air quality and to determine compliance with the emission standards which are applicable. The information required shall include, but is not limited to, the following:

1. Company name and address (or plant name and address if different from the company name), owner's name and agent, and telephone number and names of plant site manager or contact or both.
2. A description of the source's processes and products (by Standard Industrial Classification Code).
3. All emissions of regulated air pollutants.
  - a. A permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit or group of emissions units to be covered by the permit.
  - b. Emissions shall be calculated as required in the permit application form or instructions.
  - c. Fugitive emissions shall be included in the permit application to the extent quantifiable.
4. Emissions rates in tons per year and in such terms as are necessary to establish compliance consistent with the applicable standard reference test method.
5. Information needed to determine or regulate emissions as follows: fuels, fuel use, raw materials, production rates, loading rates, and operating schedules.
6. Identification and description of air pollution control equipment and compliance monitoring devices or activities.
7. Limitations on source operation affecting emissions or any work practice standards, where applicable, for all regulated air pollutants at the source.

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8. Calculations on which the information in subdivisions 3 through 7 of this subsection are based. Any calculations shall include sufficient detail to permit assessment of the validity of such calculations.
9. Any additional information or documentation that the board deems necessary to review and analyze the air pollution aspects of the stationary source or emissions unit, including the submission of measured air quality data at the proposed site prior to construction, reconstruction or modification. Such measurements shall be accomplished using procedures acceptable to the board.

Further, 9 VAC 5-80-1140 C specifies that the above information and analysis shall be determined and presented according to procedures and using methods acceptable to the board.

Finally, 9 VAC 5-80-1110 contains a definition of “complete application”. According to this definition, a “complete application” means that the application contains all the information necessary for processing the application and the provisions of §10.1-1321.1 of the Virginia Air Pollution Control Law have been met. Designating an application complete for the purposes of permit processing does not preclude the board from requesting or accepting additional information.

Note: §10.1-1321.1 of the Virginia Air Pollution Control Law contains the requirements for a permit applicant for a new or major modified stationary source to provide DEQ with a notification from the governing body of the county, city or town in which the source is to be located that the location and operation of the source are consistent with all ordinances adopted pursuant to Chapter 22 of Title 15.2; i.e. the local governing body certification form of the current DEQ Form 7 application. See Section D, below.

In practice, for most applications, this means completely filling out the DEQ Form 7 permit application along with providing whatever additional information a permit engineer may request. Obviously, on some occasions, it may not be necessary for a source to completely fill out a Form 7 if DEQ already has some of the information contained in the form, or if a permit engineer deems a portion of the Form 7 information to be unnecessary. However, the Document Certification Form and the Local Governing Body Certification Form (for new sources and major modifications) must always be completed. In addition, any source requesting that their application be processed under the minor New Source Review regulation must provide the “minor NSR certification” required by 9 VAC 5-80-1140 E. The permit engineer should never hesitate in requesting all information necessary to conduct a complete review of any application.

The remainder of this chapter presents what guidance there is and identifies aspects of DEQ Form 7 which may require additional discussion. An application completeness checklist appears in **Appendix G**. The most current version of DEQ’s Form 7 application can usually be found at K:\Agency\Air Permitting\Forms\Current & Active Forms\Forms-DOC.format. The current version has the filename “Form7 REV 1001.doc” and was last revised October 19, 2001.

### **C. Confidentiality of Information**

Sources using confidential information in their NSR application may identify the information, justify their claim that the information is confidential, and have the Department safeguard the information as it processes the application and prepares the permit (9 VAC 5-170-60). For guidance on the handling of confidential information, refer to the draft confidential information policy



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and guidance paper dated 10/20/92 (available from the Office of Air Permit Programs). In addition, page v of Form 7 provides information on the criteria for deciding what is confidential information and the distinction between it and trade secret information.

1. Confidentiality Requests. Before DEQ can consider a request for confidentiality, the source must identify the information claimed to be confidential, and submit written justification that demonstrates how it meets the confidentiality criteria in 9 VAC 5-170-60 C. This justification must include a certification. The regional office processing the application may accept the claim of confidentiality, ask for more substantiation, or reject it. These determinations and inquiries must be made in writing. If any Form 7 pages are deemed confidential, the applicant must provide copies of these pages open to the public but with the confidential information blanked out (so-called "sanitized" copies).
2. Limits on Confidentiality. Emissions information can never be confidential, according to the Air Pollution Control Law, *Virginia Code* sections 10.1-1314, 10.1-1314.1.
3. Trade secrets. As indicated on Form 7, page v, there is a distinction between trade secrets and confidential information. A trade secret is confidential in nature, but not all confidential information is a trade secret. A trade secret requires the same substantiation, and gets the same protection, as does confidential information.

*DEQ is currently working on new procedures to handle confidential business information in permits. Permit engineers processing applications which include confidential business information or trade secrets should consult the most recent guidance found on K:\agency\Air Permitting to determine if such guidance is applicable to a particular permit application.*

### D. Local Government Form

As indicated above, Form 7 includes a  local governing body certification form  and instructions (Form 7, pages xi and xii). When it is required, it is also a prerequisite for application completeness. (Opportunity to comment on the air quality impacts of the permitted activity, however, comes later in the public participation phase of the process.) The procedure and applicability for the local government form are defined in the Air Pollution Control Law at *Virginia Code* section §10.1-1321.1, which is described on the instructions page (page xi) of the Form.

1. Applicability. Sources subject to this requirement are:
  - a. Greenfield (newly constructed) sources;
  - b. Sources applying for major modifications;
  - c. PSD major sources;
  - d. Major sources in non-attainment areas.

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For minor modifications, the local governing body certification is not necessary. However, in some cases, the modification of a facility or installation of a portable facility constitutes a change in land use requiring a local approval. The locality might have allowed the source to use some compounds or processes but not others in its special use permit approval, such that a modification might need a new approval. In cases where this is in doubt, the permit writer should consult the locality.

2. Procedure. Applicants required to fill in the local government form must fill in the upper part and the "applicant's signature" blocks of the local government certification page (page xi) and ask the affected local government to fill in its (lower) part of the page, documenting the request as part of the application. Documentation may consist of the return receipt from certified mail, as indicated in the instructions (page xii).
3. Resolution. There are three possible responses from the local governing body. The local governing body may return the form indicating that the proposed source will comply with the applicable ordinances. The local governing body may decide not to return the form to DEQ or the applicant. If no response is received from a local governing body within 45 days of submittal of the form by the applicant, the requirement to obtain the certification is waived (§10.1-1321.1 B-C) In both of these cases, the source's application may be considered complete (assuming all other necessary information has been provided) and a permit eventually issued. The local governing body may return the form indicating that the proposed source will NOT comply with the applicable ordinances. In this case, the application can not be considered complete, and no permit can be issued.

### **E. Permit process tracking: Comprehensive Environmental Data System (CEDS)**

The Department has decided that all activities associated with a given permit (i.e., permit application processing, permit issuance, enforcement, and compliance, etc.) will be tracked using the Comprehensive Environmental Data System 2000 (CEDS 2000) database. See **Appendix GG**.

### **F. Application Time Frames**

The time for processing of a new source review application depends on several factors inside and outside the process. Once the application is filed, the Department has 30 days in which to conduct its initial review and notify the applicant of which provisions of the new source review program are applicable, of any deficiencies in the application and as to whether the application contains sufficient information to begin application review (9 VAC 5-80-1160 A). The Regulations state generally that the normal processing time for the permit is 90 days after the application is determined to be complete. (9 VAC 5-80-1160 B). For Administrative Permit Amendments, 9 VAC 5-80-1270 B specifies that the board will normally take final action within 60 days from the receipt of the request. For Minor Permit Amendments, 9 VAC 5-80-1280 F specifies that the board will normally issue, deny or reassign a permit amendment within 90 days of the receipt of a complete request. For Significant Amendments, 9 VAC 5-80-1290 D specifies that the board will normally take final action within 90 days after receipt of a complete request (180 days if a public comment period is required).

1. Factors determining the length of the permit process. These are:

## Application Review

- a. The completeness of the application. If it is not complete, the permit engineer requests the additional information needed to make it complete. (9 VAC 5-80-1160 A)
- b. 9 VAC 5-80-1190 1.a. requires a control technology review to determine if the source will be designed, built and equipped to comply with all applicable standards of performance prescribed under 9 VAC 5 Chapter 50. The scope of this review will affect permit processing time.
- c. Whether an air quality analysis (modeling), is deemed appropriate by the board and how long it takes (9 VAC 5-80-1190 1.b.);
- d. For applications for stationary sources of hazardous air pollutants, 9 VAC 5-80-1190 2. requires a control technology review to determine if the source will be designed, built and equipped to comply with all applicable emission standards prescribed under 9 VAC 5 Chapter 60. The scope of this review will affect permit processing time.
- e. For applications for sources subject to the federal hazardous air pollutant new source review program, 9 VAC 5-80-1190 4. requires a control technology review to determine if the source will be designed, built and equipped to comply with all applicable emission standards prescribed under 40 CFR Part 61 or 63. The scope of this review will affect permit processing time.
- f. Applications under 9 VAC 5-80-1120 C (requests to lower stack heights) shall be subject to an air quality analysis to determine the impact of applicable criteria pollutant emissions. The scope of this analysis will affect permit processing time (9 VAC 5-80-1190 3.).
- g. Whether the application and the proposed permit must undergo public participation, possibly including a public hearing (9 VAC 5-80-1170). Public comment periods are at least 30 days; public hearings require a 30-day notification and may add to the time involved. See **Chapter 12** of this Manual.

### **G. Permit Issuance**

See **Chapter 13**, section **B**.

### **H. Modification**

The term modification, as used in air permitting, refers to making changes to a stationary source. As defined in 9 VAC 5-80-1110, a modification is a physical change in, change in the method of operation of, or addition to, a stationary source that would result in a net emissions increase of any regulated pollutant emitted into the atmosphere by the source or which results in the emission of any regulated air pollutant into the atmosphere not previously emitted.

1. Exceptions (unless previously limited by permit condition).

## Application Review

2. Maintenance, repair and replacement which the board determines to be routine for a source type and which does not fall within the definition of reconstruction;
3. An increase in the production rate of a unit, if that increase does not exceed the operating design capacity of that unit;
4. An increase in the hours of operation;
5. Use of an alternative fuel or raw material if, prior to the date any provision of the regulations of the board becomes applicable to the source type, the source was designed to accommodate that alternative use. A source shall be considered to be designed to accommodate an alternative fuel or raw material if provisions for that use were included in the final construction specifications;
6. Use of an alternative fuel or raw material if, prior to the date any provision of the regulations of the board becomes applicable to the source type, the source was not designed to accommodate that alternative use and the owner demonstrates to the board that as a result of trial burns at the source or other sources or of other sufficient data that the emissions resulting from the use of the alternative fuel or raw material supply are decreased;
7. The addition, replacement or use of any system or device whose primary function is the reduction of air pollutants, except when a system or device that is necessary to comply with applicable air pollution control laws and regulations is replaced by a system or device which the board considers to be less efficient in the control of air pollution emissions; or
8. The removal of any system or device whose primary function is the reduction of air pollutants if the system or device is not necessary for the source to comply with any applicable air pollution control laws or regulations.

Additional guidance concerning the phrase “designed to accommodate” in #4 above can be found in Appendix I of this manual.

### I. Application Complete Date

Completeness of the application is a pre-requisite to permit issuance, although not necessarily to the commencement of permit application review and analysis. The permit engineer may be able to begin the analysis with an incomplete application if there is sufficient information to begin the review. (See 9 VAC 5-80-1160 A)

9 VAC 5-80-1160 A states, “The date of receipt of a complete application for processing under 9 VAC 5-80-1160 B of this section shall be the date on which the board received all required information and the provisions of §10.1-1321.1 of the Virginia Air Pollution Control Law have been met, if applicable.”

As stated in Section A of this chapter, a completed document certification form and a completed local governing body certification form (if required) must be received on or before the completeness

## Application Review

date. With respect to the “all required information” phrase from the above citation, in practice this generally includes all information necessary to complete the permit and any support documents (engineering analysis, etc.). Such information might include, but is not limited to, data confirming the applicability or non-applicability of an emission standard, a revision to the equipment specifications in the original application, or source requests for greater throughputs or emission limits (relative to previous permit drafts) or changes to other permit conditions. Due to the nature of some permit processing actions (an ongoing negotiation), the completeness date for a given application often changes one or more times, and frequently does not occur until shortly before permit issuance. It should be noted that public comments are not part of the “required information” and have no effect on the completeness date unless the source submits additional information in response.

### **J. Document Certification Form**

As noted in Section A of this chapter, 9 VAC 5-80-1140 D requires permit applications (and certain other documents) to comply with the provisions of 9 VAC 5-20-230. The requirement also applies to compliance reports, progress reports, and any other documentation which supports the permit application after the original application’s receipt date.

9 VAC 5-20-230 A requires permit applications to be signed by a “responsible official”. The section then goes on to define responsible official. This definition is identical to the one included on the instruction page on the back of the Form 7 document certification form. Essentially, the definition requires that the responsible official be one who has general business decision-making responsibility for the facility; however, the definition contains specific criteria to which the reviewer should refer. In practice, the “responsible official” should be the plant manager of the facility or someone of equivalent stature. For some facilities (small), a plant or site manager may not suffice. In these cases, a corporate officer may be required. For multi-division/process facilities, a division director or manager may be appropriate. In most, but not all, cases, the environmental “manager” of a facility/source does not meet the “responsible” requirements of 9 VAC 5-20-230.

9 VAC 5-20-230 B simply specifies the “statement” the responsible official must certify with respect to the permit application in question. This certification language is reproduced exactly in the Form 7 document certification form and involves the responsible official attesting to the truth, accuracy and completeness of the information within the application.

DEQ should receive the original copy of this form with a true signature (not a stamp or typed signature) and date of signature.

### **K. Applications for a General Permit/Change to Permit/Pollution Control Project**

For **General Permits**, 9 VAC 5-80-1250 B specifies the requirements for application for coverage under a general permit as follows:

“The application shall meet the requirements of this article and include all information necessary to determine qualification for and to assure compliance with the general permit.” Also, a particular general permit itself may contain provisions governing applications. In practice, these requirements are best met with the applicable sections of a DEQ Form 7 permit application (including the document certification form and local governing body certification form (for new sources)) as modified by the provisions of any specific general permit.

## Application Review

For **Changes to Permits**, the Regulations specify the requirements for application for coverage under a general permit as follows:

Administrative Permit Amendments - 9 VAC 5-80-1270 contains no specific requirements for applications/requests or administrative permit amendments. Basically, these requests can be submitted in almost any format.

Minor Permit Amendments - 9 VAC 5-80-1280 specifies that a request for the use of minor permit amendments procedures shall include a “description of the change, the emissions resulting from the change, and any new applicable regulatory requirements that will apply if the change occurs” AND “A request that such procedures be used”. From the proceeding, it seems clear that a Form 7 application is not required (although it may be used optionally) for minor permit amendments. A letter containing the specified information and a request to utilize the minor permit amendment procedures is all that is required.

Significant Amendment Procedures - 9 VAC 5-80-1290 specifies that a request for a significant permit amendment shall include a “description of the change, the emissions resulting from the change, and any new applicable regulatory requirements that will apply if the change occurs. The applicant may, at his discretion, include a suggested draft permit amendment.” From the proceeding, it seems clear that a Form 7 application is not required (although it may be used optionally) for significant permit amendments. A letter containing the specified information and a request to utilize the minor permit amendment procedures is all that is required. Due to the “significant” nature of such requests, however, substantial supporting documentation may be required. As previously mentioned, in many situations a full Form 7 application may be advisable.

For **Pollution Control Projects**, 9 VAC 5-80-1310 G specifies the requirements for a stationary source requesting approval from the board:

1. The application shall meet the requirements of 9 VAC 5-80-1140
2. The application shall contain the information required by 9 VAC 5-80-1150
3. Where a pollution control project will result in a significant increase in emissions and that increased level has not been previously analyzed for its air quality impact and raises the possibility of a violation of an ambient air quality standard, prevention of significant deterioration increment in 9 VAC 5-80-1730, or adversely affect visibility or other air quality related values, the application shall include an air quality analysis sufficient to demonstrate the impact of the project.
4. In the case of nonattainment areas, the application shall include legally enforceable mechanisms to ensure offsetting emissions reductions will be available for any significant increase in a nonattainment pollutant from the pollution control project.

In the case of PCPs then, a full Form 7 application seems to required, as a minimum. In addition, an air quality analysis and/or offsetting demonstration may be required for some projects.

## **Chapter 5 - Regulatory Review**

References:

Applicable Regulatory Sections for this chapter include:

- 9 VAC 5-10-20 (General Definitions – Terms Defined)
- 9 VAC 5-20-220 (Shutdown of Stationary Source)
- 9 VAC 5-50-400 et seq. (EPA New Source Performance Standards) (NSPS)
- 9 VAC 5-60-60 et seq. (EPA National Emission Standards for Hazardous Air Pollutants) (NESHAP)
- 9 VAC 5-60-90 et seq. (EPA National Emission Standards for Hazardous Air Pollutant Source Categories) (MACT)
- 9 VAC 5 Chapter 60, Article 5 (Emission Standards for Toxic Pollutants from New/Modified Sources) (Rule 6-5)
  - 9 VAC 5-60-300 (Applicability and designation of affected facility (Toxics))
  - 9 VAC 5-60-310 (Definitions)
  - 9 VAC 5-60-320 (Standard for toxic pollutants)
  - 9 VAC 5-60-330 (Significant ambient air concentration guidelines)
- 9 VAC 5 Chapter 80, Article 6 (Permits for New and Modified Stationary Sources)
  - 9 VAC 5-80-1000 (Applicability)
  - 9 VAC 5-80-1110 (Definitions)
  - 9 VAC 5-80-1310 (Pollution control projects)
  - 9 VAC 5-80-1320 (Permit exemption levels)
- 9 VAC 5 Chapter 80, Article 7 (Permits for New Major Sources of HAPS)
- 9 VAC 5 Chapter 80, Article 8 (Prevention of Significant Deterioration) (PSD)
- 9 VAC 5 Chapter 80, Article 9 (Nonattainment Review)
- 9 VAC 20 Chapter 60, Hazardous Waste Management Regulations

Applicable Chapters and Appendices from this manual include:

- Chapter 3 – Applications Submittal
- Chapter 4 – Application Review
- Chapter 10 – Toxic Air Pollutants
- Appendix E - SAPCB Suitability Policy
- Appendix F - Permit Application Site Evaluation
- Appendix J - Memo No. 01-1002, Guidance on Permit Applicability – PM and PM-10 Sources
- Appendix K - Policy Memo on Non-Road Engines
- Appendix L - Checklist for Permit Exemption Review
- Appendix M - Exemption Letter Boilerplate
- Appendix N - Non-Attainment Thresholds/Offset Ratios (as of 2/1/2002)
- Appendix II - Significance Levels and PSD/NA Applicability

## Regulatory Review

Appendix JJ - Netting

Appendix KK -Non-Attainment Review

Appendix XX - Regulation of Federal HAPS under the State Toxics Program and State NSR

Programs

Applicable Guidance Documents for this chapter include:

Memo Number 97-1001, Emergency Generators – Permit Exemption Guidance

Natural Gas/Coalbed Methane Wells – Flare Permitting (1/19/1996)

Applicable Reference Materials for this chapter include:

EPA's New Source Review Workshop Manual, October 1990 Draft

"1991-1992 Threshold Limit Values for Chemical Substances and Physical Agents and

Biological Exposure Indices" from the American Conference of Governmental Industrial

Hygienists (ACGIH Handbook)

### **A. Introduction**

The regulatory basis for the minor new and modified source permitting program is 9 VAC 5 Chapter 80, Article 6 (9 VAC 5-80-1100 to 1320). Type of source, size of source, pollutant, pollutant emission rates, and location of source are factors used to determine permitting applicability as well as other applicable regulatory requirements for a given source.

Some applications for new, modified, reconstructed or relocated facilities may be exempt from permitting. Permit exemption levels appear in 9 VAC 5-80-1320. This section of the regulation provides exemption levels based on source type and size, or emission rate.

In determining whether a source is exempt from permitting, emission rates of both federally regulated pollutants (criteria pollutants and hazardous air pollutants) and state-only regulated pollutants (i.e. toxic pollutants) must be taken into account. A source must be determined to be exempt from regulated pollutant exemption rates, taken as a group, and from toxic pollutant exemption criteria in order to be exempt from permitting.



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9 VAC 5-80-1320 B lists exemptions for various types of facilities based on emission unit size.

For other **new or relocated sources**, 9 VAC 5-80-1320 C lists permit exemption levels based on annual pollutant emission rates defined as the “potential to emit” of the source.

For other **modified or reconstructed sources**, 9 VAC 5-80-1320 D lists permit exemption levels according to annual pollutant emission rates defined as the “net emissions increases” at the source.

Exemptions for stationary sources of **toxic pollutants** not subject to federal hazardous air pollutant new source review programs, e.g., MACT or NESHAP, are found in 9 VAC 5-80-1320 E. This section also includes a list of toxic emission sources that are never exempt from permitting regardless of size or emission rate as listed in 9 VAC 5-80-1320 E.2.

The regulations also provide special treatment for sources subject to **New Source Performance Standards** (NSPS, see 40 CFR 60, 9 VAC 5-50-400 et seq.), **National Emission Standards for Hazardous Air Pollutants** (NESHAP, see 40 CFR 61, 9 VAC 5-60-60 et seq.) and **National Emission Standards for Hazardous Air Pollutants for Source Categories** (MACT, see 40 CFR 63, 9 VAC 5-60-90 et seq.). In general, these source types are automatically subject to permitting. However, there are certain exceptions that may allow even these sources to be exempted from permitting. Other special exemption provisions exist for reconstructed, reactivated and relocated portable sources.

### **B. Permit Applicability Terms and Definitions**

In order to conduct a permit applicability review, it is important to have a fundamental understanding of the definitions contained in 9 VAC 5-80-1110 C. In reviewing permitting applicability, the terms “stationary source”, “emissions unit”, “facility” and “regulated pollutant” are frequently used and are excerpted below. While in general, the minor NSR permitting regulations apply to regulated pollutant emissions resulting from the construction, relocation, reconstruction or modification of “stationary sources”, there are certain provisions that allow portions of new, modified, relocated or reconstructed stationary sources, e.g. certain new (affected) facilities or emission units, to be exempt from permitting.

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1. Stationary Source: Per 9 VAC 5-80-1110 C, stationary source means “any building, structure, facility of installation which emits or may emit any regulated pollutant. A stationary source shall include all of the pollutant emitting activities which belong to the same industrial grouping, are located on one or more contiguous and adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any watercraft or any nonroad engine. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “major group”, (i.e. which have the same two-digit code) as described in the Standard Industrial Classification Manual”. In simpler terms, a stationary source may be comprised of one or many individual emission units or facilities.
2. Emissions Unit: This is defined in 9 VAC 5-80-1110 C as “any part of a stationary source that emits or would have the potential to emit any regulated pollutant.” The minor NSR permit regulations contain exemptions for certain emission units that have inherently low emission rates based on size. When reviewing a permit application for new, modified, reconstructed or relocated stationary sources, these emission units may be excluded when calculating the total emissions from the facility.
3. Facility: The definition of facility is found in the general definitions under 9 VAC 5-10-20. Facility means “something that is built, installed or established to serve a particular purpose” and includes “buildings, installations, public works, businesses, commercial and industrial plants, shops, stores, heating and power plants, apparatus, processes, operations, structures and equipment of all types”. Obviously, this is a much broader term than either “stationary source” or “emission unit” and it may be used in different contexts throughout the Regulations. A stationary source could be comprised of one or more facilities, each with one or more emission units. A facility could also be comprised of one or more stationary sources if the pollutant emitting activities are comprised of more than one industrial grouping.
4. Regulated Pollutants: When evaluating an application for permitting applicability, emissions from only those pollutants defined as “regulated” pollutants must be considered. These are defined in 9 VAC 5-80-1110 C and include pollutants with ambient air quality standards, nitrogen oxides and volatile organic compounds, pollutants subject to a standard promulgated under §111 or 112 of the CAA or subject to any regulation adopted by the State Air Pollution Control Board.

### **C. Permit Exemption Criteria:**

1. New and Relocated Stationary Sources: New and relocated sources are reviewed for permitting applicability using the following exemption criteria.

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**Flow Chart 5-1** in section E depicts the permit applicability review process for new and relocated sources.

- **New sources** are defined by the Regulations as those sources constructed or relocated on or after March 17, 1972.
- **Relocated sources** are those sources or emissions units that have been physically relocated to another stationary source on or after March 17, 1972.
- a. Exemption for Portable Relocated Sources: No permit is required when a permitted portable facility relocates, provided all of the conditions in 9 VAC 5-80-1320 A.1.c are met. These conditions require, among other things, that the portable equipment has been previously permitted, and a site suitability determination has been conducted. (See the suitability policy in **Appendix E**.) The Permit Application Site Evaluation Form in **Appendix F** may be used for evaluating “greenfield sites” for portable units.
- b. Exemption for Reactivated Sources: In accordance with 9 VAC 5-1320 A.1.d, the reactivation of a stationary is exempt from minor NSR permitting review unless a determination concerning shutdown has been made pursuant to 9 VAC 5-20-220.
- c. Emission Unit Exemption Based on Size: In reviewing new and relocated stationary sources for permitting applicability, one must also determine whether any emission unit(s) may be exempted based on size pursuant to 9 VAC 5-80-1320 B. **Table 5-1** provides a summary of the emission unit types to which size exemption levels apply along with a listing of specific guidance memoranda that have been written to clarify or interpret the exemption.
- d. Stationary Source Exemption Levels for New and Relocated Sources: Any emission units not exempted based on size must be reviewed with respect to the aggregate potential to emit emissions increases pursuant to 9 VAC 5-80-1320 C. **Table 5-2** provides a summary of the applicable emission rates for new and relocated sources.
- e. Sources not exempt from permitting (9 VAC 5-80-1100 E): For sources with emission units (or affected facilities) subject to new source performance standards (NSPS), minor NSR permitting applies unless the applicable NSPS requirements are only recordkeeping and/or reporting. Sources qualifying under the NSPS exemption criteria in 9 VAC 5-80-1100 E.1, still need to be reviewed with respect to the exemption criteria contained in 9 VAC 5-80-1320 to determine if a permit is required.

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2. Modified and Reconstructed Stationary Sources: Modified and reconstructed sources are reviewed for permitting applicability using the following exemption criteria. **Flow Chart 5-2** in section E depicts the permit applicability review process for modified and reconstructed stationary sources.
- **Modified sources** means those stationary sources (subject to certain exceptions and qualifications) which on or after March 17, 1972 undergo a physical change, a change in the method of operation or an addition (such as the installation of a new emission unit) that would result in a “net emission increase” of a regulated pollutant emitted to atmosphere or which results in the emission of a regulated pollutant not previously emitted. Refer to the complete definition in 9 VAC 5-1110 C.
  
  - **Reconstructed sources** means those stationary sources or emissions units that on or after December 10, 1976 may have been replaced either entirely or in component parts to the extent that the fixed capital cost of the replaced parts exceed 50% of the fixed capital cost to construct a brand new unit. There are other aspects to the definition of “reconstruction” (found in 9 VAC 5-80-1110 C) that should be reviewed in determining whether a source qualifies for reconstruction.
- a. Exemption for Reconstructed Sources: 9 VAC 5-80-1320 A.1.b exempts from permitting reconstructed sources where there is no increase in the potential to emit of the source.
  - b. Exemption for use of an alternative fuel or raw material: 9 VAC 5-80-1320 A.1.e exempts from permitting sources undergoing modification to use an alternative fuel or raw material if the owner can demonstrate that the resulting emissions from the use of the alternative fuel or material are decreased.
  - c. Emission Unit Exemption Based on Size: In reviewing modified or reconstructed sources for permitting applicability, one must also determine whether any emission unit(s) included in the modification or reconstruction application may be exempted based on size pursuant to 9 VAC 5-80-1320 B. **Table 5-1** provides a summary of the emission unit types to which size exemption levels apply along with a listing of specific guidance memoranda that have been written to clarify or interpret the exemption.
  - d. Stationary Source Exemption Levels for Modified and Reconstructed Sources: Any emission units not exempted based on size or definition must then be reviewed with respect to the aggregate net emissions

## Regulatory Review

increases pursuant to 9 VAC 5-80-1320 D. **Table 5-2** provides a summary of the applicable emission rates for modified and reconstructed sources.

- e. Sources not exempt from permitting (9 VAC 5-80-1100 E): For sources with emission units subject to new source performance standards (NSPS), minor NSR permitting applies unless the applicable NSPS requirements are only recordkeeping and/or reporting. Additionally, for modified or reconstructed sources, 9 VAC 5-80-1100 E.2 allows for exemption criteria review for new NSPS facilities that are constructed, reconstructed or modified at sources which have current permits for similar NSPS facilities provided the permit requires compliance with emission standards and other requirements that are no less stringent than the provisions of the standard. Sources qualifying under the NSPS exemption criteria in 9 VAC 5-80-1100 E.1 or E.2, still need to include these emission units in reviewing the exemption criteria contained in 9 VAC 5-80-1320 to determine if a permit is required.
3. Toxic Pollutants: The exemption criteria for toxic pollutants are found in 9 VAC 5-80-1320 E and F. These exemption levels must be reviewed independently for all new/relocated or modified/reconstructed source types listed above. Per 9 VAC 5-80-1320 A.2, a source must be exempt both from the provisions of the exemption criteria discussed above (9 VAC 5-80-1320 B through D), taken as a group and 9 VAC 5-80-1320 E or F to be exempt from permitting. Appendix XX, "Regulation of Federal HAPS under the State Toxics Program and State NSR Programs" should be consulted for further information concerning review of permitting applicability and exemption criteria for sources of toxic (HAP) pollutants.
    - a. Sources not exempt from permitting:
      - i. Stationary sources or portions thereof subject to a federal hazardous air pollutant new source review programs, e.g. MACT and NESHAP sources subject to preconstruction review in accordance with 40 CFR 63.5 or 40 CFR 61.05-61.08 or the provisions of 40 CFR 63.50 through 40 CFR 63.56 for issuing Notices of MACT approval (MACT source categories subject to §112j), are automatically subject to minor NSR permitting pursuant to 9 VAC 5-80-1120 H.
      - ii. According to 9 VAC 5-80-1320 E.2, the following facilities shall never be exempt from permitting regardless of size or emission rate: incinerators (except when used exclusively as air pollution control equipment), ethylene oxide sterilizers, and boilers, incinerators or industrial furnaces as defined in 40 CFR 260.10 and

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subject to 9 VAC 20 Chapter 60, Hazardous Waste Management Regulations.

b. Sources exempt from permitting:

- i. According to 9 VAC 5-80-1320 E.1, use of a consumer product, such as janitorial cleaning supplies, fertilizers, paints, etc. when used in the same manner as normal consumer use as provided in 9 VAC 5-60-300 D.
- ii. According to 9 VAC 5-80-1320 E.1, application of pesticides inside the premises of industrial and manufacturing operations and warehouse and storage operations at transportation terminals as provided in 9 VAC 5-60-300 E.
- iii. According to 9 VAC 5-80-1320 F, MACT and NESHAP sources specifically exempted from the preconstruction review requirements of 40 CFR 63.5 or 40 CFR 61.05-61.08, respectively, are exempt from permitting.

c. Sources requiring air toxics review to determine permit applicability:

Toxic pollutant emissions from sources or portions of sources not described in paragraphs (A) or (B) above, need to be evaluated with respect to the exemption criteria contained in 9 VAC 5-60-300 C.1 and C.2. These exemption levels are based on Threshold Limit Values (TLVs) as listed in the "1991-1992 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" from the American Conference of Governmental Industrial Hygienists (ACGIH Handbook). The review is limited to those air pollutants defined as "toxic pollutants" in 9 VAC 5-60-310 which includes those air pollutants listed in section 112(b) of the federal Clean Air Act and excludes any glycol ether which does not have a TLV.

- i. If a toxic pollutant has an established TLV, the exemption level is based on hourly and/or annual emissions calculated by the formulas in 9 VAC 5-60-300.C.1.a-c. For each toxic pollutant, the potential to emit of the new, modified, relocated or reconstructed stationary source is evaluated and compared to the calculated exemption level in determining permitting applicability. Sources with potential to emit equal to or less than the exemption rates are not subject to permitting.
- ii. For toxic pollutants without an established TLV, the exemptions are to be determined by the Board using available health effect information.

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**Table 5-1. Exemption Levels for Emission Units based on Size**

<u>Type</u>	<u>Size Exemption</u>	<u>Guidance Memo</u>
Fuel Burning Equipment (external combustion units, not engines and turbines)	Maximum heat input of less than:	
– Using solid fuel	1,000,000 Btu per hour	
– Using liquid fuel	10,000,000 Btu per hour	
– Using liquid and gaseous fuel	10,000,000 Btu per hour	
– Using gaseous fuel	50,000,000 Btu per hour	
Engines and turbines used for emergency purposes o which do not exceed 500 hours of operation	Aggregate rated brake (output) less than: Electrical power output less than:	Memo Number 97-1001
– Gasoline Engines	910 HP and 611 kilowatts	
– Diesel Engines	1,675 HP 1125 kilowatts	
– Combustion Gas Turbines	Less than 10,000,000 Btu/hr heat input	
Engines that power mobile sources during peri maintenance repair or testing	All	Appendix K - Policy Guidance Memo c Road Engines (12/1/1999)
Volatile organic compound (VOC) storage and operations involving petroleum liquids and other VOC vapor pressure less than 1.5 psia	All	
– VOC transfer operations	Any tank of 2,000 gallons or less storage ca <u>or</u> Located outside VOC control areas	
– VOC storage operations	Any tank of 40,000 gallons or less storage	
Vehicle customizing coating operations	Production of less than 20 vehicles per day	
Vehicle refinishing operations	All	
Exterior coating operations for fully assembled aircraft or vessels	All	
Petroleum liquid storage and transfer operations with pressure less than 1.5 psia	All	
– Gasoline bulk loading operations at bulk terminals	Located outside of VOC control areas	
– Gasoline dispensing facilities	All	
– Gasoline bulk loading operations at bulk plants	Daily throughput less than 4,000 gallons <u>or</u> l outside VOC emission control areas	
– Account/tank trucks	All – However, note that permits issued for c storage/transfer facilities should include p that all associated account/tank trucks m same requirements as those trucks serving facilities.	
– Petroleum liquid storage operations	Any tank of 40,000 gallons or less storage capacity, Any tank of less than 420,000 gallons stora capacity for crude oil or condensate at a dril and production facility prior to custody transi Any tank storing waxy, heavy pour crude oil Total Manufacturers' rated solvent dryer cap less than 84 pounds	
Petroleum Dry Cleaning		
Any addition of, relocation of or change to a wood machine within a wood product manufacturing plant	Provided the system air movement capacit increased and the max control efficiency of system is not decreased	
Wood Sawmills engaged in sawing rough lumber and from logs (excluding facilities involved in kiln drying lumbr	All	
Exhaust Flares at natural gas and coalbed methane ex wells	All	Natural Gas and Coalbed Methane Flare Permitting (1/19/1996)

Regulatory Review

**5-2. Exemption Levels for Regulated Pollutants**

<b><u>Criteria Pollutant</u></b>	<b><u>New or Rele</u></b>	<b><u>Modified or</u></b>
	<b><u>Source</u></b>	<b><u>Reconstructed So</u></b>
Carbon Monoxide	100 tpy	100 tpy
Nitrogen Oxides	40 tpy	10 tpy
Sulfur Dioxide	40 tpy	10 tpy
Particulate Matter	25 tpy	15 tpy
Particulate Matter less than 10 microns <sup>(a)</sup>	15 tpy	10 tpy
Volatile Organic Compounds	25 tpy	10 tpy
Lead	0.6 tpy	0.6 tpy
Fluorides	3 tpy	3 tpy
Sulfuric Acid Mist	6 tpy	6 tpy
Hydrogen Sulfide	9 tpy	9 tpy
Total Reduced Sulfur (including H <sub>2</sub> S)	9 tpy	9 tpy
Reduced Sulfur Compounds (including H <sub>2</sub> S)	9 tpy	9 tpy
Municipal waste combustor organics (mea as total tetra-through octa-chlorinated dib p-dioxins And dibenzofurans)	3.5 x 10 <sup>-6</sup> tpy	3.5 x 10 <sup>-6</sup> tpy
Municipal waste combustor metals (measured as particulate matter)	13 tpy	13 tpy
Municipal waste combustor acid gases (measured as the sum of SO <sub>2</sub> and HCl)	35 tpy	35 tpy
Municipal solid waste landfill emissions (measured as nonmethane organic compoi	22 tpy	22 tpy

(a) If the PM<sub>10</sub> emission rate for a stationary source can be determined in a manner acceptable to the board and the stationary source may be deemed exempt for PM<sub>10</sub>, and then the source shall also be deemed exempt for particulate matter. If the PM<sub>10</sub> emission



## Regulatory Review

rate cannot be determined then the particulate matter emission rate shall be used to determine the exempt status. Refer to **Appendix J** for additional guidance on this topic.

### D. Calculating Emissions to Determine Permit Applicability:

In reviewing permitting applicability for sources with respect to the exemption criteria in 9 VAC 5-80-1320 C (new and relocated) and 9 VAC 5-80-1320 D (modified and reconstructed) the emissions increases must be calculated in accordance with the Regulations.

According to 9 VAC 5-80-1100 D, emission calculations should include both non-fugitive and fugitive emissions, if quantifiable, unless the emissions or emissions increases from the stationary source or modification are only fugitive. Sources with only fugitive emissions or fugitive emissions increases are not subject to permitting. For example, a quarry operation adding a new aggregate plant with non-fugitive particulate matter emissions from crushing and screening should also include increases in fugitive emissions due to increases truck traffic using available AP-42 emission factors. Alternatively, emissions from truck traffic at a warehouse facility would not be reviewed if there were no other sources of non-fugitive emissions proposed at the facility.

1. New and Relocated Stationary Sources: Permit applicability determinations for new and relocated stationary sources are based on the “potential to emit” of the source. As defined by 9 VAC 5-80-1110 C, potential to emit means “the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment, and restrictions on hours of operation, or on the type or amount of material combusted, stored or processed, shall be treated as part of the design only if the limitation or its effect on emissions is state and federally enforceable. Secondary emissions do not count in determining the potential to emit of the stationary source.”

#### Example 5-1: Potential to Emit (PTE)

A manufacturing facility has plans to install a process with a rated maximum capacity of 10 tons per hour feed input and an emission factor of 2 lb PM<sub>10</sub> per ton feed input. The facility has requested 4000 hours per year limit on process operation.

PTE for PM<sub>10</sub> of unpermitted unit:

$$10 \text{ tn/hr} \times 2 \text{ lb PM}_{10}/\text{tn} \times 8760 \text{ hr/yr} \times \text{tn}/2000\text{lb} = 87.6 \text{ tn/yr}$$

PTE for PM<sub>10</sub> of unit after permit issued with limit on hours of operation:

$$10 \text{ tn/hr} \times 2\text{lb PM}_{10}/\text{tn} \times 4000 \text{ hr/yr} \times \text{tn}/2000 = 40 \text{ tn/yr}$$

## Regulatory Review

2. Modified and Reconstructed Sources: Permit applicability determinations for modified and reconstructed stationary sources are based on the “net emission increase” resulting from the modification or reconstruction. In order to determine the “net emission increase”, the permit writer must be familiar with the following definitions:
  - a. Net Emission Increase: As defined by 9 VAC 5-80-1110 C, is defined as the “amount by which the following exceeds zero:
    - i. any increase in actual emissions from a particular physical change or change in the method of operation at a stationary source; and
    - ii. any other increases and decreases in actual emissions at the source that are concurrent with the particular change and are otherwise creditable. An increase or decrease in actual emissions is concurrent with the increase from the particular change only if it is directly resultant from the particular change. An increase or decrease in actual emissions is not creditable if the board relied on it in issuing a permit for the source under the new source review program and that permit is in effect when the increase in actual emissions from the particular change occurs.
  - b. Actual Emissions: As contained in the definition of “net emission increase” actual emissions are defined as the actual rate of emissions (expressed as tons per year) of a pollutant from a stationary source or portion thereof, in accordance with the following provisions:
    - i. In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The board shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit’s actual operating hours, production rates and type of materials processed, stored or combusted during the selected time period.
    - ii. The board may presume that source-specific allowable emissions for the emissions unit are equivalent to the actual emission of the unit.
    - iii. For any emissions unit that has not begun normal operation on the particular date, actual emissions shall equal the potential to

## Regulatory Review

emit of the unit on that date.

- c. Allowable Emissions: As contained in the definition of “Actual Emissions”, “allowable emissions” means the emission rate of a stationary source calculated by using the maximum capacity of the source (unless the source is subject to state and federally enforceable limits which restrict the operating rate or hours of operation, or both) and the most stringent of the following:
- i. Applicable emissions standards;
  - ii. The emission limitation specified as a state and federally enforceable permit condition, including those with a future compliance date; and
  - iii. Any other applicable emission limitation including those with a future compliance date.

### **Example 5-2: Net Emission Increase (1)**

#### Modification to a currently permitted stationary source

A plant that is limited to 300,000 gallons per year of #2 fuel oil (0.5% sulfur) requests an increase in throughput to 400,000 gallons per year. The facility has reported actual average fuel usage at 250,000 gallons at 0.3% sulfur for the last two years.

Actual annual emissions prior to change (presumed equal to the two-year average prior to the change):

$$250,000 \text{ gal/yr.} \times 143.6 (0.3) \text{ lb SO}_2/1000 \text{ gal} \times \text{ton}/2000 \text{ lb} = 5.4 \text{ ton/yr.}$$

Actual emissions after the change (presumed to equal the allowable emissions of the source):

$$400,000 \text{ gal/yr.} \times 143.6 (0.5) \text{ lb SO}_2/1000 \text{ gal} \times \text{ton}/2000 \text{ lb} = 14.4 \text{ ton/yr.}$$

Net emissions increase SO<sub>2</sub>:

Actual Emission Increase from changes [14.4 – 5.4 TPY] – Increases and Decreases in Actual Emissions Creditable with changes [0 TPY] = Net Emissions Increase [9.0 TPY]

## Regulatory Review

### **Example 5-3: Net Emission Increase (2)**

#### Modification to stationary source not previously permitted

An existing manufacturing facility plans to modify a previously unpermitted process with a current maximum capacity of 10 tons per hour. Average actual emissions for the last two years, which have represented normal operations, are estimated at 40 TPY. The modified process will have a maximum rated capacity of 15 tons per hour feed input and an emission factor of 1lb PM<sub>10</sub> per ton feed input. Concurrent with this change the facility plans to cease production on another process line. Average actual emissions over the last two-year period reflecting normal operations are estimated at 10 TPY.

Actual annual emissions prior to change (presumed equal to the two-year average prior to change): 40 TPY

Actual emissions after the change (presumed to equal the PTE of the source after the change):

$$15 \text{ tn/hr} \times 1 \text{ lb PM}_{10}/\text{tn} \times 8760 \text{ hr/yr} \times \text{tn}/2000\text{lb} = 65.7 \text{ tn/yr}$$

Net emissions increase PM<sub>10</sub>:

Actual Emission Increase from changes [65.7 – 40 TPY] – Decrease in Actual Emissions Creditable with changes [10 TPY] =

Net Emissions Increase [15.7 TPY]

## **E. Permitting Applicability Review**

1. New and Relocated Stationary Sources: The permit applicability review process for new and relocated stationary sources is depicted on **Chart 5-1**. The following example describes the permit applicability process for a new facility.

### **Example 5-4: Permit Applicability for a New Stationary Source**

A new (greenfield) printing facility has submitted an application to construct the following:

Install two new boilers. The new boilers are 10 MMBtu/hr fired on natural gas only.

Construct a new printing line. Annual emissions from the press line before controls are estimated at 150 TPY. The facility is proposing to control emissions for the new press line with a TOU. Emissions after controls are estimated at 8 TPY.

## Regulatory Review

### Permit Applicability:

The boilers are below the size levels listed in 9 VAC 5-80-1320 B.1.b and may be exempted from permitting. Even though the boilers are subject to 40 CFR 60, Subpart Dc, since the applicable requirements are recordkeeping and reporting only, minor new source review permitting is avoided. This is based on 9 VAC 5-80-1100.E which excludes NSPS sources which are otherwise subject to permitting, provided the NSPS requirements are strictly recordkeeping and reporting.

The facility wide potential to emit for all applicable pollutants are evaluated with respect to 9 VAC 5-80-1320 C (Exemption of new and relocated sources). Since the boilers are exempt based on size, their emissions are not included in evaluating the facility wide PTE. Emissions for the press line are the only sources included in this evaluation. The potential to emit for the new press line, based on the emission rate before controls, is above the VOC exemption level (150 TPY vs. exemption level of 25 TPY).

A minor NSR permit will be required for the new press.

2. **Modified and Reconstructed Stationary Sources:** The permit applicability review process for new and relocated stationary sources is depicted on **Chart 5-2**. The following example describes the permit applicability process for a modified facility.

### **Example 5-5: Permit Applicability for Modified Stationary Source**

An existing printing facility has submitted an application to do the following:

Install a new boiler. The new boiler is 15 MMBtu/hr fired on distillate oil (NSPS Subpart Dc). The facility is requesting a fuel throughput limit of 500,000 gallons per year. Annual PTE @ 8760 hours assuming 0.5 % fuel sulfur content emission is estimated at 9.5 TPY NOX and 33.8 TPY SO<sub>2</sub>.

Install a new chromium-electroplating tank with PTE @ 8760 hours as follows: 0.4 TPY PM<sub>10</sub> and 0.022 lbs/hr and 0.007 TPY hexavalent chromium. The new tank is an area source subject to MACT (Subpart N).

Replace an existing one-color press with a new four-color press. Permitted allowable emissions from the existing press line are 50 TPY VOC with two-year average actual emissions of 48 TPY. The new press has potential to emit before controls of 55 TPY; the facility has not proposed add-on controls.

### Permit Applicability:

## Regulatory Review

The boiler is subject to emissions standards under NSPS Subpart Dc and therefore cannot be exempted from permitting. At a minimum, the boiler will require a permit pursuant to 9 VAC 5-80-1110 E.

Hazardous air pollutant (toxic) emissions from the new chromium-electroplating tank are exempt from permitting based on 9 VAC 5-90-1320 F. Since 40 CFR 63 Subpart N specifically excludes area sources from the federal hazardous new source review permit program (40 CFR 63.5).

The facility-wide net emissions increases from the modification are compared to the regulated pollutant emission rates in 9 VAC 5-80-1320 D.

VOC: Actual Emissions Increase from changes [55 TPY] – Increases and Decreases in Actual Emissions Creditable with changes [48 TPY] = Net Emissions Increase [7 TPY]

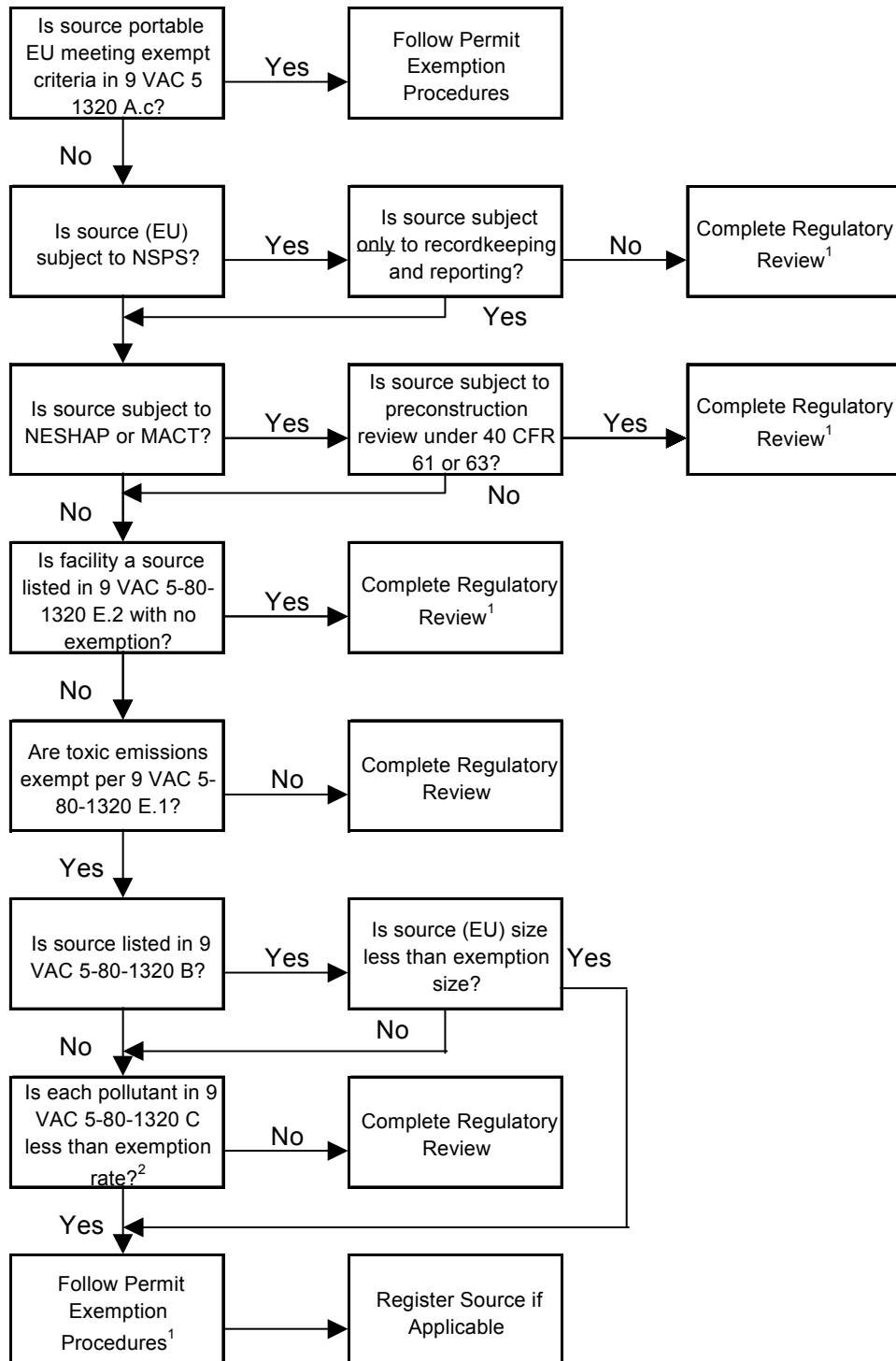
PM<sub>10</sub>: Actual Emissions Increase from changes [0.4 TPY] – Increases and Decreases in Actual Emissions Creditable with changes [0 TPY] = Net Emissions Increase [0.4 TPY]

NOx: Actual Emissions Increase from changes [9.5 TPY] – Increases and Decreases in Actual Emissions Creditable with changes [0 TPY] = Net Emissions Increase [9.5 TPY]

SO<sub>2</sub>: Actual Emission Increase from changes [33.8 TPY] – Increases and Decreases in Actual Emissions Creditable with changes [0 TPY] = Net Emissions Increase [33.8 TPY]

The modification is subject to minor new source review permitting because the SO<sub>2</sub> emissions exceed the 10 TPY threshold in 9 VAC 5-80-1320.D.

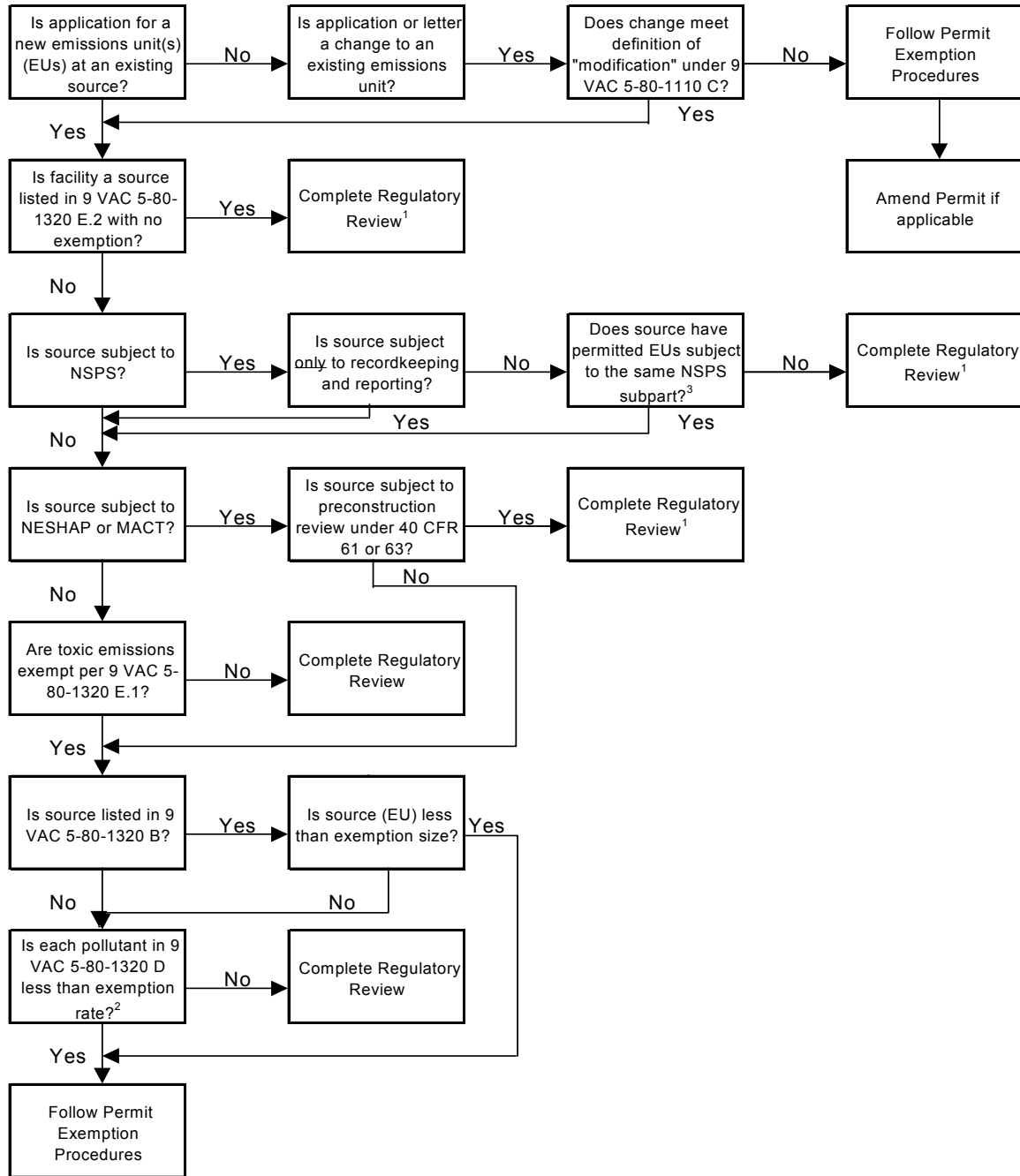
**Chart 5-1  
Exemption Flow Chart - New Facilities**



<sup>1</sup> For stationary sources with more than one emission unit, continue the review process until the entire stationary source has been reviewed for permitting applicability.

<sup>2</sup> Emissions for each pollutant shall include the total emissions from the new or relocated facility excluding emissions from emission unit(s) exempted by 9 VAC 5-80-1320 B.

**Chart 5-2  
Exemption Flow Chart - Modified and Reconstructed Facilities**



<sup>1</sup> For modifications with more than one emission unit, continue the review process until all emission units included in the application have been reviewed for permitting applicability.

<sup>2</sup> Emissions for each pollutant shall include the total emissions from the modified or reconstructed facility excluding emissions from emission unit(s) exempted by 9 VAC 5-80-1320 B.

<sup>3</sup> Refer to criteria in 9 VAC 5-80-1100 E.2 when making this determination.



**F. Exemption Processing**

Appendix L provides a checklist that may be used for exemption processing. If the proposed new or modified source qualifies for permit exemption, the permit writer should send a letter to the applicant confirming the exempt status of the source (see Appendix M for the exemption letter boilerplate). The applicant is also advised of the registration requirement, if applicable, in the same letter. Pursuant to 9 VAC 5-80-1320 A.4, any owner claiming that a facility is exempt from the permitting provisions of the Regulations shall keep records as may be necessary to demonstrate to the satisfaction of the board that the facility was exempt at the time a permit would have otherwise been required.

**G. Registration requirements:**

All permitted sources are registered. However, a source may be exempt from the permit requirements of 9 VAC 5 Chapter 80, Article 6 and still have to be registered in accordance with 9 VAC 5-20-160.

**H. Minor NSR Applicability**

The minor new source review (NSR) permitting regulations contained in 9 VAC 5 Chapter 80, Article 6 establishes the procedures for pre-construction review and permitting of new, modified, reconstructed and relocated stationary sources. These regulations apply to non-major stationary sources, and major stationary sources not subject to either the federal prevention of significant deterioration (PSD) or non-attainment (NA) NSR permitting programs. The applicability of PSD, NA, and the state NSR permitting programs must be evaluated carefully with each proposed action because it is possible for a facility to be subject to the provisions of all three programs. In cases where a facility is subject to the provisions of the state NSR program and a federal permitting program, the more stringent requirements shall prevail. Regardless of how many NSR permit programs apply to a particular facility, only one application is required and only one permit will be issued.

The minor NSR regulations apply to the construction, reconstruction, relocation or modification of any stationary source, which is not exempt from permitting. The regulations broadly define a new source to encompass any stationary source, or portion of it, which was constructed or relocated on or after March 17, 1972, and any stationary source, or portion of it, which was reconstructed on or after December 10, 1976. Therefore, discussions of new sources in this section include relocated sources qualifying as new sources, and reconstructed sources qualifying as modified sources.

## Regulatory Review

The state NSR permitting regulations classify a modified source as a stationary source, or portion of it, which was modified on or after March 17, 1972. See the definition of "modification" in 9 VAC 5-80-1110 C, which is explored in depth in **Chapter 4**, section **G**.

### **I. True Minors**

As previously discussed, the minor NSR permitting regulations apply to non-major stationary sources, and major stationary sources not subject to either the federal PSD or NA permitting programs. Non-major stationary sources may be true minor sources, or "synthetic minor" sources (sources that accept emission limits below major permit applicability thresholds. (Refer to the definition in 9 VAC 5-80-810 C.). The major source status of a facility is determined by the potential to emit of regulated pollutants from the facility (expressed in tons per year). The major source classification will be different depending on which specific regulations are being considered. For example, the major source definition for the federal operating permit program (Title V) is different from that in the PSD regulations, or the NA regulations.

For the purposes of the minor NSR permitting program, a true minor source must meet the following criteria:

1. The potential to emit of any regulated pollutant does not exceed 100 tons per year;
2. It is not a major source under either of the federal NSR programs (e.g., PSD/NA rules);
3. The source's potential to emit is less than 10 tons per year of any single hazardous air pollutant or less than 25 tons per year of total (combined) hazardous air pollutants.
4. It is not made a minor source by accepting either emission limits or operating restrictions in a permit such that its potential to emit is brought below the major source threshold.

These criteria establish the true minor classification of a source with respect to the preconstruction NSR permitting programs. The major or minor source status of a facility with respect to other regulations and permitting programs may be different. Operating permit programs, such as the Title V program or the state operating permit program, are not concerned with preconstruction review. Rather, they focus on already established air pollution control requirements for a facility. A Title V major source, including one classified as major for emissions of hazardous air pollutants, may be subject to permitting under the minor NSR rules, major Source HAP rules, PSD or NA regulations depending on the specific modification or construction activity it proposes (see discussion below of minor modifications at major sources).

**J. Synthetic Minors**

The term "synthetic minor" is not defined in state or federal regulations. It refers to a situation where a source accepts some type of limit in order to keep its emissions below a major source threshold. The major source threshold, or classification, avoided by creating a synthetic minor source depends on the regulation under consideration and the pollutant(s) emitted.

For the state NSR permitting program, a synthetic minor source is one which accepts federally enforceable restrictions to limit its emissions, thereby avoiding Prevention of Significant Deterioration or Non-attainment (PSD/NA) major new source review. A source which takes permit limits below Title V major source thresholds (potential to emit of 100 TPY for criteria pollutants, 10 TPY for any one HAP or 25 for any combination of HAPs) also becomes a synthetic minor and avoids Title V major status. (A greenfield source can take a limit to avoid PSD but still be a state major or Title V major source.) The limits accepted by the source to become a synthetic minor source may be in the form of restrictions on operating hours, limits on production, limits on raw material or fuel throughput, pollutant emission limits, or a combination of these.

**K. Significance levels and PSD/NA applicability**

Determination of PSD/NA NSR permitting applicability is a complex topic. A complete discussion of the issues is beyond the scope of this Manual. However, because state minor NSR often involves understanding the intricacies of major NSR, the topic warrants at least a general discussion. See **Appendix II**.

**L. Minor modifications at major sources**

A PSD/NA major source may propose a project that requires minor NSR. If a proposed modification will result in net emissions increases below PSD significance levels, then the activity may not be subject to PSD/NA review.

**Example 5-6**

An existing source located in an ozone non-attainment area which is a major source for SO<sub>2</sub>, CO, and NO<sub>x</sub> proposes to add a new distillate oil-fired boiler with potential to emit emissions of 50 tons/yr. SO<sub>2</sub>, 120 tons/yr. CO, and 30 tons/yr. NO<sub>x</sub>. At the potential to emit emission rates, the source would be subject to PSD and NA review. However, if the source accepts limits to lower the uncontrolled emissions to rates below the significance thresholds for each pollutant, then the source would not be subject to PSD/NA review. The minor NSR program would be used to establish federally enforceable limits that restrict the emissions to levels below the significance thresholds.

## Regulatory Review

Note that a PSD/NA major source cannot seek minor NSR permits for a planned sequence of projects in order to avoid major NSR. In this case, the emissions resulting from the individual projects would need to be added together to determine the applicability of major NSR.

### **M. PSD Major Source Netting**

Netting is the use of plant-wide emission reduction credits (as defined in the EPA's New Source Review Workshop Manual, October 1990 Draft) to lower the net emissions increases below significant levels in order to avoid PSD and non-attainment review. It is important that in order to "net out" of PSD the source must be an existing PSD major source. A more detailed discussion of netting appears in **Appendix JJ**.

### **N. Non-attainment**

A proposed new or modified source is subject to a Non-attainment New Source Review pursuant to 9 VAC 5 Chapter 80, Article 9 when it is located in a non-attainment area, and is either a major source, or an existing major source undergoing a major modification that will emit, or will have potential to emit, non-attainment pollutant(s) at or above emission thresholds. Further discussion of non-attainment review appears in **Appendix KK**. **Appendix N** contains a current list of Nonattainment areas for the state along with emission thresholds and offset ratios.

### **O. Pre-construction review for MACT sources**

The owner or operator of a facility which is major for a MACT standard is required to submit an application for approval (see **Chapter 3**) to construct a new source, or reconstruct a source after the effective date of that MACT standard. Sources constructed prior to the proposed date of the rule are not subject to the preconstruction review requirements. Those sources that are considered area sources under the standard (i.e., potential to emit is less than 10 tons per year for any one HAP, or less than 25 tons per year for more than one HAP) are required to submit notification of the intent to construct or reconstruct. It should be noted however, that each specific MACT subpart may contain exceptions to the general provisions. These exceptions are normally noted in a table at the end of each subpart. The preconstruction review requirements for MACT sources can be found in 40 CFR 63.5. The minor new source review permit program shall be used to issue preconstruction approvals pursuant to 40 CFR 63.5.

## Regulatory Review

The preconstruction review requirements for case-by-case MACT found in 9 VAC 5 Chapter 80, Article 7, Permits for New and Reconstructed Major Sources of Air Emissions differ from the general requirements and are described in further detail in **Chapter 10**.

### **P. Pre-Construction Review of NESHAP Sources:**

For source types subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), the minor NSR regulations are to be used for issuing preconstruction approvals under 40 CFR 61.05-61.08. Sources not subject to preconstruction review under 40 CFR 61.05-61.08 are not subject to minor NSR air permitting (9 VAC 5-1320 F).

### **Q. Pollution Control Projects: (Reserved)**

The minor NSR permitting regulations shall be used to implement pollution control projects at major stationary sources which qualify for exclusion from review under PSD/NA permitting. Refer to 9 VAC 5-80-1310, Pollution Control Projects for additional information.

## **Chapter 6 - Engineering Analysis**

### **References**

#### Applicable Regulatory Sections for this chapter include:

- 9 VAC 5 Chapter 80, Article 8 (Prevention of Significant Deterioration (PSD))
- 9 VAC 5 Chapter 80, Article 9 (Nonattainment Review)
- 9 VAC 5-170-170 (Considerations for approval actions)
- 9 VAC 5-20-204 (Nonattainment areas)
- 9 VAC 5-80-1320 (Permit exemption levels)
- 9 VAC 5-50-260 (Standard for stationary sources, Rule 5-4)
- 9 VAC 5-60-220 (Standard for toxic pollutants (Existing Sources) Rule 6-4)
- 9 VAC 5-60-300 (Applicability and designation of affected facility (Toxics))
- 9 VAC 5-60-320 (Standard for toxic pollutants (New/ Modified Sources) Rule 6-5)
- 9 VAC 5-60-330 (Significant ambient air concentration guidelines)

#### Applicable Appendices for this chapter include:

- Appendix B – Delegation of Authority Memo
- Appendix E – SAPCB Suitability Policy
- Appendix O – Minor NSR Engineering Analysis

- Appendix P – Minor Source Permit Review Procedure and Checklist
- Appendix Q – State Major Source Permit Review Procedure
- Appendix DD – Pollution Prevention Information
- Appendix EE – Pollution Prevention Techniques

### **A. Introduction**

1. Strictly speaking, engineering evaluation only encompasses the review of emission estimates and control technology and is discussed elsewhere in this manual. What is referred to as the engineering analysis is, in reality, the documentation of the permit review process. As such, it includes regulatory as well as engineering aspects.
2. The type and amount of documentation required varies with the type of permit being processed. In all cases, it is important to state what the emissions are, where they come from, what regulations apply, what factors have been taken into consideration, what action is recommended, and how the requirements of 9 VAC 5-170-170 (and *Virginia Code* section 10.1-1307), regarding substantive considerations of suitability, have been addressed.

## Engineering Analysis

3. All permit applications undergo some level of engineering evaluation. The level of complexity and detail generally depends upon the permit type. In most cases, the emissions evaluation must be completed before the regulations can be reviewed to determine the permit type. Once the engineer makes the determination as to the permit type, he or she can proceed with performing and documenting the permit review.
4. In the "no permit required" case, a record of the determination must be made. Calculation sheets, the minor permit checklist, or a short memo, will serve as adequate documentation supporting the no-permit determination; the short memo is appropriate for a minor permit determination. In the case of a minor permit, a minor engineering analysis (**Appendix O**) and/or a minor permit checklist (for minor permit review procedures and checklist see **Appendix P**) are required to substantiate the minor permit. In the case of a more complicated minor permit, a formal engineering analysis (remainder of this chapter) may be necessary.
5. For all major permits, including PSD and Non-Attainment, a formal Engineering Analysis is required. Because the emissions are much more significant than in a minor permit and because it will be used for EPA, public and board review, this is a much more complex and detailed document. (See **Appendix Q** for a suggested state major source permit procedures checklist.)
6. Use the following outline to prepare a formal engineering evaluation. Note that you must address each topic as it applies to the associated permit. The analysis should be written in the form of an intra-agency memo to the Regional Director.

## Formal Engineering Analysis

### B. Executive Summary

The Executive Summary should contain a brief synopsis of the major sections for complex permit applications. The section is optional and is not necessary for many applications.

### C. Introduction and Background

1. Company background - Describe the facility including company name and type of business. Give the location of the proposed construction, including county, UTM coordinates, and the site suitability (refer to 9 VAC 5-20-204 of the Regulations for non-attainment areas).

## Engineering Analysis

2. Project Summary - Describe what the owner wants approval to do. Provide all the facts pertaining to the project including a description of the facility and the proposed action. The following must be covered:
  - a. Type of Source: modified or new, size, capacity
  - b. Permit history of modified source(s) to include current operations, proposed operations and related enforcement actions to include whether facility is currently in compliance with state and federal regulations such as the NAAQS.
  - c. Process/Equipment Description: discuss the production capabilities in terms of production rate and proposed production schedule.
3. Schedule of Project - Include the date the application was received, proposed construction commencement date, and proposed start-up date.

### **D. Emission Evaluation of Regulated and Toxic Pollutants**

Summarize as applicable the potential to emit, net emissions increases, actual and allowable emissions and include the calculations as an attachment.

### **E. Regulatory Review and Considerations**

The permit engineer reviews the regulations to determine which criteria pollutants, toxic pollutants, modeled emissions/ambient air impact, control technology standards, and analysis apply.

1. Regulated Pollutants - Apply exemption criteria in 9 VAC 5-80-1320 B-D. Evaluate criteria pollutants under PSD and Non-attainment review (9 VAC 5 Chapter 80, Articles 8 and 9). Include any netting performed. Discuss state major applicability. Compare model results to the National Ambient Air Quality Standards (NAAQS).
2. Toxic Pollutants - Apply exemption criteria in 9 VAC 5-80-1320 E and F. Evaluate toxic pollutants using 9 VAC 5-60-300 C.1, NESHAP, and MACT. Compare model results to the Significant Ambient Air Concentrations (SAAC) in 9 VAC 5-60-330. (See **Chapter 10** for details.)
3. Control Technology Standards and Analysis - Discuss the control technology or standard used from the list below:
  - LAER
  - NESHAP



## Engineering Analysis

- RACT
- MACT
- BACT
- NSPS

Include a discussion of the analysis that supports use of the control technology or standard.

4. Modeling Parameters (see Chapter 9) - Discuss the site layout, which describes the plot plan of the facility. Building locations and dimensions as well as stack locations and dimensions should be discussed. Include other stack parameters such as stack velocity, temperature, cover and other applicable parameters. Terrain features, including simple, complex, flat and intermediate, should be discussed. Discuss the model used and address other modeling considerations.

### **F. Compliance Determination**

1. Stack Test - Discuss the need for specific stack tests and how they will be conducted to support the applicant in demonstrating initial and continuing compliance.
2. Visual Emissions Evaluations (VEEs) - Discuss the need for VEEs and how they will be conducted to support the applicant in demonstrating initial compliance.
3. Continuous Emission Monitoring System (CEMS) - Discuss the CEMS(s) that are required and how they support demonstration of compliance.
4. Record-Keeping Requirements - Data Collection and Reporting Discuss the data collection and reporting requirements that are required and how they support demonstration of compliance. Compliance with emission limits, throughput limits, or other limits established in permit conditions needs to be verifiable through adequate record-keeping requirements. These requirements must be placed in the permit as permit conditions and should reflect parameters that can be reasonably measured. For example, if there is a throughput limit on solvent usage, then a separate permit condition needs to require that adequate records be kept on the solvent usage rate. If the %S in a fuel is established as a permit condition, then certification of the fuel %S analysis needs to be required as a permit condition to demonstrate compliance with the %S limit. See the specific boilerplate conditions for guidance on record-keeping time periods and exact wording.

### **G. Public Participation**

## Engineering Analysis

Discuss the applicability of a public comment period and hearing and include the Public Hearing Package and planned locations. The Public Hearing Package consists of the opening statement for the public hearing, the public briefing statement, and a list of documents which are made available during the public comment period. (See **Chapter 12** for details.)

### H. Legal Requirements: Site Suitability (See Appendix E)

Discuss the requirements of § 10.1-1307 of the Virginia Air Pollution Control Law and 9 VAC 5-170-170 of the Regulations. Include language as follows:

1. The character and degree of injury to, or interference with safety, health, or the reasonable use of property which is caused or threatened to be caused:

*The activities regulated in this permit have been evaluated consistent with 9 VAC 5-50-260, 9 VAC 5-60-220, and 9 VAC 5-60-320 and have been determined to meet these standards where applicable.*

*[The emissions regulated in this permit have been evaluated for air quality impacts consistent with existing DEQ policy and have been found to have negligible impact on ambient air quality. OR The emissions regulated in this permit are defined as de minimis consistent with existing DEQ policy and have therefore not been modeled as part of this permit development.]*

2. The social and economic value of the activity involved:

- a. For new construction and major modifications

*The social and economic value of the facility submitting the application has been evaluated relative to local zoning requirements. The local official has deemed this activity not inconsistent with local ordinances. The signed Local Government Form is attached. OR The local zoning authority was contacted consistent with regulations and no response from the zoning official was received.*

- b. For amendments to minor NSR permits

*This application has been deemed an amendment to an existing Minor NSR permit, and emissions increases associated with this project are below significance levels defined in 9 VAC 5-80 Article 8 and in 9 VAC 5-80 Article 9. This project is deemed to have de minimis impact on the current emissions levels and does not affect the current social and economic value of the facility.*

3. The suitability of the activity to the area in which it is located:

## Engineering Analysis

*Consistent with the Board's Suitability Policy dated 9/11/87 (see **Appendix E**), the activities regulated in this permit are deemed suitable as follows:*

- a. Air Quality characteristics and performance requirements defined by SAPCB regulations:

*This permit is written consistent with existing applicable regulations. The source [is not/is] a source of toxics emissions and therefore [has not/has] been modeled[./ and shows no impact on the SAAC.] The emissions for criteria pollutants associated with this permit are below significance levels so no modeling was performed.*

- b. The health impact of air quality deterioration which might reasonably be expected to occur during the grace period allowed by the Regulations or the permit conditions to fix malfunctioning air pollution control equipment;

*Condition XX of the permit requires the facility to notify the Regional Office within 4 business hours of any malfunction and to meet certain shutdown requirements where hazardous pollutants are emitted.*

- c. Anticipated impact of odor on surrounding communities or violation of the SAPCB Odor Rule;

*No violation of Odor requirements is anticipated as a result of this permit action.*

4. The scientific and economic practicality of reducing or eliminating the discharge resulting from the activity.

*The state NSR program as well as the PSD and Non-Attainment programs requires consideration of levels of control technology which are written into regulation to define the level of scientific and economic practicality for reducing or eliminating emissions. By properly implementing the Regulations through the issuance of this permit, the staff has addressed the scientific and economic practicality of reducing or eliminating emissions associated with this project.*

### **I. Notification of Other Government Agencies**

Discuss which of the following DEQ divisions, other state agencies and federal agencies were notified and include any comments submitted to the Division of Air Programs Coordination ("Air Division").

## Engineering Analysis

- DEQ Division of Waste Programs Coordination
- DEQ Division of Water Programs Coordination
- Department of Labor and Industry
- U. S. Environmental Protection Agency (US EPA), Region III
- National Park Service (Shenandoah National Park)
- United States Department of Agriculture, Forest Service (James River Face Wilderness)
- States in the affected Air Quality Control Region

### **J. Pollution Prevention**

Discuss pollution prevention if applicable, including cross-media transfer of pollutants from air to water and/or solid waste. See the pollution prevention guidance documents supplied by the Department in **Appendices DD** and **EE**.

### **K. Document List**

List the documents used as references in the preparation of the engineering evaluation and permit conditions.

### **L. Recommendations**

When the major source permit review is complete, the permit writer submits the draft permit package recommendation for approval or disapproval to the Regional Director who signs as the designate for the agency Director (see **Appendix B**). The submitted package should contain the draft permit, cover letter, engineering analysis, application, and a complete public comment period documentation package when required. Copies of applicable NSPS/NESHAP/MACT federal regulations are to be included with approved permit.

Emission Limitations  
**Chapter 7 - Emission Limitations**  
**(Criteria and Toxic Pollutants)**

REFERENCES

Applicable Regulations include:

9 VAC 5-80-1150 B  
9 VAC 5-80-1180 A  
9 VAC 5-80-1180 B  
9 VAC 5-80-1180 C  
9 VAC 5-80-1180 D  
9 VAC 5-80-1290 A  
9 VAC 5-80-1290 B  
9 VAC 5-80-1320  
9 VAC 5 Chapter 60 Article 5 (Emission Standards for Toxic Pollutants from New and Modified Sources)

Applicable Appendices (of this manual) include:

Appendix A - How to Retrieve Information  
Appendix I - Interpretation Memo on "Designed to Accommodate"  
Appendix J - Memo 99-1011 on PM Exemption Levels  
Appendix L - Checklist for Permit Exemption Review

Other References:

EPA Technology Transfer Network ([www.epa.gov/ttn](http://www.epa.gov/ttn))  
DEQ memos located at k:\agency\air\_permitting\memos\  
DEQ permitting boilerplates and procedures located at k:\agency\air\_permitting\boilerplates\  
m:\air\air\_permitting\boilerplates\  
DEQ policy and guidance located at k:\agency\air\_permitting\policy&guidance\  
m:\air\air\_permitting\policy&guidance\

**A. Introduction**

The rules governing air permitting depend on the permit writer's ability to find and use emission factors for various pollutants and processes, to apply appropriate standards depending on the emissions that are anticipated for the source or pollutants in question, and to write a permit containing appropriate emission limits and operating requirements which enable the facility to meet those limits. This chapter should be read in conjunction with other chapters, specifically **Chapters 4, 5, 8,** and **11,** to assist the permit writer in determining permitting applicability and in preparing to draft a new source review permit.

**B. Forms of Emission Limitations**

## Emission Limitations

Emission limitations in minor new source review are typically related to the averaging time in the applicable standard from Chapter 40, Chapter 50, or Chapter 60 of the Regulations (respectively, the rules for existing sources; the rules, including federal New Source Performance Standards (NSPS) provisions incorporated by reference, for new sources; and the rules for sources of hazardous air pollutants). They must be expressed, however, in terms that are understandable to the source and the Department's inspectors, so that compliance with the permit can be achieved by the source and checked, if and when necessary, by inspectors. Emission limitations in a minor new source review permit may take a number of forms, including but not limited to the following:

1. **Short-Term Limitations**, such as pounds per hour or grains per dry standard cubic foot;
2. **Annual Limitations**, such as tons per year;
3. **Throughput or Usage Restrictions**, per measure of resulting product or measure of time, such as gallons per hour, gallons per year, or gallons per square foot of coating coverage.

### C. Emission Factors

1. Emission factors and other data to estimate emissions may be found in:
  - Boilerplate Procedures.
  - Stack test data.
  - Mass balances based on physical/chemical principles.
  - Manufacturers' guarantees.
  - EPA publication AP-42.<sup>1</sup>
  - EPA source classification codes (SCC) numbers.
  - FIRE (Factor Information Retrieval System).<sup>1</sup>
  - Air Pollution Engineering Manual (AWMA).
  - Source data.
  - VOC/PM Speciation.
  - Control Technology Guidance (CTG) Documents.
  - Alternative Control Techniques (ACT) Documents.
  - EPA Control Technology Center.<sup>2</sup>
  - Locating and Estimating (L&E) Series Documents.<sup>1</sup>
  - Various documents in K:\AGENCY\AIR\_PERMITTING\ or m:\air\air\_permitting
  - Source-specific emission factors developed by trade groups for their source categories
2. References for the emission factors used should be listed and any undocumented emission factors should be supported with sound engineering and scientific principles. Listing the Source Classification Code (SCC) provides useful information for entering the permit into CEDS. The

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<sup>1</sup> Information can be found at [www.epa.gov/ttn/chief](http://www.epa.gov/ttn/chief)

<sup>2</sup> (919) 541-0800

## Emission Limitations

references and SCC go in the engineering analysis or permit checklist submitting the permit for approval and signature, not in the permit itself. Contact OAPP for assistance as necessary.

### D. Units Used in Expressing Emission Factors

Emission factors are expressed in quantity of emissions (typically units of weight such as pounds) per quantity of production. Production units may be mass units, or they may be units that are meaningful within the particular industry (such as cubic yards of concrete). Often the permit writer will be able to choose from several available emission factors. For example, emissions for a boiler might be calculated using lb/1000 gallons of fuel, lb/ton of fuel, or lb/MMBtu of heat input.

Generally, permit throughput limits will correspond to the chosen production units. Therefore, where several emission factors are available, preference should be given to the factor that most closely matches the recordkeeping preference for the facility. If a company tracks fuel usage in tons, for example, that factor may be used for calculating emissions and establishing a throughput limitation.

### E. Calculating Uncontrolled Emissions

The annual uncontrolled emissions for a new source or a change to an existing source are used to determine whether the source is exempt. Hourly calculations are also required, pursuant to 9 VAC 5-80-1320 E., if Toxic Pollutants or Hazardous Air Pollutants (HAP) are involved and, pursuant to 9 VAC 5-80-1320 B, hourly and daily Volatile Organic Compound (VOC) calculations are required for certain source categories. Uncontrolled emissions are based on operation at maximum design capacity without air pollution controls, but considering enforceable permit conditions that limit the hours of operation or production or process rate on an annual basis. Annual emissions may be calculated differently depending on whether the source is new or being modified and whether the emissions unit is currently permitted. Annual emissions are based on 8,760 hours of operation when not limited by permit conditions. Additionally, inherent limitations on the maximum capacity of a source or emissions unit may be taken into account. Inherent limitations are found in those processes where there is a natural barrier to the maximum capacity at which the equipment can operate, such as, annual emissions from coating operations (e.g. paint spray booths) and grain elevators.

#### *Example 7-1 Including Inherent Limitations in Estimating Emissions*

In a paint-spraying booth at a small auto body shop, there is a limitation on the number of cars that can be painted and dried in a given amount of time because of the time it takes to perform each task required (e.g., preparation of the surface, painting, drying, etc.). In estimating the maximum capacity to calculate uncontrolled emissions or annual emissions, the permit writer should not assume that the paint spraying equipment operates continuously every hour throughout the year. Instead, the permit writer can assume that the paint spraying equipment operates the amount of time that is possible to paint the maximum number of cars that the booth can handle per hour if operated 8,760 hours per year.

## Emission Limitations

In some instances for certain source categories, daily emissions may need to be calculated. Refer to 9 VAC 5-80-1320 B for source categories having daily exemption limits.

### F. New Emissions Units

For new emissions units hourly and annual emissions are calculated as follows:

- ◆ Hourly emissions calculations should be based on operation at maximum design capacity without air pollution controls.
- ◆ Annual emissions calculations should be based on 8,760 hours of operation without air pollution controls, taking into account any inherent or physical limitations.

For new emissions units permitting applicability is determined as follows:

- ◆ For new units at “greenfield” sources, compare the emission unit type/size and or/ emission rates to the exemption rates in 9 VAC 5-80-1320 B (exemption by size) or 9 VAC 5-80-1320 C (exemption of new and relocated sources). 9 VAC 5-80-1320 C is to be used if the source is not specifically listed in 9 VAC 5-80-1320 B. Additionally, the emission rates must be compared to the rates calculated in accordance with 9 VAC 5-80-1320 E and F (exemption levels for sources of toxic pollutants). 9 VAC 5-80-1320 E.2, facilities with no exemptions, should also be checked for determining permitting applicability.
- ◆ For new units at existing sources compare the emission rates to the exemption rates in 9 VAC 5-80-1320 B or 9 VAC 5-80-1320 D, and 9 VAC 5-80-1320 E and F.

### G. Modified Emissions Units

For changes to an emissions unit, the calculations for annual uncontrolled emissions are dependent on whether the emissions unit is currently permitted.

*Existing/Unpermitted units.* Modifications to these units usually involve an increase in the maximum design capacity. Emissions are calculated as follows:

- ◆ Hourly emissions calculations are based on operation at the new maximum design capacity without air pollution controls.
- ◆ Annual emissions calculations are based on operation after the modification at 8,760 hours per year without air pollution controls.

To determine permitting applicability, the current emissions (operating the current unit at 8,760 hours per year without air pollution controls) should be subtracted from the post-modification annual uncontrolled emissions. The result should be compared to the modified emission rates in 9 VAC 5-80-1320 D and 9 VAC 5-80-1320 E to determine NSR permitting applicability. A minor permit amendment or a significant permit amendment is appropriate if the emissions exceed the permit exemption levels of either of those sections. An exemption from NSR permitting is appropriate if the emissions do not exceed the permit exemption levels of either of those sections.



## Emission Limitations

*Currently permitted units.* Calculations for currently permitted emissions units must be based on the permit conditions or restrictions rather than on 8,760 hours per year because the definition of "uncontrolled emission rate" and "potential to emit" takes into account federally enforceable permit conditions. Assuming there are no federally enforceable pollution controls in the permit, the emissions are calculated as follows:

- ◆ Hourly emissions calculations are based on operation at maximum design capacity without air pollution controls.
- ◆ Annual emissions calculations are based on operation at the new requested throughput or operating hours without air pollution controls.

To determine applicability as an NSR exemption, or minor or significant amendment, the increase in uncontrolled emissions between the new requested limits and the currently permitted limits are compared with the modified source exemption rates in 9 VAC 5-80-1320 D and 9 VAC 5-80-1320 E. A minor permit amendment or a significant permit amendment is appropriate if the emissions exceed the permit exemption levels of either of those sections. An NSR permitting exemption is appropriate if the emissions do not exceed the permit exemption levels of either of those sections.

### **H. Control Equipment and Control Efficiency**

In some cases, expected performance of a control device is the most reliable predictor of emissions. For example, a vendor may guarantee that emissions from a fabric filter will not exceed a given weight (in grains) per cubic foot of exhaust air. Such emission rates may be used to calculate emission limits.

### **I. Predicted Emissions Calculations**

Predicted emissions take into account the proposed control methodology. Hourly emissions are based on maximum capacity. Annual emissions are based on proposed throughput, hours of operation, or restrictions needed to alleviate a modeled NAAQS exceedance (see next paragraph). Predicted emissions must meet BACT or LAER, including applicable NSPS, NESHAP, or standards from the Regulations, such as 9 VAC 5 Chapters 40, 50, or 60.

If preliminary calculations show a potential air quality exceedance of a SAAC, or that a PSD review may be required, negotiations with the source may be required to resolve exceedances or to allow a minor NSR permit to be issued. After the permit writer completes the regulatory review, emission control evaluation, air quality analysis, and toxics analysis, the calculations may be refined based on new information or conditions accepted by the source such as a reduction in requested throughput, substitute coatings, increasing of stack heights, or use of controls.

### **J. Short-Term Emission Limits**

Short-term emissions usually represent the worst case allowable emissions for equipment operating at maximum capacity. These limits provide a way to verify that emission estimates are accurate, control devices are operating as designed, and air quality standards are being met. Averaging periods (1-hour, 3-hour, 8-hour, or 24-hour for pound per hour limits; or usage

## Emission Limitations

rate limits such as gallons per hour, per day, or per week) should be specified in setting short-term emission limits. When needed to protect air quality standards (state toxics or NAAQS), a short-term emission limit can be established with a corresponding short-term throughput limit. In other cases, short-term limits may simply provide a method of verifying compliance on a more frequent basis than annually. For example, a monthly limit on VOC emissions may be established as the short-term limit for a facility using mass balance to determine compliance. In no case should a short-term limit exceed a 30-day averaging period, in keeping with EPA guidance on practical enforceability.

### **K. Long-Term Emission Limits**

Long-term (usually annual) emission limits take into account any restrictions on throughput, operating hours, or other parameters that would serve to reduce emissions. It is common for permittees to request such restrictions in order to avoid applicability of a program (such as PSD or Title V), even though they may wish to have short-term limits reflect the maximum operating capacity of equipment. In calculating annual emissions, it is important to include only those reductions that are made enforceable through permit conditions. Annual limitations are typically calculated as the sum of each consecutive 12-month period.

### **L. Recommended Permit Emissions Limits**

The permit limits are usually the predicted emission rates, but may be different based on the following:

- ◆ An allowance for equipment deterioration may be given by setting the permit limits at 120 percent of predicted emissions, provided BACT or LAER is still met.
- ◆ Criteria pollutants with controlled emissions less than 0.5 tons per year are not listed in the permit. Criteria pollutants with emissions greater than 0.5 tons per year are listed in the permit.
- ◆ Toxic limits are not listed in the permit if the predicted emission rate from a new emissions unit or the net increase from a modification is less than the toxics exemption rate.

The justification should be provided when the Predicted Emissions are not used as the Recommended Permit Emission Limits.

## **Chapter 8 - Control Technology Standards**

### REFERENCES

Applicable Regulations include:

9 VAC 5-50-250  
9 VAC 5-50-260  
9 VAC 5-80-1180 C  
9 VAC 5-80-2010

Applicable Appendices (of this manual) include:

Appendix A - How to Retrieve Information

Other References:

EPA Technology Transfer Network ([www.epa.gov/ttn](http://www.epa.gov/ttn))  
DEQ memos located at k:\agency\air\_permitting\memos\  
DEQ permitting boilerplates and procedures located at k:\agency\air\_permitting\boilerplates\  
DEQ policy and guidance located at k:\agency\air\_permitting\policy&guidance\

### **Introduction**

New and modified stationary sources are subject to the Best Available Control Technology (BACT) requirements pursuant to 9 VAC 5-50-260. New source review permitting in accordance with 9 VAC 5 Chapter 80, Article 6, Permits for New and Modified Stationary Sources, therefore, must include a BACT determination and reflect BACT in permit conditions. Other control technology standards may apply to new and modified sources and/or existing sources, as discussed below.

### **A. Best Available Control Technology (BACT) Requirements**

As defined in 9 VAC 5-50-250, BACT means a standard of performance (including a visible emission standard) based on the maximum degree of emission reduction for any pollutant which would be emitted from any proposed stationary source which the board, on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for such source through the application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant that would exceed the emissions allowed by any applicable standard in:

- ◆ New Source Performance Standards (9 VAC 5 Chapter 50, Article 5, 9 VAC 5-50-400 et seq.);

## Control Technology Standards

- ◆ National Emission Standards For Hazardous Air Pollutants (NESHAPs) (9 VAC 5 Chapter 60, Article 1, 9 VAC 5-60-60 et seq.);

If the board determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard, or combination of them, may be described instead of requiring the application of best available control technology. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results. In determining best available control technology for stationary sources subject to Article 6 (9 VAC 5-80-1100 et seq.) of Part II of 9 VAC 5 Chapter 80, consideration shall be given to the nature and amount of the new emissions, emission control efficiencies achieved in the industry for the source type, and the cost-effectiveness of the incremental emission reduction achieved.

Pursuant to 9 VAC 5-80-1180 C, the following criteria must be met in establishing emission standards to the extent necessary to assure that emission levels are enforceable as a practicable matter:

- ◆ Standards may include the level, quantity, rate, or concentration or any combination of them for each affected pollutant.
- ◆ In no case shall a standard result in emissions which would exceed the emissions rate based on the potential to emit of the emissions unit.
- ◆ The standard may prescribe, as an alternative to or a supplement to an emission limitation, an equipment, work practice, fuels specification, process materials, maintenance, or operational standard, or any combination of them.

In determining best available control technology for new and modified stationary sources, consideration shall be given to the nature and amount of the new emissions, emission control efficiencies achieved in the industry for the source type, and the cost-effectiveness of the incremental emission reduction achieved.

If the board determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emission standard infeasible, a design, equipment, work practice, or operational standard, or combination thereof, may be prescribed instead of requiring the application of best available control technology. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice or operational standard, and shall provide for compliance by means that achieve equivalent results.

BACT is required in the following instances:

- ◆ A stationary source shall apply best available control technology for each regulated pollutant that it would have the potential to emit in amounts equal to or greater than the levels in 9 VAC 5-80-1320 C.

## Control Technology Standards

- ◆ A modification shall apply best available control technology for each regulated pollutant for which it would result in a net emissions increase at the source. This requirements applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur in amounts equal to or greater than the levels in 9 VAC 5-80-1320 D as a result of physical change or change in the method of operation in the unit.
  - For phased construction projects, the determination of best available control technology shall be reviewed, and modified as appropriate, at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.

BACT is required for all new and modified stationary sources subject to the permitting requirements of 9 VAC 5 Chapter 80 Article 6 (Permits for New and Modified Stationary Sources). In many cases experience with an applicant's industry category is sufficient to set BACT without further analysis. (This is referred to as "presumptive BACT.") The permit writer reviews the BACT proposal and determines acceptable control technology based on the following:

- applicable boilerplates
- CEDS entries identifying BACT for other similar sources in Virginia
- Chapter 40 Control Technology, RACT, NSPS, NESHAP, MACT, and GACT
- EPA's RACT BACT and LAER Clearinghouse (RBLC) database of the Clean Air Technology Center (web site <http://www.epa.gov/ttn/catc>)

In cases where BACT is not already identified, a formal BACT analysis becomes necessary. Procedures for the formal BACT analysis can be found in EPA's New Source Review Workshop Manual, October 1990 Draft, Chapter B. For Prevention of Significant Deterioration (PSD) permits, a formal BACT analysis is required.

### **B. Chapter 40 Control Technology Guidelines**

Control technology guidelines for existing sources are discussed in 9 VAC 5 Chapter 40 (9 VAC 5-40-10 through 9 VAC 5-40-8190 and 9 VAC 5-60-200 through 9 VAC 5-60-270), which contains 46 rules (as of the date of this Manual's promulgation), addressing general emission standards applicable to all sources as well as specific standards applicable to particular types of processes, operations, or equipment. These rules also serve as the minimum controls acceptable for new and modified stationary sources undergoing BACT analysis pursuant to 9 VAC 5-50-260. However, a number of Chapter 40 rules apply to non-attainment areas and are not necessarily BACT for attainment areas. Also, according to 9 VAC 5-40-10 B, the provisions of Chapter 40 apply to new and modified sources when they are more restrictive than those in Chapter 50 or Chapter 80 (permitting requirements). An example of the Chapter 40 provisions being more restrictive than the Chapter 80 provisions is the case of miscellaneous metal

## Control Technology Standards

parts and products coating systems. See the appropriate procedure for these sources in k:\agency\air\_permitting\boilerplates\procedures\.

### **C. New Source Performance Standards (NSPS) Requirements (40 CFR Part 60)**

The new source performance standards (NSPS) in 40 CFR Part 60 establish the minimum performance for the emission control systems of various types of new sources. These standards are incorporated by reference in 9 VAC 5-50-400 et seq. According to Section 111 of the Clean Air Act, NSPS “shall reflect the degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.” Additionally, these standards are subject to periodic review and are updated as necessary.

### **D. Reasonably Available Control Technology (RACT) Requirements**

Reasonably Available Control Technology (RACT) is defined in 9 VAC 5-40-250 C as the "lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility." RACT is not applicable to new or modified sources. However, RACT technology must be considered in the BACT analysis.

In Virginia, RACT generally applies to existing VOC and NO<sub>x</sub> sources which are located in ozone non-attainment areas designated as moderate or worse levels (see **Appendix N** for a listing of the non-attainment regions), and have a theoretical potential to emit at or above a certain amount. The term “theoretical potential to emit” is defined in 9 VAC 5-40-300 B and 9 VAC 5-40-310 C. The emission limit is dependent on the relevant pollutant (VOC or NO<sub>x</sub>) and on the area of Virginia where the source is located as shown below, based on 9 VAC 5 Chapter 40 Part II Article 4 (9 VAC 4-40-240 et seq., as amended July 1, 1997):

- ◆ For VOC: 25 tons/year in Northern Virginia Emissions Control Area and 100 tons/year in the Richmond Emission Control Area (see 9 VAC 5-40-300 B);
- ◆ For NO<sub>x</sub>: 50 tons/year in Northern Virginia Emissions Control Area (see 9 VAC 5-40-310 C).

If a source subject to RACT submits an application for a permit to modify and proposes netting, the lower of actual emissions or SIP allowable emissions (including RACT allowable emissions) is used to establish the baseline for netting.

## Control Technology Standards

RACT is determined on a case-by-case basis after taking into account many factors, including efficiencies of controls, costs of controls, age of the facility, quantity of emissions, nature of emissions, severity of the existing air quality problem, extent of present controls, comparability to standard practice in similar process or related industries, and cross-media and economic impacts.

The determination of what technology constitutes RACT for a given source category can, and does, change with time, with the determination being made at a given time that the selected technology represents the most stringent that is feasible and economically reasonable for the source category. RACT determinations are listed in the EPA's RACT BACT and LAER Clearinghouse database (RBLC) of the Clean Air Technology Center web site (<http://www.epa.gov/ttn/catc>).

### **E. National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements (40 CFR Part 61)**

The Clean Air Act of 1970 required EPA to regulate hazardous air pollutants and set risk-based standards for these pollutants at a level that would provide an ample margin of safety to protect the public health. The legislative regulations are called the National Emission Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR Part 61. These emission standards reflect the performance of the best available systems of emission reduction, taking into account health effects of the pollutants. To date NESHAP have been established for eight hazardous air pollutants: beryllium, mercury, vinyl chloride, benzene, radionuclides, arsenic, asbestos, and radon. Because of the difficulty and uncertainty in assessing health risks, the Clean Air Act Amendments of 1990 changed the basis of NESHAP regulations from health to available control technology, resulting in the MACT standards. In addition, the pollutant-specific basis in the NESHAP regulations changed to a source category-specific basis for the MACTs.

### **F. Maximum Achievable Control Technology (MACT) Requirements (40 CFR Part 63)**

Title 40, Code of Federal Regulations, Part 63 (40 CFR Part 63) contains the National Emission Standards for Hazardous Air Pollutants (HAP) for Source Categories (MACT standards). These standards are required for all major sources in the categories and subcategories which are listed under Title III of the Clean Air Act Amendments of 1990. A source is major for HAP if it has the potential to emit, considering controls, 10 tons per year of any single HAP or 25 tons per year of total HAP from the designated list of 188 hazardous air pollutants. Some MACT standards also affect area sources (non-major HAP sources as defined in section **G** below). MACT sources are subject to Title V permitting requirements unless it is specified in the MACT standards that the state has the option to adopt regulations to defer or exempt some sources from the requirements.

MACT is the maximum degree of reduction in emission of HAPs, taking into consideration the cost, any non-air quality health and environmental impacts, and energy requirements. MACT may be achieved, in part, through application of measures,

## Control Technology Standards

processes, methods, systems, or techniques. MACT technology must be considered in the BACT analysis.

The basis for development of MACT standards is as follows. For a new source, MACT must be no less stringent than the best performing emission control currently in use for a similar source. For an existing source, MACT must be no less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources in a source category or subcategory which contains 30 or more sources. For a category with fewer than 30 sources, the MACT for an existing source must be no less stringent than the average emission limitation achieved by the best performing 5 sources. These requirements apply to case-by-case MACT determinations under section 112(g) and “MACT hammer” determinations under section 112(j) of the Clean Air Act. More detailed instructions appear in **Chapter 10**, section **G**.

### **G. Generally Available Control Technology (GACT) Requirements**

Non-major HAP sources (<10 tpy each HAP and <25 tpy total HAPs) are referred to as “area sources” under Title III of the Clean Air Act. The Act requires EPA to set GACT, which is typically less stringent than MACT, for certain area source categories. Costs, economic impacts, and the technical capabilities of owners and operators to operate emission control equipment may be considered in developing GACT. In many cases, where EPA determines that the MACT for a source category is generally available, GACT may be the same as MACT. Unlike the situation for MACT sources, EPA need not conduct a residual risk analysis for GACT sources.

### **H. Lowest Achievable Emission Rate (LAER) Requirements.**

LAER requirements are required for permits issued to new major sources or major modifications in non-attainment areas. According to 9 VAC 5-80-2010, LAER means, for any source, the more stringent rate of emissions based on the following:

1. The most stringent emission limitation which is contained in the implementation plan of any State for such class or category of stationary source, unless the owner of the proposed stationary source demonstrates that such limitations are not achievable; or
2. The most stringent emission limitation which is achieved in practice by such class or category of stationary sources. This limitation, when applied to a modification, means the lowest achievable emission rate for the new or modified emission units within the stationary source. In no event shall the application of this term allow a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under an applicable new source performance standard.



## Control Technology Standards

LAER differs from BACT in that economic feasibility is not a consideration. The lowest emission rate that has been demonstrated to be technically feasible is the rate that must be met.

Sources of information for determining LAER are following:

1. SIP limits of all States for that particular class or category of source.
2. Non-attainment pre-construction or operating permits issued in any non-attainment area for that particular class or category of source.
3. EPA's RACT BACT and LAER Clearinghouse (RBLC) database of the Clean Air Technology Center (web site <http://www.epa.gov/ttn/catc>)

## **Chapter 9 - Air Quality Analysis**

### **References**

Applicable Regulatory Sections for this chapter include:

9 VAC 5 Chapter 80, Article 5

9 VAC 5 Chapter 80, Article 6

40 CFR Part 51, Appendix W – Guideline on Air Quality Models

Applicable Appendices for this chapter include:

Appendix II - Significance Levels and PSD/NA Applicability

Applicable Reference Materials for this chapter include:

EPA's New Source Review Workshop Manual, October 1990 Draft

"1991-1992 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" from the American Conference of Governmental Industrial Hygienists (ACGIH Handbook)

### **I. Criteria Pollutants Analysis**

1. Each pollutant emission rate increase (potential to emit) for a modification of an existing facility (potential to emit) that exceeds the applicable PSD significant emission rate should be modeled and compared to the PSD Class II significance levels (see EPA's New Source Review Workshop Manual, October 1990 Draft). If the maximum predicted concentration of a specific pollutant for any applicable averaging period exceeds the significance level (i.e., 3, 24 or annual for SO<sub>2</sub>), then the entire affected emission point for the modification (to include the increase) is to be modeled for that pollutant. All new facilities whose emissions exceed an applicable PSD significant emission rate should be modeled for that pollutant.
2. The predicted ambient impact from the facility is added to the monitored background value selected for the specific averaging time period for that pollutant (provided by the Central Office modeling staff). The total concentration is then compared to the appropriate NAAQS to demonstrate compliance.

## Air Quality Analysis

3. The permit engineer has the discretion to request the applicant to model the entire facility if the modeling analysis for the modification by itself indicates the probability of a facility-wide NAAQS violation, taking into consideration the magnitude of emissions for the same pollutant from other sources at the facility.

### **J. Toxic Pollutants Analysis**

1. Toxic pollutant emission increases resulting from a modification at an existing facility may require modeling. If the facility-wide potential-to-emit of a toxic pollutant exceeds the applicable exemption rate, modeling is required. Modeling may be conducted using either screening or refined techniques. If the emissions from the modified units (pollutant-specific) of a facility result in a predicted ambient air concentration greater than or equal to 75% of the SAAC, then compare the modification emissions to the total facility emissions. If the ratio of the modification emissions to the total facility is less than the ratio of predicted emissions to the SAAC, then the entire facility should be analyzed and compared to the pollutant SAAC. Of course, this should be addressed on a case-by-case basis since the permitting staff of a particular region will be more knowledgeable of the emitting sources for that facility.
2. In certain limited situations, prior analyses of the facility may be used in combination with modeling of the net emissions increase by itself to determine compliance with the SAAC. In these circumstances, the Central Office modeling staff shall approve the modeling methodology in consultation with regional office permitting staff.
3. In the case of a new facility, the entire facility should be modeled for toxic pollutants exceeding the applicable exemption levels.
4. The permit engineer should carefully review the exemption categories listed under 9 VAC 5-60-300 to determine if the facility is exempt from the provisions of 9 VAC 5 Chapter 80, Article 5 – Emission Standards for Toxic Pollutants from New and Modified sources. Many source categories, including those subject to MACT requirements, are exempt from this Article and the associated toxics modeling analyses.

### **K. Air Quality Modeling**

The initial analysis can be done with EPA-approved screening techniques such as SCREEN3 or ISCST3 in the screening mode resulting in maximum predicted concentrations. The initial modeling could be done by either the regional staff or by the applicant. The next level of refined analysis involves refined modeling with the EPA approved model, ISCST3 or the current, equivalently appropriate, EPA-approved model. A representative, appropriate 5-year set of National Weather Service (NWS) surface

## Air Quality Analysis

data from 24-hour (first order) stations and NWS upper air data (for mixing heights) or at least one year of approved, on-site meteorological data is required for this type of analysis. The resulting highest, second-highest concentration for the pollutant-specific short-term averaging periods and the highest concentration for the annual periods (for toxic pollutants, the maximum predicted concentration for both averaging periods is required) are added to the background monitored concentration (criteria pollutants only) and then compared to the appropriate standard. The more refined modeling requires a protocol or plan that would be reviewed and approved by the Central Office modeling staff before the modeling is undertaken. The modeling effort (summarized in a report and submitted along with all modeling input and output files via an electronic media) by the applicant or representative gets reviewed by the central office in collaboration with the regional permitting staff.

### L. Modeling the Entire Facility

1. New Source - Facility-wide modeling is required for criteria and toxic pollutants under the following circumstances:
  - a. If the criteria pollutant emission rate from the new facility (potential to emit) exceeds the applicable PSD significant emission rate.
  - b. If the toxic pollutant emission rate from the new facility (potential to emit) exceeds the applicable exemption rate.
  
2. Existing Source - Facility-wide modeling is required for criteria and toxic pollutants under the following circumstances:
  - a. If the criteria pollutant emission rate increase (potential to emit) for a modification of an existing facility (potential to emit) exceeds the applicable PSD significant emission rate and the maximum predicted concentration of the pollutant for the modification by itself exceeds an applicable PSD Class II significance level for any averaging period (i.e., 3, 24 or annual for SO<sub>2</sub>);
  - b. If the toxic pollutant emissions from the modified units (pollutant-specific) of a facility result in a predicted ambient air concentration greater than or equal to 75% of the SAAC, then compare the modification emissions to the total facility emissions. If the ratio of the modification emissions to the total facility is less than the ratio of predicted emissions to the SAAC, then the entire facility should be analyzed and compared to the pollutant SAAC;
  - c. If there have been substantive complaints regarding the pollutants emitted from the proposed modification;

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- d. If the regional permit engineer, in consultation with Central Office modeling staff, suspects that an exceedance is likely due to the stack characteristics, locations of property lines, or magnitude of emissions;
- e. If the source has made several exempt modifications for the same criteria pollutants;

### **M. Data Submittal Requirements**

1. As a minimum, the following should be submitted with the air quality analysis in support of the permit application:
  - a. A facility plot plan to scale showing fence line, emission sources and buildings;
  - b. Building(s) dimensions and base elevations;
  - c. A USGS 7.5 minute topographic map showing location;
  - d. Stack parameters and emissions for point sources and source dimensions and release heights for area sources;
  - e. UTM coordinates; and
  - f. Modeling input/output files on electronic media, if required, and a concise report addressing regulatory requirements.

## **Chapter 10 - Toxic Air Pollutants**

Applicable Regulation Sections for this chapter include:

- 9 VAC 5-60-60** - Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants (NESHAPS)
- 9 VAC 5-60-90** - Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS)
- 9 VAC 5-60-120** - Control Technology Determinations for Major Sources of Hazardous Air Pollutants (112(j) Case-by-case MACT)
- 9 VAC 5-60-200** - Emission Standards for Toxic Pollutants from Existing Sources
- 9 VAC 5-60-300** - Emission Standards for Toxic Pollutants from New & Modified Sources
- 9 VAC 5-80-1320** - Permit Exemption levels
- 9 VAC 5-80-1400** - Permits for New and Reconstructed Major Sources of Hazardous Air Pollutants (112(g) Case-by-case MACT)

Applicable Appendices for this chapter include:

- FF - Hazardous Air Pollutant and Toxic Pollutant Tables (Formerly AQP-5)
- ?? - Implementation Guidance for §112(g) - Case-by-case MACT (Policy 99-1007)
- ?? - *Federal Register* Notice Granting VA Delegation of the MACT Program
- ?? - Federal HAP NSR Permit Application Requirements (§63.5)
- ?? - *Federal Register* Notice of Revised Source Category List

### **A. Introduction: Toxics Regulations and Application Information**

The terms “hazardous” and “toxic” are both used to describe pollutants that have been determined by EPA or the state to pose a significant risk to public health. The terms are used interchangeably on the federal and state level. EPA's list of Hazardous Air Pollutants (HAPs) is in §112(b) of the 1990 Clean Air Act Amendments (CAAA) and currently includes 188 individual HAPs. The Virginia list is the same as federal list with four exceptions: asbestos, fine mineral fibers, radionuclides, and glycol ethers without Threshold Limit Values (TLVs). There are five Virginia regulations involving the evaluation of HAPs for the purpose of the NSR process. In addition, there are two types of federal HAP regulations incorporated by reference into VA regulations: the 40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAPS) and the 40 CFR Part 63 NESHAPS, which are commonly referred to as the Maximum Achievable Control Technology Standards (MACTS). The Virginia toxics regulations are not part of the State Implementation Plan (SIP) and therefore are not federally enforceable.

1. NESHAPS- These are the pre-1990 CAA federal regulations for HAPs. They are found at 40 CFR Part 61 and are incorporated by reference into the state regulations by 9 VAC 5 Chapter 60 Article 1 (9 VAC 5-60-60 et seq.). These regulations are risk-based and were developed for individual pollutants. EPA has retained the implementation authority for 40 CFR Part 61 Subparts B, Q, R, T and W (radon regulations) and 40 CFR Part 61 Subparts H, I and K (radionuclide regulations). 40 CFR Part 61 Subpart M (asbestos) has been delegated to Virginia but is administered through the Virginia Department of

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Labor and Industry. Although some NESHAPs are not delegated or administered to DEQ, if applicable, they must be included in the source's Title V permit.

2. MACT Standards- These are the post-1990 CAA federal regulations for HAPs. They are found at 40 CFR Part 63 and are incorporated by reference into the state regulations at 9 VAC 5 Chapter 60 Article 2 (9 VAC 5-60-90 et seq.). Unlike the pre-1990 NESHAPs, MACT standards are technology based and are developed for source categories emitting one or more of the 188 HAPs listed in §112(b). Once EPA has promulgated a MACT and Virginia has incorporated it into its regulations, Virginia becomes the implementing and enforcing agency. **EPA Region 3 requires dual reporting under all Part 63 standards, and therefore all notifications required to be sent to the "Administrator" should be sent to both the DEQ Regional Office and EPA Region 3.** EPA has retained most authorities for approving major alternatives to testing, monitoring, recordkeeping and reporting, opacity and non-opacity standards. Virginia was granted delegation for major and area MACT sources in the January 8, 2002 Federal Register (67 FR 825). MACT Standards should be incorporated into the Title V permit. Sources that are responsible for meeting a MACT standard must do so regardless of whether a permit has been issued.
3. State Toxic Regulations – Virginia's "Standards of Performance for Toxic Pollutants" (state toxics rules) are found in 9 VAC 5 Chapter 60 Article 4 (9 VAC 5-60-200 et seq.) [existing sources] and 9 VAC 5 Chapter 60 Article 5 (9 VAC 5-60-300 et seq.) [new and modified sources]. The state regulations were established prior to 1990 and are health based. The state toxic regs have not been incorporated into the SIP, and therefore terms and conditions derived from or designed to implement the state toxics regulations are not federally enforceable under 9 VAC 5-80-1120 F.1.
4. New and Reconstructed HAP Major Source Regulation (112(g)) - Virginia's regulation "Permits for New and Reconstructed Major Sources of Hazardous Air Pollutants" is found in 9 VAC 5 Chapter 80 Article 7 (9 VAC 5-80-1400 et seq.). This regulation pertains to case-by-case MACT determinations and is Virginia's regulation for implementing §112(g) of the CAA. This regulation applies only if a source is constructing or reconstructing an affected source which has a potential to emit (pte) of 10 tpy of a single HAP or 25 tpy of multiple HAPs **AND** a MACT standard has not been promulgated. Virginia Policy 99-1007 provides guidance on implementing this regulation and can be found in Appendix XX.
5. Application for Federal Hazardous Air Pollutant New Source Review - Article 6 is the implementing regulation for most of the federal hazardous air pollutant new source review programs (9 VAC 5-80-1120 H.). The exceptions to this are sources that fall under 9 VAC 5-80-1400 (112(g) Case-by-case MACT) or 9 VAC 5-60-120 (112(j) Case-by-Case MACT). Application requirements for the federal new source review program are different from the Article 6 application requirements (9 VAC 5-80-1120 H.). What must be

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included in an application for the federal hazardous air pollutant NSR is prescribed in §63.5 of the Part 63 General Provisions. A list of what should be included is in Appendix XX. Issuing a permit under Article 6 is equivalent to issuing a "Notice of MACT Approval".

### **B. Regulated Toxics**

In the state toxic regulations (9 VAC 5 Chapter 60 Articles 4 and 5), the term "toxic pollutant" is defined as follows:

*"...any air pollutant listed in §112(b) of the CAA as revised by 40 CFR 63.60, or any other air pollutant that the board determines, through adoption of regulation, to present a significant risk to public health. This term excludes asbestos, fine mineral fibers, radionuclides, and any glycol ether that does not have a TLV®."*

The list of HAPs includes source categories of HAPs such as chromium compounds, cyanide compounds and polycyclic organic matter (POM). Under the state toxics regs, each individual compound with a TLV, if available, should be evaluated separately. For example, if one of the lead compounds is lead chromate, then you would use the specific TLV in the 1991-1992 edition of the American Conference of Governmental Industrial Hygienists (ACGIH) Handbook for lead chromate to determine the exemption level and not the value for lead compounds. This is different than the way HAP source categories are treated for the purpose of determining applicability under the MACT program and Title V. For purposes of Title V, when determining if a source is major for HAPs, the emissions of all the compounds would be aggregated together and treated as a single HAP. For example, if the source is emitting multiple glycol ethers, the summation of the emissions from all the glycol ethers would be used as the value for glycol ether, and if this number is over the 10 tpy major source threshold, then the source would be considered major for HAPs.

Under §112(b), elemental lead is not a HAP (§112(b)(7)), but lead compounds are considered HAPs. EPA may revise the list of pollutants and did so in 1996 when they delisted caprolactam. If a HAP is delisted from or added to the federal list, it is also delisted from or added to the Virginia list. The original Virginia list was not based on the CAA and included more compounds than the current list, and some of those compounds are no longer regulated as toxics. See the 1996 Acetone/Acetic Acid Guidance document for how to deal with permit conditions for chemicals which have been delisted in Virginia.

### **C. Exemptions for Toxics**

1. NESHAP - Sources subject to 9 VAC 5 Chapter 60 Article 2 (9 VAC 5-60-60 et seq.) are not exempt from permitting, with the exception of those that are subject only to the reporting and/or recordkeeping requirements. Exemption from applicability to a specific NESHAP should be determined by reviewing the subpart.



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2. MACT - The portions of a stationary source subject to a promulgated MACT or a case-by-case MACT determination are exempt from the state toxics rule. Major HAP sources without a promulgated MACT standard that are being constructed or reconstructed may be subject to a case-by-case MACT determination and the provisions of 9 VAC 5 Chapter 80, Article 7 (9 VAC 5-80-1400 et seq.) would apply. (See Section F.) MACT sources that are being constructed or reconstructed are subject to the federal HAP new source review program and are required to get a NSR permit. HAP sources that are considered existing under the MACT are NOT required to go through the NSR process. Exemption from applicability to the MACT should be determined by reviewing the specific subpart of 40 CFR Part 63. Questions regarding the applicability of minor NSR permitting to existing HAP sources should be directed to OAPP.
  
3. State Air Toxics - The permit exemption levels for toxic pollutants with established TLVs are based on hourly and/or annual uncontrolled emissions calculated by the formulas referenced by 9 VAC 5-60-200 and 9 VAC 5-60-300. Virginia uses the TLVs published in the 1991-1992 ACGIH Handbook (9 VAC 5-20-21.E.6.a under Documents incorporated by reference). For toxic pollutants without an established TLV, the permit exemption levels are to be determined by the Board using available health effect information. Contact the OAPP Toxics Section if no TLV is available. If the toxic emissions are determined to be above the calculated 9 VAC 5-60-300 exemption levels, then the Predicted Ambient Air Concentration (PAAC) for the source must be determined using air dispersion modeling. The PAAC should not exceed the Significant Ambient Air Concentration (SAAC) which is determined by the formulas in 9 VAC 5-60-230 and 9 VAC 5-60-330. The SAAC is the concentration of a toxic pollutant in the ambient air that, if exceeded, may have the potential to injure human health.
  - a. Under the state toxics rules, certain categories of sources are exempt from 9 VAC 5-60-300. These include:
    - i. if the pollutant has a TLV and the toxic emission rate (PTE) is less than the exemption levels in Appendix FF as calculated according to 9 VAC 5-60-200 C.1. or 9 VAC 5-60-300 C. 1.;
    - ii. if the pollutant does not have a TLV, and the Board has determined by using available health effect data that it does not pose a risk;
    - iii. Part 61 NESHAPs
    - iv. if MACT (including case-by-case MACT) applies to the source;
    - v. if a source is part of a MACT source category that has been delisted (the Revised Source Category List is on DEQNET);
    - vi. a boiler, incinerator, or industrial furnace burning hazardous waste as defined 9 VAC 20-60-10 (haz waste regs) and is subject to 9 VAC 20-60 and meets a 99.99% control efficiency and has received a permit under 9 VAC 20-60;
    - vii. boilers and generators burning only natural gas, #2 fuel oil, #4 fuel oil, #6 fuel oil, propane or kerosene;

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- viii. consumer products; or
  - ix. application of pesticides.
- b. Certain sources are **never exempt from permitting** (9 VAC 5-80-1320 E.2). They include:
- i. Incinerators, unless used exclusively as air pollution control equipment
  - ii. Ethylene oxide sterilizers
  - iii. Hazardous waste boilers/furnaces

### **Example 10-1 - Exemptions**

A large printing facility, which does hard chromium electroplating, is replacing a tank in the electroplating process. Is the source subject to the state toxics regs and is a NSR permit for toxics required?

#### **A. No to Both Questions.**

The MACT for chromium electroplaters (40 CFR Part 63 Subpart N) was promulgated on January 25, 1995. Since there is a promulgated MACT standard (§112 standard), the state toxic regs no longer apply (9 VAC 5-60-300 C.4.). A NSR permit is not required for HAP purposes because the replacement of a tank under the MACT is not considered a construction or reconstruction of the affected source (clarification in June 5, 2002 Federal Register notice). Since the tank is considered existing under the MACT, the federal hazardous air pollutant federal new source review program does not apply (§63.5) and no NSR permit is required (9 VAC 5-80-1320 F.).

**Example 10 - 2 - Exemptions**

The same printing facility decides to replace the entire plating system instead of just the tank. Do the state toxic regs apply and is a NSR permit required?

**A. No to Question 1 and Yes to Question 2.**

Once again, since the MACT has been promulgated, the state toxics regs do not apply (9 VAC 5-60-300 C.4). However, under this scenario, the source would be considered constructed and the federal hazardous air pollutant new source review program would apply (§63.5). 9 VAC 5-80-1120 H. states that *"For sources subject to the federal HAP NSR program, the provisions of the federal HAP NSR program shall be implemented through this article and the applicable article of 9 VAC 5-60-10 et seq.)"*. In addition, the conditions of 9 VAC 5-80-1320 F. are not satisfied (no exemption for the project from 40 CFR 63) and there is no exemption from Article 6. Therefore, a NSR permit would be required.

**Example 10- 3 Exemptions**

A new asphalt concrete plant is being built with estimated total HAP emissions of 25.1 tpy. What HAP emission conditions would be incorporated into a permit?

**A. None**

The asphalt concrete manufacturing source category was delisted in the February 12, 2002 Federal Register. Since it is a deleted category, the state toxics regs would not apply (9 VAC 5-60-300 C.5.) and 112(g) case-by-case MACT would not apply (9 VAC 5-80-1400 F.) Although a permit would not be required as a result of the HAP emissions, the source could still require a permit based on criteria pollutant emissions.

## D. Estimating Emissions – Uncontrolled and Potential Emissions

1. Uncontrolled Emissions. Uncontrolled emissions are based on operating without air pollution control equipment at maximum design capacity. Uncontrolled emissions are generally used for determining permit applicability under 9 VAC 5-80-1320 E.1., when applicable.
2. Potential Emissions. Potential to emit takes into account permit conditions and air pollution control equipment. Hourly and annual exemption levels are calculated using the formulas in 9 VAC 5-60-300 C and are found in **Appendix FF**. Once a permit has been determined to be required, potential emissions of the source should be compared to these exemption levels in determining state toxic rule (9 VAC 5-60-300) applicability. If potential emissions exceed the relevant exemption levels, then the permit should include both operational and emission limitations and modeling for SAAC compliance should be performed (See Section D. below).

### **Example 10-4**

A permit application calls for installation of a baghouse on a process, which emits cadmium. The permit exemption levels for cadmium are 0.0033 lb/hr and 0.00725 tpy. Uncontrolled emissions of cadmium (without the baghouse) are calculated to be 0.01 lb/hr and 0.02 tpy; therefore, the process must be permitted. Once the permit is written and the baghouse is required, potential to emit becomes 0.0001 lb/hr and 0.0002 tpy. Cadmium emissions are neither modeled nor included as an emission limit. However, permit conditions should require the baghouse and specify removal efficiencies (if applicable) or other relevant operating parameters.

Toxic emission rates should be specified by the source on pages 6 and/or 15 of DEQ's Form 7 application. Try to verify the emission rates against a Certified Product Data Sheet (CPDS), Material Safety Data Sheet (MSDS) or other reliable indicator of toxic components. If you have doubts as to the accuracy of the information provided, check with the supplier of the material in question.

## E. Procedures for Calculation and Modeling

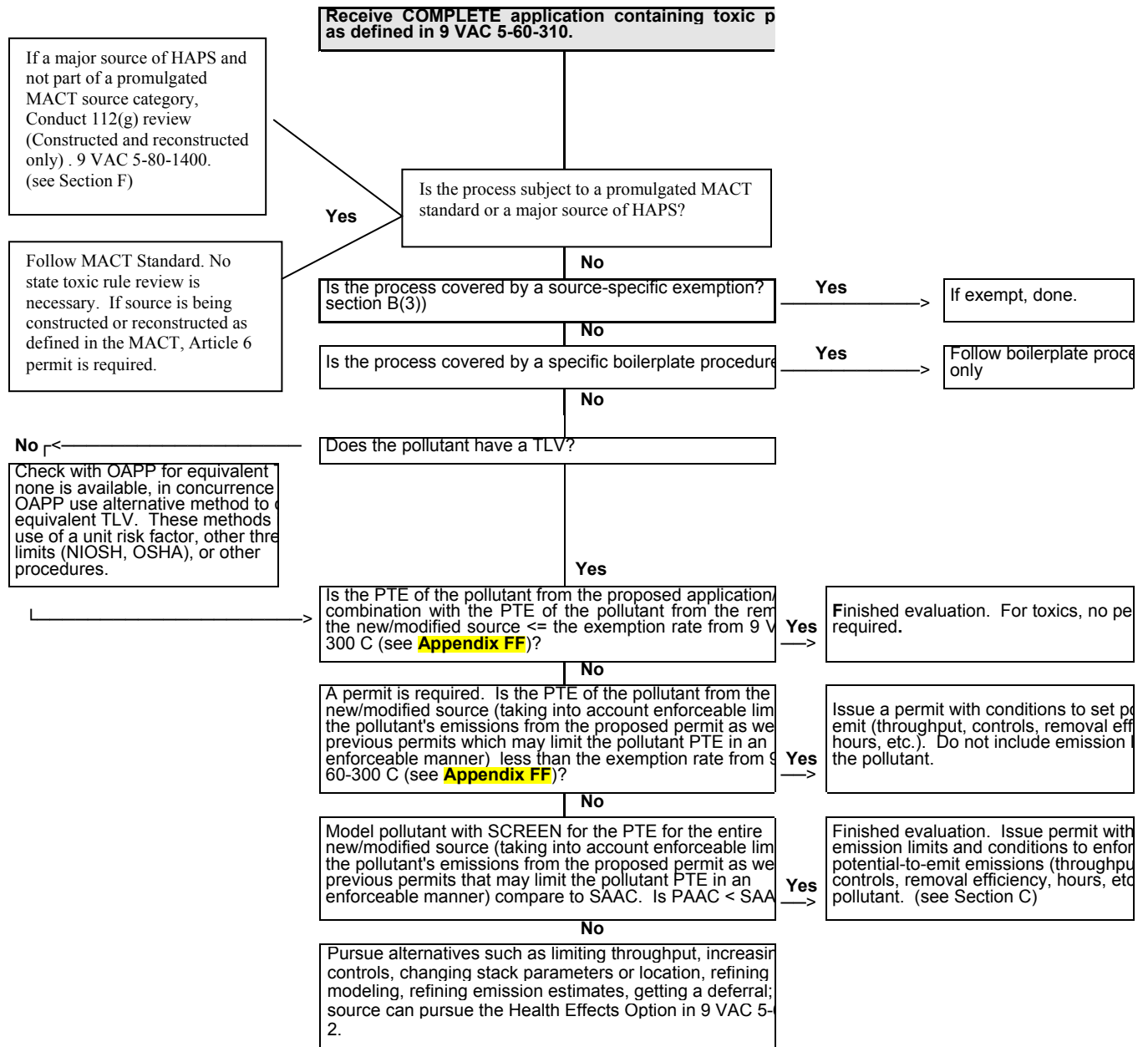
The agency exempts from modeling requirements any emissions unit with potential emissions less than exemption levels in 9 VAC 5-60-300 C, as found in **Appendix FF**. If those exemption levels are exceeded, then a SCREEN model should be conducted by the permit engineer. The SAAC for each pollutant of concern can be determined by 9 VAC 5-60-310, as found in **Appendix FF**. If SCREEN modeling shows the PAAC to be greater than the SAAC, even after modifying the process parameters (i.e., raise stack height, reduce production rate, etc.) to achieve the lowest emission rates, then refined modeling is needed. Refined models, such as ISCST3, ISC-PRIME or AERMOD, should be used and the modeling conducted by the applicant using an approved

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protocol. **All emissions of a specific pollutant at the facility should be used in calculating the PAAC.** For example, if modeling emissions of HCl from a process and a boiler emitting HCl is also located at the facility, then those HCl emissions must be included in the modeling. Also, any residual emissions after control, such as after a MACT has been applied, must also be used in the modeling of the PAAC.

# Toxic Air Pollutants

Figure 10-1 State Toxics Review General Flow Chart.



**NOTE:** For each pollutant covered by the state toxics regs, evaluate those with a TLV-STEL or TLV-TWA on an hourly AND annual basis. Evaluate those with a TLV -CEILING on an hourly basis only.

## F. Eliminating State Toxic Conditions from NSR Permits

Some existing NSR permits may contain toxic emission limits that, if permitted today, would be exempted under the revised state toxic regs (9 VAC 5-60-200 and 5-60-300). Despite the new exemptions, these limits must be removed from the NSR permit through a Minor Permit Amendment (9 VAC 5-80-1280 C.) before the state toxics requirements are void.

### **Example 10-5 -Removing State Toxic Conditions**

A major HAP facility produces photographic chemicals and comes in for an Article 6 permit. The facility will be covered under the Miscellaneous Organic NESHAP (MON) which has been proposed but has not been promulgated. Since the standard is not final, a state toxics review is required. In the permit, the facility's emissions of hydroquinone are limited to 0.4 tpy. Six months after the permit is issued, the MON becomes final and the hydroquinone process is covered in the MACT. Since 5-60-300 C.4. applies, does the facility have to meet the 0.4 tpy limit.

#### **A. Yes**

Although the MACT is final, the Article 6 permit still has an enforceable limit of 0.4 tpy on the hydroquinone process. In order to eliminate that limit, a minor permit amendment (9 VAC 5-80-1280 C.) must be used to remove the limit from the valid NSR permit. Once that limit has been removed, only the MACT applies to that process. This is an existing source, and the requirements of the MACT do not have to be incorporated into the Article 6 permit but will be included in the source's Title V permit. The requirements of the MACT are applicable even if a permit with specific MACT conditions has not been issued.

### **Example 10 - 6 - Eliminating State Toxic Conditions**

In 1996, a 150 MMBtu/hr natural gas fired boiler was issued a NSR permit. During the permitting process, it was determined that several toxics exceeded the exemption levels. In order to ensure compliance with the relevant SAACs (as well as the criteria pollutant limits) the source was given fuel throughput limits. In 2003, the source requests to increase the permitted fuel throughput limits. Should the toxics be reevaluated with the new throughput limits?

#### **A. No.**

The revisions to the state toxics regs added an exemption for boilers that burn only natural gas (9 VAC 5-60-300 C. 7.). Since the permit is being opened to change the throughput limits, the state toxics requirements can be eliminated from the permit at that time.

**Example 10 - 7 - Eliminating State Toxic Conditions**

Assume the source in Example 10 - 6 requests the removal of the state toxic limits without making any changes to the throughput or any other parameter. Can those limits be removed?

A. Yes.

Since the revised state toxics rule includes an exclusion of boilers burning only natural gas (9 VAC 5-60-300 C.7.), these limits can be removed from the Article 6 permit using a minor permit amendment (9 VAC 5-80-1280 C.).

**G. Section 112(g) Case-by-Case MACT Determinations in NSR Permitting**

The regulation for case-by-case MACT determinations is found at 9 VAC Chapter 80, Part II, Article 7 (9 VAC 5-80-1400 et seq.). This is the Virginia regulation that implements §112(g) of the CAA. A case-by-case MACT determination is necessary when a major HAP source is constructed or reconstructed and a MACT standard has not been promulgated. The source does not have to be on the source category list under §112(c) of the CAA for the case-by-case rule to apply. If a MACT has been proposed but has not been promulgated, then the requirements for new sources under the proposed MACT should be used as the basis for making the case-by-case determination. The implementation guidance for Section 112(g) is included in **Appendix ??**. If you have further questions on how to handle a case-by-case MACT situation, contact the Central Office Air Toxics Section.

**Example 10 - 8 - Case-by-Case MACT**

A glass manufacturer is building a new facility. The total emissions of HF are 15 tpy. Is a case-by-case determination required?

A. Yes.

Glass manufacturing has never been on the §112(c) list of source categories, however, the facility being constructed is a major source of HAPs (>10 tpy HF). Since the facility being constructed is major for HAPs, and no MACT standard has been promulgated, 9 VAC 5-80-1400 et seq. would apply and a NSR permit, with a case-by-case MACT determination, would be required.



**Example 10- 9 - Case-by-Case MACT**

In February 2003, a facility installed a reciprocating internal combustion engine (RICE) with predicted formaldehyde emissions of 2 tpy and total HAP emissions of 2.5 tpy. The facility has total HAP emissions of 27 tpy. The MACT for Stationary Reciprocating Internal Combustion Engines was proposed on December 19, 2002, but has not been promulgated. Is a case-by-case MACT determination required?

**A. No.**

In this scenario, what is being added, or constructed (the RICE) is not, in and of itself, major for HAPs. Although the entire facility is major, only the HAP emissions for what is being constructed or reconstructed are used to determine if §112(g) applies. However, since the facility is major for HAPs, when the MACT is promulgated, the RICE will have to meet the requirements in the MACT for new sources on the promulgation date. The MACT requires that sources that commence construction after the proposal date (12/19/02) are considered new and if the RICE is started up prior to the promulgation date, it must be in compliance on the promulgation date (§63.6590(a)(2) and §63.6595(a)(2)).

**H. Section 112(j) Case-by-Case MACT Determinations**

The regulation for "Control Technology Determinations for Major Sources of Hazardous Air Pollutants" can be found in 9 VAC Chapter 60, Part II, Article 3 (9 VAC 5-60-120 et seq.). This regulation applies when EPA has missed the statutory deadline for promulgating a MACT standard by more than 18 months. This is commonly referred to as the "MACT Hammer". If the "Hammer" falls, states will be required to make case-by-case

### Toxic Air Pollutants

MACT determinations for existing sources within a source category. The original Hammer date was May 15, 2002, but EPA amended the General Provisions, and the Hammer date has been extended based on the projected promulgation date for individual MACTs. This extension should limit, if not eliminate, the necessity of doing a 112(j) case-by-case MACT determination.

Additional documents that may be helpful but are not included as an Appendix:

April 23, 1996 - Acetone, Acetic Acid Policy

Jan. 30, 1992 - Gasoline Policy

Dec. 27, 1988 - Policy for Formaldehyde Emissions Estimates

## **Chapter 11- Permit Conditions**

### Chapter Topics

DEQ Permit Writing Philosophy  
Standards for Issuing Permits  
Permit Consistency  
Enforceable as a Practical Matter  
Source-wide Permit  
Single-resource Permit  
Permit Contents  
Boilerplates and Boilerplate Procedures  
Individual Permit Conditions

#### **A. DEQ Permit Writing Philosophy**

In addition to issuing permits in a timely manner, permits issued pursuant to Chapter 80 of the regulations will be written with six objectives in mind:

1. Permits must meet all of the applicable regulatory “standards for issuing permits”.
2. Permit must be “enforceable as a practical matter”.
3. Permits must be consistent with other similar permits issued contemporaneously across the state, insofar as source type and individual source differences allow.

And, to the maximum extent possible, permits will:

4. Be a source-wide permit. The new NSR permit will subsuming the requirements from, and supersede, all other NSR Permits and State Operating Permits applicable to the source.
5. Be a single-resource document, sufficient in itself for all compliance purposes. The permit will contain all of the requirements within the permit without referring to additional requirements outside the permit.
6. Contain conditions that are clear, concise and unambiguous.

## B. Standards for Issuing Permits

1. Important points to remember, when writing permits:
  - a. No permit may be granted to a source unless it can be shown that the source will comply with certain standards (9 VAC 5-80-1180 A):
    - i. The source will be designed, built and equipped to comply with the applicable regulatory standards from Chapter 50 and 60, including BACT, visible/fugitive emissions and dust, odor, toxics and applicable federal NSPS, NESHAPS and MACT standards.
    - ii. Sources subject to HAP NSR will be designed, built and equipped to comply with permitting requirements under Chapter 60, Article 3 and to meet the applicable NESHAPS or MACT requirements.
  - b. The source will be designed, built and equipped to operate without:
    - i. Interfering with attainment for an ambient air standard,
    - ii. Interfering with the maintenance of an ambient air standard,
    - iii. Causing a violation of an ambient air standard, or
    - iv. Making a violation of an ambient air standard worse.
2. Permit Contents. The regulations specifically require that permits contain any or all of the following conditions that are necessary to ensure that emission levels are enforceable as a practical matter:

- a. Specifications for permitted emission units and air pollution control equipment (9 VAC 5-80-1180 D.3 and 4 ) (Read the discussion of informational vs. enforceable equipment specifications in paragraph B.3 below);
  - b. Enforceable emission limits or emission standards (9 VAC 5-80-1180 D.1) expressed as level, quantity, rate or concentration. Such emission standard may prescribe any one or a combination of: equipment standards, work practice standards, fuel specification standards, process material (or product) standards, maintenance standards or operations standards (9 VAC 5-80-1180 C.1 and 3) as a supplement to, or as an alternative to an emission limitation. (See the discussion in paragraph 5 below.)
  - c. Sufficient additional permit conditions as necessary to ensure that those emission limits/standards are enforceable as a practical matter, including, but not limited to: limits on material throughput, production, and fuel sulfur content; control device limits on control efficiency, removal and overall control efficiency; control device operating parameter and maintenance requirements; stack testing, recordkeeping, continuous emission or air quality monitoring, and any other necessary compliance provisions (9 VAC 5-80-1180 D.2 and 5 through 10).
3. Enforceable Emission Unit and Control Equipment Specifications. While the regulation states that the specifications for the existing and permitted emission units and control equipment (normally found in paragraph 2 of the permit) are only for identification and informational purposes, in most cases the hourly capacity rating or the design efficiency of the equipment is the only basis for compliance with short term emission limits. Unless there are other means of compliance with short term emission limits in subsequent permit conditions, those specifications must be made enforceable. This may be accomplished with a separate enforceable condition restating the relevant parameter as an equipment or operational standard.
4. Use of Emission Caps. Enforceable emission caps can be used for many purposes including, for example,:
- a. Ensuring that the affected source does not emit pollutants from a facility, which in aggregate, would cause or contribute to a real or modeled exceedance of an ambient air standard such as a NAAQS or a SAAC.

- b. Ensuring that an applicability determination remains valid for a source avoiding more a more restrictive review process or the application of more restrictive standards or control requirements (i.e. Major Source NSR, MACT, NSPS, or BACT).
  - c. Limiting source-wide emissions from certain complex source types for which evaluation of emissions on an emissions unit-by-emissions unit basis is impossible. For instance, emissions from stone crushing and processing plants vary with stone size. Emissions may more easily be evaluated using emission factors based on average plant-wide throughput rather than throughput on an emission unit-by-emission unit basis.
5. Use of Alternative Emission Limits. 9 VAC 5-80-1180 C.3 explicitly allows the use of alternative emission standards in lieu of emission limits. However, in order for the permit to be “enforceable as a practical matter” (according to the definition) it must “contain emission limitations that are enforceable by the board...”.

Minor process changes (such as changes in coating specifications, the retention properties of a substrate, changes in the diameter or length of hangers in a coating line, or even changes in building temperature and humidity) can make a large difference in the potential-to-emit of emission units. The effects of these changes are very difficult to limit in terms of alternative emission standards such as work practices and operational standards.

In all cases, the regulatory prohibition against a standard resulting in emission rates exceeding the calculated PTE must be taken as the overriding concern. For this reason, emission standards should normally be a supplement to, not an alternative to, emission limitations.

However, there are certain situations in which emission limitations are not, by themselves, enforceable. In such situations, alternative emission standards may be the only enforceable limits possible, such as a situation in which it is not technically possible to quantify emissions by testing or emission monitoring (such as open flare emissions, or fugitive road emissions). However, the cost of emission capture, control, testing and monitoring should not be mistaken for technical infeasibility. The permit should still contain the estimated emission limits for information/database purposes, but they should be clearly flagged as informational only, and the enforceable alternative standard identified as the condition to be used for compliance purposes.

### **C. Failure to meet the standards for issuing a permit.**

If a source fails to demonstrate through their permit application that the standards for granting a permit are met, then a permit cannot be issued.

1. Denials of permits are discouraged in favor of issuing a permit with the requirement necessary to meet the standards for issuing permits. Faced with a situation in which the permit can not be issued for the facility as proposed, the permit writer should:
  - a. Contact the owner's representative, explain the reason that a permit can not be issued, and attempt to resolve the conflict. It is the owner's responsibility to come up with a solution and amend the permit application so that a permit can be issued for the project.
  - b. If the owner can not or will not amend the application so that a permit can be issued in accordance with the regulatory standards, the owner should be given to option of withdrawing the application in lieu of receiving a permit with unacceptable conditions.
  - c. If the owner fails to either amend or withdraw the application, the permit may be approved with the necessary conditions imposed upon the source so that a permit can be issued. 9 VAC 5-170-160 authorizes DEQ to impose conditions on permits that may be necessary to carry out the policy of the Virginia Air Pollution Control Law consistent with the regulations approved by the board. The owner may consider any condition imposed by DEQ as a denial of the permit, and appeal the permit/denial decision.

### **D. Permit Consistency**

The DEQ permitting philosophy is based upon creating "a level playing field" (to the maximum extent possible consistent with individual source differences) by applying permit standards, and permit requirements consistently across the state.

State-wide consistency can be maximized by following some simple guidelines:

### **E. Use the boilerplates and boilerplate procedures to draft a permit.**

Use each of the applicable boilerplates to write the permit, according to each of the applicable boilerplate procedures documents.

1. Drafting the permit in MS Word format:

- a. Creating a Word boilerplate merge file by cutting and pasting the applicable conditions from the generic and source-specific boilerplates into the boilerplate skeleton in accordance with the instructions in K:\agency\air\_permitting\Boilerplates\Conditions\1INSERTPRO.doc. Fill out the MERGEWRD.doc file as instructed in the 1INSERTPRO.doc instructions. Merge the two files as instructed, or
  - b. Create the permit in CEDS.
2. Handling deviations from the boilerplate:
- a. Use the boilerplate language to the maximum extent possible. The boilerplate language was developed through an arduous review process by the most experienced permit writers and compliance people in Virginia, to reflect the regulatory requirements as accurately as possible, to be as concise and readable as possible, and to reduce ambiguity as much as possible. The result is a boilerplate for producing the clearest and most enforceable permit possible. If you have language that you feel is better, submit it for review and inclusion into the boilerplate. But what is clear, accurate, concise and unambiguous to you, may not be interpreted the same way by someone else.
    - i. Even though conditions in brackets or preceded by [O] are optional, if they are used, the boilerplate language should be retained.
    - ii. Fill in blanks with appropriate descriptions and language. Use other permits to get a feel for what information goes in the blanks, and how it should be phrased.
  - b. Document each deviation from the boilerplate in the statement of basis for the permit (generally a Minor Source checklist or an full Engineering Analysis document required by your regional office to support and document the permit application analysis and review):
    - i. Document any omission of a required condition in a boilerplate.
    - ii. Document reasons for deviating from the applicable procedures for any boilerplate that is used.
    - iii. Document and substantive changes in permit language.
    - iv. Resist requests from sources to alter the boilerplate language. Most such requested changes either change the requirement



entirely, or alter the meaning of the requirement, or otherwise make the permit less enforceable. On the other hand, each source is unique, and sometimes it isn't possible to do something in a way that fits a boilerplate condition. When determining how to adapt a requirement to a particular source:

- (A) Differentiate between "inconvenient" and "impossible".
  - (B) Be mindful that if the specific boilerplate requirement is a regulatory requirement, it may take a source specific SIP revision to accommodate the source. Such deviations require review and approval by EPA.
  - (C) Consult with regional experts and OAPP to find a solution that meets the regulatory requirements, is enforceable, and still makes sense for the individual source.
- v. When two similar conditions from two boilerplates differ in language or content, pick the one that is best according to your judgement. You should document the boilerplate source (where you got it), but it is not necessary to explain why.
- vi. Change verb tenses, improper articles, etc. as necessary to correct grammar. (Don't document such changes.)
- c. Add any necessary conditions that are unique to the source as follows (given in decreasing order of preference):
- i. Use language that is as similar to the actual regulatory requirements as possible. Use identical language if possible. Resist the temptation to briefly restate the requirement, because this is a source of error.
  - ii. Adapt permit conditions from other boilerplates instead of writing an original condition, if possible.
  - iii. Use wording from other recent permits for similar sources that have similar unique requirements.
  - iv. As a last resort, draft an original condition using language and style similar to other permit conditions. Use "shall" instead of "will" or "must". Make sure that there is a means of demonstrating compliance with the new requirement specifically identified in the permit. It should include:

- (A) A means of demonstrating initial compliance and continuing compliance on a periodic basis.
- (B) Any testing requirements necessary to support the initial or continuing compliance requirements. Specify the applicable reference test methods, and the submission of test protocols and test reports
- (C) Any monitoring requirements necessary to support the continuing compliance requirements.
- (D) Appropriate recordkeeping requirements necessary to document compliance with the requirement.
- (E) Any reporting that is necessary to ensure that all deviations are known, documented and appropriate corrective action taken.
- (F) Include the regulatory authority for the requirement, first by the Virginia regulation and then, if necessary, by the federal regulation.

**F. Compare the draft permit against permits issued recently to similar sources.**

These sources should be of the same source type, and approximately the same size operation, and should have been were permitted within the state in the last few years. If possible, include in the comparison at least one permit issued from another DEQ regional office.

1. To the extent that BACT is required for the source applying for a permit, BACT should be equivalent to the most restrictive control technology that is technologically and economically feasible, and which has been determined to be BACT in a permit for a similar source of that source type.
2. If special permit conditions are required for this source type that are not prescribed in the applicable boilerplates, attempt to use wording for those requirements similar to those used in the recent permits issued other for sources recently permitted within the state.

**G. Enforceable as a Practical Matter**

The obvious intent of 9 VAC 5-80-1180 B, C and D is to ensure that all permits are enforceable as a practical matter. Permit conditions that are not “enforceable as a

practical matter” are not state or federally enforceable and so are also useless for demonstrating compliance.

1. In order for a permit to be “enforceable as a practical matter”, it must contain emission limitations that meet the following criteria:
  - a. The emission limitations are permanent.
    - i. They cannot be temporarily increased as a condition of the permit (such as an alternate operating scenario allowing emissions greater than the permitted emission standards or limits).
    - ii. Emission limits may not be increased without subjecting the source to additional permit review.
  - b. They contain a legal obligation for the owner to adhere to the terms and conditions.
    - i. The authority for requiring compliance with the terms and conditions of the permit originates in the Code of Virginia, and is based on requirements of that Code and regulations adopted in accordance with the Code and the Administrative Process Act.
    - ii. The law or regulation specifies that the owner is responsible for compliance with the requirement.
  - c. The emission limitations do not allow a relaxation of a requirement of the implementation plan.
    - i. Once a provision of law or regulation is accepted by EPA as part of the State Implementation Plan (SIP), any term or condition that does not comply with that law or regulation must be submitted to, and approved by, EPA as either a general or source-specific revision to that implementation plan.
    - ii. Procedures for approving certain deviations from the State Implementation Plan requirements may be provided for within the applicable law or regulation. Deviations from federal requirements must also be approved by EPA, unless EPA has specifically delegated that authority to the state.
    - iii. Any changes to a source-specific revision to the implementation plan, must be submitted to, and approved by, EPA until the source complies with the existing general provisions of the implementation plan.

- iv. No permit may be granted unless the source can be operated without causing a violation of applicable portions of the regulations or the State Implementation Plan (9 VAC 5-80-1180 A.4).
- 2. The emission limitations are technically accurate and quantifiable.
  - i. DEQ has the authority to require the source to conduct testing as necessary to ensure that the emission limitations are technically accurate and quantifiable (9 VAC 5-50-30 G).
  - ii. If the source cannot be shown to be designed, built and equipped to comply with the appropriate standards of performance, the permit can not be issued (9 VAC 5-80-1180 A.1).
- 3. The emission limitations must include averaging times (or other provisions), consistent with the implementation plan, which allow at least monthly (or shorter) checks on compliance.
  - a. Short term emission limits for criteria pollutants will be stated in terms consistent with the primary NAAQS averaging times (or shorter periods) as follows :
    - i. SO<sub>2</sub> : Each 24-hour period.
    - ii. CO : Each 8-hour period.
    - iii. Ozone (VOC): Hourly.
    - iv. Particulate: Each 24-hour period.
    - v. Nitrogen Dioxide: Annually.
    - vi. Lead: Each calendar quarter.

It is common for short term emission limits to be stated in terms of hourly emission rates, because it meets the most restrictive averaging time (for VOC). Alternatively, the short term emission limits may be expressed in terms of emission ratios (such as lb/mmBtu) or concentrations (ppmvd) as long as enforceable conditions exist in the permit pegging the averaging times of these limits to averaging times equal to or shorter than those of the standards.

In most cases, enforceable hourly rated capacities, combined with sufficient specifications for fuel, raw material or product, will be sufficient to demonstrate compliance with these short term limits. Where longer averaging times are selected, the means of compliance with the short term limits should also reflect the altered averaging interval.

- b. Short term limits for other pollutants should reflect the standards upon which the limits are based. Short term emission limits for toxics should be in terms of pounds per hour, to reflect the one-hour concentration basis upon which the SAAC is calculated.
- c. Long term emission limits are necessary to limit the potential-to-emit for BACT and permit applicability purposes. For this reason, these limits are usually expressed in tons of emissions of the particular pollutant per year, although limits for a shorter period, such as by calendar month or calendar quarter are also meaningful for the same purpose. However, compliance with all of these long term limits must be demonstrated on a monthly, or shorter term, basis.

The most common means of demonstrating compliance with annual emission limits is by means of a monthly determination of the sum of emissions over the previous 12 calendar months. Other options include monthly compliance with monthly limits, or compliance on a shorter term rolling basis, such as daily compliance on an annual rolling basis or monthly compliance on a quarterly rolling basis.

- 4. The permit must require a level of recordkeeping, reporting and monitoring sufficient to demonstrate compliance on the same basis as the limits.
  - a. The permit must specify how compliance is to be determined, both initially and periodically thereafter.
    - i. The initial compliance determination usually takes the form of an emissions (stack) test to demonstrate compliance with emission standards/limits and emission control requirements (capture efficiency, removal or destruction efficiency, and/or overall control efficiency). If particulate is one of the emitted pollutants, a visible emissions evaluation (VEE) is also required.
    - ii. In permits where there is a high degree of compliance assurance inherent in the applied control technology (such as with newer diesel engine designs and most new fabric filter control devices) an initial VEE alone might be sufficient to demonstrate initial compliance. In some cases in the past, no check on initial compliance might have been required. More recently, the more restrictive Title 5 periodic monitoring requirements have made a careful review of compliance assurance necessary during the NSR review process, and some sort of initial and periodic compliance determination is usually required of the source as a result.
    - iii. Requirements for continuing compliance are also highly dependent on the degree of compliance assurance inherent in the control technology. Factors such as operational reliability,

corrosion sensitivity, and the availability of clear indicators of poor function must be considered. In some cases, annual stack testing and quarterly RATAs may be required to provide the necessary reasonable assurance of compliance. In other cases, continuous monitoring devices (with appropriate QA) may be required. Where a high degree of inherent compliance assurance exists, weekly checks of visible emissions or daily monitoring of scrubber solution pH and flow may be sufficient.

- iv. In all cases, record-keeping is required as part of compliance determination. A record of every demonstration of compliance, of every parameter that is required to be tested or monitored for compliance, must be kept. These records may include monthly totals of raw material throughput, product input, or fuel consumption. Records of all calculations of rolling annual throughput totals, and calculations of rolling annual emissions, used as demonstrations of compliance with throughput limits and emission limits should be kept, as well as any calculations of total and speciated HAP emissions. Monitoring and record-keeping requirements in a permit should be pegged to the averaging periods for the underlying applicable requirements with which compliance is being tracked.

## **H. Source-wide Permit**

There is no regulatory requirement for DEQ to combine all of a source's permit requirements into a single enforceable document. However, 9 VAC 5-80-1120 D and E provide DEQ with the authority to do so. A single permit simplifies compliance demonstration for the source, and makes compliance determination simpler and easier for DEQ compliance inspectors. Unless a source objects, whenever an application for an NSR permit is submitted and DEQ determines that the proposed change is subject to Minor NSR permitting requirements, DEQ will consolidate all existing NSR and SOP permit requirements into a single source-wide NSR permit, and supersede all previous NSR and SOP permits for that source.

## **I. Single-resource Permit**

There is no regulatory requirement for DEQ to refrain from incorporating applicable requirements into the permit by reference. However, doing so complicates compliance by requiring the source to find the requirement in another document, to evaluate the applicability of the referenced requirement, and to determine how compliance with that requirement is to be demonstrated. Once, a permit is compromised by such a reference, the reader is forced to figure out how many of the applicable requirements exist only in the referenced document. Are the recordkeeping requirements in the permit complete or are there additional recordkeeping requirements imposed in the referenced document? Monitoring? Reporting? Although the drafting the permit may

become simpler, compliance demonstration (by the source) and compliance determination (by DEQ) becomes more difficult.

In order that DEQ air permits be one-resource documents, permits will, insofar as possible, explicitly state all applicable requirements in the permit. When that requirement interferes with other permit writing priorities (the resulting conditions are no longer clear, concise, and unambiguous), the permit writer may resort to referencing the outside document, but will do so by incorporating only the specific applicable requirement by reference. The attendant compliance requirements should either be stated explicitly in the permit or referenced individually so that there is no question of which requirements are applicable. General references, such as "Comply with the requirements of 40 CFR, Subpart Dc" will not be used.

## **J. Permit Contents**

1. A complete permit package consists of:
  - a. A cover letter transmitting the permit to the source;
  - b. A permit containing all of the terms and conditions necessary to ensure compliance with the applicable regulatory requirements, an approval signature and date that the permit was approved.
  - c. Attachments, including as a minimum,
    - i. A Test Report Format page.
    - ii. A copy of each federal requirement from 40 CFR, Parts 60, 61 and 63, which are applicable to the source and adopted by reference into Virginia regulations. (See 9 VAC 5-50-410, 9 VAC 5-60-70 and 9 VAC 5-60-100.)
  - d. A statement of basis for the terms and conditions of the permit. This statement documents the review process and the permit decisions, demonstrates that all of the applicable regulatory steps were completed, and documents the fact that the permit application was properly reviewed and approved. For permits issued in accordance with Chapter 80, Article 6, this statement of basis may be:
    - i. The minor source permit checklist adopted by the Air Permit Managers Group (APMG) in 1992,
    - ii. An Engineering Analysis document that meets the major source permit review requirements adopted by the Line Engineers

Group (LEG) in 1990, or

- iii. Regional checklists and Engineering Analysis formats that ensure that the requirements of the original review and documentation requirements of i and ii above, are met.
- e. Attachments to the statement of basis, including:
  - i. Documentation of the completion of any applicable public participation requirements
  - ii. Any applicable documentation of regional review requirements; i.e. review initials or signatures (varies by regional office).

## **K. Boilerplates and Boilerplate Procedures**

1. Boilerplates have been developed in order to improve consistency and timeliness in issuing Minor NSR permits. The approved boilerplates do not and cannot cover every possible situation, and they are not applicable to all sources even within a single source category.
2. Boilerplates, and instructions for using the boilerplates, are kept on K:\agency\Air\_Permitting\Boilerplates\Conditions and in corresponding files with the same path and file names on VADEQNet (M:\air\ ). 1SKEL.CND contains the current skeleton boilerplate containing all of the standard conditions. Other process-specific boilerplates, including 1GENERIC.CND, contain the necessary process-specific conditions to address requirements specific to that source type.
3. A draft permit merge file is created by cutting and pasting the process-specific requirements from the process specific boilerplates into the appropriate place in the 1SKEL.CND boilerplate. The resulting merge file that can then be merged with the file containing the appropriate source-specific information such as name, address, source location, etc. (the MERGEWRD.doc file). Instructions for filling out the MERGEWRD.doc file and merging the two files are contained in the 1INSERTPRO.doc file on the same subdirectory.
4. If you use boilerplate files from VADEQNet, you will have to copy all of the merge files to the same subdirectory on a local drive in order to successfully merge the files. If you download the boilerplate files onto a local drive, you should check that you still have the most recent versions of the boilerplates before using them again. Bracketed conditions, and conditions marked with [O] in the boilerplates are considered optional. Blank optional conditions are



provided in the boilerplates specifically for creating conditions for which no boilerplate requirements yet exist.

5. Procedures for using each type of process-specific boilerplate are found on K:\agency\Air\_Permitting\Boilerplates\Procedures and the corresponding subdirectory on VADEQNet (M:\air\). Boilerplates should be frequently updated to stay current with all changes in regulations and interpretation.

## L. Individual Permit Conditions

As a general practice, each permit condition must include a citation of the underlying regulatory authority for the requirement.

1. Application Condition (1SKELCND.doc) - Construction and operation in accordance with the application. As the first condition, permits will require that the facility is to be built and operated as described in the application except where the permit indicates otherwise. This condition includes a reference to the permit application and supporting materials, by the date of the original permit application (found on page 2) and the date of submission of each revision and amendment to the application back to the last complete application that covered the entire source. When a permit supersedes an existing permit, the only the date of latest complete source-wide application (with the appropriate revision and amendment dates) should be listed. (See 9 VAC 5-80-1180 A.)
2. Process-Specific Conditions (1GENERICCND.doc or other process boilerplate) - Equipment list: Identification of and specifications for emission units and control equipment. The second permit condition lists the equipment covered by the permit. This may be simple in the case of a new source, but is more complex when adding new emission units, otherwise modifying an existing source, and/or superseding an existing permit.
  - a. Each emission unit should be listed as described in the application with sufficient detail to distinguish it from other emission units. The equipment listing should be as detailed as necessary to facilitate later inspection of the facility and to delineate which permit conditions apply to individual pieces of equipment. Including the reference numbers from the application is recommended to add clarity.
  - b. Equipment specifications for the emission units must also be listed, specifically type, rated capacity and size. Combustion units should also be characterized by the fuels that they are designed to use. These specifications are for informational purposes only. (See 9 VAC 5-80-

1180 D.3.) If these specifications are needed to form the basis for one or more of the other conditions of the permit, they should be specified in a separate condition, so as not to confuse enforceable terms with informational terms in a condition.

- c. Each piece of add-on control equipment should also be listed, specifically with respect to type. Combustion units should also be characterized by the type of fuels that they are designed to use and rated capacity. These specifications are for informational purposes only. (See 9 VAC 5-80-1180 D.4.) The next series of conditions will cover the enforceable requirements for the control equipment.
  - d. If the application does not list all of the emission units and control devices with their specifications, then the application is not complete. While this information is not specifically required in 9 VAC 5-80-1150, the list is not all-inclusive, and the information is required to be listed in the permit conditions by 9 VAC 5-80-1180 D.3 and D.4.
  - e. It may be helpful to group the equipment into equipment to be added, equipment to be modified, existing equipment to be removed, remaining existing equipment, and exempt emission units.
  - f. If it is convenient to list exempt and existing equipment in the permit, do so. It helps the inspector determine whether or not all of the equipment at the site has been reviewed for permit applicability. It may make the owner more comfortable to annotate "EXEMPT" equipment as such.
  - g. It is also important to annotate individual emission units with any federal requirements to which the emission unit is subject, such as "NSPS", "MACT", or "NESHAP" in this listing.
3. Control technology requirements (BACT, NSPS, MACT, etc.)
- a. Control measures. The next series of conditions contain the enforceable emission standards (equipment standards, operational standards, fuel specifications, and work practices) for controlling emissions from the emission units.
    - i. Each control measure condition will specify each emission unit and each pollutant that it controls. Both the control type and level of control must be clearly specified. (See 9 VAC 5-80-1180 D.2.d.)
    - ii. A measure of the operational status of the control equipment needs to be specified as well. Examples include: differential pressure, flow rate, combustion temperature and a requirement for

the control device to be operating when the emission unit is operating. (see 9 VAC 5-80-1180 D.5 and 6.)

iii. When a monitoring device is necessary to monitor the operational status of a control device, the monitoring and recording frequency should be included in an enforceable condition. (See 9 VAC 5-80-1180 D.5 and 8.)

iv. Most of these conditions are labelled as optional, however that's because no one condition covers all of the emission control options available to the source. The permit must contain sufficient enforceable standards and conditions to ensure that the appropriate control measures are applied. (See 9 VAC 5-80-1180 D.2.)

4. Emission Monitoring. The next set of enforceable conditions require the proper installation, and operation of any emission monitoring devices, particularly continuous monitoring devices, necessary to enforce the emission limits/standards in the permit. If CEMs/COMs are required by a MACT , an NSPS, or a BACT determination, then permit conditions must specify which ones are required, where they are required, and for which standards the devices must demonstrate compliance. The CEMS.doc boilerplate provides additional conditions, which may be inserted.

5. Emission and Operational Limitations. The next set of enforceable conditions specify emission limits and emission standards necessary to ensure that the source operates in accordance with all applicable regulatory standards and ensuring that the permit is enforceable as a practical matter. (See 9 VAC 5-80-1180 A, B, C and D.1 and 2.)

a. Operational limits. 9 VAC 5-80-1180 C allows operational limits to be placed on process parameters as a supplement to emission limits. When an operational limit is used as a supplement to an emission limit, that parameter is a limiting factor on the emission rate of the pollutant, and may be used to demonstrate compliance with the emission limit if emission factors are accurately quantified, are reliable, and are periodically checked. Because compliance with emission limits may be difficult or expensive to demonstrate on a continuing basis, operational limits are a preferred method of demonstrating compliance with the emission limits on a continuing basis.

i. Operational limits are acceptable for compliance determination only if they meet all of the requirements in the definition of "enforceable as a practical matter".

ii. Some types operational parameters that may be limited are

listed in 9 VAC 5-80-1180 D.2. Options include, but are not limited to, hours of operation, material throughput, type of material, fuel usage and production rates.

iii. Operational process parameters are acceptable only when they have a direct impact on a pollutant being regulated. For example, limiting operating hours of operation do not effectively limit the emission rate of a boiler because emissions are not produced at a constant rate. Limiting fuel consumption of the boiler gives a more accurate estimate of the emissions than would a limitation on the operating hours. Particulate emissions from a diesel engine may actually be greater at low speeds while fully loaded than the maximum predicted emissions at higher speeds unloaded. Limiting the power generated by an attached generator gives a more accurate estimate of the emissions than a limit on fuel or operating hours.

b. Emission limits. If a source requires a permit which limits the emission of any emission unit's potential-to-emit a pollutant to something below the uncontrolled emission rate, then emission limits are necessary for that emission unit for each regulated pollutant that is emitted. (See 9 VAC 5-80-1180 C.2).

i. If the standard is applied only to groups of equipment, and not to individual emission units, then the emission limits may be applied to that group as a whole.

ii. By permit convention, this requirement is limited to regulated pollutants that have the potential to be emitted at rates in excess of 0.5 tons per year unless lower limits are required for modeling reasons.

iii. At a minimum, both short-term and long-term limits/standards are required.

- (A) Unless there are other enforceable means of demonstrating compliance with the short term limits, the short-term limits should represent the maximum hourly emission rate based upon the hourly capacity multiplied by the controlled unit emission rate. Hourly emission limits are especially important for state toxics review, and are a good idea when stack testing is required. Other options include limits such as unit emission factors (such as lbs/mmBtu) and concentration (ppmvd). Limits other than hourly emission rates should include averaging periods consistent with the ambient air standards for that pollutant, any necessary correction or standardizing requirements (such as for STP, moisture, air dilution, etc.)

Be careful that the units of the method of compliance determination are able to be meaningfully expressed in terms of the units of the emission limits in order for compliance to be demonstrated. Compliance with a VOC emission limit in terms of pounds per hour of actual VOC cannot be demonstrated by a monitor or test that measures VOC as propane or carbon.

Also, be careful that emission limits are not chosen that are close to or lower than the detectability limits of the means of compliance demonstration, for obvious reasons.

- (B) Long-term limits should represent maximum allowable annual emissions with compliance demonstrated monthly (at a minimum), on a rolling basis. Compliance with long term limits ensures that major source permitting applicability requirements continue to be met, and that state attainment requirements are met.

iv. If an NSPS, NESHAP, or MACT standard applies, it may be necessary to include that emission limit/standard in addition to the emission limits based upon the potential-to-emit. Different averaging periods and unit of measures may be specified in the NSPS, NESHAP, or MACT. For instance, boiler and furnace NO<sub>x</sub>, CO and SO<sub>2</sub> limits are often specified in terms of pounds per million Btu and internal combustion engine emissions may be specified in terms of grams per brake horsepower-hour. If the NSPS, NESHAP, or MACT specifies an unusual averaging period, such as 3, 8, or 24 hours, it must be reflected in this limit.

- c. Visible Emissions limits. A visible emission limit applies to every new or modified emission unit (See 9 VAC 5-50-80) and to every existing emission unit (see 9 VAC 5-40-80). If an emission unit subject to permitting emits particulate, then include the applicable regulatory visible

emissions limit in the permit and require a visible emissions evaluation. Sometimes a more restrictive visible emission limit is specified in an applicable federal standard (NSPS, MACT, etc.). If a visible emission limit lower than the standard regulatory limit is appropriate because of a BACT determination, document the determination, and specify in the condition to which emission units the lower limit applies.

6. Stack Testing. The decision on whether or not an initial stack test will be required for compliance purposes is dependent upon applicable federal regulations and a case-by-case determination. 9 VAC 5-50-30 G gives DEQ the authority to require testing at any time, so a permit requirement to test is not necessary if sufficient compliance assurance is available by other means.
  - a. A case decision to require a test might be based on any of (but are not limited to) the following:
    - i. Questionable emission factors proposed by the source for use in estimating emissions. The reliability of the source of the emission factors should be considered.
    - ii. The proximity of the proposed emission limits to major source applicability thresholds.
    - iii. A history of compliance problems with emission limits for that source type.
    - iv. A lack of other reliable monitoring methods available for that source type (or the source has proposed no other means of emissions monitoring).
    - v. The availability (or unavailability) of a test reference method appropriate for that pollutant.
    - vi. Modeling indicates that an ambient air standard might be violated at the proposed emission rates.
  - b. If testing is required by an applicable federal requirement, the permit must contain a requirement to test unless a source-specific waiver is approved.
    - i. For subparts for which the authority to grant a waiver is not specifically delegated to the state, a waiver granted by EPA is required.
    - ii. For subparts for which the authority to grant a waiver is

delegated to the state, a waiver approved by OAPP is required.

- c. If testing is required, the permit condition must specify:
    - i. The pollutants for which testing is required,
    - ii. The place at which testing must be done (which stack or vent, at the control device inlet, outlet or both, etc.),
    - iii. The Reference Method to be used,
    - iv. The specific emission limits or standards for which the test will demonstrate compliance,
    - v. The timeframe in which compliance must be demonstrated, and
    - vi. How the results of the test will be reported.
    - vii. The condition should also indicate if and when a test protocol must be submitted in advance of the testing, and whether or not DEQ approval of the protocol is required prior to conducting the test.
  - d. If testing is required, a Source Testing Report Format must be attached (see Appendix R) to the permit.
  - e. Appropriate testing requirements may be cut and pasted into the 1SKELCND.doc boilerplate from the TESTING.doc boilerplate.
7. Test and Monitoring Ports. If testing or monitoring are required, 9 VAC 5-50-30 F requires that the source provide appropriate ports through which to test. This condition exists in the 1SKELCND.doc boilerplate instead of the individual process specific boilerplates.
8. Record-keeping. Record-keeping requirements are required in each permit. Records must be kept of each means of compliance with each permit requirement at the frequency at which compliance with each requirement must be demonstrated. These include all records of material throughput or production, emissions calculations, fuel certifications, reports, tests, monitoring results and QA, and so on. Because of the infrequency of inspections, all records are required to be kept for a five year period from the date that they were created. Records must be kept on site, where they are always available for inspection. DEQ has the authority to specify the format

in which the records shall be kept, but that is usually left to the inspectors to determine.

9. Reports. The permit should specify what reports should be made by the source, whom to submit them to, how often and under what special circumstances they should be submitted, and by what means they should be submitted. Reporting requirements from applicable NSPS, NESHAPS and MACT should be included. Subpart A of the applicable federal requirements may have requirements in addition to the specific Subpart. An additional condition concerning notification requirements are contained in the 1SKELCND.doc boilerplate.

**M. General Conditions.**

General conditions include requirements concerning right of entry, permits kept at the facility, change of ownership, permit invalidation and revocation, registration update, notifications of maintenance or malfunctions, and provisions prohibiting a violation of the NAAQS. These conditions rarely require many changes to fit the specific facility, however not all of them will necessarily be appropriate. These conditions will generally be at the end of the permit, and are included in the 1SKELCND.doc boilerplate.



## **Chapter 12 - Public Participation**

### REFERENCES

#### Applicable Regulations include:

9 VAC 5-80-10-20  
9 VAC 5-80-270 E.3.  
9 VAC 5-80-1020 D.  
9 VAC 5-80-1110 C.  
9 VAC 5-80-1170  
9 VAC 5-80-1170 B.  
9 VAC 5-80-1170 D.  
9 VAC 5-80-1170 D.1.  
9 VAC 5-80-1170 D.3.  
9 VAC 5-80-1170 D.3.a.  
9 VAC 5-80-1170 D.3.b.  
9 VAC 5-80-1170 D.3.c.  
9 VAC 5-80-1170 E.  
9 VAC 5-80-1400  
9 VAC 5-80-1870 F.3.  
9 VAC 5-80-2070 G.

#### Applicable Appendices (of this manual) include:

Appendix S  
Appendix T  
Appendix U  
Appendix V  
Appendix W  
Appendix X  
Appendix Y  
Appendix Z

#### Other References:

APG-96-239 (K:\AGENCY\PERGUIDE\MEMOS\96-239.APG.recission.doc}  
EPA's July 1, 1994 guidance memo, "Pollution Control Projects and New Source  
Review Applicability" (K:\AGENCYEPABULL\AIR\GUIDANCE\PCPGUIDE.WP5)  
§10.1307.01 of the Virginia Air Pollution Control Law

### **Introduction**

## Public Participation

This chapter describes the public participation rules and practices applicable to minor new source review permits, with some reference to differing requirements for state major new source review permits. Public participation means the advertisement of a pending permit issuance in newspaper notices and other notification requirements, receipt of written comments from the public, and the holding of public hearings where required to hear oral comments from the public.

### **New Source Review Public Participation Requirements**

9 VAC 5-80-1170 contains the following requirements for public participation for New Source Review permit applications:

1. An applicant for a major stationary source or a major modification must notify the public of the proposed source or modification no later than 15 days after receiving the initial determination notification regarding the status of the application. The status of the application includes a determination as to which provisions of the new source review program are applicable.
2. The public notification required for major stationary sources or major modifications must be placed by the applicant in at least one newspaper of general circulation. The notice must be approved by DEQ and shall include, but not be limited to, the following:
  - a. The source name, location, and type;
  - b. The pollutants and the total quantity of each which the applicant estimates will be emitted, and a brief statement of the air quality impact of such pollutants;
  - c. The control technology proposed to be used at the time of the publication of the notice; and,
  - d. The name and telephone number of a contact person, employed by the applicant, who can answer questions about the proposed source.
3. A public notice period of at least 30 days, followed by a public hearing must be held by DEQ for the following permit applications:
  - a. Applications for stationary sources of hazardous air pollutants requiring a case-by-case maximum achievable control technology determination under Article 7, Permits for New and Reconstructed Major Sources of Hazardous Air Pollutants (9 VAC 5-80-1400 et seq.).
  - b. Applications for major stationary sources and major modifications.
  - c. Applications for stationary sources which have the potential for public interest concerning air quality issues. 9 VAC 5-80-1170 D 3 states that the following criteria may be used to determine if there is sufficient public interest to warrant public participation. Other criteria may also be used.
    - i. Whether the project is opposed by any person;
    - ii. Whether the project has resulted in adverse media;
    - iii. Whether the project has generated adverse comment through

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- any public participation or governmental review process initiated by any other governmental agency; and,
- iv. Whether the project has generated adverse comment by a local official, governing body or advisory board.
  - d. Applications for stationary sources for which any provision of the permit is to be based upon a good engineering practice (GEP) stack height that exceeds the height allowed by subdivisions 1 and 2 of the GEP definition.

The Department recommends a public briefing for all permits requiring a public hearing. The public briefing is usually arranged for a time just before the public hearing is held, and in the same place as the public hearing. The Department makes the presentation at the briefing and answers questions; the source assists by addressing questions. The applicant may hold a public briefing before the hearing, by agreement with the Department, or at any other time, if it chooses to do so.

### B. Controversial Permits and Public Interest

Public hearings are required for new source review permits in situations where public comment, or other sources of information, may have indicated the potential for public interest concerning air quality issues, as determined by the board (9 VAC 5-80-1170 D.3.). This section describes the optional early “information session” and the criteria for “public interest.”

- (1) Information session. In consultation with DEQ, or at their own initiative, a permit applicant may announce an information session in a public notice similar to that required by 9 VAC 5-80-1170 B. The information session should be scheduled for a time and place convenient to people who live in the vicinity of the new facility or modification for which the permit is sought. Although, the applicant typically administers the information session, it is recommended that regional office staff attend. The permit file should indicate that the information session was held, but the session itself need not be a matter of record.
- (2) Criteria for “public interest.” 9 VAC 5-80-1170 D.3. states that the following criteria may be used to determine if there is sufficient public interest to warrant public participation. Other criteria may also be used. The information session held by the applicant is one way of finding out whether these criteria apply.
  - (A) “Whether the project is opposed by any person (9 VAC 5-80-1170 D.3.a.). “Person” can also mean “business” or “organization” or “government entity.”
  - (B) “Whether the project has resulted in adverse media” (9 VAC 5-80-1170 D.3.b.). This means news coverage critical of the project.
  - (C) “Whether the project has generated adverse comment through any public participation or governmental review process initiated by any other government agency” (9 VAC 5-80-1170 D.3.c.). This criterion takes account

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of such things as environmental impact review at any level of government; local zoning reviews or hearings; permit proceedings or hearings at any level; etc.

- (D) “Whether the project has generated adverse comment by a local official, governing body, or advisory board” (9 VAC 5-80-1170 D.3.d.). An advisory body may have particular expertise related to a given area or facility which should be considered. Similarly, a local official or a governing body, elected by the public in the affected area, needs to be taken seriously when he or she (or it) undertakes to express an opinion about the subject of a pending air permit.

(3) Using the criteria for determining “potential for public interest.” Where minor sources appear newsworthy or controversial, the following guidelines may be helpful to the regional office in deciding whether the criteria specified in 9 VAC 5-80-1170 D.3 have been met.

- (A) Two or more of the criteria in 9 VAC 5-80-1170 D.3, applied together to a situation, may make the decision easier than if only one of the criteria applies.
- (B) Adverse comments in a governmental review process may be instructive on the air quality questions in a permit review, especially if they come from government agencies having some responsibility or expertise relating to air quality.
- (C) When doubts remain, decide in favor of public participation and the public hearing. This may delay the permitting process, but the open process and the accommodation of ideas that may result will enhance the legitimacy of the permit.

### **C. Permit Applications with No Public Participation Requirements**

1. There are three situations in which minor new source review permit actions do not require public notice or public participation. Two of these situations are qualified; the third is

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not.

1. New “greenfield” sources that are not state or federal majors, provided that all four of statements (A) through (D) below are correct:
  - a. No standard for hazardous air pollutants applies under 9 VAC 5 Chapter 60; and
  - b. The regional office determines that the application does not have “potential for public interest” as described in Section **B.** of this chapter; and
  - c. The application will not require a permit provision based on a stack height which exceeds the heights allowed by paragraphs 1 and 2 of the Good Engineering Practices definition in 9 VAC 5-10-20; and
  - d. No federal requirement for public participation applies.
2. Existing minor sources making modifications resulting in a net emissions increase of less than 100 tons per year of any pollutant, provided that all four of statements (1)(A) through (D) above are correct
3. Where a source has applied for a permit amendment which does not involve an emission rate increase or result in relaxation of any permit requirement or standard, public participation is not required, in any event. . (See the Air Division Guidance Document APG-96-239, dated August 26, 1996 and signed by John Daniel, at K:\AGENCY\PERGUIDE\MEMOS\96-239.APG.rescission.doc.)

### **D. Public Notice, but no Public Hearing Required**

2. There may be cases where a minor NSR permit should be given public notice because of anticipated controversy, because the permit writer or regional office wants the public informed concerning some or all of the permit details, or because an applicable NSPS contains a public notice requirement. The Regulations do not contemplate public notice without also requiring public hearings. This section provides for a consistent approach to limited public notice in cases where it is determined to be desirable.

1. Rationales for public notice but no public hearing. The permit writer, or the regional office, may want to notify the public about the permit for one or more reasons, including but not limited to the following:
  - a. The modification or “greenfield source” for which the permit is sought is known or suspected to be controversial;
  - b. The public should be informed concerning some or all of the details of the permit. As an example, the source may seek to classify a piece of control equipment as a “pollution control project” (pursuant to EPA’s July 1, 1994

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guidance memo, "Pollution Control Projects and New Source Review Applicability," found in **K:\AGENCY\EPABULLVAIR\GUIDANCE\PCPGUIDE.WP5**).

- c. The source may be subject to an NSPS which has public notification requirements. To the extent such requirements are stricter than the procedures given in this section, they should be followed.
2. Providing public notice without a public hearing. Take the following steps.
    - a. Prepare a notice which includes the following information:
      - i. Source name, location, and the nature of the operation and control requirements to be permitted;
      - ii. Announcement of the opportunity for public comments to the regional office; give address, deadline for comments.
      - iii. The location where the permit application may be reviewed during the public review period;
      - iv. The location of other information open to review, including the Department's analysis and preliminary decision on the permit;
      - v. Means by which a public hearing may be requested.
    - b. Send the notice to at least one general circulation newspaper in the vicinity of the source location.
    - c. Optional step: Provide the notice to the public by other means, including but not limited to press release, placement on the DEQ web site (see sub-section **F.(2)(C)(vi)** of this chapter), publication in the Virginia Register (see sub-section **F.(2)(C)(v)** of this chapter), provision to a public library, etc.
    - d. At the end of the comment period stated in the notice, review the comments and prepare written responses to substantive comments. Whether and to what extent the permit requires revision depends on the nature of the source and of the comments, as analyzed by the regional office. Similarly, the regional office determines whether a request for a public hearing will be granted, using the criteria from other permit program rules (i.e., significant public interest and substantial, disputed air quality issues; see 9 VAC 5-80-270 E.3. or 9 VAC 5-80-1020 D.) The next step will be one or more of the following:
      - i. Develop a comments and response document and make it available to the public when asked, or by way of another public notification;

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- ii. Revise the permit if necessary in light of the comments received and any further analysis thereof;
- iii. Issue the permit;
- iv. Decide whether to hold a public hearing. If one is held, proceed as in section **I. Public Hearing**. If not, prepare a public notice, or a letter to the seeker(s) of the public hearing, to explain why not.

### E. State Major Sources

3. “State major sources” are one of the categories of sources for which 9 VAC 5-80-10 G requires public participation.

1. **Definition.** While “state major” is not defined as such anywhere in the Regulations, it is used to mean a source of criteria pollutants with a potential to emit that is 100 TPY or more, but that does not qualify as a PSD source or a non-attainment major source. It is one of the criteria warranting public notice and hearing for new source review permits; see **9 VAC 5-80-1170 D.**
2. Consequences of “state major” status. Public notice and a public hearing are required as pre-requisites to the issuance of a new source review permit to a state major source.
3. “State major” examples. Examples of state majors, for purposes of public comment periods and public hearing requirements, are:
  - a. New sources with PTE of 100 TPY or more that are not subject PSD, nonattainment NSR, or MACT; and
  - b. Modifications to minor sources with net emission increases of 100 TPY or more that are not subject PSD, nonattainment NSR, or MACT.

4. (See 9 VAC 5-80-1170 D.1. and -D.2.)

### F. Public Notification

5. As indicated in the chapter introduction above, there are two types of public notice in new source review. The shorter version, written by the applicant and subject to the Department’s approval, is required for state major sources and major modifications following the applicant’s receipt of initial notification from the Department. The longer version, written by the Department, is required for several source categories after the Department has prepared a draft permit. Table 12-1, presenting the comparison between these types of notice, appears in

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sub-section **F.(3)** below.

1. Applicant's public notification.
  - a. Required for major sources as defined in 9 VAC 5-80-**1110 C.** This includes "state majors" as defined in Section E.1. above.
  - b. The applicant prepares this notice within 15 days following its receipt of the Department's initial notification, and submits it to the Department's regional office for approval.
  - c. Following approval, the applicant provides this notice to at least one general circulation newspaper in the region where the source is located, or to be located.
  - d. The notice must include at least the following elements (9 VAC 5-80-**1170 B.**):
    - i. source name, location, and type;
    - ii. identification and quantification (estimates) of pollutants to be emitted, and their impact on ambient air quality;
    - iii. proposed control technology;
    - iv. name and telephone number of a contact person for the applicant.
2. Department's public notice.
  - a. Required for the categories of sources listed in sub-section **A.(1)** above (see also 9 VAC 5-80-**1170 D.**). Note that these include state majors.
  - b. The regional office prepares this notice once it has completed its review and analysis of the application and drafted a permit, but before a public hearing is held or the permit issued.
  - c. The notice should be sent to the following (9 VAC 5-80-**1170 E.**):
    - i. at least one general circulation newspaper for publication in the region where the source is located, or to be located;
    - ii. local air pollution control agencies having jurisdiction. Note: the only such agencies in Virginia are in the area served by the DEQ Northern Virginia Regional Office.
    - iii. states sharing the affected air quality control region (see



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**Appendix S** for the addresses);

- iv. EPA Region III (see **Appendix T** for the address);
  - v. an electronic copy to the DEQ Office of Regulatory Affairs for submission to the Virginia Register;
  - vi. an electronic copy to the DEQ Office of Public Affairs, for posting on the DEQ web site; and
  - vii. in cases where the source is located within 100 kilometers (62.14 miles) of either the James River Face Wilderness Area in the Jefferson National Forest or the Shenandoah National Park, the appropriate Federal Land Manager (see **Appendix U** for these addresses). This commitment carries out provisions of Memoranda of Understanding which the Department of Air Pollution Control, the predecessor agency to the DEQ Division of Air Programs Coordination, signed with both the U.S. Forest Service (for the James River Face Wilderness Area) and the National Park Service (for Shenandoah National Park) in early 1993.
- d. The Department's public notice must be published in at least one newspaper of general circulation in the affected air quality control region no less than 30 days prior to the date of the public hearing and by law (§10.1307.01 of the Air Pollution Control Board Statutes) must contain at a minimum the following:
- i. a statement of the estimated local impact of the proposed action;
  - ii. the specific pollutants and total quantity of each;
  - iii. the type and quantity of any fuels to be used.
- e. Although no longer required by Board regulation, to facilitate its purpose the notice should include at least the following information elements :
- i. the opportunity for public comments, in writing and at the public hearing, and also by e-mail (include mail and e-mail addresses of the agency, and the requirement that a writer of e-mailed comments must provide name, phone number, and address);
  - ii. the date, time, and location of the public hearing to be held (this date must be at least 30 days after the publication of the public notice);

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- iii. the date, time, and location of the optional public briefing (for state major sources and major modifications) which precedes the public hearing;
- iv. the location where the permit application may be reviewed during the public comment process;
- v. the location of other information open to review, including the Department's analysis and preliminary decision on the permit;
- vi. the name, phone number, and e-mail address of the Department's primary contact for information on the particular permit;
- vii. the deadline for comments on the application and the recommended permit decision (the deadline date must be at least 15 days after the public hearing for state majors and major modifications; it may be as of the end of the hearing for other sources); and
- viii. (if desired) restrictions pertaining to the conduct of the hearing, such as time limits for speakers.

6.

- 3. Comparison of public notification requirements for new source review.  
Table 12-1 (following page) provides a handy comparison between the two public notification requirements described above.

*Table 12-1. Public Notifications Comparison*

<b>Requirement</b>	<b>Applicant's Public Notice</b>	<b>Department's Public Notice</b>
Who writes the not	Applicant, subject to Department approval	Department (regional office)

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Source categories requiring public notice	state majors	state majors
	major modifications (included within "state majors" definition)	major modifications (included within "state majors" definition)
		NESHAP sources
		MACT sources
		sources with the "potential for public interest" (i.e., controversy)
		sources with stack heights exceeding allowable heights in the "state majors" definition ...
Timing of public notice	within 15 days after receiving Initial Notification	after permit drafted, before public participation
Contents	name, location	name, location*
	pollutants/impact	pollutants/impact*
	control technology	control technology*
	contact person	contact person*
		comment opportunity
		briefing date, time, place
		hearing date, time, place
		info on application
		info on analysis, recommended decision
		comment deadline

\*These elements go into the public notice by the Department in cases where there was not a public notice by the applicant, i.e., in cases other than state majors.

### G. Public Briefings

7. Public briefings fall into two categories. First, a permit applicant may hold a public briefing at any time. Secondly, the Department recommends a public briefing be held just before the public hearing for state major sources and other sources requiring a public hearing (9 VAC 5-80-1170-D.). The remainder of this section addresses the second type of public briefing. The Department recommends that regional offices conduct public briefings just before public hearings, for "state major" sources and any other permit actions that require public hearings. Regional offices may also hold a public briefing at any other time at their discretion. It should be noted that this differs from the procedure for PSD or Nonattainment NSR in that for those types of permits a Department public briefing cannot be held after the public comment period begins (9 VAC 5-80-1870 F.3. and -2070 G. As with the information session, the public briefing is not a matter of record, although permit files should indicate that it was held.

1. Procedures. A hearing officer and a permit writer from the regional office conduct the briefing. The applicant's role is to be prepared to assist the regional office in

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answering questions; the applicant may want to prepare a presentation of facts concerning the proposed project (see **Appendix V**). At a minimum, the source should be instructed to provide qualified personnel to answer questions concerning the proposed facility or modification. However, the briefing is to be run by the Department, and is to be focused on air quality issues. Reliance upon the applicant is to be avoided.

2. Typical information. The information provided in the briefing may include, but is not limited to:
  - a. information on pollutants and the estimated total quantity of each that will be emitted;
  - b. proposed control technology;
  - c. relevant source information taken from the public notice.
  - d. results of air quality analysis, if any;
  - e. assessment of air quality impacts of the source;
  - f. permitting procedures, requirements, and limitations.

### H. Public Hearing

8. Public hearings must be advertised and conducted in accordance with these procedures. Public hearings are required if the pre-requisites are met, whereas public briefings are held at the discretion of the regional office. See **Appendix W** for a copy of the DEQ Policy on public hearings. An informal guideline on their conduct and preparation appears in **Appendix X**.

1. Public notice and advertisement. As indicated above (sub-section **F.(2)(C)(i)**), public notice of the hearing is to be provided in a newspaper of general circulation. The notice must be published at least 30 days before the date of the public hearing (9 VAC 5-80-**1170 E.**).
2. Time of the public hearing. It is recommended that the public hearing (and briefing, if one is scheduled with the hearing) be held in the evening hours so as not to interfere with the working hours of citizens who may wish to attend the hearing.
3. Conduct of the public hearing. DEQ staff people conducting public hearings should be well-informed concerning the source, the facilities to be constructed or modified, and the nature of the permit that is the subject of the hearing. It is recommended that regional office staff prepare for the hearing by discussing, amongst themselves, situations that may arise, particularly in the case of “high-profile” projects.

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- a. *Hearing officer.* The hearing officer, who is the regional director or designated staff person, administers the public hearing.
- b. *Agenda.* The hearing officer should announce, and then abide by, an agenda. A sample agenda follows:
  - i. Brief description of the source or modification and main features of the permit, for the benefit of people who missed the briefing or if there was no briefing. This should take about five minutes and may be delegated to DEQ staff and/or source personnel. A sample opening statement by the Department appears in **Appendix Y**; a sample fact sheet by the applicant appears in **Appendix V**.
  - ii. Public comments: speakers may sign up to speak, and should be called on in the order in which they signed up, except that elected officials should be allowed to speak first.
  - iii. Announcement by the hearing officer of the deadline for submission of written comments (normally 15 days after the hearing).
  - iv. Adjournment of the hearing.
- c. *Restrictions.* The hearing officer may set reasonable restrictions on the time allowed for each speaker's comments. For example, many public hearings have limits of three minutes for an individual speaker and five minutes for a speaker representing an organization. These restrictions may be published in the public notice if desired (see sub-section **F.(2)(E)(viii)** above).
- d. *Transcription.* Regional office or Department staff should keep a record of what is said at the hearing. One or more of the following methods is acceptable:
  - i. written notes;
  - ii. audiotape of the hearing;
  - iii. court reporter or other stenographer making a transcription of the hearing.

### I. Incorporating Public Comments

9. **Regional staff must consider written comments and comments delivered at the public hearing in determining whether and how to revise new source review permits. The Department must respond to all comments.** Because the comments and the responses are a matter of public record, both must be made available to the public after the public review

## Public Participation

period.

1. Comments and responses. Depending on the circumstances, there are at least two ways to make public comments, and the reply of the Department, a matter of public record:
  - a. *Individual responses.* The regional office may choose to make individual responses to the written and/or spoken comments received. In such case, each commenter receives a letter responding to her or his comment(s). The letters are public information and may be requested by anyone; they should, in any case, be shared with EPA and the source. (See **Appendix Z** for an example.)
  - b. *Comments and responses document.* In a permit action involving a large number of comments, the Department may benefit itself and the public by preparing a “comments and responses” document. This document reprints or paraphrases all the comments (minus any repetition), organizes them as appropriate, and develops replies to each. This document is then mailed to all commenters, and becomes available to the source, EPA, and the public as well. This approach allows the Department to answer each comment once, rather than reprinting or repeating answers when comments are repeated. It also ensures a common knowledge of all of the comments and responses.
2. Incorporating the comments. While the Department must respond to all comments, it is normally not obligated to incorporate what it learns from public comments into any permit. However, if as a result of the public participation process the Department determines that an error has been made, the regional office should correct the error in the final version of the permit.

### J. Reviewing the Revised Permit

10. A permit that is revised on account of the comments received during the public review may need additional public review before its issuance. If the comments on a permit are limited to insignificant matters such as a spelling or typographical error (which does not change the meaning of the permit), then those matters may be remedied and the permit issued without further notice to the public. Otherwise, the regional office must decide whether to put the revised permit out for another round of public review, possibly including a public hearing. Some guidelines follow.

1. When permit terms are made more stringent because of public review. If the public review and the Department’s analysis resulted in revision of permit terms to make them more stringent, the permit engineer should notify the source. (“More stringent” means more frequent or more extensive monitoring or record-keeping; more

## Public Participation

frequent reporting; or lower limits on emissions, throughput, fuel use, or operating hours.)

2. When permit terms are made less stringent. If the permit terms were made less stringent after the public review than they were before, it may be necessary to send the permit out for another public comment period.
  - a. *Regional office decision.* Whether this is necessary is a regional office decision, which is made in consultation with the central office.
  - b. *Decision criteria.* Factors to consider in making this decision include, but are not limited to, the permit requirements involved. For example, relaxing a record-keeping requirement is probably (but not necessarily) less apt to require a new public review than relaxing an emissions limit or operating restriction, or determining that a control technology no longer applies.
  - c. *Document the decision.* The permit engineer should document a determination not to conduct additional public review in the engineering analysis, so that the permit files show why the additional public review was not offered when the permit terms were relaxed. (A decision in favor of additional review will, of course, produce its own documentation because of a new public notice, comment and response effort, and possibly public hearing.)

## Chapter 13 - Permit Issuance

Applicable Regulation Sections for this chapter include:

9 VAC 5-80-1120

9 VAC 5-50-260

Applicable Appendices for this chapter include:

H - Sample Cover Letter for Issued Permits

R - Source Testing Report Format

GG - CEDs (*recommend deleting this appendix*)

B - Delegation of Authority (*need to update for latest version of this document*)

### A. Signature Authority and Document Distribution

1. Permit Signature Authority. Regional and Central Office delegations of authority for air permit programs are contained in Agency Policy Statement No. 1-2002, Delegations of Authority. This document is included as **Appendix B**, and as of August 2002, may also be found on DEQNET2 under documents and forms at admin/admin\_policy/delegatedhtoct2001.doc. Most permit actions are signed by the Regional Director or another person in the regional office. Table 13-1 below, depicts the authority of different individuals in this regard.

Table 13-1. Permit Signature Authority

Permit action	Signed by...	If person to the left is absent more than one day, then sign by...
Minor new source review p	Regional Director (RD) <i>or</i> Deputy Regional Director (DRD) <i>or</i> Regional Permit Manager (RPM)	Air Permit Manager (APM)
Major new source review p	RD <i>or</i> DRD	RPM
Granting or denying a requ for a public hearing or publi meeting	RD <i>or</i> DRD	RPM
Granting or denying a petiti for permit review	Agency Director	not delegated

If you have any questions about who should sign a permit, ask the regional APM.

2. Document Distribution.
  - a. *Issued permit*. When the permit is issued, copies of the permit and cover letter are to be sent electronically as follows:

	OAPP	ODA	EPA Region
Minor NSR	√		



## Permit Issuance

Major NSR	√	√	
NSPS, MACT, NESHAP	√	√	√

Electronic copies of the permits are maintained by OAPP and kept in U:\apscommon\permits. There is folder for each regional office for easy reference.

- b. *File Information:* Information that should be maintained in the regional office files include:
- i. Local government certification (if Greenfield source);
  - ii. Form 7, with supplementary documents (process description, flow diagram, etc.);
  - iii. Signed Document Certification Form;
  - iv. Copy of the signed permit;
  - v. Letter notifying the applicant of permit status (a.k.a. 30-day letter or initial letter of determination (ILOD));
  - vi. Letter notifying the applicant of any deficiency;
  - vii. Engineering analysis or minor source checklist;
  - viii. Emission calculations;
  - ix. Notification to federal land manager (FLM) if source is within 10 kilometers (km) of a Class I area;
  - x. Response from the FLM if the FLM made comments, and DEQ response to comments, if any;
  - xi. Copy of comments from EPA and public, and agency responses to comments (if major);
  - xii. Screening model run for toxic pollutants, if performed;
  - xiii. Final findings/recommendation on modeling by OAPP, if performed;
  - xiv. Proof of public notice and briefing by applicant;
  - xv. Copy of stack test summary, if required and already completed;

## Permit Issuance

- xvi. Copy of public comment and hearing package, including comments and agency responses to comments.

If the permit is chosen for an audit, OAPP may request this information.

### **B. Permit Issuance**

New source review permits are issued with a dated cover letter indicating the permit's effective date (the date of issuance is the effective date). The cover letter is signed by the regional director (RD) or by a person designated to sign for the RD. The first page of the permit document itself is dated and signed as well.

1. Pre-requisites. New source review permits may not be issued until the Department has completed its review and analysis of a complete NSR permit application and public participation requirements, if applicable, have been met.
2. Standards for issuance. The Regulations specify several general standards, which must be met in issuing permits (9 VAC 5-80-1120.). These include:
  - a. Construction and operation in compliance with performance standards in 9-VAC 5 Chapter 50, which include Best Available Control Technology (9 VAC 5-50-260);
  - b. Construction and operation in compliance with hazardous air pollutant emission standards in 9 VAC 5 Chapter 60 (9 VAC 5-60-300 et seq., if applicable);
  - c. Construction and operation so as not to interfere with attainment or maintenance of any ambient air quality standard, and without causing or exacerbating a violation of any air quality standard; and
  - d. Permitted stack height reductions are subject to the limitations in item (C) above, according to 9 VAC 5-80-1120.C.
3. Issuing a permit. The Department, in issuing a NSR permit, must notify the applicant in writing. See Appendix H for a sample cover letter for NSR permits. Permit attachments may include:
  - a. Source Testing Report Format (Appendix R) if a source test is required as a permit condition;
  - b. Applicable NSPS and/or NESHAP if the permit action includes an NSPS or NESHAP.

## Permit Issuance

### C. Permit Appeals

Any person, be it the permittee or member of the general public, may petition for a review of any condition of the permit if the person filed comments on the draft permit or participated in the public hearing. Any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition only for administrative review of changes from the draft permit.

1. Deadline for permit appeal petition. All petitions must be received by the DEQ Director no later than 30 days from the date the permit was issued.
2. Contents of permit appeal petition. The petition for review must include a statement of the reasons supporting that review, including:
  - a. A demonstration that any issues being raised were raised during the public comment period and the public hearing; and when appropriate,
  - b. A showing that the contested portion of the permit is based on:
    - i. A finding of fact or conclusion of law which is clearly erroneous; or
    - ii. An exercise of discretion or an important policy consideration, which the Director should, in his or her discretion, review.
3. Address. All requests for administrative review must be sent to:

Director  
Virginia Department of Environmental Quality  
P.O. Box 10009  
Richmond, Virginia 23240-0009
4. DEQ response. The central office, in consultation with the regional office issuing the permit, will issue an order granting or denying any petition for review. If the review is denied, the final permit decision becomes the final agency action. If the review is granted, DEQ must issue a public notice that sets forth a schedule for the appeal.

### D. Permit Tracking – Comprehensive Environmental Data System (CEDs)

Check with the CEDs coordinator in your regional office or see separate CEDs manual for appropriate procedures.

### E. Testing Performed after Permits are Issued

1. Performance testing.

## Permit Issuance

- a. *Mandate.* If testing is required, it must be performed by the owner within 60 days after achieving the maximum production rate at which the new or modified source will be operating, but no later than 180 days after initial start-up of the source. Within 60 days after the testing has been completed, the owner must provide at least one copy of a written report of the results of the tests to the regional office; the regional office may ask for additional copies if they are necessary.
- b. *NSPS, NESHAP and/or MACT requirements and exceptions.* All NSPS sources subject to the provisions of 9 VAC 5 Chapter 50, Article 5 (9 VAC 5-50-400 et seq.), NESHAP sources subject to 9 VAC 5 Chapter 60, Article 1 (9 VAC 5-60-60 et seq.) and MACT sources subject to 9 VAC 5 Chapter 60, Article 2 (9 VAC 5-60-90 et seq.) must fulfill the testing requirements in the preceding paragraph (section **D**.(1)(A) above). Exceptions may be allowed only by EPA.
- c. Post-construction monitoring. In order to determine the effect on air quality of emissions from a major stationary source or a major modification, the owner may be required to conduct ambient air monitoring. In that event, the owner must meet the Quality Assurance Requirements for PSD Air Modeling (40 CFR Part 58, Appendix B) during the operation of the monitoring stations.

For: Table of Contents

## **Chapter 14 – Post-Issuance Processing**

- A. Permit Rescission**
- B. Permit Invalidation, Suspension, Revocation and Enforcement**
- C. Administrative Permit Amendments**
- D. Minor Permit Amendments**
- E. Significant Permit Amendments**
- F. Re-Opening for Cause**
- G. Shutdown and Permit Revocation**

## **Chapter 15 - General Permits**

### **A. Authority**

9 VAC 5-80-1250 authorizes the General Permit program for new and modified sources. Each General Permit has to be approved by the board and issued in accordance with the Administrative Process Act.

Each General Permit will normally only be applicable to sources of a single source category or source type that have the same or similar requirements governing operation, emissions, monitoring, reporting and recordkeeping. Sources that are covered under the applicable General Permit will not be subject to case-by-case standards, determinations and requirements and may operate in accordance with the requirements of the General Permit as long as it continues to qualify for coverage.

### **B. Application**

Those sources that qualify for coverage under a General Permit may apply to the DEQ Regional Office for coverage under the terms of that permit. Each General Permit will specify the process for applying for coverage under that General Permit. The application must include all of the information necessary to determine qualification for, and to assure compliance with, that General Permit.

### **C. Review of the General Permit Application**

1. Review by the regional office. The application will be reviewed by the DEQ Regional Office to determine if the source meets the qualification criteria in the applicable General Permit for coverage under that permit.
  - a. The application will be reviewed in a timely manner.
    - i. Normally, the Regional Office will complete a review of the application, and provide a written response to the source within 30 days of receipt of the application (or as otherwise specified in an individual General Permit).
    - ii. If the General Permit specifies that the application is approved by default within a certain period, then the Regional Office shall complete the review of the application, and provide a response to the source, prior to the end of that default approval period. (See 9 VAC 5-80-1250 C.3)

## General Permits

- b. The review will consist, at a minimum, of:
  - i. A review of the application to determine if the application contains all the necessary information to determine if the source qualifies for coverage.
  - ii. A review to determine if the information in the application demonstrates that the source meets all of the criteria to qualify for coverage under that General Permit.

### **D. Granting Authority to Operate under the General Permit**

1. If, after a review of the application and the criteria for coverage under the General Permit, the Regional Office determines that the source qualifies for coverage under the General Permit, the Regional Office will grant authority to the source to operate under the terms and conditions of the General Permit. The Regional Office will confirm to the source, in writing, that authority is granted to operate under the terms and conditions of the General Permit. A sample letter for granting this approval is provided in Appendix GG.
2. If the Regional Office determines that the information contained in the application is insufficient to determine that the source meets the criteria for coverage contained in the General Permit, the Regional Office will inform the source that the application is incomplete, and will provide a list of the deficiencies. A sample letter is provided in Appendix GG.
3. If the Regional Office determines that the application contains information indicating that the source does not meet all of the criteria for coverage under the General Permit, the Regional Office will inform the source that they do not qualify for coverage, and will list the criteria that the source failed to meet. A sample letter is provided in Appendix GG.

# **Appendix**



## **Appendix A- How to Retrieve Information**

### **Instructions for Importing the Bookmark File Located on K:\agency\epabull\air\internet\websites.htm and “Main on VADEQNet” M:\air\air\_permitting\epabull\internet\websites.htm**

1. Open Netscape Communicator
2. Go to the toolbar located at the top of the screen and select “Communicator.”
3. Next, select “Bookmarks.”
4. Select “Edit Bookmarks.” The “Bookmarks – bookmark.htm” box will appear.
5. Go to the “File” command on the toolbar located at the top of the “Bookmarks-bookmark.htm” box and select “Import.”
6. The “Import Bookmarks File” box should appear on the screen. Select either “Main on VADEQNet” M: and the subdirectory “\air” or select the K: drive and the subdirectory “\agency”. Then select subdirectories “air\_permitting\epabull\internet” and select the file “websites.htm”. Click on the “open” button. The bookmarks located in the “websites.htm” file will appear at the top of your list of current bookmarks.

## Appendix B - Delegation of Authority Memo

January 22, 1999

### MEMORANDUM

**TO: All DEQ Staff**  
**FROM: Dennis H. Treacy**  
**SUBJECT: Delegations of Authority**

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#### I. GENERAL PROVISIONS

As provided by Sections 2.1-20.01:2 and 10.1-1185 of the Code of Virginia and in accordance with the following conditions, I delegate the powers and duties specified in Parts II, III, and IV of this memorandum:

- A. These delegations supersede and rescind any and all previous delegations related to these powers and duties.
- B. All actions taken shall comply with the applicable laws and regulations, and the policies of the Department of Environmental Quality.
- C. Delegations to regional staff apply only to matters within the jurisdiction of the region in which the staff member is employed.
- D. For purposes of exercising authority under this document, a person is considered absent when he or she is not available at his or her regular place of work for more than one working day.
- E. For the purposes of this document the term "process" refers to all activities necessary to complete an action including, but not limited to, receiving applications, signing, issuing, denying, terminating, modifying, and revoking. No summary of actions taken pursuant to these delegations is required, unless specifically requested by me (ref. 2.1-20.01:2).

#### II. GENERAL DIRECTION AND MANAGEMENT

- A. Subject only to my ultimate authority, the Chief Deputy (P1104) shall have the authority and responsibility to direct all Agency functions and make any decisions necessary to carry out the statutory responsibilities of the Department.
- B. Subject only to my ultimate authority, the Director of Program Coordination (P1152) shall have the authority and responsibility to direct all Agency functions for the Division of Waste Program Coordination, Division of Air Program Coordination, and Division of Water Program Coordination and to make decisions necessary to carry out the statutory responsibilities of those programs.

#### III. CENTRAL OFFICE DELEGATIONS

- A. Permitting
  - 1. The Director of Water Program Coordination (P4014) and the Director of Water Permit Programs (P4016) shall have the authority to:

## Delegation of Authority Memo

- a. process all Virginia Water Protection (VWP) Permits for Virginia Department of Transportation and Minimum In stream Flow projects;
  - b. determine the necessity to convene or deny public hearing/meeting requests regarding these projects.
2. In addition, the Environmental Engineer Consultant responsible for the project (P1084) shall have the authority to sign VWP waivers, exemptions and no permit required letters for Virginia Department of Transportation and Minimum In stream Flow projects.
  3. The Director of Waste Program Coordination (P4041) and the Director of Waste Permitting (P0537) shall have the authority to process waste permits.
  4. The Director of Water Program Coordination ( P4014) shall have the authority to grant or deny requests for Special Exceptions to ground water withdrawal permitting requirements.

### B. Response and Remediation Programs

1. The Director of Water Program Coordination (P4014), and the Director of Spill Response & Remediation (P0098) shall have the authority in the following matters:
  - a. to declare an Environmental Emergency<sup>3</sup>;
  - b. to approve the use of up to \$100,000 of the Virginia Environmental Emergency Response Fund (VEERF) for the environmental emergency situation;
  - c. to approve the use of the Virginia Petroleum Storage Tank Fund (VPSTF) up to \$250,000 for the purposes of performing or reimbursing costs of investigation or corrective action;
  - d. to approve Oil Discharge Contingency Plans, regulatory variances and financial assurance demonstration mechanisms, and to make other decisions of the Board as provided in 9VAC 25-91-10 et seq. and 9VAC 25-101-10 et seq.;
  - e. to make Responsible Person determinations, to approve Corrective Action Plans, to approve Interim Authorizations, and to close sites with petroleum releases.
2. The Director of Water Program Coordination (P4014) and the Director of Spill Response & Remediation (P0098) shall have the authority to sign Oil Discharge Contingency Plan (ODCP) approval memos and transmittal letters.
3. Waste Programs
  - a. The Director of Waste Program Coordination (P4041) and the Director of Remediation Programs (P1018) shall have the authority to sign Records of Decision for Superfund and Federal Facility projects, Certificates of Satisfactory Completion for the Voluntary Remediation Program, and cooperative and other agreements with EPA, federal agencies and private parties for financial support of remediation oversight costs.
  - b. In addition, the Manager of Superfund and Voluntary Remediation (P1022) shall have the authority to sign Certificates of Satisfactory Completion for Voluntary Remediation Program projects. Compliance and Enforcement

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<sup>3</sup>As defined in the Environmental Emergency Procurement Procedures - •an occurrence of a serious and urgent nature that demands immediate action. •

## Delegation of Authority Memo

4. The Director of Enforcement Coordination (P4040) shall have the authority to issue consent orders for air and waste cases.
5. With my prior written approval, the Director of Enforcement Coordination (P4040) shall have the authority to make case decisions and issue unilateral orders (non-consensual orders), after following appropriate administrative procedures, as defined in 9-6.14:4, and as authorized in 10.1-1186 (DEQ special orders), 10.1-1307.01.D (abatement of air pollution and enforcement of regulations), 10.1-1309 (air special orders), 10.1-1309.1 (air special orders), and 10.1-1455 (waste orders requiring compliance). This delegation excludes special orders under the authority of 10.1-1186 which contain penalty provisions.

### D. Financial Programs

#### 1. Grants Awarded to DEQ

The Director of Administration (P0008) and the Budget & Grant Manager (P0647) shall have the authority to approve and sign federal grant applications, revisions and notices of awarding for grants for the Department of Environmental Quality.

#### 2. Grants awarded by DEQ to other organizations

- a. The Director of Environmental Enhancement (P4044) and the Coastal Resources Environmental Program Manager (P0879) shall have the authority to sign grant awards made by the Department to other agencies and organizations.
- b. The Director of Environmental Enhancement (P4044) shall have the authority to sign grant awards made by the Department to other agencies and organizations pertaining to projects funded in accordance with the provisions of the Litter Control and Recycling Fund.

#### 3. Waste Tire End User Reimbursements

The Director of Environmental Enhancement (P4044) shall have the authority to approve Waste Tire end user reimbursement requests for payment.

#### 4. Certifications of Consistency

The Director of Environmental Enhancement (P4044) shall have the authority to approve certifications of consistency for land acquisition and construction pertaining to projects funded under the provision of the Coastal Resources Management Program.

#### 5. Revolving Loan Fund

The Director of Water Program Coordination (P4014) shall have the authority to approve any necessary adjustment to the Board-approved loan amounts and/or interest rates for the Virginia Water Facilities Revolving Loan Fund following the receipt of bids.

#### 6. Tax Certifications

- a. The Director of Waste Program Coordination (P4041) and the Director of Waste Permitting (P0537) shall have the authority to process certifications of pollution control equipment related to the operation of landfills.
- b. The Director of Waste Program Coordination (P4041) and the Director of Waste Programs (P4035) shall have the authority to process certifications for recycling equipment.

## Delegation of Authority Memo

- c. The Director of Water Program Coordination (P4014) and the Director of Spill Response and Remediation (P0098) shall have the authority to process certifications of petroleum pollution abatement equipment.

### E. Air Program Regulations

The Director of Air Program Coordination (P4013) and Director Air Quality Programs (P4010) shall have the authority to sign consent orders and permits to implement source specific state implementation plan requirements under the federal Clean Air Act.

### F. Administrative Processing of Regulations

In my absence, the Regulatory Coordinator (P0024) shall have the authority to sign documents for submittal to the Registrar of Regulations.

## IV. REGIONAL OFFICE DELEGATIONS

### A. General

The Regional Directors (P0027, P0029, P0030, P0031, P0032, and P0054) shall have the authority and responsibility to take such actions as may be necessary to implement the programs over which they have been given direct management authority.

### B. Permitting

1. The Regional Directors and the Regional Permit Managers (P0026, P0035, P0038, P0041, P0044, P1014 ) shall have the authority to process the following permits:

Virginia Pollution Abatement (VPA)

Virginia Water Protection Permits and Waivers

Air Permits

Ground Water Withdrawal Permits

2. In addition, the Remediation Managers (P0036, P0428) shall have the authority to process Ground Water Withdrawal Permits.

3. The Regional Directors and the Regional Permit Managers shall have the authority to grant or deny public hearing/meeting requests.

4. In the absence of Regional Directors and Regional Permit Managers, Air Permit Managers, Water Permit Managers, and Planning Managers (P0072, P0320, P0873, P0607, P0875, P1113, P0065, P0877, P0172, P0323, P0870, P0494, P0381, P1039, P0173, P0342, P0878, P0876, P0241, and P0376) shall have the authority to process the following permits over which they have programmatic responsibility:

Virginia Pollution Abatement Permits

Virginia Water Protection Permit Waivers

Virginia Water Protection Permits (Category II and III)

Minor Air Permits

### C. Compliance and Enforcement

## Delegation of Authority Memo

1. The Regional Directors and, in their absence, the Regional Compliance and Enforcement Managers (P0040, P0043, P0037, P0274, P0046, P1013) shall have the authority to issue air and waste consent orders.
2. With my prior written approval, the Regional Directors shall have the authority to make case decisions and issue unilateral orders (non-consensual orders), after following appropriate administrative procedures, as defined in Va. Code 9-6.14:4, and as authorized in Va. Code 10.1-1186 (DEQ special orders), 10.1-1307.01.D (abatement of air pollution and enforcement of regulations), 10.1-1309 (air special orders), 10.1-1309.1 (air special orders), and 10.1-1455 (waste orders requiring compliance). This delegation excludes special orders under the authority of 10.1-1186 which contain penalty provisions.

### D. Remediation

1. The Regional Directors and, in their absence, the Remediation Managers (P0036, P0428, P1015) or the Compliance and Enforcement Managers shall have authority to:
  - a. declare an Environmental Emergency;
  - b. approve the use of up to \$25,000 from the VEERF for the environmental emergency situation;
  - c. approve the use of up to \$25,000 from VPSTF for the environmental emergency situation;
  - e. approve Oil Discharge Contingency Plans and Administrative Fees.
2. The Remediation Managers or the Compliance and Enforcement Managers (P0040, P0043, P0046) and, in their absence, the professional remediation staff assigned to the project, shall have the authority to process Corrective Action Plans (CAP) Permits and general permit coverage letters, approve Interim Authorizations and Corrective Action Plans, and to close sites with petroleum releases.

### E. Tax Certification

The Regional Permit Managers and the Compliance and Enforcement Managers shall have the authority to issue Certification of Pollution Control Equipment for Tax Exemptions, except those related to the operation of a landfill.

### F. Local Burning Ordinances

The Regional Directors and the Compliance and Enforcement Managers shall have the authority to approve local open burning ordinances in accordance with the provisions of 9 VAC 5-40-5641 and waivers from Article 40, Part II, of 9 VAC 5 Chapter 40 in accordance with the provisions of 9 VAC 5-40-5645.

### G. Mobile Source Programs

1. The Inspection/Maintenance Program Manager (P1105), Compliance and Enforcement Manager (P1013), and Northern Office Regional Director (P0031) shall have the authority to issue Emissions Inspection Station Permits and Emissions Repair Facility Certifications.<sup>2</sup> The Enforcement/Compliance Specialist (P1068), Inspections/Maintenance Program Manager (P1105), Compliance and Enforcement Manager (P1013) and Northern Office Regional Director (P0031) shall have the authority to conduct informal fact findings and make case decisions (including penalties pursuant to MSO regulations and Schedule of Penalties).
3. The Northern Regional Director (P0031) and Compliance and Enforcement Manager (P1013) shall have the authority to decide appeal of penalties imposed pursuant to informal fact findings.

#### Delegation of Authority Memo

4. The Northern Regional Director (P0031) shall have the authority to make case decisions pursuant to formal hearings conducted regarding MSO regulations in accordance with the Administrative Process Act.
5. The Inspections and Maintenance Manager (P1105), Compliance and Enforcement Manager (P1013) and Northern Regional Director (P0031) shall have the authority to suspend an emission station inspection permit without a formal hearing pursuant to 46.2-1185 of the Virginia Motor Vehicle Emissions Control Law and 9 VAC 5-91-600.
6. The Director of the Office of Air Quality Programs (P4010) and the Northern Regional Director (P0031) shall have the authority to issue Certifications for emissions inspection equipment meeting the Northern Virginia Analyzer Systems requirements in accordance with Article 22 of Title 46.2 of the Code of Virginia and 9 VAC 5-91-680.
7. The Director of the Office of Air Quality Programs and the Northern Regional Director shall have the authority to certify vehicle emission inspection systems for tax credit as authorized by Section 58.1-438.1 of the Code of Virginia.

## Appendix C - MOU with Shenandoah National Park

### MEMORANDUM OF UNDERSTANDING

between

Shenandoah National Park

and

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF AIR POLLUTION CONTROL

#### I. Purpose

The purpose of this Memorandum of Understanding (MOU) is to establish mutually acceptable guidelines for the effective management and protection of air quality related values within the Shenandoah National Park and the Commonwealth of Virginia. It is not intended to be a contract or to create any rights, duties or obligations which may be enforced by one party or the other. These guidelines address operational procedures for management and policy review, data collection and transfer, permit and regulation review, and impact analysis. The primary objective of this agreement is to provide for the greatest degree of cooperation between agencies consistent with their respective mandates and responsibilities as determined by the Clean Air Act as amended and subsequent regulation. This will be accomplished through the effective execution of the regulatory and statutory authorities granted to each agency.

#### II. Background and Objectives

Under the Clean Air Act (CAA) and its amendments, the Superintendent of Shenandoah National Park has the affirmative responsibility of protecting the air quality of the area and preventing significant impacts to the air quality related values (AQRVs).

The Department of Air Pollution Control (DAPC) is the State regulatory authority charged with carrying out the provisions of the CAA, and State Implementation Plan (SIP). The mission of the DAPC is to provide for the greatest degree of protection of air quality and AQRVs within the Commonwealth of Virginia consistent with existing law and regulation.

Because of the mutual responsibilities of the DAPC and the National Park Service under the CAA, and because of shared programmatic interests in air quality issues, this MOU is initiated between the two agencies.



This MOU is authorized, in part, by the Clean Air Act, 42 U.S.C. S 7401 et seq. In addition, the DAPC is empowered to cooperate with the Federal government in matters related to air quality management pursuant to S 10.1-1307A. of the Code of Virginia (1950), as amended.

### III. Statement of Work

#### Planning

The DAPC will notify the Superintendent when new regulations or SIP revisions are proposed. In turn, for proposals that may affect the air quality or AQRVs in Shenandoah National Park, the Superintendent will review and comment on the proposed regulations to assist in air management for the Commonwealth.

#### Permitting

As directed by the CAA, the Superintendent will be afforded the opportunity to review and comment on permit applications and draft state air pollution control permits according to the following guidelines:

- A. For applications for permits not subject to the requirements of the Prevention of Significant Deterioration (PSD) regulations:
  - (1) Once received, the appropriate regional office of the DAPC will provide copies of the Permit Application (DAPC Form 7 and accompanying information) to the Superintendent within one week of receipt for: a) all major new sources or major modifications, either of which would result in a net increase if 100 tons per year of any one pollutant within 100 kilometers of the Park, and b) all sources within ten kilometers of the Park.
  - (2) The DAPC will notify the permit applicant that the Superintendent (or his representative) is available for pre-application or pre-hearing meetings upon request. Superintendent participation in meetings depends on reasonable notification so that schedules can be arranged. Where appropriate, DAPC personnel will arrange and attend the meetings. However, nothing in the this MOU prohibits the Superintendent or his representative from meeting with an applicant without DAPC personnel present.
  - (3) The Superintendent will notify the DAPC Regional Office if the Best Available Control Technology (BACT) analysis, engineering analysis, modeling or the draft permit is requested. Such notification must be made as soon as

possible, but not later than two weeks after receipt by the Superintendent of the information identified in Paragraph 1. above.

- (4) The DAPC will provide the Superintendent with copies of all requested documentation pertaining to the application within ten working days of the request, if available, or within ten working days after the requested document becomes available.
- (5) For permits for which the Superintendent has requested information (as in paragraphs 3 and 4 above), when public hearings are required, the regional office of the DAPC will provide the Superintendent with a copy of the public hearing notice at least 30 days prior to the hearing.

For permits for which there is no required public hearing, the Superintendent shall notify the DAPC within 5 working days of receiving the permit application and draft permit whether a public hearing is desired.

B. For applications for permits anywhere in the state subject to the requirements of the PSD regulations.

- (1) The DAPC will provide notifications to the Superintendent that discussions have been held with representatives of a company, or companies, proposing to apply for a permit likely to be subject to the provisions of the PSD regulations; such notification shall be given within 30 days of the date on which the discussions were held. This is not to be interpreted to mean that the DAPC will notify the Superintendent as a result of inquiries from companies on permit requirements within the Commonwealth, even if the company indicates that the facility it is considering may be subject to PSD review. However, once the company indicates to the DAPC that it has decided to submit an application which will likely be subject to the provisions of the PSD regulations, the DAPC will provide to the Superintendent basic information on the proposed source; this information will include the following:
  - a. The name of the company.
  - b. The type of facility proposed.
  - c. The general location of the proposed facility.
  - d. As much information regarding equipment and emissions as is available.
  - e. An estimate of when a formal application is expected.

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- (2) The DAPC will notify the permit applicant that the Superintendent (or his representative) is available for pre-application or pre-hearing meetings upon request. Superintendent participation in meetings depends on reasonable notification so that schedules can be arranged. Where appropriate, DAPC personnel arrange and attend the meetings. However, nothing in this MOU prohibits the Superintendent from meeting with an applicant without DAPC personnel present.
- (3) The DAPC will provide to the Superintendent a copy of all PSD Letters of Determination and the PSD permit application information as listed below:
  - a. Permit Application (Form 7).
  - b. BACT analysis.
  - c. Modeling analysis.
  - d. Visibility analysis.
  - e. Other impact analyses.
  - f. Draft PSD permit.
- (4) Items specified in Paragraph 3., a. through e., will be transmitted to the Superintendent as soon as possible after receipt from the applicant. After providing all information specified in Paragraph 3. (Items a. through f.), the DAPC (Regional Director) will notify the Superintendent, in writing, when the Superintendent's 60-day review period will start.
- (5) After all information identified in Paragraph 3. has been provided to the Superintendent, it may be subject to minor modifications and additions during the DAPC review process. Any such additional information will be provided to the Superintendent as soon as possible, but will not change the 60-day review period as established in Paragraph 4. above.

If the applicant submits additional information during the review period which represents a significant change to the permit application or draft permit, additional review time will be allowed as agreed by the DAPC and the Superintendent.
- (6) All remaining PSD permit application information, including the engineering analysis report and the modeling analysis report prepared by the DAPC, and the final draft permit will be provided

to the Superintendent no later than 30 days prior to the public hearing.

- a. The DAPC Regional Director will provide all PSD permit information to the Superintendent except air quality analysis information.
  - b. Division of Technical Evaluation (DTE) will provide air quality analysis information for all PSD permits to the Superintendent.
- (7) The Superintendent may provide, and the DAPC shall consider when announcing the required 30-day comment period, any analysis performed by the Superintendent and received by the DAPC within 30 days of the notification required by paragraph 4. This analysis would show that a proposed source may have an adverse impact on AQRVs, (including visibility) in Shenandoah National Park.

If the DAPC disagrees with the Superintendent's determination, the DAPC will, in the notice of public hearing, either explain this decision or give notice as to where the explanation can be obtained.

### Ambient Air Monitoring

- A. Subject to the availability of funds and funding agencies' priorities, Shenandoah National Park agrees to:
- (1) Maintain and operate at least one gaseous pollutant monitoring station. Ozone will be monitored at a minimum of one site.
  - (2) Operate and maintain the IMPROVE visibility network at one site in the Park.
  - (3) Operate and maintain the National Dry Deposition Network (NDDN, or CASTNET) and National Atmospheric Deposition Network (NADP) at one site in the Park.
  - (4) Operate three meteorological (MET) stations to record data on wind speed, direction, temperature, and humidity.
  - (5) As appropriate, other associated monitoring such as NO<sub>x</sub>, solar radiation, etc. may also be operated independent of this agreement.

## SNP MOU

- (6) Notify the DAPC (DTE) as soon as possible by telephone when any monitoring instrument records an exceedance of any ambient air quality standard.

B. The Department of Air Pollution Control agrees to:

- (1) Provide Shenandoah National Park air quality monitoring with the DAPC-recommended calibration and maintenance procedures.
- (2) Perform two quality assurance audits on the Park's existing gaseous pollutant (sulfur dioxide and/or ozone) monitors on a schedule as mutually agreed during two separate quarters each year in accordance with Environmental Protection Agency (EPA) protocol as stated in 40 CFR, Part 58.

### Data Exchange

A. Shenandoah National Park agrees to:

- (1) Provide gaseous pollutant monitoring data to the data to the DAPC in a mutually acceptable format.
- (2) Provide data summaries and analysis on the IMPROVE, NADP, and NDDN (CASTNET) programs as they become available; to the extent possible, also provide data to DAPC upon request.

B. The Department of Air Pollution Control agrees to:

Provide pollutant data summaries from other sites in the Commonwealth to the Superintendent upon request.

### Research

- A. The DAPC will assist the Superintendent, within budget limitations, in carrying out research evaluations needed to determine air pollution impacts to sensitive resources in Shenandoah National Park.
- B. Both agencies will cooperate in using available information to assess air pollution impacts in Shenandoah and surrounding lands and to make joint recommendations to the responsible State and Federal agencies as to management strategies that may be undertaken to reduce threats of unacceptable impacts.

## IV. Key Officials

Shenandoah National Park

Superintendent  
Chief Natural Resources & Science Division  
Environmental Protection Specialist

Department of Air Pollution Control

Executive Director  
Assistant Executive Director, Technical Operations  
Assistant Executive Director, Regional Operations  
Director, Division of Monitoring  
Director, Division of Technical Evaluation  
Director, Division of Data Analysis  
Regional Directors

IV. Required Clauses

Officials Not to Benefit

No member of, delegate to Congress or President's Commissioner shall be admitted to any share or part of this agreement or to any benefit to arise therefrom, but this provision shall not be construed to extend to the agreement if made with a corporation for its general benefit.

Nondiscrimination

During the performance of this agreement, the cooperators agree to abide by the terms of Presidential Executive Order 11246 on non-discrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The cooperators will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex, or national origin.

V. Termination

This MOU will become effective on the date of the last signature and stay in effect until August 31, 1998. At that time both parties to the agreement will reassess the benefits that have accrued and determine if the agreement should be reaffirmed. If both parties resolve that it has produced the desired results of mutual cooperation and should be continued as is, they need only sign a reaffirmation memorandum, and the agreement will be continued for another one year period. This agreement may be modified or discontinued at the request of either party provided the request for any major change is submitted to the other party for consideration not less than 60 days in advance of the effective date of the desired modification or termination.

SNP MOU

Signature Obtained

J. W. Wade  
Superintendent  
Shenandoah National Park

Signature Obtained

Wallace N. Davis  
Executive Director  
Dept. of Air Pollution Control  
Commonwealth of Virginia

March 30, 1993 (date)

March 31, 1993 (date)

**UNCHANGED** – J. McKie, 8-05-02 (The agreement is out-dated, but it must be resigned in order to be revised.)

**Appendix D - MOU with Jefferson National Forest**

MEMORANDUM OF UNDERSTANDING

between

JEFFERSON NATIONAL FOREST

and

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF AIR POLLUTION CONTROL

I. Purpose

The purpose of this Memorandum of Understanding is to establish mutually acceptable guidelines for the effective management and protection of air quality related values within the Jefferson National Forest and the Commonwealth of Virginia. It is not intended to be a contract or to create any rights, duties or obligations which may be enforced by one party or the other. These guidelines address operational procedures for management and policy review, data collection and transfer, permit and regulation review, and impact analysis. The primary objective of this agreement is to provide for the greatest degree of cooperation between agencies consistent with their respective mandates and responsibilities as determined by the Clean Air Act as amended and subsequent regulation. This will be accomplished through the effective execution of the regulatory and statutory authorities granted to each agency.

II. Background and Objectives

Under the Clean Air Act (CAA) and its amendments, the Forest Supervisor of the Jefferson National Forest, as the delegated Federal Land Manager (FLM), has the affirmative responsibility to protect the air quality related values (AQRVs) of the James River Face Wilderness, a Class I area.

The Department of Air Pollution Control (DAPC) is the State regulatory authority charged with carrying out the provisions of the CAA, and State Implementation Plan (SIP). The mission of the DAPC is to provide for the greatest degree of protection of air quality and air quality related values within the Commonwealth of Virginia consistent with existing law and regulation.



Because of the mutual responsibilities of the DAPC and the USDA Forest Service under the CAA, and because of shared programmatic interests in air quality issues, this Memorandum of Understanding is initiated between the two agencies.

This Memorandum of Understanding is authorized, in part, by the Clean Air Act, 42 U.S.C. S 7401 et seq. In addition, the DAPC is empowered to cooperate with the Federal government in matters related to air quality management pursuant to S 10.1-1307A. of the Code of Virginia (1950), as amended.

### III. Statement of Work

#### Planning

The DAPC will notify the Forest Supervisor, hereafter referred to as the FLM, when new regulations or State Implementation Plan (SIP) revisions are proposed. In turn, for proposals that may affect air quality related values in the James River Face Wilderness, the FLM will review and comment on the proposed regulations to assist in air management for the Commonwealth.

#### Permitting

As directed by the CAA, the FLM will be afforded the opportunity to review and comment on permit applications and draft state air pollution control permits according to the following guidelines:

- A. For applications for permits not subject to the requirements of the Prevention of Significant Deterioration (PSD) regulations:
  - (1) Once received, the appropriate regional office of the DAPC will provide copies of the Permit Application (DAPC Form 7 and accompanying information) to the FLM within one week of receipt for 1) all major sources (emissions equal to, or greater than, 100 tons per year of any one pollutant) within 100 kilometers of James River Face Wilderness, and 2) all sources within ten kilometers of James River Face Wilderness.
  - (2) The DAPC will notify the permit applicant that the FLM is available for pre-application or pre-hearing meetings upon request. FLM participation in meetings is based on two conditions: a) reasonable notification so that schedules can be arranged, and b) DAPC personnel arrange and attend the meetings. Nothing in the this MOU prohibits the FLM from meeting with an applicant without DAPC personnel present.

- (3) The FLM will notify the DAPC Regional Office if the Best Available Control Technology (BACT) analysis, engineering analysis, modeling or the draft permit is requested. Such notification must be made as soon as possible, but not later than two weeks after receipt by the FLM of the information identified in Paragraph A.(1) above.
- (4) The DAPC will provide the FLM with copies of all requested documentation pertaining to the application within ten working days of the request, if available, or within ten working days after the requested document becomes available.
- (5) For permits for which the FLM has requested information (as in paragraphs 3 and 4 above), when public hearings are required, the regional office of the DAPC will provide the FLM with a copy of the public hearing notice at least 30 days prior to the hearing.

For permits for which there is no required public hearing, the FLM shall notify the DAPC within 5 working days of receiving the permit application and draft permit, whether a public hearing is desired.

B. For applications for permits anywhere in the state subject to the requirements of the PSD regulations.

- (1) The DAPC will provide notifications to the FLM that discussions have been held with representatives of a company, or companies, proposing to apply for a permit under the provisions of the PSD regulations; such notification shall be given within 30 days of the date on which the discussions were held. This is not to be interpreted to mean that the DAPC will notify the FLM as a result of inquiries from companies on permit requirements within the Commonwealth, even if the company indicates that the facility it is considering may be subject to PSD review. However, once the company indicates to the DAPC that it has decided to submit an application which will likely be subject to the provisions of the PSD regulations, the DAPC will provide to the FLM basic information on the proposed source; this information will included the following:
  - a. The name of the company.
  - b. The type of facility proposed.
  - c. The general location of the proposed facility.
  - d. As much information regarding equipment and emissions as is available.
  - e. An estimate of when a formal application is expected.

- (2) The DAPC will notify the permit applicant that the FLM is available for pre-application or pre-hearing meetings upon request. Participation in meetings is based on two conditions: a) reasonable notification so that schedules can be arranged, and b) DAPC personnel arrange and attend the meetings. Nothing in this MOU prohibits the FLM from meeting with an applicant without DAPC personnel present.
- (3) The DAPC will provide to the FLM a copy of all PSD Letters of Determination and the PSD permit application information as listed below:
  - a. Permit Application (Form 7).
  - b. BACT analysis.
  - c. Modeling analysis.
  - d. Visibility analysis.
  - e. Other impact analyses, including AQRVs.
  - f. Draft PSD permit.
- (4) Items specified in Paragraph (3), a. through e., will be transmitted to the FLM as soon as possible after receipt from the applicant. After providing all information specified in Paragraph (3), the DAPC (Regional Director) will notify the FLM, in writing, when the FLM 60-day review period will start.
- (5) After all information identified in Paragraph (3) has been provided to the FLM, it may be subject to minor modifications and additions during the DAPC review process. Any such additional information will be provided to the FLM as soon as possible, but will not change the 60-day review period as established in Paragraph (4) above.

If the applicant submits additional information during the review period which represents a significant change to the permit application or draft permit, additional review time will be allowed as agreed by the DAPC and the FLM.
- (6) All remaining PSD permit application information, including the engineering analysis report and the modeling analysis report prepared by the DAPC, and the final draft permit will be provided to the FLM no later than 30 days prior to the public hearing.
  - a. The DAPC Regional Director will provide all PSD permit information to the FLM except air quality analysis information.
  - b. Division of Technical Evaluation (DTE) will provide air quality analysis information for all PSD permits to the FLM.
- (7) The FLM may provide, and the DAPC shall consider when announcing the required 30-day comment period, any analysis performed by the FLM and received by the DAPC within 30 days of the notification required by

paragraph (4). This analysis would show that a proposed source may have an adverse impact on air quality related values, including visibility, in James River Face Wilderness.

If the DAPC disagrees with the FLM's determination, the DAPC will, in the notice of public hearing, either explain this decision or give notice as to where the explanation can be obtained.

#### Research

- A. The DAPC will assist the FLM, within budget limitations, in carrying out research evaluations needed to determine air pollution impacts to sensitive resources in James River Wilderness
- B. Both agencies will cooperate in using available information to assess air pollution impacts in James River Face Wilderness and surrounding lands and to make joint recommendations to the responsible State and Federal agencies as to management strategies that may be undertaken to reduce threats of unacceptable impacts.

#### IV. Key Officials

##### Jefferson National Forest

Forest Supervisor

##### Department of Air Pollution Control

Executive Director  
Assistant Executive Director, Technical Operations  
Assistant Executive Director, Regional Operations  
Regional Directors  
Director, Division of Monitoring  
Director, Division of Technical Evaluation  
Director, Division of Data Analysis

#### V. Termination

This Memorandum of Understanding will become effective on the date of the last signature and stay in effect until August 31, 1997. At that time both parties to the agreement will reassess the benefits that have accrued and determine if the agreement should be reaffirmed. If both parties resolve that it has produced the desired results of mutual cooperation and should be continued for another one year period. This agreement may be modified or discontinued at the request of either party provided the request for any major

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change is submitted to the other party for consideration not less than 60 days in advance of the effective date of the desired modification or termination.

VI. Project Coordination

Administration of this agreement shall be accomplished by:

Pamela Faggert  
Assistant Executive Director,  
Regional Operations  
Virginia Department of Air  
Pollution Control  
Room 801, Ninth St. Office Bldg.  
Richmond, VA 23240  
(804) 786-5791

Cindy Huber  
Air Resource Specialist  
USDA Forest Service  
Jefferson National Forest  
2900 Caller Service  
210 Franklin Rd., SW  
Roanoke, VA 24001  
(703) 982-6068

IN WITNESS THEREOF, the parties hereto have executed the Agreement as of the last date written below.

Signature Obtained  
Joy E. Berg  
Forest Supervisor  
Jefferson National Forest

Signature Obtained  
Wallace N. Davis  
Executive Director  
Dept. of Air Pollution Control  
Commonwealth of Virginia

Date 3-29-93

Date 3/30/93

**UNCHANGED** – J. McKie, 2-13-02 (I believe that the AG's office has taken some exception to this policy as not quite fitting §1307 E, but to my knowledge it is still in effect.)

## **Appendix E - SAPCB Suitability Policy**

### VIRGINIA STATE AIR POLLUTION CONTROL BOARD

September 11, 1987

It is the policy of the State Air Pollution Control Board (SAPCB) that the suitability of a proposed facility to a specific location be determined by the local governing body, except as to questions involving the air quality regulatory authority of the SAPCB. This position is consistent with the intent of the *Code of Virginia* (section 15.1-427) that encourages and empowers local governments to make use of planning and zoning as a way to govern community development and economic growth in order to protect public health, safety, and welfare. The SAPCB, therefore, shall consider the suitability of a proposed facility, only as it pertains to:

1. Air quality characteristics and performance requirements defined by SAPCB regulations;
2. The health impact of air quality deterioration which might reasonably be expected to occur during the grace period allowed by SAPCB regulations or the permit conditions to fix malfunctioning air pollution control equipment;
3. Anticipated impact of odor on surrounding communities or violation of the SAPCB Odor Rule.

These criteria give the SAPCB considerable latitude in making judgments; however, it is clearly not the intention of the SAPCB to become a step in the appeal process for those who wish to challenge a local government planning or zoning decision or as a way for local governments to avoid zoning or suitability decisions. The SAPCB, therefore, would consider a decision by a local governing body as to the suitability of a proposed new facility or expansion of an existing facility, but would approve or disapprove a permit application only within the context of the three air quality issues enumerated above.

**Appendix F - Permit Application Site Evaluation**

Applicant \_\_\_\_\_

Reg. # (or new) \_\_\_\_\_

Address (Plant site) \_\_\_\_\_

\_\_\_\_\_

Proposed Source

\_\_\_\_\_

\_\_\_\_\_

Estimate the population density of the area around the proposed site: (Circle one)

Sparsely Populated      Moderately Populated      Densely Populated

Describe the terrain of the area around the proposed site: (Circle all that apply)

Flat    Rolling    Valley    Mountainous    River    Lake    Ocean

Describe the land use of the area around the proposed site: (Circle all that apply)

Urban    Rural    Residential    Agricultural    Forest    Commercial    Industrial    Recreational  
Institutional

Give name and approximate distance of any nearby:

School \_\_\_\_\_

Hospital/Nursing Home \_\_\_\_\_

Other Building \_\_\_\_\_

Name all existing significant air pollution sources within one mile of proposed site:

\_\_\_\_\_  
\_\_\_\_\_

If application is for an existing source, is source operating in compliance with applicable regulations or under an approved compliance plan? (Circle one)    YES    NO    N/A

Site Evaluation

Based on this site evaluation, the proposed source will not have an adverse effect on the ambient air quality in the immediate area of the site:

(Circle one) YES NO UNKNOWN

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Evaluation conducted by \_\_\_\_\_ Date \_\_\_\_\_  
(Environmental Inspector)

Copy topographic map on back and mark source location



## Appendix G - Application Completeness Checklist

### A. Basic Checklist

\_\_\_\_\_ Regional Office

Source/facility name:

Registration no.:

11. County/plant ID no.:

Greenfield Site		Major Modification		Modeling Required	
-----------------	--	--------------------	--	-------------------	--

These items must be fulfilled for the Department to consider the permit application complete:

#### FOR ALL FACILITIES

- \_\_\_\_\_ 1. Application Information is complete and corresponds to pages indicated on the Document Certification Form.
- \_\_\_\_\_ 2. Document Certification Form is signed by a responsible official.
- \_\_\_\_\_ 3. Appropriate Form 7 pages are complete and correct.
- \_\_\_\_\_ 4. If any pages are marked "confidential information," the applicant must submit written justification to meet the four (4) criteria by which the department determines that the material is confidential (9 VAC 5-170-60.C).
- \_\_\_\_\_ 5. Calculations, with justifications, are provided.
- \_\_\_\_\_ 6. Enclosed material safety data sheets (MSDS) and other information from the supplier of equipment has sufficient detail to determine emissions from the equipment (or not required).
- \_\_\_\_\_ 7. Process flow diagram enclosed which has sufficient detail to evaluate emissions from the facility (or not required).
- \_\_\_\_\_ 8. A stack test report is provided to substantiate calculations (or not required).
- \_\_\_\_\_ 9. Facility-wide emissions information received (or previously submitted).

Application Completeness Checklist

- \_\_\_ 10. A certification signed by the applicant that “I certify that I understand that the existence of a permit under this article does not shield the source from potential enforcement of any regulation of the board governing the major NSR program and does not relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations.”

**FOR NEW FACILITIES/MAJOR MODIFICATIONS**

- \_\_\_ 1. A signed local governing body certification form is enclosed.
- \_\_\_ 2. Enclosed site map in sufficient detail to determine latitude and longitude or UTM coordinates.
- \_\_\_ 3. Approvable monitoring protocol and data received (or not required).
- \_\_\_ 4. Approvable BACT/LAER analysis received (or not required).

**FOR FACILITIES REQUIRING MODELING**

- \_\_\_ 1. Site plan enclosed which includes building dimensions, property and fence lines, and vent and stack locations; as determined necessary by the Department.
- \_\_\_ 2. Approvable modeling protocol and results received demonstrating compliance (or not required).

Engineer \_\_\_\_\_ Date \_\_\_\_\_  
 Peer Reviewer \_\_\_\_\_ Date \_\_\_\_\_

**B. Additional Matters**

Additional matters bearing on application completeness are listed here. In addition to proper descriptions and information on the Form 7 and accompanying calculations, a new source review permit application should contain the following items.

- (A) A source location map, preferably a U.S. Geological Survey topographic map, allowing the reader to determine UTM coordinates for the site of the source;
- (B) A diagram of existing and proposed facilities, including all buildings, locations of stacks and other emission points by identification number, location of property and fence lines. If modeling is necessary, the dimensions of buildings may be required.

Application Completeness Checklist

- (C) Process flow diagrams/schematic, with each throughput/output and narrative description; emission routing through emission controls and/or stacks (individual, combination, or multiples).
- (D) Environmental data sheets, product data sheets, and material safety data sheets (MSDS) showing the percent, by weight, of each ingredient;
- (E) Emission estimate calculations and/or stack test reports, if applicable. For coatings, the source should include the VOC content in pounds per gallon, excluding water and exempt solvents. For VOCs, the same measurement, as delivered by the coating applicator, should also be included.
- (F) An approvable BACT/LAER analysis for all new major sources and major modifications, and for other sources if required.
- (G) An approvable air quality analysis and secondary impact analysis, if applicable.
- (H) An approvable ambient or meteorological monitoring protocol and results, if applicable.
- (I) For modifications to existing facilities, sufficient data regarding historical emissions to determine whether net emissions increases trigger applicability of the PSD rule (9 VAC 5-80-1700 et seq.) or the rule on major sources in non-attainment areas (9 VAC 5-80-2000 et seq.).

## Appendix H - Sample Cover Letter for Final Permits

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

Location: {source county/city}  
Registration No.: {source registration number}  
AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

Enclosed is a permit to [construct][modify][reconstruct][relocate] and operate a {facility type} in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. [This permit supersedes your permit dated {permit issue date}.]

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In the course of evaluating the application and arriving at a final decision to approve the project, the Department of Environmental Quality (DEQ) deemed the application complete on {application complete date} [and solicited written public comments by placing a newspaper advertisement in the {name of newspaper} on {date of advertisement}]. A public hearing was held on {public hearing date}. The required comment period, provided by 9 VAC 5-80-1170 expired on {public comment period closing date}].

This approval to [construct][modify][reconstruct][relocate] and operate shall not relieve {company name} of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provides that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-180 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

Sample Cover Letter for Final Permits

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision (the date you actually received this decision or the date on which it was mailed to you, whichever occurred first), within which to initiate an appeal of this decision by filing a Notice of Appeal with:

{director name}, Director  
Department of Environmental Quality  
P. O. Box 10009  
Richmond, VA 23240-0009

In the event that this decision is served on you by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please call the regional office at {regional office phone number}.

Sincerely,

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

12.

13. **encl: Permit**

[NSPS, Subpart {subpart}]

[NESHAP, Subpart {subpart}]

cc: Director, OAPP (electronic file submission)  
Manager, Office of Data Analysis (electronic file submission)[*major only*]  
[Chief, Air Enforcement Branch (3AT20), U.S. EPA, Region III][*major or NSPS only*]

## Appendix I - Interpretation Memo on "Designed to Accommodate"

OAPP-024-98

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Division of Air Program Coordination  
Office of Air Permit Programs

### MEMORANDUM

**TO:** Terrance J. Godar  
Air Permit Manager, NVRO

**FROM:** Robert L. Beasley  
Assistant Division Director, DAPC-OAPP

**SUBJECT:** Interpretation of "Designed to Accommodate" in the  
New Source Review Definition of "Modification"

**Copies:** John M. Daniel, Jr., P.E., DEE  
Director, Division of Air Program Coordination  
  
Regional Air Permit Managers

**DATE:** October 16, 1998

This is in response to your memo, same subject, dated September 22. In that memo, you asked, on behalf of yourself and the other Air Permit Managers, whether I agreed with your interpretation of the term "designed to accommodate" as it appears in sub-section (4) of the definition of "Modification" in the new source review permitting rule, 9 VAC 5-80-10 B.3. [now 9 VAC 5-80-1110 C] in the Regulations. You also asked for my preference on who should respond to the source which raised the question to you.

The short answers to your questions are:

(1) I agree with your interpretation of the term "designed to accommodate" as described below.

(2) I recommend that you respond directly to the source which contacted you with this question.

### Discussion

As you discussed with Charlie Ellis of my staff on October 5, the provision is essentially aimed at sources which would face permitting for a modification if a change in fuel or raw material is one which the emissions unit in question were not "designed to accommodate." The question was raised to you because there is a divergence of opinion around the nation on how to interpret the term "designed to accommodate." A recent case in Florida stated that the facility was not capable of using the alternative fuel or raw material unless the material was specifically named in final design documents. In another case, the facility owner could change the material handling equipment so long as the equipment itself did not require a permit and the unit using the material did not require modification.

In deciding whether an emissions unit is designed to accommodate an alternative fuel or raw material, we might ask the following questions:

## Interpretation Memo on "Designed to Accommodate"

(1) Does the alternative fuel or raw material need to be named, either in the permit if there is one, or in the final specifications for the emissions unit, in order for the emission unit to be "designed to accommodate" the alternative?

Answer: Not if no physical changes were needed in order to burn the fuel or process the material.

(2) Does the use of the alternative fuel or raw material require any change in the emissions unit or its control equipment?

Answer: If it does, then the change in the emissions unit needs to be evaluated to determine permit applicability or the applicability of the coal preparation NSPS. New material handling equipment would need to be evaluated, as well. However, the change in the control equipment would not require permit evaluation but might require control technology evaluation if it is connected to a unit requiring a permit.

Your memo provided adequate discussion of applicable cases. It went on to recommend that a unit be considered to be "designed to accommodate" an alternative fuel or raw material if (a) the fuel could be combusted without making a physical change to the combustion unit, or (b) the fuel handling system was included in final construction specifications for the unit. If a change in the fuel handling system is required to accommodate the change in fuels, it would require evaluation to determine PSD applicability and also to determine whether the change is a modification under the coal preparation NSPS (40 CFR Part 60, subpart Y). As indicated above, we agree with these conclusions.

Please note that previously issued permits may establish less flexible conditions. Where previous permits exist, their conditions affecting alternative fuels or raw materials would need to be evaluated case by case.

The question of the possible need for permitting of increased emissions attributable to changes in fuels or raw materials does not arise in the analysis of "designed to accommodate." That is because it is effectively addressed, as you agreed in the telephone conversation, by (a) the PSD applicability evaluation, (b) the coal preparation NSPS applicability evaluation, and (c) the other provisions of the definition of "modification" in 9 VAC 5-80-10 B.3 [now 9 VAC 5-80-1110 C.].

I hope this discussion is helpful to you in resolving the question asked by your source.

## Appendix J - Memo 01-1002 on PM Exemption Levels

### MEMORANDUM

**TO:** REGIONAL DIRECTORS

**FROM:** John M. Daniel, Jr. P.E., DEE  
Director, Division of Air Program Coordination

**SUBJECT:** Memo Number 01-1002. Guidance on Permit Applicability - PM and PM-10 Sources

**COPIES:** David K. Paylor  
  
Regional Permit Managers  
  
Air Permit Managers

**DATE:** November 2, 2001

#### Background and Purpose

Total Suspended Particulate (TSP) has been dropped by DEQ and EPA as a criteria pollutant, and an ambient air quality standard for TSP no longer exists.

9 VAC 5-80-11 [now 9 VAC 5-80-1320] contains exemption levels for permits for various pollutants. This guidance clarifies what should be done in making permit applicability decisions until such time as the regulations have been amended to address the inadvertent exclusion of PM from 9 VAC 5-80-11 [revision is now completed]. It also addresses "state major", major NSR, and Title V permitting.

This memo incorporates and supercedes Memo Number 99-1001 "Guidance on Fixing 9 VAC 5-80-11 D and 9 VAC 5-80-11E".

#### Minor NSR

Proposed revisions to 9 VAC 5-80-11D (New Sources) [now completed as 9 VAC 5-80-1320 C ] would change the exemptions as follows, and you should be governed accordingly in making permit applicability decisions.

The term Particulate Matter will have two components: PM-10 and PM as follows:



PM-10 -- 15 tons per year  
PM -- 25 tons per year

The PM-10 number is the primary one for determining whether the source is exempt from permitting, and the PM number would only be used as a surrogate in case you are not able to quantify PM-10 emissions.

Proposed revisions to 9 VAC 5-80-11E (Modified Sources) [now completed as 9 VAC 5-80-1320 D ] would change the exemptions as follows, and you should be governed accordingly in making permit applicability decisions.

PM-10 -- 10 tons per year  
PM -- 15 tons per year

Where PM-10 can be quantified, that will be the basis for making permit exemption decisions. PM will only be used as a surrogate in those instances where PM-10 emissions cannot be quantified.

It should also be noted that some sources are subject to NSPS's regulating PM emissions. In these cases, applicability of an NSPS may also make a facility subject to permitting even if PM/PM-10 emissions are below the thresholds listed above.

## **State Major Determination**

Once a facility has been determined to be subject to minor NSR permitting for PM / PM-10, PM emissions must be considered as well as PM-10 emissions for determination of whether or not the permit is state major.

## **Major NSR**

In determining applicability of PSD, both PM and PM-10 emissions must be considered.

Of course, only pollutants for which an area is non-attainment need to be reviewed for non-attainment NSR. Currently, no areas of Virginia are non-attainment for PM-10. At this time, PM-10 is the only particulate matter criteria pollutant, so non-attainment major NSR does not apply anywhere in the state for any form of particulate matter.

## **Title V**

DEQ's Title V regulation's applicability section contains the following language:

"Particulate matter shall be used to determine the applicability of this article to major sources only if particulate matter (PM-10) emissions cannot be quantified in a manner acceptable to the board."  
(9 VAC 5-80-50 F)

Therefore, if the PM-10 contribution to PM is known, a source is subject to Title V only if the source is major for PM-10. Should PM emissions be known but not the PM-10 fraction, the determination of whether or not the source is subject to Title V is based on PM emissions.

## **Examples – Minor NSR, “state major”, PSD, and Title V applicability**

In each of the following cases, the following apply:

- the source is a new source with PM/PM-10 emissions,
- there are no other air pollutants emitted,
- there are no other emission sources at the facility,
- all emission numbers are uncontrolled emissions (and PTE),
- there are no other issues that would trigger minor NSR permitting requirements (such as NSPS applicability), and
- the source is not in one of the 28 listed source categories for PSD. Therefore the source would only be subject to PSD if emissions were greater than 250 tons per year.

### **Case 1**

Source 1 has 110 tons annual uncontrolled PM emissions. It is known that 5 tons are PM-10 and the rest is larger PM (PM but not PM-10). Because PM-10 emissions are known, that number is used to determine minor NSR permit applicability.

Because the 5 tons per year of PM-10 emissions is below the new source threshold of 15 tons per year, the source is not subject to minor NSR permitting. Since the source is not subject to minor NSR permitting requirements for PM / PM-10, it is not “state major” either, since state major only applies when minor NSR applies.

Emissions of both PM and PM-10 are below PSD applicability levels.

Because the contribution of PM-10 to PM emissions is known, the PM-10 emissions are used to determine Title V applicability. The source is not subject to Title

V because the PM-10 emissions of 5 tons per year are below the 100 ton per year threshold.

## **Case 2**

Source 2 has 110 tons annual uncontrolled PM emissions. There is no information on the size distribution of this PM, so it is not known how much of it is PM-10. In this case, since there is no information on the PM-10 content of the PM, the minor NSR permit applicability is based on the 110 tons per year of PM. Since 110 tons exceeds the 25 tons per year exemption level, the facility is subject to minor NSR permitting for PM. It is also “state major” for PM, since the 110 tons per year exceeds the 100 ton per year threshold for state major permits. PM emissions are below PSD applicability levels.

Because the PM-10 fraction of PM emissions is unknown, PM emissions must be used to determine Title V applicability. The source is subject to Title V permitting because its 110 tons per year of PM emissions is above the 100 tons per year major source level.

## **Case 3**

Source 3 has 150 tons annual uncontrolled PM emissions. It is known that 30 tons are PM-10 and the rest is larger PM (PM but not PM-10). Because PM-10 emissions are known, PM-10 emissions are used to determine minor NSR permit applicability.

Because the 30 tons per year of PM-10 emissions exceeds the new source exemption level of 15 tons per year, the source is subject to minor NSR permitting. Because the source is subject to minor NSR permitting for PM-10, the determination of whether or not it is state major needs to be made for both PM and PM-10. Since PM and PM-10 are both pollutants, it must be determined whether the permit will be a state major permit for PM and/or for PM-10. Because PM emissions exceed 100 tons per year, the source is state major for PM. The source is not state major for PM-10 because its PM-10 uncontrolled emissions are less than 100 tons per year.

Both PM and PM-10 emissions are below PSD applicability levels.

Because the PM-10 fraction of PM emissions is known and PM-10 emissions are less than 100 tons per year, the source is not subject to Title V permitting because its 30 tons per year of PM-10 emissions is below the 100 tons per year major source level.

## **Case 4**

Source 4 has 300 tons annual uncontrolled PM emissions. It is known that 10 tons are PM-10 and the rest is larger PM (PM but not PM-10). Because the PM-10 emissions are known, that number is used to determine minor NSR permit applicability. Since the 10 tons per year of PM-10 emissions is below the new source threshold of 15 tons per year, the source is not subject to minor NSR permitting. Since the source is not subject to minor NSR permitting for PM/PM-10, it is not state major either.

PSD applicability must be evaluated separately. Since the 300 tons per year of PM (assuming uncontrolled emissions are equal to the PTE) emissions exceed the major source threshold of 250 tons per year, the facility is subject to PSD for PM. However, the 10 tons per year of PM-10 is below the 250 tons per year major source threshold. Therefore the facility is not subject to PSD for PM-10.

In this case the PM-10 contribution to PM emissions is known. Because PM-10 emissions are below 100 tons per year, the source is not subject to Title V permitting.

## Appendix K- Policy Guidance Memo on Non-Road Engines

OAPP-043-99

### MEMORANDUM

**TO:** Karen Sismour  
Regional Permit Manager, Tidewater Regional Office

**FROM:** C. L. Turner  
Director, Office of Air Permit Programs

**SUBJECT:** Permitting and Compliance Issues for Non-road Internal Combustion Engines

**DATE:** December 1, 1999

**Copies:** John M. Daniel, Director, Division of Air Programs Coordination  
John E. Schubert, Air Inspections Coordinator

### Background and Issues Raised

A number of facilities are known to employ mobile diesel engines to provide compressed air, high-pressure water, or electricity as an integral part of their processes. These engines vary widely in size and emission rates. Many are at facilities which are permitted, although some are not. Types of sources using these engines include shipyards doing abrasive blasting operations, container cranes and "straddle carriers"<sup>4</sup> at Virginia Port Authority terminals, certain rides at Busch Gardens, and cement import/export terminals, among others. These engines frequently have uncontrolled or potential emissions above permit exemption levels. Some types of internal combustion

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<sup>4</sup> A "straddle carrier" is a diesel-powered wheeled vehicle that moves cranes and other equipment around on a facility. It is essentially shaped like an upside-down U, hanging over equipment it is carrying.

engines have historically been subject to permitting, such as generators<sup>5</sup> and crushers. Others, such as hydroblasters and portable air compressors, have not traditionally received permits. The aggregate emissions of such engines and the rest of the facility where they are employed may trigger PSD major source levels. Some of these engines are rental units rather than being owned by the facility where they are employed.

The questions addressed by this Memo are: 1. what is the nature of our regulatory jurisdiction relative to these engines, and 2. what courses of action are open to us once the question of regulatory jurisdiction is resolved.

## Discussion of Regulatory Jurisdiction

According to the Regulations for the Control and Abatement of Air Pollution (“the Regulations”), a stationary source is “a building, facility, structure, or installation which emits or may emit any air pollutant.”<sup>6</sup> The rules do not specify whether an emission unit which is movable within the facility is stationary. However, the Clean Air Act excludes from its definition of “stationary source” the emissions “resulting from a non-road engine or non-road vehicle as described in section 216.”<sup>7</sup> Section 216, in turn, defines “non-road vehicle” as a vehicle that is powered by a non-road engine and that is NOT:

- a motor vehicle, or
- a vehicle used solely for competition.<sup>8</sup>

Thus, internal combustion engines at shipyards that meet the definition of “non-road engines” cannot be regulated as stationary sources. However, if they are not non-road engines, they could be either stationary or mobile sources. For this reason, it is worth examining the “non-road engines” definition in federal rules.

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<sup>5</sup> See Memo No. 97-1001, dated January 22, 1997, subject: “Emergency Generators -- Permit Exemption Guidance”. This is available at “K:\Agency\Air Permitting\Memos\97\Memos\97-1001-Emergency\_Generators\_Permit\_Exempt\_Guide.doc” [file is also now on VADEQNet at [M:\air\air\\_permitting\memos](M:\air\air_permitting\memos)]. It is based on an EPA guidance memo issued the preceding year to help determine the potential to emit of seldom-used emergency generators.

<sup>6</sup> See the definitions of “stationary source” in the permit program rules, as follows: for minor new source review, 9 VAC 5-80-10 B. [now 9 VAC 5-80-1110]; for PSD, 9 VAC 5-80-1710 C.; for non-attainment major, 9 VAC 5-80-2010 C.; for state operating permits, 9 VAC 5-80-810 C.; and for Title V, 9 VAC 5-80-60 C.

<sup>7</sup> Section 302(z) of the Clean Air Act, as cited in an EPA letter to the South Coast Air Quality Management District, dated March 30, 1993, page 2. This appears in Title III of the Act, pertaining to general provisions.

<sup>8</sup> Clean Air Act Amendments of 1990, Title II, part A, section 216(11). Title II of the Act pertains to “Emission Standards for Moving Sources”. Section 216 is one of the authorities for 40 CFR Part 89, the federal rules governing emissions from non-road engines.

### Non-Road Engines under Federal Rules

The federal rules on emissions from non-road engines appear in Title 40, Code of Federal Regulations, Part 89. These rules mandate EPA certification for the manufacture of “non-road engines” that “have a gross power output at or above 37 kilowatts and that are used for any purpose.”<sup>9</sup> Non-road engines are defined as:

- engines in or on a piece of equipment that is self-propelled and also accomplishes another function, such as lawn mowers;
- engines that, by themselves or on a piece of equipment, are portable or transportable from one location to another.

Engines used in mining, aircraft, marine vessels, and some other uses are exempted.<sup>10</sup>

The definition in Part 89 provides several “indicia of transportability”, which include but are not limited to 1) skids, 2) a carrying handle, 3) a dolly, 4) a trailer, or 5) a platform.<sup>11</sup> The definition continues to specify things that are not non-road engines:

- engines used for motor vehicles or competition vehicles;
- engines subject to an NSPS;<sup>12</sup> and
- engines which are portable, but which stay at one location for 12 consecutive months (including replacement engines) or more (or full seasons at seasonal sources).<sup>13</sup>

Based on these definitions:

**(1) self-propelled cranes, straddle carriers, and other moving or movable machinery with internal combustion engines** are not stationary sources because they are powered by “non-road engines” as defined above;

**(2) Hydroblasters and portable air compressors** are powered by “non-road” engines if they possess any of the indicia of transportability mentioned above, and as such are not stationary sources;

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<sup>9</sup> Part 89, Sub-part A, section 89.1(a).

<sup>10</sup> Part 89, Sub-part A, section 89.2, definition of •non-road engine, • sub-section (1).

<sup>11</sup> See sub-section (1)(iii).

<sup>12</sup> These are limited to stationary gas turbines. See the NSPS at 40 CFR Part 60, sub-part FF.

<sup>13</sup> Part 89, Sub-part A, section 89.2, definition of •non-road engine, • sub-section (2).

(3) **If a piece of equipment is powered by an internal combustion engine but does not possess indicia of transportability**, it may, though it is portable, be treated as a stationary source if it stays in place for 12 consecutive months or more.

(4) **Sources which are movable** only through temporary construction or placement of rails and wheels for their movement, or through disassembly, are stationary sources.

### **Courses of Action**

We have three essential interests in addressing the emissions from these internal combustion engines that can move around industrial or shipyard sites. The first interest is in having these engines meet requirements or standards which may apply to them. The second is in making sure adequate records are kept, so that the Department can tell when or whether the emissions budget is exceeded, or a PSD (or other) threshold is reached. The third is the collection of permit fees, based on annual emissions, from sources that happen to be Title V sources or sources subject to state operating permits.

Inspectors who find internal combustion engines during site visits should look to see whether the engines possess “indicia of transportability” as discussed in this Memo and in Part 89. If they do, or if they are in fact movable under their own power, they are mobile sources, and not a matter of concern for stationary source permitting. If the engines can not move under their own power and have been in the same location for more than 12 consecutive months (possibly since the last annual site visit), they are stationary sources and the inspector may inform the source of the need to submit sufficient information to determine if the engine is subject to permitting. If the engines are discovered during permit review, the permit writer should request sufficient information to determine if emissions exceed the appropriate exemption level and should communicate the existence of the engine to compliance personnel.

I would like to thank you and your staff for their contributions to the drafting of this memorandum, and for your patience in this matter. If you have any questions regarding the content of this memo, please contact Charlie Ellis at (804) 698-4016 [No longer at OAPP; contact Chuck Turner at (804) 698-4023 instead].



## Appendix L - Checklist for Permit Exemption Review

This step-by-step checklist is applicable to all permit applications. This list may be used to check-off each item as it is completed.

- \_\_\_ 1. Preliminary Meeting - (Optional) Discuss with the source the proposed permit including the regulatory requirements.
- \_\_\_ 2. Source Submits Application - Application may be a Form 7 or a letter.
- \_\_\_ 3. CEDS Entry - Enter application into the Comprehensive Environmental Data System (CEDS). Enter required dates on the events screen (AIRAPPCV, AIRDOCCER and AIRAPPDATE.)
- \_\_\_ 4. Secondary Document - (Optional) Create a secondary document for the source if necessary.
- \_\_\_ 5. Completeness Review - Within 30 days of receipt of the application, conduct a completeness review. Applications for new sources must have approval from the local government. Applications or letters determined to be exempt do not need the approval letter.
- \_\_\_ 6. Review Letter - Send a Determination of Administratively Complete Letter or a Deficiency Letter to the source also within 30 days of application receipt. Enter the date to the CEDS events screen (AIRTHRLET).
- \_\_\_ 7. Preliminary Emissions Calculations - (Optional) Calculate emissions using procedures given in the manual.
- \_\_\_ 8. Complete application - Source submits final information to deem the application complete.
- \_\_\_ 9. CEDS Entry - Enter the date the final information was received into the CEDS events screen (AIRAPCP).
- \_\_\_ 10. Regulatory Review - The exemption review procedures are the first part of the regulatory review and are detailed in the following steps.
  - Identify each emission unit.
  - If the emission unit is part of an existing source, determine whether the emission unit is a new emission unit or a modification to an existing emission unit.

## Checklist for Permit Exemption Review

- If the request is for an existing emission unit and does not qualify as a modification, check to see if it can be processed as either an administrative (9 VAC 5-80-1270) or minor permit (9 VAC 5-80-1280) amendment.
- Identify the emissions from each emission unit.
- Classify the pollutant emissions as follows: Criteria Pollutants and Toxic (HAP) Pollutants.
- Complete emissions calculations.
- Check each emission unit to determine whether it is subject to a New Source Performance Standard (NSPS). If the emission unit is subject to an NSPS, it is not exempt and a permit is required with the exception of those units which would be subject only to record-keeping or reporting requirements or both under NSPS. Additionally, if the NSPS emission unit is located at an existing source with similar emission units permitted under the same NSPS subpart with no less stringent requirements, a permit may not be required if the emissions are otherwise exempt.
- Check each emission unit to determine whether it is subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP). Consult 40 CFR Part 61. If the source or emission unit is subject to the preconstruction review requirements found in 40 CFR 61.05-61.08, a permit will be required to implement the provisions of the federal hazardous air pollutant new source review program.
- Check each emission unit to determine whether it is subject to National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT). If the source or emission unit is subject to the preconstruction review requirements found in 40 CFR 63.5, a permit will be required to implement the provisions of the federal hazardous air pollutant new source review program. Consult 40 CFR Part 63 and Chapter 10 of this manual for additional guidance on MACT sources.
- If the emission unit is one of the sources listed in 9 VAC 5-80-1320 E.2, no exemption exists and a permit is required.
- For all facilities, if any emission unit is a fuel burning unit, check the exemption levels listed in 9 VAC 5-80-1320 B.1, 2 and 3. Note that there are separate sections for external and internal combustion engines. Check to determine that the toxics (HAP) exemption criteria 9 VAC 5-80-1320.E and F are also met.

Checklist for Permit Exemption Review

- For all facilities, if any emission unit is not a fuel burning unit, check to see if it is listed in 9 VAC 5-80-1320 B.4 through 12. Check to determine that the toxics (HAP) exemption criteria 9 VAC 5-80-1320.E and F are also met.
- For new/relocated facilities, compare the total potential to emit for regulated pollutant emissions from all emission units, with the exception of those exempted by 9 VAC 5-80-1320.B, to the exemption levels in 9 VAC 5-80-1320.C for new and relocated stationary sources. Check to determine that the toxics (HAP) exemption criteria 9 VAC 5-80-1320.E and F are also met.
- For modified/reconstructed facilities, compare the total net emissions increase of all regulated pollutant emissions from all emission units, with the exception of those exempted by 9 VAC 5-80-1320.B, to the exemption levels in 9 VAC 5-80-1320.D for modified and reconstructed stationary sources. Check to determine that the toxics exemption criteria 9 VAC 5-80-1320.E and F are also met.

- 11. Exemption Letter - Write a letter to the applicant informing him that, based upon the information provided in his letter/application, his emission unit/s are exempt and a permit is not required. Advise him if registration is required.
- 12. CEDS Entry - Enter the date the exemption letter was issued into the CEDS events screen (AIRFINPAC).

## Appendix M- Exemption Letter Boilerplate

August 31, 2009

«MrMs» «FirstName» «MiddleInitial» «LastName»  
«Title»  
«Company»  
«StreetName»  
«City», «State» «Zip»

Location: «CountyCity»  
[Registration No.: «RegNo»]  
[AFS ID No. 51-«CountyNo»-«PlantNo»]  
[Regional ID No.: {insert unique regional ID number}]

Dear «MrMs» «LastName»:

This letter acknowledges receipt of your [permit application][exemption request letter] dated «AppIDate». The Department of Environmental Quality (DEQ) «Region» staff has completed its initial review of your request[ to «Construct» and operate a «FacilityType» at «Location»].

Based on this review, it has been determined that the proposed project is exempt from the permitting requirements of Chapter 80, Article 6 of the Virginia Regulations for the Control and Abatement of Air Pollution[ as long as it is constructed and operated as described in your [application][exemption request letter]. This is because this the proposed project is not subject to Major Source New Source Review under Articles 8 or 9, and:

- [The proposed change does not meet the definition of “«Construction»” in 9 VAC 5-80-1110 C because {insert reason}.]

Exemption Letter Boilerplate

- [The proposed change is excluded from the definition of “modification” in 9 VAC 5-80-1110 C because {insert reason}.]
  
- [The proposed change is a reconstruction of a stationary source or emissions unit and the potential to emit resulting from the reconstruction will not increase (9 VAC 5-80-1320 A.1.b).]
  
- [The proposed change is a relocation of a portable emissions unit that is previously permitted and is suitable for the area to which it will be relocated (9 VAC 5-80-1320 A.1.c).]
  
- [The proposed change is the reactivation of a previously [permitted source which has not been permanently shutdown and it’s applicable permit conditions revoked][grandfathered source which has not been permanently shutdown in accordance with 9 VAC 5-20-220 (9 VAC 5-80-1320 A.1.d).]
  
- [The proposed change is the use of an [alternative fuel][raw material] for which the emissions resulting from the use of the [alternative fuel][raw material] have been demonstrated to decrease (9 VAC 5-80-1320 A.1.e).]
  
- [The proposed change includes {list equipment}, which [is][are] exempt from permitting by size or source type as listed in 9 VAC 5-80-1320 B.]
  
- [The potential to emit of {list pollutants} from [the remainder of] the source for which [construction][relocation] is proposed is {list the “potential to emit” for each pollutant emitted} which is less than the exempt emission rates for those pollutants listed in 9 VAC 5-80-1320 C.]
  
- [The net emissions increase of {list pollutants} from [the remainder of] the source for which [modification][reconstruction] is proposed is {list the “net emission increase” for each pollutant which increases} which is less than the exempt emission rates for those pollutants listed in 9 VAC 5-80-1320 D.]

Additionally, there are no HAPs or toxic pollutant emissions from the source[.][ which would be subject to permitting under Article 6 because :]

- [All applicable HAPs emitted from the source are exempt from permitting under an applicable source-wide MACT standard (9 VAC 5-60-300 C.5 and 9 VAC 5-80-1320 F.)]

Exemption Letter Boilerplate

- [The EPA has made a formal determination for this source category that no MACT standards should apply to this source category (9 VAC 5-60-300 C.5 and 9 VAC 5-80-1320 F).]
- [The facility is not subject to any applicable MACT or NESHAPS standard and the facility's potential to emit {list toxic pollutants} is {insert PTE of each toxic pollutant} is less than the toxic exempt emission rates of 9 VAC 5-60-300 C.1 and 2 (9 VAC 5-80-1320 E.1).]

Finally, the facility [is not subject to any NSPS standards.][is an affected facility under 40 CFR 60, subpart(s) {list applicable subparts}, but the affected facility is subject only to recordkeeping and reporting requirements of the standard or is located at a stationary source which has a current permit for similar affected facilities that requires compliance with emission standards that are no less stringent than the applicable NSPS standards (9 VAC 5-80-1120 E.2).]

This decision concerning permit applicability is not binding upon the Department and is subject to change upon further review.

[Although this «FacilityType» is not subject to permitting requirements, it is still subject to the registration requirements of 9 VAC 5-20-160 of the Regulations and subject to periodic inspections by the Department.] [Please submit a completed Form 7 for registration purposes.] [The information that you have submitted will be kept on file as update information concerning this facility.] **Please refer to the [Registration No.][Regional ID No.] on all future correspondence dealing with your facility.**

You are cautioned that this decision also should not be construed to mean that your operation is automatically in compliance with all aspects of the Regulations for the Control and Abatement of Air Pollution. Regional personnel will be constantly evaluating all sources for compliance with the Regulations.]

Any owner claiming that a facility is exempt from the provisions of 9 VAC 5, Chapter 80, Article 6 shall keep records in accordance with 9 VAC 5-80-1320 A.4 as may be necessary to demonstrate to the satisfaction of the Department its continued exempt status.

If you have questions concerning this matter please contact «Engineer» at «RegPhone». Your concern for Virginia's Air Quality is appreciated.

Exemption Letter Boilerplate

Sincerely,

«APMName»  
Regional Air Permit Manager

«APMInitials»/«EngrInitials»/«FileName»

[encl: Form 7]

14. cc: file

**Appendix N- Non-Attainment NSR Thresholds/Offset Ratios (as of 8/1/2002)\***

<u>Regional Office/ Locality</u>	<u>Pollutant</u>	<u>Classification</u>	<u>Major Source</u>	<u>Minimum Offset</u>	<u>Significant Threshold</u>
<u>SWRO</u>					
NONE					
<u>WCRO</u>					
NONE					
<u>SCRO</u>					
NONE					
<u>VRO</u>					
NONE					
<u>FSO</u>					
Stafford County	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
<u>PRO</u>					
NONE					
<u>TRO</u>					
NONE					
<u>NVRO</u>					
Alexandria City	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Arlington County	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Fairfax City	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Fairfax County	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Falls Church City	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Loudoun County	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Manassas City	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Manassas Park City	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY
Prince William County	VOC, NO <sub>x</sub>	Serious	50 TPY	1.2:1	25 TPY

15. \*Due to a delay in achieving compliance with the 1-hour ozone standard, the counties and cities listed under FSO and NVRO may be reclassified as "severe". If that were to happen the major source level for VOC and NO<sub>x</sub> would be 25 TPY and minimum offset of 2:1. The permit writer is alerted to this possibility and cautioned to review the classification of these jurisdictions at the time of permit applicability determination.



16.

**Appendix O- Minor NSR Engineering Analysis**

**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
 \_\_\_\_\_Regional Office

INTRA-AGENCY MEMORANDUM

<b>Permit Writer</b>				
<b>Memo To</b>	Air Permit File	<b>Date</b>		
<b>Facility Name</b>				
<b>Registration Number</b>				
<b>County-Plant I.D.</b>				
<b>UTM Coordinates (Zone 17)</b>		<b>Easting (km)</b>		<b>Northing (km)</b>
<b>Elevation (feet)</b>				
<b>Distance to Nearest Class I Area (select one)</b>		<b>SNP (km)</b>		<b>JRF (km)</b>
<b>FLM Notification Required if less than 10K (minor), 100K (state major) (Y/N)</b>				
<b>NET Classification (A, SM, B)</b>		<b>Before permit action</b>		<b>After permit action</b>
<b>Pollutants for Which the Source is Title V Major</b>		<b>Before permit action</b>		<b>After permit action</b>
<b>PSD Major Source (Y/N)</b>		<b>Before permit action</b>		<b>After permit action</b>
<b>Pollutants for Which the Source is PSD Major</b>		<b>Before permit action</b>		<b>After permit action</b>

**I. Introduction**

<ul style="list-style-type: none"> <li>◆ <i>What is the facility and who is its owner?</i></li> <li>◆ <i>Where is the facility located?</i></li> </ul>
--

- ◆ *What does the facility do (i.e., manufacture, process)?*
- ◆ *What is the permit application for?*
- ◆ *What is the facility's past permit history?*

## II. Emission Unit(s) / Process Description(s)

- ◆ *Provide a detailed description of each emission unit or process for which the applicant is requesting a permit, including pollutants being emitted by the process (do not quantify these emissions in this section).*
- ◆ *Detailed emission calculations (including fugitive emissions if quantifiable) must be provided as an attachment to the memo. Do not include calculations in the body of the memo. Do not discuss regulatory requirements pertaining to individual emission units in this section (i.e., exempt or requires permitting).*
- ◆ *Calculations must include emission factors, the source of emission factors (i.e., AP-42, MSDS), and sample calculations which are sufficient for the reviewer to verify results. Spreadsheets are recommended but not required. In the event that a spreadsheet is used do not "hide" emission factors in cell equations. Make certain that these factors are visible for the reviewer.*

## III. Regulatory Review

*This section must include all of the following regulatory sections. If certain sections do not apply, provide a brief statement of basis on why it is not applicable. In situations where an analysis was required to determine if a facility was subject to or exempt from specific regulatory requirements (i.e., MACT, NSPS, NESHAPS), a more detailed explanation is required.*

A. 9 VAC 5 Chapter 80, Part II, Article 6 – Minor New Source Review

*Provide a summary of why the facility is subject to or exempt from permitting requirements under this section. Permitting requirements under this section may be triggered by any of the following.*

- ◆ *Does not meet Emission Unit Size exemption criteria, as defined by 9 VAC 5-80-1320 B*
- ◆ *Exceeds new (i.e. greenfield) and relocated source exemption levels by emission rate, as defined by 9 VAC 5-80-1320 C*
  - *Include a table, which provides a summary of the potential to emit (PTE) from the new emission units(s), and all corresponding minor NSR permit exemption rates. The PTE for all emission units, with the exception of those exempted based on emission unit size exemption criteria, are totaled and compared to the applicable exemption rate(s). The exception for units meeting exemption criteria applies only to minor new source review.*
- ◆ *Exceeds Modified and Reconstructed sources (i.e., existing facilities) exemption levels by emission rate, as defined by 9 VAC 5-80-1320 D*
  - *Include a table which provides a summary of the net emissions increases from the new and/or modified emission unit(s) and all corresponding minor NSR permit exemption rates. The net emissions increases, with the exception of those exempted based on emission unit size exemption criteria, are totaled and compared to the applicable exemption rate(s). The exception for units meeting exemption criteria applies only to minor new source review.*
- ◆ *Emission unit(s) subject to New Source Performance Standards (9 VAC 5-50-400 et. seq.), National Emission Standards for Hazardous Air Pollutants (9 VAC 5-60-60) or National Emission Standards for Hazardous Air Pollutants for Source Categories (9 VAC 5-60-100).*
- ◆ *Toxic emissions in excess of applicable toxic exemption levels, as defined in 9 VAC 5-60-300 C.1.*
  - *Include a table that provides a summary of toxic emissions from the new and/or modified stationary source and all corresponding toxic exemption levels. The PTE of the facility for each pollutant needs to be compared to the applicable exemption rate(s). Glycol ethers which do not have an associated Threshold Limit Value (TLV) are not required to be evaluated based on the definition of “toxic pollutant” contained in 9 VAC 5-60-310.*
- ◆ *New sources with no exemptions, as defined by 9 VAC 5-80-1320 E.2*

B. 9 VAC 5 Chapter 80, Part II, Article 8 - PSD Major New Source Review and Article 9 – Nonattainment Area Major New Source Review

*Provide a summary of why the facility is subject to or exempt from permitting requirements under these sections. In most cases, facilities will be exempt from PSD/Nonattainment permitting. In the event that the facility is subject to either, additional information will be required in the memo.*

*In cases where the facility performs a "netting analysis" to demonstrate that an emissions increase is not significant, provide a summary of this analysis and include a copy of the submitted netting analysis as an attachment to the memo.*

*In cases where the facility performs PSD applicability modeling (i.e., major sources located within 10 km of a Class I area), provide a statement that the net emissions increase does not result in a 24-hour average concentration of any regulated pollutant greater than or equal to  $1 \mu\text{g}/\text{m}^3$  in the Class 1 area. Exceedance of this threshold triggers PSD review.*

C. 9 VAC 5 Chapter 50, Part II, Article 5 - NSPS

*Provide a summary of any NSPS requirements which apply to the new or modified emission unit(s).*

D. 9 VAC 5 Chapter 60, Part II, Article 1 - NESHAPS

*Provide a summary of any NESHAPS requirements which apply to the new or modified emission unit(s).*

E. 9 VAC 5 Chapter 60, Part II, Article 2 - MACT

*Provide a summary of any MACT requirements which apply to the new or modified emission unit(s).*

**IV. Best Available Control Technology Review (BACT) (9 VAC 5-50-260)**

*Provide a summary of the BACT determination for the new and/or modified emission unit(s). A State BACT review typically does not involve a traditional "top-down" analysis; however, in some cases large emission increases may necessitate a more detailed BACT review. A BACT review is conducted on a pollutant-by-pollutant basis.*

## V. Summary of Actual Emissions Increase

*Provide a summary table of the actual emissions increase(s) which may take into account federally and state enforceable requirements such as the operation of controls, limitations on the type or quantity of fuel or raw materials or limitations on the hours of operation. Any detailed calculations should be provided as an attachment to the memo. Units with total controlled emissions less than 0.5 TPY for a specific pollutant do not require a permit limit for that pollutant.*

## VI. Dispersion Modeling

*In the event that modeling is required, each section below must contain a discussion of the following elements:*

- ◆ *A statement verifying that the modeling analysis was performed in a manner consistent with the EPA Guideline on Air Quality Models (Appendix W of 40 CFR 51 – EPA-450/2-78-027R).*
- ◆ *Procedures used in conducting the modeling analysis, including:*
  - *models used and model options selected*
  - *terrain description, including treatment or intermediate terrain*
  - *emissions data and stack parameters modeled*
  - *meteorological data used*
  - *receptor locations*
  - *Good Engineering Practice (GEP) analysis (i.e., downwash)*
  - *rural/urban land use determination (Auer Scheme)*
  - *existence of a fenceline, public access area*
- ◆ *A Summary table of the modeling results which demonstrates compliance with all applicable standards (i.e., NAAQS, SAAC).*

**17. In the event that the Central Office performs the modeling analysis, the modeling approval letter must be provided as an attachment to this memo. Under this circumstance, a detailed discussion of modeling procedures is not necessary for this section. However, a summary table is still required. Generally, the Central Office performs all modeling other than SCREEN3.**

A. Regulated Pollutants

*Provide a summary of why the facility is subject to or exempt from Department modeling requirements for criteria pollutants. Generally, no criteria pollutant modeling is required for a net emissions increase (i.e., controlled emissions) below the PSD Significant Levels. No modeling is required for ozone, nor for VOCs as criteria pollutants. The following are exceptions to this guidance:*

- ◆ *Any net emissions increase of a regulated pollutant(s) at a "major" stationary source located within 10 kilometers of a Class I area must be evaluated to determine if its ambient impact is equal to or greater than 1 µg/m<sup>3</sup> (24-hour average). PSD permitting is required for any pollutant whose ambient impact is equal to or greater than this significance level.*
- ◆ *Any emissions increase of a criteria pollutant for which the facility is suspected to be in violation of the applicable National Ambient Air Quality Standard(s) (NAAQS) may need to be modeled.*

*Fugitive emissions are considered for determining the need for modeling, except as provided in the PSD definitions in 9 VAC 5 Chapter 80, Article 8 of the Regulations. For source subject to PSD permitting, fugitive emissions are only considered for 27 specific source categories listed in the regulations under paragraph c. in the definition of Major stationary source found in 9 VAC 5-80-1710.*

B. Toxic Pollutants

*Provide a summary of why the facility is subject to or exempt from Department modeling requirements for toxic pollutants. No toxic pollutant modeling is required if the source is exempted by criteria in 9 VAC 5-80-1320 E and F, or if the potential to emit of the stationary source is below the exemption rates calculated using the formulas in 9 VAC 5-60-300 C1. Glycol ethers which do not have an associated Threshold Limit Value (TLV) are not required to be evaluated based on the definition of "toxic pollutant" contained in 9 VAC 5-60-310*

**VII. Boilerplate Deviations**

*Discuss which boilerplate was used to develop the permit. List each permit condition which deviates from the standard boilerplate language. Additionally, discuss any deviation from Department boilerplate procedures.*

### VIII. Compliance Demonstration

*Provide a discussion of the permit conditions which have been established to ensure initial and continuing compliance with applicable emission limits. The discussion may include any of the following:*

- ◆ *stack testing requirements*
- ◆ *visible emissions evaluation (VEE)*
- ◆ *record-keeping, monitoring and reporting requirements*

### IX. Title V Review - 9 VAC 5 Chapter 80, Part II, Article 1

*Provide a brief discussion of the facility's Title V status, including:*

- ◆ *the effect of this permit action on the facility's Title V status*
- ◆ *Title V permit administrative amendment, minor modification, or significant modification requirements triggered by this permit action*
- ◆ *Title V application submittal requirements triggered by this permit action*

*In situations where a facility's emissions are in a close proximity to Title V major source thresholds, it is appropriate to include a summary table showing facility-wide emissions with a comparison to the applicable Title V major source thresholds.*

### X. Other Considerations

*Provide a summary of any additional information relevant to the processing of this permit action which has not been discussed in any of the previous sections.*

### XI. Recommendations

*Provide a recommendation of approval or disapproval of this permit action.*

### Attachments

*Remember to include calculations as an attachment. Any relevant supporting documentation may also be included as an attachment to the memo.*

## Appendix P- Minor Source Permit Review Procedure and Checklist

Minor source permits are approved by the appropriate Regional Official based on the most recent delegation of authority memorandum issued by the Agency Director, if no significant deviations from the boilerplates were made. The minor source checklist with an attached memo is usually used instead of a formal engineering analysis.

### A. REFERENCES

1. SAPCB Regulations for the Control and Abatement of Air Pollution.
2. U.S. EPA, New Source Review Workshop Manual -- Prevention of Significant Deterioration and Non attainment Area Permitting, Draft October 1990.
3. Code of Federal Regulations, 40 CFR Part 60 and Appendices.
4. Code of Federal Regulations, 40 CFR Part 61 and Appendices.
5. Code of Federal Regulations, 40 CFR Part 63 and Appendices.

### B. APPLICABILITY DETERMINATION

DEFINITION - Minor Sources are sources not exempted by 9 VAC 5-80-1320 of the Regulations, but that are not defined as major stationary sources or major modifications in 9 VAC 5-80-1110.

### C. PERMIT PROCESSING

These step-by-step procedures are applicable to state minor permits and minor modifications.

Public hearings or briefings are not normally required for minor permits. In some rare cases, a minor source may be so controversial that a public hearing will be required.

- \_\_\_ 1. Preliminary Meeting - (Optional) Discuss with the source the proposed permit application including the regulatory requirements. This meeting is not mandatory but may be helpful in clarifying issues.
- \_\_\_ 2. Source Submits Form 7 Application.
- \_\_\_ 3. Add Application to CEDS - The application has to be added to the Comprehensive Environmental Database System (CEDS). If the source has not yet been registered the facility must be added to CEDS before the application can be added. To add the facility a person with Core access to CEDS will need



pages 1 thru 3 of the application. If the facility may be exempt from needing a permit the "Unreg." field should be checked when the Air Facility is added.

- \_\_\_ 4. CEDS Entry - Enter the application date received and other pertinent information into the Comprehensive Environmental Database System (CEDDS).
- \_\_\_ 5. Secondary Merge File - (Optional) Create a secondary merge file that can be merged with the various permit boilerplates and letters. "Mergewrd.doc" can be used to create this file and can be found in K:\agency\Air\_Permitting\Boilerplates\Conditions\.
- \_\_\_ 6. FLM Notification - Under most circumstances, notification to the FLM for minor permits is not required unless the source is within 10 km of a Class I Area. If this is the case, the Form 7 and accompanying information must be sent to the FLM within 7 days after receipt of the application.
- \_\_\_ 7. CEDS Entry - (If required) Enter the date the FLM letter was sent.
- \_\_\_ 8. Completeness Review - Within 30 days of receipt of the application, conduct a completeness review. Applications for new sources must have approval from the local government (Local Governing Body Certification Form). Exempt applications do not need the certification form.
- \_\_\_ 9. Review Letter - Send a Determination of Administratively Complete Letter or a Deficiency Letter to the source within 30 days of receipt of the application. If an Exemption Letter is sent within the 30 day period the Administratively Complete Letter is not required.
- \_\_\_ 10. CEDS Entry - Enter the date the review letter was sent.
- \_\_\_ 11. Preliminary Emissions Calculations - Calculate emissions using appropriate methods.
- \_\_\_ 12. Complete Application - Source submits all information necessary for the permit writer to determine that the application is complete.
- \_\_\_ 13. CEDS Entry - Enter the date the final information was received and the date the application was deemed complete. Note that telephone calls, letters, meetings, source visits, faxes, emails, or other communications with the source to obtain the necessary information to deem the application complete should be properly documented in CEDDS or as an addendum to the application.
- \_\_\_ 14. Regulatory Review - Review the applicable regulations to determine if the application is exempt from needing a permit and to determine the applicable requirements to be included in a permit. The review includes the following items.
  - \_\_\_ a) Identify each emission unit. Is the emission unit a new source or part of an existing source?

Minor NSR Permit Review Procedure and Checklist

- \_\_\_ b) If the emission unit is part of an existing source, determine whether the emission unit is a new emission unit or a modification to an existing emission unit. (Check definition of "modification" in the Regulations). If the request is for a modification, continue with the regulatory review, a permit is required.
  
- \_\_\_ c) If the request is for an existing emission unit and does not qualify as a modification, check to see if it can be processed as an administrative, minor, or significant amendment. If so, process application according to the appropriate amendment requirements. If not, continue with exemption review.
  
- \_\_\_ d) Identify the emissions from each emission unit.
  
- \_\_\_ e) Classify the emissions as Criteria Pollutants, NESHAP Pollutants, and Toxic Pollutants.
  
- \_\_\_ f) Check each emission unit to determine whether it is subject to a New Source Performance Standard (NSPS). Consult 40 CFR Part 60 to find the definition of the affected facility. This tells you what the NSPS covers (pieces of equipment, applicability, date of construction, etc.) and exemptions (size, throughput). Also check the requirements. If only reporting and record keeping are required, a permit may not be required. If the emission unit is subject to an NSPS, continue with the regulatory review and continue to process the permit application. A source subject to any NSPS requirement other than reporting and record keeping is not exempt and a permit is required. Include any applicable NSPS requirement in any required permit.
  
- \_\_\_ g) Check each emission unit to determine whether it is subject to a National Emission Standard for Hazardous Air Pollutants (NESHAPs). Consult 40 CFR Part 61 to find the regulated pollutants and the definition of the affected facility. This tells you what the NESHAPs covers (pieces of equipment, processes, applicability, date of construction, etc.) and exemptions (size, throughput). A source subject to any NESHAP requirement is not exempt and a permit is required.
  
- \_\_\_ h) If the emission unit is one of the sources listed in 9 VAC 5-80-1320 C no exemption exists and a permit is required.
  
- \_\_\_ i) If the emission unit is fuel burning, check the exemption levels listed in 9 VAC 5-80-1320 B.1. If the emission unit meets these requirements it is exempt and a permit is not required.
  
- \_\_\_ j) If the emission unit is not a fuel burning unit, check to see if it meets the exemption criteria listed in 9 VAC 5-80-1320 B.2 through B.12. If so, the unit may not require a permit. ~~Check to determine that the toxics exemption criteria in 9 VAC 5-80-1320 E are also met. If both conditions are met, the emission unit is exempt and a permit is not required.~~

Minor NSR Permit Review Procedure and Checklist

- \_\_\_ k) If the emission unit is not a fuel burning unit, compare the criteria pollutant emissions with **9 VAC 5-80-1320 C** for new emission units and **9 VAC 5-80-1320 D** for modified units. This exemption is based on the net emissions increase. If the emissions of each pollutant from the emission unit are less than the Emission Rates listed, the unit may be exempt. ~~Check to determine that the toxics exemption criteria **9 VAC 5-80-1320 E** are also met. If both conditions are met, the emission unit is exempt and a permit is not required.~~
- \_\_\_ l) Each toxic pollutant from the emissions unit that is classified as a hazardous organic pollutant (HAP) must be evaluated according to **9 VAC 5-80-1320 E** to determine whether or not it is exempt. Exemption levels can be found in Appendix FF of the manual. These exemption levels are based on the TLV-C, TLV-TWA, and TLV-STEL values found in the edition of the ACGIH Handbook referenced in 9 VAC 5-20-21.
- \_\_\_ m) If the source is a new or reconstructed source with the potential to emit 10 ton or more of an individual HAP or 25 tons or more of any combination of HAPs the source is a major HAP source. A major source of HAPs requires a permit. Check to determine whether the source or portion of the source is subject to a National Emission Standard for Hazardous Air Pollutants for Source Categories (also known as Maximum Achievable Control Technology (MACT) standards). Consult 40 CFR Part 63 to find the applicable source categories. This tells you standards that the individual source categories are required to meet. If the source is not currently included in a Source Category the provisions of 9 VAC 5 Chapter 80 Article 7 (9 VAC 5-80-1400 et seq.) must be followed to develop standards for this source. Include any applicable MACT requirement in the permit.
- \_\_\_ 15. Exemption Letter - If the emissions unit(s) are is exempt from needing a permit write a letter to the applicant stating that based on the information submitted the a permit is not necessary. If one or more of the emissions units are not exempt proceed with developing a permit for the non-exempt units. The exempt emissions units should be listed in the engineering analysis, but it is not necessary to list them in the permit.
- \_\_\_ 16. CEDS Entry - Enter the date of exemption letter issuance into CEDS. (if applicable)
- \_\_\_ 17. CEDS - Create New Registration Number (If required)- Have a new registration assigned to the source if it is not exempt from permitting. A person with Core access to CEDS will need to uncheck the "Unreg." field on the Air Facility screen for the system to assign a new registration number to the source.
- \_\_\_ 18. Minor Permit Checklist - Complete the Minor Permit Checklist (attached)
- \_\_\_ 19. Engineering Evaluation - Although no formal engineering analysis is required for minor permits, it is necessary to document all pertinent calculations and assumptions. Also, BACT needs to be briefly addressed if it is not clearly

Minor NSR Permit Review Procedure and Checklist  
covered by the permit boilerplate. If modeling was performed it may be summarized here.

- \_\_\_ 20. Draft the Permit - Draft the permit using the appropriate boilerplate conditions. Boilerplates for source categories and general conditions can be found in K:\agency\Air\_Permitting\Boilerplates\Conditions\. Procedures for the boilerplates can be found in K:\agency\Air\_Permitting\Boilerplates\Procedures\. Conditions from different boilerplates can be added to create a hybrid boilerplate. Other pre-approved conditions can be added to boilerplates and still be signed in the Regional Office.
  
- \_\_\_ 21. Draft Permit Routing - Route the draft permit package through the Regional Office as necessary.
  
- \_\_\_ 22. Comments from Applicant - Send a copy of the draft permit to the applicant for comments (specify a response date).
  
- \_\_\_ 23. Permit Issuance - If no comments are received from the applicant, issue the permit with the appropriate regional signature. If comments are received from source they need to be addressed. Any changes to the permit should be reviewed by those in the Regional Office that reviewed the draft permit prior to issuing the permit with the appropriate regional signature.
  
- \_\_\_ 24. CEDS Entry - Enter the necessary information to finalize the permit application.
  - \_\_\_ a) Source Action Report - The information in CEDS needs to be checked to make sure the necessary information has been entered for the generation of the Source Action Report (SAR).
  
  - \_\_\_ b) Compliance Tracking & Emissions Tracking - Follow Regional Office procedures for entering the necessary permit data.
  
  - \_\_\_ c) Permit Issuance Date - Enter the date of permit issuance. The Date Completed field for the FINAL PERMIT ACTION should not be entered until all other data for the application has been entered in CEDS.

**PERMIT CHECK LIST**

**The following people have reviewed the permit:**

Reviewing Environmental Engineer: \_\_\_\_\_  
Environmental Inspector: \_\_\_\_\_  
Environmental Compliance Manager: \_\_\_\_\_

Date:

Source Name:                      Registration No:      I.D. No.:

Source Location:

Mail Address:

Source Status:      \_\_\_ Greenfield      \_\_\_ Currently operating

Source Classification:      \_\_\_ Minor      \_\_\_ SynMinor      \_\_\_ PSD Major      \_\_\_ TV Major

Permit Action: (Describe new/modified equipment and/or processes, include maximum rated capacities)

Permit Action Type:

\_\_\_ Minor      \_\_\_ State Major      \_\_\_ PSD      \_\_\_ NA      \_\_\_ SOP      \_\_\_ TV

\_\_\_ New      \_\_\_ Modification      \_\_\_ Amendment

\_\_\_(Y/N) Permit Includes All Emission Units at Source.

\_\_\_(Y/N) Permit Allows Source to avoid Title V/MACT/etc.

After this permit, source is:      \_\_\_ Major (A)      \_\_\_ Minor (B)      \_\_\_ Synthetic minor (SM)  
(\_\_\_ Pollutant,      \_\_\_ Pollutant,      \_\_\_ Pollutant)

**Permit Application Review**

\_\_\_ Permit application submitted

Application Received Date \_\_\_\_\_ .

Application Complete Date \_\_\_\_\_.

\_\_\_ Document Certification Form received with Form 7 (9 VAC 5-80-1140 D)

\_\_\_ Confidential information with sanitized copy. If yes, which sections:

    \_\_\_ throughputs      \_\_\_ individual pollutants      \_\_\_ flow diagrams  
    calculations

    \_\_\_ process descriptions      \_\_\_ other (describe)

\_\_\_ Copy of letter from local official for greenfield, or major modified sources

\_\_\_ Copy of letter sent to FLM if applicable. (Comments)

This permit supersedes permit(s) dated \_\_\_\_\_.

**Regulatory Review**

\_\_\_(Y/N) BACT Applicable: (check one):

    \_\_\_ BACT Applicable - [Control Strategy/Equipment] @ \_\_\_ % efficiency for the control of \_\_\_\_\_ meets BACT.(Comments)

    \_\_\_ BACT not Applicable - because of an Enforceable Throughput or Emission Limit of \_\_\_\_\_ tons per year of [pollutant]. (Comments)

    \_\_\_ BACT not Applicable - TV/SOP or Amendment.

Minor NSR Permit Review Procedure and Checklist

\_\_\_(Y/N) NSPS/MACT/NESHAPS Applicability: If Y, Subpart(s):  
      \_\_\_ NSPS ; \_\_\_ MACT ; \_\_\_ NESHAP  
      MACT (if yes, an engineering write-up & public hearing are necessary)  
      NESHAPs (if yes, an engineering write-up & public hearing are necessary)

\_\_\_(Y/N) Existing Rules (9 VAC 5 Chapter 40) Applicability: If Y, Rule(s): \_\_\_\_\_.

**Regulatory Review (cont.)**

Toxic Pollutants (check one):

- \_\_\_ Toxics Not Evaluated. \_\_\_ None Emitted.  
  \_\_\_ Other (Comments)
  
- \_\_\_ Toxics Review Not Applicable - TV/SOP or Administrative Amendment.
- \_\_\_ Toxics Review Applicable - \_\_\_ All Toxics Exempt
- \_\_\_ Toxics Review Applicable, BACT not Applicable because of an Enforceable  
Throughput or Emission Limit of \_\_\_ tons per year of [pollutant].  
(Comments)\_\_\_\_\_.
- \_\_\_ Toxics BACT Applicable - [Control Strategy/Equipment] @ \_\_\_ % efficiency  
for the control of \_\_\_ meets Toxics BACT.(Comments)

Modeling (check one):

- \_\_\_ Attached (including background monitors), or
- \_\_\_ Copy of approval letter from modeling section, or
- \_\_\_ No modeling required by agency policy (< modeling significance levels, etc.)

Site Suitability:

\_\_\_ Site suitable from an air pollution standpoint, inspection date \_\_\_\_\_, or no  
inspection required because \_\_\_\_\_.

\_\_\_ Calculation sheet(s) attached

\_\_\_(Y/N) NSR Netting      Comments (Explain Permit History):

Permit includes: \_\_\_ Stack Testing   \_\_\_ CEM   \_\_\_ VEE by source

**Public Participation**

\_\_\_(Y/N) Public Noticed. If yes, Public Notice Date: \_\_\_\_\_.

\_\_\_(Y/N) Public Notice Comments. If yes, number and nature of comments: (See attached)

\_\_\_(Y/N) Public Hearing: If yes, Public Hearing Date: \_\_\_\_\_.

**EPA Review**

Minor NSR Permit Review Procedure and Checklist

\_\_\_\_(Y/N) EPA Review. If yes, Date proposed permit sent to EPA \_\_\_\_\_.  
\_\_\_\_(Y/N) EPA Comments. If yes, give a brief summary \_\_\_\_\_.

**Other Comments and Final Recommendations (attach memo or list below):**

**Comments:**

.

**Final Recommendation:** Recommend Approval.

Environmental Engineer's Signature: \_\_\_\_\_.

Air Permit Manager's Signature: \_\_\_\_\_.

# Appendix Q- State Major Source Permit Review Procedure

## INTRODUCTION

This appendix addresses the permitting process for state major sources and state major modifications. NESHAP permits must also be processed under these procedures. NSPS permits may be processed under the Minor Source Permit Review Procedures (**Appendix P**) if applicable.

A state major source or state major modification may be subject to Non-attainment review and must be processed under the Non-attainment Major Source Permit Review Procedures. The addition of a new emissions unit at a state major source may be processed under the Minor Source Permit Review Procedures (**Appendix P**) if applicable. Amendments to state major source permits should be processed under the applicable section of **9 VAC 5-80-1270, 1280, or 1290**.

## A. REFERENCES

1. SAPCB Regulations for the Control and Abatement of Air Pollution.
2. U.S. EPA, New Source Review Workshop Manual -- Prevention of Significant Deterioration and Non-attainment Area Permitting, Draft October 1990.
3. Code of Federal Regulations, 40 CFR Part 60 and Appendices.
4. Code of Federal Regulations, 40 CFR Part 61 and Appendices.
5. Code of Federal Regulations, 40 CFR Part 63 and Appendices.
6. **Summary of New Source Performance Standards provided by OAPP.**

## B. APPLICABILITY DETERMINATION

DEFINITION - A State Major Source is a Major Stationary Source or Major Modifications as defined in 9 VAC 5-80-1110 of the Regulations.

"Major stationary source" means any stationary source which emits, or has the potential to emit, 100 tons or more per year of any regulated air pollutant.



"Major modification" means any modification defined as such in 9 VAC 5-80-1710 C or 9 VAC 5-80-2010 C, as may apply.

### C. PERMIT PROCESSING

These step-by-step guidelines are applicable to state major sources and state major modifications. If the source is also subject to Non-attainment major permitting (9 VAC 5 Chapter 80 Article 9), refer to **Appendix II**.

- \_\_\_ 1. Preliminary Meeting - Discuss with the source the proposed permit application including the regulatory requirements. This meeting is not mandatory but may be helpful in clarifying issues.
- \_\_\_ 2. Source Submits Form 7 Application
- \_\_\_ 3. Add Application to CEDS - The application has to be added to the Comprehensive Environmental Database System (CEDS). If the source has not yet been registered the facility must be added to CEDS before the application can be added. To add the facility a person with Core access to CEDS will need pages 1 thru 3 of the application.
- \_\_\_ 4. CEDS Entry - Enter the application date received and other pertinent information into the Comprehensive Environmental Database Systems (CEDS)
- \_\_\_ 5. Secondary Merge File - (Optional) Create a secondary merge file that can be merged with the various permit boilerplates and letters. Mergewrd.doc can be used to create this file and can be found in K:\agency\Air\_Permitting\Boilerplates\Conditions\..
- \_\_\_ 6. FLM Notification - If the application is for a state major source within 100 km of a Class I area the Form 7 and accompanying information must be sent to the FLM within 7 days after receipt of the application.
- \_\_\_ 7. CEDS Entry - (If required) Enter the date the FLM letter was sent.
- \_\_\_ 8. Completeness Review - Within 30 days of receipt of the application, conduct a completeness review. Applications for new sources and major modifications must have approval from the local government (Local Governing Body Certification Form).
- \_\_\_ 9. Review Letter - Send a Determination of Administratively Complete Letter or a Deficiency Letter to the source within 30 days of receipt of the application.
- \_\_\_ 10. CEDS Entry - Enter the date the review letter was sent.

State Major Source Permit Review Procedure

- \_\_\_ 11. Applicant Public Notice - No later than 15 days after receiving the Department letter (#8 above), the applicant must place a public notice in the local newspaper (see 9 VAC 5-80-1170 A.). (This is not required for a minor NESHAP.)
- \_\_\_ 12. CEDS Entry - Enter the date the of the applicant's public notice.
- \_\_\_ 13. Preliminary Emissions Calculations - Calculate emissions using appropriate methods.
- \_\_\_ 14. Complete Application - Source submits all information necessary for the permit writer to determine that the application is complete.
- \_\_\_ 15. CEDS Entry - Enter the date the final information was received and the date the application was deemed complete. Note that telephone calls, letters, meetings, source visits, faxes, emails, or other communications with the source to obtain the necessary information to deem the application complete should be properly documented in CEDS or as an addendum to the application.
- \_\_\_ 16. Regulatory Review - Review the applicability of the air regulations such as NSPS, NESHAP, MACT, Non-Attainment, etc. Note: more than one NSPS may apply.
  - \_\_\_ n) Identify the emissions from each non-exempt emission unit.
  - \_\_\_ o) Classify the emissions as Criteria Pollutants, NESHAP Pollutants, and Toxic Pollutants.
  - \_\_\_ p) Check each emission unit to determine whether it is subject to a New Source Performance Standard (NSPS). Consult 40 CFR Part 60 to find the definition of the affected facility. This tells you what the NSPS covers (pieces of equipment, applicability, date of construction, etc.) and exemptions (size, throughput). If the emission unit is subject to an NSPS, continue with the regulatory review and continue to process the permit application. Include any applicable NSPS requirement in the permit. If only reporting and record keeping are required, include those requirements in the permit.
  - \_\_\_ q) Check each emission unit to determine whether it is subject to a National Emission Standard for Hazardous Air Pollutants (NESHAPs). Consult 40 CFR Part 61 to find the regulated pollutants and the definition of the affected facility. This tells you what the NESHAPs covers (pieces of equipment, processes, applicability, date of construction, etc.) and exemptions (size, throughput). Include any applicable NESHAP requirement in the permit.

## State Major Source Permit Review Procedure

- \_\_\_ r) Each toxic pollutant from the emissions unit that is classified as a hazardous organic pollutant (HAP) must be evaluated according to 9 VAC 5-80-1320 F and G to determine whether or not it is exempt. Exemption levels can be found in Appendix FF of the manual. These exemption levels are based on the TLV-C, TLV-TWA, and TLV-STEL values found in the edition of the ACGIH Handbook referenced in 9 VAC 5-20-21.
- \_\_\_ s) If the source is a new or reconstructed source with the potential to emit 10 ton or more of an individual HAP or 25 tons or more of any combination of HAPs the source is a major HAP source. A major source of HAPs requires a permit. Check to determine whether the source or portion of the source is subject to a National Emission Standard for Hazardous Air Pollutants for Source Categories (also known as Maximum Achievable Control Technology (MACT) standards). Consult 40 CFR Part 63 to find the applicable source categories. This tells you standards that the individual source categories are required to meet. If the source is not currently included in a Source Category the provisions of 9 VAC 5 Chapter 80 Article 7 (9 VAC 5-80-1400 et seq.) must be followed to develop standards for this source. Include any applicable MACT requirement in the permit.
- \_\_\_ 17. Engineering Evaluation - Prepare a written engineering analysis, including emissions calculations, BACT analysis, Modeling (if required) and Toxics Analysis (if required).
- \_\_\_ 18. Draft Permit - Draft the permit using the appropriate boilerplate conditions. Boilerplates for source categories and general conditions can be found in K:\agency\Air\_Permitting\Boilerplates\Conditions\. Procedures for the boilerplates can be found in K:\agency\Air\_Permitting\Boilerplates\Procedures\. Conditions from different boilerplates can be added to create a hybrid boilerplate. Other pre-approved conditions can be added to boilerplates and still be signed in the Regional Office.
- \_\_\_ 19. Draft Permit Routing - Route the draft permit package through the Regional Office as necessary.
- \_\_\_ 20. Comments from Applicant - Send a copy of the draft permit to the applicant for comments (specify a response date).
- \_\_\_ 21. Comment Response - If no comments are received from the applicant, continue the permit process. If comments are received from source they need to be addressed. Any changes to the permit should be reviewed by those in the Regional Office that reviewed the draft permit before continuing permit process.

- \_\_\_ 22. Permit Package Approval - Prepare the following permit package in order to request approval for a public hearing from appropriate regional personnel. Do not proceed to the next step without approval of the permit package.
  - a. Permit Application
  - b. Engineering Analysis and Calculations
  - c. Draft Permit
  - d. Public Participation Items including public hearing notice, Virginia Register notice, and documents concerning public comment period.
  
- \_\_\_ 23. Public Comment Period - Publish the public hearing notice in local or regional newspapers to provide for a 30 day public comment period. Send a copy of the notice to all local and state agencies sharing the air quality control region and EPA (see Section 9 VAC 5-80-1170 E.2). Send out information necessary for publication of notice in the Virginia Register. Notices shall meet the requirements of §10.1-1307.01 of the Virginia Air Pollution Control Law.
  
- \_\_\_ 24. Hearing Preparation - Prepare the public briefing to be presented prior to the public hearing. Prepare the opening statement for the public hearing.
  
- \_\_\_ 25. Public Briefing - May hold a public briefing days in advance or 30 minutes prior to the public hearing.
  
- \_\_\_ 26. Public Hearing - Hold the public hearing using procedures described in **Chapter 12** of this Manual.
  
- \_\_\_ 27. Response to Comments - Prepare a hearing summary, respond to comments, prepare a final draft permit, and provide a copy of the draft permit to the applicant for comments.
  
- \_\_\_ 28. Final Draft - Submit the final draft permit package to the appropriate regional personnel for approval. This package should include the hearing summary, response to comments, and final draft permit.
  
- \_\_\_ 29. Board Review - If Board action is required, prepare Board Book write-up.
  
- \_\_\_ 30. Permit Issuance - Issue the permit with the appropriate regional signature.
  
- \_\_\_ 31. CEDS Entry - Enter the necessary information to finalize the permit application.
  - \_\_\_ d) Source Action Report - The information in CEDS needs to be checked to make sure the necessary information has been entered for the generation of the Source Action Report (SAR).
  
  - \_\_\_ e) Compliance Tracking & Emissions Tracking - Follow Regional Office procedures for entering the necessary permit data.

State Major Source Permit Review Procedure

- \_\_\_ f) Permit Issuance Date - Enter the date of permit issuance. The Date Completed field for the FINAL PERMIT ACTION should not be entered until all other data for the application has been entered in CEDS.

# **Appendix R - Source Testing Report Format**

## Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Tester; name, address and report date

## Certification

1. Signed by team leader / certified observer (include certification date)
- \* 2. Signed by reviewer

## Introduction

1. Test purpose
2. Test location, type of process
3. Test dates
- \* 4. Pollutants tested
5. Test methods used
6. Observers' names (industry and agency)
7. Any other important background information

## Summary of Results

1. Pollutant emission results / visible emissions summary
2. Input during test vs. rated capacity
3. Allowable emissions
- \* 4. Description of collected samples, to include audits when applicable
5. Discussion of errors, both real and apparent

## Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Process and control equipment data

## \* Sampling and Analysis Procedures

1. Sampling port location and dimensioned cross section
2. Sampling point description
3. Sampling train description
4. Brief description of sampling procedures with discussion of deviations from standard methods
5. Brief description of analytical procedures with discussion of deviation from standard methods

## Appendix

- \* 1. Process data and emission results example calculations
2. Raw field data
- \* 3. Laboratory reports
4. Raw production data
- \* 5. Calibration procedures and results
6. Project participants and titles
7. Related correspondence
8. Standard procedures

\* Not applicable to visible emission evaluations.

## **Appendix S- Affected States' Addresses**

The Eastern Tennessee-Southwestern Virginia Interstate Air Quality Control region is one which Virginia shares with Tennessee. The contact persons for sending notifications to Tennessee are:

### Knoxville EAC

Suite 220 - State Plaza  
2700 Middlebrook Pike  
Knoxville, TN 37921  
Ph: (865) 594-6035  
FAX: (865) 594-6105  
Phil Chambers, Manager  
Mark Penland, Env. Coordinator

### Johnson City EAC

2305 Silverdale Road  
Johnson City, TN 37601  
Ph: (423) 854-5400  
FAX: (423) 854-5401  
Mark Braswell, Manager  
Janice Bowers, Env. Coordinator

The National Capital Interstate Air Quality Control Region is one which Virginia shares with Maryland and the District of Columbia. Contact persons are:

Maryland:

Ms. Karen Irons  
Program Manager for Air Quality Permits Program  
Department of the Environment  
2500 Broening Highway  
Baltimore, Maryland 21204  
e-mail: [kirons@mde.state.md.us](mailto:kirons@mde.state.md.us)

District of Columbia:

Mr. Abraham T. Hagos  
Environmental Engineer  
Department of Health  
Environmental Health Administration  
Air Quality Division  
51 N. Street, N.E.  
5<sup>th</sup> Floor  
Washington, DC 20002  
e-mail: [ahagos@dchealth.com](mailto:ahagos@dchealth.com)

## **Appendix T -EPA Region III Address**

The contact person for EPA Region III, for purposes of sending public notices for NSR permits, is:

Ms. Makeba Morris  
Chief, Permits and Technical Assessment Branch (Mail Code 3AP11)  
U.S. Environmental Protection Agency, Region III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103

18.

19. email: [morris.makeba@epa.gov](mailto:morris.makeba@epa.gov)



# **Appendix U- Addresses of Federal Land Managers**

(as of February 15, 2002)

As indicated in sections **C.** of Chapter 3 and **F.(2)(C)** of Chapter 12, it is necessary to contact the appropriate Federal Land Manager in cases where a major source is located within 100 kilometers (approximately 60 miles) of either the James River Face Wilderness area in the George Washington and Jefferson National Forests or the Shenandoah National Park. Similarly, the Federal Land Manager must be contacted in all cases where any source locates within 10 kilometers (approximately 6 miles) of either of these areas.

The Federal Land Manager for the James River Face Wilderness area is the Forest Supervisor of the George Washington and Jefferson National Forests. Similarly, the Federal Land Manager for Shenandoah National Park is the Park Superintendent.

## **For Minor Sources and Minor Modifications**

Notifications and correspondence should be directed as follows:

### For James River Face Wilderness Area:

Forest Supervisor  
George Washington and Jefferson National Forests  
5162 Valley Pointe Parkway  
Roanoke, Virginia 24019

Attn: Cindy Huber

Phone # (540) 563-5815  
E-mail: [chuber@fs.fed.us](mailto:chuber@fs.fed.us)

### For Shenandoah National Park:

Superintendent  
Shenandoah National Park  
Route 4, Box 292  
Luray, Virginia 22835

Attn: Christi Gordon

Phone # (540) 999-3499 Fax# (540) 999-3693  
E-mail: [christi\\_gordon@nps.gov](mailto:christi_gordon@nps.gov)

**For Major Sources and Major Modifications, Including PSD and Nonattainment Area New Source Review**

Addresses of Federal Land Managers

For James River Face Wilderness Area:

Forest Supervisor  
George Washington and Jefferson National Forests  
5162 Valley Pointe Parkway  
Roanoke, Virginia 24019

Attn: Cindy Huber

Phone # (540) 563-5815

E-mail: [chuber@fs.fed.us](mailto:chuber@fs.fed.us)

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For Dolly Sods Wilderness Area and/or Otter Creek Wilderness Area

Correspondence to:

Forest Supervisor  
Monongahela National Forest  
200 Sycamore Street  
Elkins, West Virginia 26241

With copies to:

Attn: Cindy Huber  
U.S. Forest Service  
5162 Valley Pointe Parkway  
Roanoke, Virginia 24019

Phone # (540) 563-5815

E-mail: [chuber@fs.fed.us](mailto:chuber@fs.fed.us)

All technical documents should be sent directly to Ms. Huber.

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Addresses of Federal Land Managers

For Shenandoah National Park:

Superintendent  
Shenandoah National Park  
Route 4, Box 292  
Luray, Virginia 22835

Attn: Christi Gordon

Phone # (540) 999-3499 Fax# (540) 999-3693  
E-mail: [christi\\_gordon@nps.gov](mailto:christi_gordon@nps.gov)

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For Great Smoky Mountains National Park:

Superintendent  
Great Smoky Mountains National Park  
107 Park Headquarters Road  
Gatlinburg, Tennessee 37738

Phone # (865) 436-1203

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For Linville Gorge, Joyce Kilmer-Slickrock, and Shining Rock Wilderness areas:

Forest Supervisor  
National Forests in North Carolina  
160-A Zillicoa Street  
Asheville, NC 28801

Attn: Bill Jackson

Phone # (828) 257-4815  
E-mail: [bjackson02@fs.fed.us](mailto:bjackson02@fs.fed.us)

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For Swanquarter National Wildlife Refuge:

Attn: Refuge Manager  
Mattamusket National Wildlife Refuge  
38 Mattamusket Road  
Swanquarter, NC 27885

Phone # (252) 926-4021

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# **Appendix V- Sample Source Fact Sheet**

## **MOUNTAIN VIEW RENDERING**

December 14, 1998

### **PUBLIC HEARING FOR PROPOSED AIR PERMIT MODIFICATION**

Currently, the proposed permit contains the following changes:

#### **65% Increase in Production**

(from 130,000 to 214,000 tons per year)

- allows full utilization of equipment
- allows for additional material received from changes in wastewater pretreatment
- allows for increased raw material due to further processing of poultry

#### **20% Increase in Hours of Operation**

(from 6,240 to 7,488 hours per year)

### **Change in Log In/Log Out Procedures**

- Trucks will log in and out only: 120 minute time limit will now include time required for washing and exiting property

### **Annual Review of Diversion Plan**

**Annual Review of Maintenance Plan**

**Emission Limits Established for Scrubbers**

**Changes in Odor Monitoring Requirements**

- Initially requires more frequent monitoring
- Allows MVR to request reduction in frequency following 4 successful audits
- Requires initial performance test (never before required)
- Requires initial performance test (never before required)
- Requires more record keeping as indicator of performance

## **Specified Number of Excursions to Truck**

### **Standing Times**

- 2 vehicles per week for not more than 180 minutes, April through October
- 10 vehicles per week for not more than 240 minutes, November through March

## **Limit Established on Fuel Usage**

- i) **Limit Established on Visible Emissions from Boilers**

# **Appendix W - Public Participation Required by Law**

OAPP 038-99

## **MEMORANDUM**

**TO:** Regional Directors  
Regional Permit Managers  
Regional Air Permit Managers  
Regional Air Compliance Managers

**FROM:** John M. Daniel, Jr., P.E., DEE  
Director, Division of Air Programs Coordination

**SUBJECT:** Memo Number 99-1004, Public participation requirements prior to issuing any permit for the construction of a new major stationary source or for a major modification to an existing source pursuant to Section 10.1-1307.01 (Localities Particularly Affected)

**Copies:** David K. Paylor  
Director of Program Coordination

John E. Schubert  
Air Inspections Coordinator

**DATE:** August 19, 1999

This sets forth the procedures that should be followed to meet the requirements of Section 10.1-1307.01 of the Air Pollution Control Law of Virginia for issuing any permit for the construction of a new major stationary source or for a major modification to an existing source. It replaces all previous air guidance documents on this subject (Policy Statement No. 3-96 and Guidance Document Nos. APG-96-240 and 97-1005.)

**Background.** This guidance is based on Section 10.1-1307.01 of the Air Pollution Control Law of Virginia. This section specifies that after June 30, 1994, certain specific requirements must be met when processing variances, promulgating regulations, and issuing any permit for construction of a new major stationary source or for a major modification to an existing source. Specifically, DEQ must publish or require the source to publish a notice in a local paper of general circulation in the localities particularly affected at least thirty days prior to the close of any public comment period. The notice

should contain a statement of the estimated local impact which, at a minimum, should provide information on quantity of fuels to be used and quantities of each pollutant emitted.

A copy of the public notice must be sent to the chief elected official, the chief administrative officer, and the planning district commission for those localities.

Written comments must be accepted for at least 15 days following any public hearing for new major stationary sources and major modifications, unless SAPCB votes to shorten the period.

**Guidance**

A. Definitions

(1) Locality Particularly Affected: Any locality which bears any identified disproportionate material air quality impact which would not be experienced by other localities.

(2) Disproportionate Material Air Quality Impact: Any ambient air quality impact determined by air quality modeling to meet or exceed the significance levels outlined below:

So <sub>x</sub>	Annual	1 microgram/cubic meter
	24-hour	5 microgram/cubic meter
	3-hour	25 microgram/cubic meter
PM(10)	Annual	1 microgram/cubic meter
	24-hour	5 microgram/cubic meter
NO <sub>2</sub>	Annual	1 microgram/cubic meter
CO	8-hour	500 microgram/cubic meter
	1-hour	2,000 microgram/cubic meter

The terms "major stationary source" and "major modification" are defined in Articles 6, 8 and 9 of 9 VAC 5 Chapter 80. Please use the definition from the regulation which applies to your situation.

(NOTE: Permits issued for minor modifications to major stationary sources are not subject to the requirements of Section 10.1-1307.01)

B. Public Hearing Notice

Any notice of a public comment period/hearing for the construction of a new major stationary source or for a major modification to an existing source should, at a minimum, contain the following information:

(1) The quantity of each specific pollutant emitted.

(2) The type and quantity of any fuels to be used.

Note that the decision as to how to model the emissions, addressed in other agency guidance, is not affected. A brief statement should be included in the notice, indicating whether or not any regulation would be violated.

The public notice should be published in a newspaper of general circulation in any localities particularly affected as defined above and should specify that comments will be accepted for 15 days following the day of the public hearing, if any.

A copy of the public notice should be mailed to the chief elected office and chief administrative officer of any locality particularly affected and the planning district commission for those localities.

(NOTE: Since the notice must be published at least 30 days prior to a public hearing and the written comments are to be accepted for at least 15 days following the public hearing, the total comment period would be 45 days or longer.)

If you have questions on this subject, please contact the Office of Air Permit Programs.



# Appendix X Public Hearing Guidelines

[The text below is copied from a "Public Hearing Checklist" in the files of at least one DEQ regional office. The date of origin and the author are unknown to the Manual committee.]

## Site Reconnaissance

- Seating capacity
- Control of entrances
- Lectern (DEQ)
- Front table and chairs
- Audio
  - Microphone for lectern (DEQ)
  - Microphone for front table
  - Microphone for lectern (public)
- Visual
  - Screen (size appropriate for audience)
  - Slide projector (location, size of projection)
  - Overhead projector (location, size of projection)
  - Spare bulbs
  - Extension cords

## Prior to Hearing

- Rehearse
- Preview all graphics
  - concise and understandable
  - readable by entire audience
- Check audio systems (operator)
- Check visual systems (operator)
- Check tape recorder and tapes (operator)
- Prepare sign-up sheets
  - Time, Name, Address, Organization, Request to speak, Title of elected officials
  - Establish system (personnel) to prioritize speakers (elected officials, then by time of sign-in)
  - Establish system (personnel) to notify speakers of time limits

## Immediately Prior to Hearing

- Check all microphones (personnel to operate)
- Check all projectors (personnel to operate)
- Prevent entrance of posters and banners

## Public Hearing Guidelines

- Place sign-up sheets (1/2 hour or 1 hour prior to start)
- Assign individual to monitor the sign-up sheets
- Check front table, chairs, two lecterns
- Obtain prioritized list of speakers
- Check tape recorder (personnel to operate)
- Check system for timing speakers
- Check individual assigned to take notes

### Content of Regional Director's Introduction (see sample, **Appendix Y**)

- Greeting
- Self introduction
- Description of draft permit to be discussed
- Status of permit
- Description of two different parts of proceedings
  1. Information briefing and question period
  2. Public hearing
- Ground rules for each part will be described before that part
- General ground rules - applause and other types of audience participation is inappropriate and impolite
- Introduction of briefing/hearing officer

### Content of Introduction to Information Briefing

- Purpose
- Sequence of information briefing
- Question period at the end of briefing. Please hold questions until that time.
- Applause and audience participation is inappropriate.
- Testimony should be provided during public hearing which will follow information briefing. Only questions will be addressed in this part of proceeding. Questions must relate to air quality issues.
- Debate of issues is not appropriate.
- The proceedings during the information briefing will not be recorded and are not part of the public record
- Recommend audience members sign in if they have not done so and indicate if they wish to present testimony
- Information briefing
  - Location of facility
  - History
  - Description of facilities
  - Pre-construction monitoring
  - Controls/BACT
    - Air quality analysis
- Permit conditions

Announcement of break until Public Hearing

Content of Introduction to Public Hearing

Purpose

Ground rules for order of speakers - elected officials and then by order of sign-in

Ground rules for time limit

Applause or other types of audience participation is inappropriate

Other boilerplate

During Hearing

Eliminate applause and demonstrations

Enforce time limits

# **Appendix Y Sample DEQ Public Hearing Opening Statement**

My name is \_\_\_\_\_ and I am the Regional Director for the \_\_\_\_\_ Regional Office of the Department of Environmental Quality. I have been designated by the Board to conduct this hearing.

This public hearing of December 14, 1998, is being held by the State Air Pollution Control Board in accordance with 9 VAC 5-80-1170 of its regulations. As required by law, the public was given notice of this hearing in the "Northern Virginia Daily" on November 14, 1998.

The subject of this hearing concerns an application by Mountain View Rendering to increase the allowable number of hours of operation and the production limit in their permit for the rendering plant they now operate at Columbia Furnace.

The increase in pollutants emitted would be 4 tons per year of particulate emissions and 1.7 tons per year of volatile organic compounds (VOC).

Emissions will be controlled by a combination of incineration and chemical scrubbing.

This public hearing serves the purpose of receiving statements and recording the position of the organization you represent or your own personal view on the subject under consideration. All written statements filed with the hearing officer today become part of the official record whether they are read in their entirety in the public hearing or summarized orally. Testimony will be received today only on the subject of this hearing. Because this is not an adversary proceeding as in a court of law, statements need not

Sample DEQ Public Hearing Opening Statement

be sworn nor will there be cross-examination. Debates between individual speakers will be ruled out of order and will not be included in the official record.

An electronic transcript is being taken of all testimonies at this hearing. When you are called for your statement, please come forward, speak distinctly into the microphone and state your name and the organization that you represent, or the fact that you are speaking as an individual. To conserve time, you are requested to file any lengthy written material for the record and summarize your statement orally at this hearing. It is requested that two copies of your presentation be furnished for entry into the hearing record.

All of you who have not signed the attendance sheet, please do so. Speakers will be called in the order in which they signed in. Additional comments may be submitted in writing, and will become part of the public record just as oral comments will.

Elected state and local officials will be allowed to speak first. Are there any elected state or local officials present who wish to speak? Would you state your name and your position?

# Appendix Z - Response to Comments: Model Letter

[Regional Office letterhead]

{date}

{name of person commenting}  
{mailing address of person commenting}  
{city, state, zip code of person commenting}

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
AFS ID No.: 51-**{FIPS county code}**-**{five digit plant code}**

Dear {Mr./Mrs./Ms.} {name of person commenting}:

20. The {name of regional office} Regional Office of the Virginia Department of Environmental Quality has reviewed the comments submitted concerning the Department's preliminary determination concerning an application from {company name} for a New Source Review permit for {facility name}.

21.

22. [A copy of the Comment and Response Summary document is enclosed for your review. The Department's response follows each summarized comment.]

23.

24. [The following determinations have been made in response to each of your comments. Any changes to the permit which result from the comment will be made as noted after each response:

25.

1. You stated that {summary of comment}.

**In response, {DEQ response}. {Statement concerning changes to be made to the permit, if any}.**

2. You stated that {summary of comment}.

**In response, {DEQ response}. {Statement concerning changes to be made to the permit, if any}.**

26. The final permit, all comments made during the public comment period (with the Department's responses), and any additional information provided by the permittee are on file at the {name of regional office} Regional Office[ and are available

Response to Comments Sample Letter

for public inspection by prior appointment by calling {regional office phone number}].

Thank you for your participation in the permit review process. Your concern for Virginia's environmental quality is appreciated.

Sincerely,

{name of regional air permit manager}  
Air Permit Manager

{regional permit writer's initials}/{air permit manager's initials}/{filename}

cc: file

# Appendix AA Shutdown Guidance

OAPP 035-99

## MEMORANDUM

**TO:** Regional Directors  
Regional Permit Managers  
Regional Air Permit Managers  
Regional Air Compliance Managers

**FROM:** John M. Daniel, Jr., P.E., DEE  
Director, Division of Air Programs Coordination

**SUBJECT:** Memo Number 99-1003, Promulgation of Shut-down Procedures and Revised Model Letters

**Copies:** David K. Paylor  
Director of Program Coordination

Robert L. Beasley  
Assistant Division Director, Office of Air Permit Programs

John E. Schubert  
Air Inspections Coordinator

**DATE:** June 22, 1999

Today I am promulgating a procedural guidance document entitled "Procedures for Shutting Down a Permitted Source". Along with the document are three model letters for use by regional staff in shutting down inoperative sources.

These procedures, and the model letters which accompany them, are intended to aid regional permitting and compliance staff in establishing a regulatory basis for shutting down sources or emission units which have been inoperative, or dormant, for a year or more as contemplated in several similar regulatory provisions. (See, in general, 9 VAC 5-20-220 in the Virginia Regulations for the Control and Abatement of Air Pollution.) The procedures are new; the regulatory provisions underlying them are not. The three model letters have been updated and revised since their last promulgation by the Office of Air Permit Programs (then the Office of Permit Evaluation) in 1995. That office has worked with regional compliance staff in revising the letters and drafting the procedure.

It is important to note that these procedures and letters are not intended for use when requiring a source to shut down active operations, for reasons of either enforcement or emergency. Other provisions in the Regulations address those matters.



## Shutdown Guidance

The procedures and model letters appear in K:\AGENCY computer files as follows:

K:\AGENCY\DTE\PERMAST\SHUTDOWN\PROCEDURE [now K:\agency\Air\_Permitting\Shutdown\Shutdown.Procedures.doc or VADEQNet as M:\Air\Air\_Permitting\Shutdown\Shutdown.Procedures.doc] is the file containing the 9-page Procedures document named above;

K:\AGENCY\DTE\PERMAST\SHUTDOWN\JEDMUT.WPD [now K:\agency\Air\_Permitting\Shutdown\Shutdown.Mutual.Ltr.doc or VADEQNet as M:\Air\Air\_Permitting\Shutdown\Shutdown.Mutual.Ltr.doc] is the file containing the model letter to be used for mutual determinations that a permitted facility or emission unit is shut down.

K:\AGENCY\DTE\PERMAST\SHUTDOWN\TENTALTR [now K:\agency\Air\_Permitting\Shutdown\Shutdown.Tentative.Ltr.doc or VADEQNet as M:\Air\Air\_Permitting\Shutdown\Shutdown.Tentative.Ltr.doc] is the file containing the model letter to be used to notify a source that we have discovered dormant facilities or emission units and need to shut them down and revoke their permits.

K:\AGENCY\DTE\PERMAST\SHUTDOWN\FINALLTR [now K:\agency\Air\_Permitting\Shutdown\Shutdown.Final.Ltr.doc or VADEQNet as M:\Air\Air\_Permitting\Shutdown\Shutdown.Final.Ltr.doc] is the file containing the model letter to be used at the end of the shut-down procedure, to announce the final determination that the facility or emission unit is shut down.

If you have questions on these procedures and letters, please contact the Office of Air Permit Programs.

## Appendix BB - Sample Shutdown Letters

K:\agency\Air\_Permitting\Shutdown\Shutdown.Mutual.Ltr.doc  
K:\agency\Air\_Permitting\Shutdown\Shutdown.Tentative.Ltr.doc  
K:\agency\Air\_Permitting\Shutdown\Shutdown.Final.Ltr.doc

### Sample Mutual Decision Shutdown Letter

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

**Location: {source county/city}**

**Registration No.: {source registration number}**

AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

In response to your letter dated {date of letter}, the Department of Environmental Quality is joining you in a mutual determination, pursuant to 9 VAC 5-20-220 and 9 VAC 5-80-1100 et seq. of Virginia's Regulations for the Control and Abatement of Air Pollution, regarding the shutting down of a source. The Regulations provide that the Department and the owner of a source may *make a mutual determination that a stationary source or emissions unit is shut down permanently*. The Regulations also require that, upon making a final decision that the source is permanently shut down, the Department revoke any permits issued to that source (9 VAC 5-80-1210).

In execution of this mutual determination of permanent shut-down, {company name} agrees that:

1. A mutual and final determination has been made that the {facility name} or emissions unit} at {location} in {city or town}, Virginia is permanently shut down;
2. {Company name} is the sole owner, as defined in the Regulations, of the {facility name or emissions unit};

Sample Shutdown Letters

3. [All air permits] [The air permit] issued for the {facility name or emissions unit}, dated {permit dates} or [as listed below],[is/are] revoked;
  - {a.} Permit to [Construct and Operate, Modify and Operate, etc.], dated {permit date};
  - {b.} Permit to [Construct and Operate, Modify and Operate, etc.], dated {permit date};
  - {c.} Permit to [Construct and Operate, Modify and Operate, etc.], dated {date}.
4. The Department of Environmental Quality will remove the {facility name or emissions unit} from the air emission inventory and will consider its air pollutant emissions to be zero in any future air quality analysis to be conducted; and
5. Upon signature of this document by the Department and by {company name}, the {facility name or emissions unit} facility or emissions unit] shall cease operations. No future operations shall occur until the owner has obtained a permit pursuant to 9 VAC 5 Chapter 80. Any use of the {facility name or emissions unit} after execution of this document shall be considered equivalent to construction and operation of a new emissions unit and will subject {company name} to the requirement to obtain a permit pursuant to applicable provisions of 9 VAC 5 Chapter 80 in the Regulations.
6. The permanent shutdown of {facility name or emission unit} will become effective upon signature of this document by both parties.
7. The permanent shutdown of {facility name or emission unit} is binding upon {company name}, its successors in interest, designees, and assigns, jointly and severally.

Sample Shutdown Letters

By authorized signature below, and in accordance with the Virginia Regulations for the Control and Abatement of Air Pollution, {company name} and the Department of Environmental Quality, acting on behalf of the State Air Pollution Control Board, mutually determine that the {facility name or emissions unit} is shut down permanently.

Date: \_\_\_\_\_  
\_\_\_\_\_ {director name}, Director  
Department of Environmental Quality

The terms and conditions of this determination are accepted by {company name}.

Date: \_\_\_\_\_  
\_\_\_\_\_ {company responsible official position title}

State of Virginia

City/County of \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_\_ by  
(Date)

\_\_\_\_\_, \_\_\_\_\_ of  
(Name) (Title)

{Company name}, a \_\_\_\_\_ corporation, on  
(Place of Incorporation)

behalf of the corporation.

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Notary Public)

My commission expires: \_\_\_\_\_  
(Date)

i.

## Sample Tentative Decision Shutdown Letter

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}

{company responsible official position title}

{company name}

{company mailing street address}

{company mailing address city, state and zip code}

**Location: {source county/city}**

**Registration No.: {source registration number}**

**AFS ID No.: 51-{FIPS county code}-{five digit plant code}**

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The Commonwealth of Virginia's Regulations for the Control and Abatement of Air Pollution, at 9 VAC 5-20-220 and 9 VAC 5-80-1100 et seq., provide a procedure for the Department of Environmental Quality to follow in making a final determination that a source is permanently shut down. The Regulations require the Department to give the owner notice of a tentative determination and to provide an opportunity for the owner to challenge the determination in writing and, if desired, in a formal hearing before the State Air Pollution Control Board. If the determination becomes final, the Regulations require the Department to revoke the applicable permits.

The Department has made a tentative determination that the {facility name}, located at {facility address, town or city}, Virginia), is permanently shut down.

This decision will become final if the owner of the {company name} fails to provide, within 3 months of receipt of this letter, a written response informing the Department that the shutdown of the {facility name} is not to be considered permanent. This response shall include (1) the basis for the assertion that the shutdown is not to be considered permanent, and (2) the projected date for re-starting the facility. The response shall also include a request for a formal hearing if the owner wishes to exercise that right. The response should be addressed to:

Director, {name of regional office} Regional Office  
Virginia Department of Environmental Quality  
{address}

Sample Shutdown Letters

{city or town}, Virginia {zip code}

If no response is received by this regional office within three months, or if the Department finds that the basis for the assertion is not sound or the projected date for re-starting allows for an unreasonably long period of inoperation, then the decision to consider the shut-down permanent will become final and the applicable permits will be revoked.

If you have any questions concerning this tentative determination or if you have questions concerning the response necessary to challenge this determination, please call this regional office at {regional office telephone number}.

Sincerely,

{regional director signature}

for {Director name}  
Director

cc: Director, OAPP (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Air Compliance and Inspection Manager  
file

## Sample Final Decision Shutdown Letter

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}

{company responsible official position title}

{company name}

{company mailing street address}

{company mailing address city, state and zip code}

**Location: {source county/city}**

**Registration No.: {source registration number}**

AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The Commonwealth of Virginia's Regulations for the Control and Abatement of Air Pollution, at 9 VAC 5-20-220 and 9 VAC 5-80-1100 et seq., provide a procedure for the Department of Environmental Quality to follow in making a final determination that a source is permanently shut down. In accordance with the Regulations, this office notified you, in a letter dated {notification letter date}, of the Department's tentative determination that the {facility name}, located at {location, town/city, etc.}, is permanently shut down.

[We did not receive a response to that letter within the three-month period allowed in the Regulations for challenging this determination (see 9 VAC 5-20-220). [We received a response, dated {response letter date}, challenging the tentative determination.]

Sample Shutdown Letters

[A hearing was held on {hearing date}.] [After consideration of the owner's response,] the Department has made a final determination that the {facility name} is permanently shut down. Upon making a final decision that a source is permanently shut down, the Department is required by the Regulations to revoke all applicable permits (9 VAC 5-80-1210).

Accordingly, you are hereby notified that:

1. [All air permits] [The air permit] issued for the {facility name}, registration number {registration number} and dated {permit date(s)}, [is/are] revoked; and
2. The Department of Environmental Quality will remove the {facility name} from the air emission inventory and will consider its air pollutant emissions to be zero in any future air quality analysis; and
3. The {facility name}, or any portion thereof, shall not re-commence operation unless it is authorized by a new permit issued under the applicable provisions of Chapter 80 of the Regulations.

If you have any questions concerning this final determination or the revocation of the cited permit(s), please call this regional office at {regional office telephone number}.

Sincerely,

{regional director signature}

for {Director name}  
Director

cc: Director, OAPP (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Air Compliance and Inspection Manager  
file



## Appendix CC Public Participation for Localities Particularly Affected

OAPP 038-99

### MEMORANDUM

**TO:** Regional Directors  
Regional Permit Managers  
Regional Air Permit Managers  
Regional Air Compliance Managers

**FROM:** John M. Daniel, Jr., P.E., DEE  
Director, Division of Air Programs Coordination

**SUBJECT:** Memo Number 99-1004, Public participation requirements prior to issuing any permit for the construction of a new major stationary source or for a major modification to an existing source pursuant to Section 10.1-1307.01 (Localities Particularly Affected)

**Copies:** David K. Paylor  
Director of Program Coordination

John E. Schubert  
Air Inspections Coordinator

**DATE:** August 19, 1999

This sets forth the procedures that should be followed to meet the requirements of Section 10.1-1307.01 of the Air Pollution Control Law of Virginia for issuing any permit for the construction of a new major stationary source or for a major modification to an existing source. It replaces all previous air guidance documents on this subject (Policy Statement No. 3-96 and Guidance Document Nos. APG-96-240 and 97-1005.)

**Background.** This guidance is based on Section 10.1-1307.01 of the Air Pollution Control Law of Virginia. This section specifies that after June 30, 1994, certain specific requirements must be met when processing variances, promulgating regulations, and issuing any permit for construction of a new major stationary source or for a major modification to an existing source. Specifically, DEQ must publish or require the source to publish a notice in a local paper of general circulation in the localities particularly affected at least thirty days prior to the close of any public comment period. The notice should contain a statement of the estimated local impact which, at a minimum, should provide information on quantity of fuels to be used and quantities of each pollutant emitted.

A copy of the public notice must be sent to the chief elected official, the chief administrative officer, and the planning district commission for those localities.

Written comments must be accepted for at least 15 days following any public hearing for new major stationary sources and major modifications, unless SAPCB votes to shorten the period.

## Guidance

### A. Definitions

(1) **Locality Particularly Affected:** Any locality which bears any identified disproportionate material air quality impact which would not be experienced by other localities.

(2) **Disproportionate Material Air Quality Impact:** Any ambient air quality impact determined by air quality modeling to meet or exceed the significance levels outlined below:

So <sub>x</sub>	Annual	1 microgram/cubic meter
	24-hour	5 microgram/cubic meter
	3-hour	25 microgram/cubic meter
PM(10)	Annual	1 microgram/cubic meter
	24-hour	5 microgram/cubic meter
NO <sub>2</sub>	Annual	1 microgram/cubic meter
CO	8-hour	500 microgram/cubic meter
	1-hour	2,000 microgram/cubic meter

The terms "major stationary source" and "major modification" are defined in 9 VAC 5-80-10 (now 9 VAC 5-80-1110) and Articles 8 and 9 of 9 VAC 5 Chapter 80. Please use the definition from the regulation which applies to your situation.

(NOTE: Permits issued for minor modifications to major stationary sources are not subject to the requirements of Section 10.1-1307.01)

### B. Public Hearing Notice

Any notice of a public comment period/hearing for the construction of a new major stationary source or for a major modification to an existing source should, at a minimum, contain the following information:

- (1) The quantity of each specific pollutant emitted.
- (2) The type and quantity of any fuels to be used.

#### Public Participation for Localities Particularly Affected

Note that the decision as to how to model the emissions, addressed in other agency guidance, is not affected. A brief statement should be included in the notice, indicating whether or not any regulation would be violated.

The public notice should be published in a newspaper of general circulation in any localities particularly affected as defined above and should specify that comments will be accepted for 15 days following the day of the public hearing, if any.

A copy of the public notice should be mailed to the chief elected office and chief administrative officer of any locality particularly affected and the planning district commission for those localities.

(NOTE: Since the notice must be published at least 30 days prior to a public hearing and the written comments are to be accepted for at least 15 days following the public hearing, the total comment period would be 45 days or longer.)

If you have questions on this subject, please contact the Office of Air Permit Programs.



## Appendix DD- Pollution Prevention Information

### Pollution Prevention and Pollution Control Know Your Options

#### Pollution Prevention May Help Your Facility Reduce Air Emissions

Today, many facilities are taking the opportunity to look at achieving broader environmental management objectives rather than concentrating solely on meeting pollution control and regulatory standards. These facilities are realizing that pollution prevention is very often economically beneficial and can result in significant environmental benefits.

#### What is Pollution Prevention?

Liquid, solid and /or gaseous waste materials are generated during the manufacture of any product. In addition to environmental problems, these wastes represent a loss of valuable materials and energy from the production process and may require significant investment in pollution control equipment. In addition, there are costs associated with waste handling, compliance man-hours and liabilities.

Traditional *pollution control* focuses on an end-of-pipe and out-the-back-door viewpoints. *Pollution prevention* emphasizes the elimination or reduction of wastes at the source of generation. If wastes are not generated, the wastes do not have to be managed.

Facilities have many reasons to implement pollution prevention techniques. Achieving compliance with regulatory standards, saving money, improving public relations, and concern for the environment are a few of the reasons why proactive Virginia facilities are investing in pollution prevention alternatives.

For example, a small chemical manufacturing facility in Richmond, VA has recently installed state of the art pollution prevention technology that will enable the facility to stay below MACT pharmaceutical and Title V permit thresholds. The company reports the initial investment is justified by the cost savings associated with the decreased

## Pollution Prevention Information

compliance activities alone and enjoy the added benefits of reduce waste disposal costs and improved public image .

### Pollution Prevention Assistance

The Office of Pollution Prevention, a voluntary, non-regulatory technical assistance program within the Virginia Department of Environmental Quality, is available to assist your facility with its pollution prevention efforts. Services of OPP include:

- X Access to engineers trained to assist you in evaluating your processes and needs
- X Access to up-to-date information on new and innovative pollution prevention techniques
- X P2 training and workshops targeted at specific waste-generating activities
- X Industry-specific reports and fact sheets researched and written by Office of Pollution Prevention staff for the benefit of Virginia-based facilities
- X On-site assistance in the form of confidential  Pollution Prevention Opportunity Assessments

For more information, please contact:

**Office of Pollution Prevention**  
**Virginia Department of Environmental Quality**  
PO Box 10009  
Richmond, VA 23240  
804-698-4235/4545  
<http://www.deq.state.va.us>

**More Resources for Pollution Prevention Information:**

Virginia Department of Environmental Quality's Small Business Assistance Office

<http://www.deq.state.va.us/osba/smallbiz.html>

Environmental Protection Agency

<http://www.epa.gov>

North Carolina Pollution Prevention

<http://www.p2pays.org>

State and Territorial Air Pollution Prevention Administration, Association of Local Air Pollution Control Officials (STAPPA/ALAPCO)

<http://www.cleanairworld.org>

Pollution Prevention Experts: Pollution Prevention referral service developed by the Northeast Waste Management Officials' Office

<http://www.p2.org/p2experts>

EPA EnviroSense: Assists in Pollution Prevention implementation

<http://es.epa.gov>

Department of Energy's Office of Pollution Prevention

<http://apps.em.doe.gov/ost>

Technology Transfer Network Bulletin Board

<http://www.epa.gov/ttn/>

## **Appendix EE - Pollution Prevention Techniques**

Pollution Prevention Techniques may be applied to any manufacturing process for a product as simple as a paper clip to as complex as a space shuttle. Available techniques range from easy operational changes to state-of-the-art recovery equipment. The common factor in these techniques generally are used in concerns the reduction of bottom line operational costs.

Waste reduction techniques may be broken down into three major categories: inventory management, volume reduction and process modification. Because the classifications are broad, some overlap occurs. In the actual application of these methods, pollution prevention techniques are used in combination with each other to achieve the maximum at the lowest possible cost.

### **Inventory Management**

Proper control over raw materials, intermediate products, final products and their associated waste streams, is an important waste reduction technique. In many cases, waste is just out-of-date raw materials, spill residues, or damaged final products. The cost of disposing of these materials not only includes actual disposal costs but also the cost of lost raw materials or product. Methods for controlling inventory range from simple changes in ordering procedures to implementation of just-in-time manufacturing techniques. Many companies may help reduce their waste generation by tightening up and expanding their current inventory control programs. This action will significantly impact the three major sources of waste that result from improper inventory control: excess, out-of-date and no-longer -used raw materials.

Purchasing only the amount of raw materials needed for a production run or a set period of time is the key to proper inventory control. Excess inventory often must be disposed of because it becomes out-of-date. Companies may eliminate this problem by more effective application of existing inventory management procedures. This method should be coupled with the implementation of educational programs for purchasing personnel on the difficulties and costs associated with disposal of excess materials. Additionally, set expiration dates should be evaluated, especially for stable compounds, to see if they are too short. For example, if inventory is not available for production because the raw materials have passed an expiration date, the supplier/manufacturer should be contacted in order to improve the situation by getting materials that will last longer. Or, production methods may be varied to use soon-to-expire materials faster.

Developing review procedures for all materials purchased is another step in establishing an inventory control program. Standard procedure should require that all materials be approved prior to purchase. In the approval process, all production materials are evaluated to determine if they contain hazardous constituents, and if so, what alternative non-hazardous substitute materials are available. The development of review procedures may be made either by one person having the necessary chemistry background or by a committee consisting of people that have a variety of backgrounds. Needed information may possibly be obtained from the Material Safety Data Sheets (MSDS) provided by the chemical supplier. Many companies from electronics to textile firms have established successful materials review programs.

The ultimate in inventory control procedures is just-in-time (JIT) manufacturing, since this method eliminated the need for inventory. This process is done by moving raw materials directly from the receiving dock to the manufacturing area for immediate use. The final product is then shipped out without any intermediate storage. Just-in-time manufacturing is a complex program to implement and cannot be used by all facilities; however, this technique may reduce waste significantly. For example, the 3M Company reduced waste generation by 25 to 65% in their individual plants by using JIT techniques.

## **Production Process Modification**

Improving the efficiency of a production process can significantly reduce waste generation at the source of generation. Some of the most cost-effective reduction techniques are included in this category; many methods are simple and consist of relatively inexpensive changes to production procedures. Available techniques range from the elimination of leaks in process equipment to the installation of state-of-the-art production equipment modification.

\* Operational Procedures: A wide range of methods are available to operate a production process at peak efficiency. These methods are neither new nor unknown and are usually inexpensive to institute, as little or no capital cost is necessary. For example, a producer of breaded foods instituted a number of operational changes such as dry cleanup, installation or modification of drip trays under process equipment, and development of better systems. Improved operation procedures are quite simply methods that make optimum use of the raw materials employed in the production process. The first step in instituting such a program is to review all current operation procedures and to examine the production process for ways to improve its efficiency. A review would include all segments of the process, from the delivery area through the production process to final product storage. One important area that is commonly overlooked or is not given proper attention in many manufacturing facilities is material handling procedures. Proper material handling will insure that raw materials will reach the production process without loss of material through spills, leaks or contamination. This method guarantees that the material is efficiently handled in the production process. Once proper operating procedures are established, they must be fully documented and handled in the production process. Once proper operating procedures are established, they must be fully documented and made part of an employee training program. A comprehensive training program is a key element of any effective waste reduction program. Through training, for example, a dairy plant, a semiconductor manufacturer, and a furniture plant reduced waste by 14%, 40%, and 10% respectively. For a program to be effective, all levels of personnel should be included, from the line operator to the corporate executive officer. The goal of any program is to make the employee aware of waste generation, its impact on the company and the environment, and ways that waste may be reduced. Written materials should be prepared and used in conjunction with hands-on training. This process should be employed constantly and review updates and interaction between employees and supervisors should be carried out on a regular basis.

X Maintenance Programs: One company found that one-fourth of its excess waste load was due to poor maintenance. A strict maintenance program that stresses corrective and preventive maintenance can thus reduce waste generation caused



by equipment failure. Such a program will help to spot potential problems before any materials are lost. A good maintenance program is important because the benefits of the best waste reduction program may be wiped out by just one process leak or equipment malfunction. A maintenance program may include maintenance cost tracking and preventive maintenance scheduling and monitoring. To be effective, a maintenance program should be developed and followed for each operational step in the production process, with special attention given to potential problem points. Strict schedules and accurate records of all maintenance activities should be maintained. Computer-based maintenance scheduling and tracking programs are also available from a variety of vendors. A comprehensive program should also include predictive maintenance; this approach provides a means to schedule repairs or replacement of equipment based on the actual condition of the machinery. A number of non-destructive testing technologies are available for making the needed evaluations in this approach.

- X Materials Change: Use of solvents such as methanol, toluene, and methyl ethyl ketone (MEK) typically in product formulations and surface cleaning operations, can subject facilities to strict air quality requirements. To prevent or reduce these requirements, a facility should first examine the manufacturing process to determine if a process modification could eliminate or reduce the use of a solvent. If it is determined that a solvent is needed, using the least hazardous material could reduce a facility's environmental requirements, save money, and reduce employees' exposure to hazardous chemicals. Product reformulation is a more difficult waste reduction technique, yet reformulation can be very effective. Examples of product reformulation include the elimination of pigments that contain heavy metals from ink, dyes and paint formulations; the replacement of phenolic biocides with less toxic compounds in metal-working fluids; and the development of new paint, ink and adhesive formulations based on water rather than organic solvents. Hazardous chemicals used in the production process may also be replaced with less hazardous or non-hazardous materials. Changes may range from the use of purer raw materials to the replacement of solvents with water-based products. This method is a very widely-used reduction technique and is applicable to many industries. Many of these changes involve switching from a solvent to a water-based process solution. For example, a diesel engine remanufacturing facility switched from cleaning solvents and oil-based metal-working fluids to water-based products. This change reduced its coolant and cleaning costs by about 40%. Additionally, the company was able to eliminate one cleaning step and machine filters lasted twice as long, thus reducing material and labor costs. One important area that is sometimes overlooked in making a material change is the modification's impact of the total waste stream. By switching from a solvent-based to a water-based product, a firm may increase wastewater volumes and concentration. This action could adversely affect the current wastewater treatment system, cause effluent limits to be exceeded and possibly increase wastewater treatment sludge production. Thus, before any change is made, its impact on all discharges must be evaluated.

- X Process equipment modifications: Waste generation may be reduced by installing more efficient process equipment or by modifying existing equipment to take advantage of better production techniques. New or updated equipment can use process materials more efficiently and thereby produce less waste. In addition, higher efficiency systems may reduce the number of rejected or off-specification products, thereby reducing the amount of material that must be reworked or disposed. Modifying existing process equipment can be a very cost-effective method to reduce waste generation. In many cases this technique may consist of relatively simple and inexpensive changes in the way materials are handled within the process to insure that they are not wasted or lost. This method can be as easy as redesigning parts racks to reduce drag-out in electroplating operations, installing better seals on process equipment to eliminate leakage, or installing drip pans under equipment to collect leaking process material for reuse. One chemical company reduced its waste from a pump in a production area from 31,750 kg/year to 1,360 kg/year by installing a sight glass, using better pump seals and purchasing a broom. Installing new and more efficient equipment and, in some cases, modifying current equipment, will require capital investment in equipment, facility modifications and employee training. The extent of this investment will vary greatly depending on the type of equipment, facility modifications and employee training. The extent of this investment will vary greatly depending on the type of equipment employed. These investments, however, can have a rapid payback. For example, a power tool manufacturer replaced a spray solvent paint system with a water-based electrostatic immersion painting unit. This modification decreased material costs by \$600,000/yr, reduced waste disposal costs by 97% and greatly increased productivity.

## **Volume Reduction**

Volume reduction includes techniques that separate toxic, hazardous and/or recoverable wastes from the waste stream. These methods are usually used to increase recoverability; to reduce the volume of wastes, and thus disposal costs; or to increase management options. Available techniques range from simple separation of wastes at the source to complex concentration technology. These techniques may be divided into two general areas; source separation and waste concentration.

- X Source Separation: Separation of wastes is, in many cases, a simple and economical technique for waste reduction. For example, by segregating wastes at the source of generation and by handling hazardous and non-hazardous waste separately, waste volume and thus management costs may be reduced. Additionally uncontaminated or undiluted wastes may be reusable in the production process or may be sent off-site for recovery. This technique applies to a wide variety of waste streams and industries and usually involves simple changes in operational procedures. For example, in metal finishing facilities, wastes that contain different types of metals can be treated separately so that the metal valued in the sludge may be recovered. Keeping spent solvents or waste oils segregated from other solid or liquid waste may allow them to be recycled. Wastewater that contains toxic material should be kept separate from uncontaminated process waste, reducing the volume of water that must be treated. A commonly used waste separation technique is to collect and store for reuse in the production process wash-water or solvents that are used to clean process equipment (such as tanks, pipes, pumps, or printing presses). This

technique is used by paint, ink, and chemical formulators as well as by printers and metal fabricators. For example, a printing firm segregates and collects toluene used for press and roller cleanup operations. By segregating the used toluene by color and type of ink contaminant, the solvent may be reused later for thinning inks of the same type and color. The firm now recovers 100% of its waste, toluene, thereby totally eliminating a hazardous waste stream.

- X Concentration: Various techniques are available to reduce the volume of a waste through physical treatment. Such techniques usually remove a portion of a waste, such as water. Available concentration methods include gravity and vacuum filtration, evaporation, ultrafiltration, reverse osmosis, freeze vaporization, filter press, heat drying and compaction. Unless the material can be recycled, simply concentrating a waste so that more can be fit into a drum is not waste reduction. In some cases, the concentration of a waste stream may also increase the likelihood that the material can be reused or recycled. For example, filter presses or sludge dryers can increase the concentration of metals in electroplating wastewater treatment sludge to such a level that the metals become valuable raw material for metal smelters. A printed circuit board manufacturer de-waters its sludge to 60% sludge by using a filter press. The company receives \$7,200/year in the sale of the de-watered sludge to copper reclaimers.

## **Summary**

As has been shown, a wide range of pollution prevention techniques currently exist and are available for most manufacturing steps. However, technology alone will not reduce waste generation- only a comprehensive pollution prevention program will be successful. Such a program should include management commitment, data collection, cost-effective technology selection and implementation, employee training and involvement, and program monitoring. The foundation of any successful program is the evaluation of the wastes that are generated and the reasons they are produced. Using this information, a range of reduction techniques can be identified and evaluated, and cost-effective options implemented.

In the final analysis, pollution prevention depends on looking at waste in a different way; not as something that inevitable must be treated and disposed, but rather as a loss of valuable process materials, the reduction of which can have significant economic benefits. One corporation executive summarized it all when he stated that waste is a specialty product for which a market has not yet been found.

For more information please contact:

**Virginia Department of Environmental Quality  
Office of Pollution Prevention  
PO Box 10009  
Richmond, VA 23240  
804-698-4545  
[www.deq.state.va.us/p2](http://www.deq.state.va.us/p2)**



## Appendix FF- Hazardous Air Pollutant and Toxic Pollutant Tables

The following table lists the Hazardous Air Pollutants (HAPs) and Toxic Pollutants (toxics) as defined in 9 VAC 5-60-210, 9 VAC 5-60-310, and 9 VAC 5-80-1110. The listed TLVs for most chemical substances are from the 1991-1992 ACGIH handbook. Those chemical substances that were not listed in the 1991-92 ACGIH Handbook (or were listed but without TLV's) are shown in bold. For those chemical substances for which no TLV is given the OAPP should be contacted for the most up-to-date available health effects data on that chemical. The following websites provide more detailed information on chemical substances:

<http://www.toxlaw.com/chemtracker/>

<http://www.chemfinder.com/>

<http://www.epa.gov/ttn/uatw/hapindex.html>

<http://www.epa.gov/iris/subst/index.html>

<http://chem.sis.nlm.nih.gov/chemidplus/>

<http://www.epa.gov/ttn/uatw/websiteh.html>

[http://www.ccmr.cornell.edu/helpful\\_data/msds.html](http://www.ccmr.cornell.edu/helpful_data/msds.html)

[www.cdc.gov/niosh/npg/pgdstart.html](http://www.cdc.gov/niosh/npg/pgdstart.html)

**TABLE 10-1**

ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )									
Classified as VOC OR PM	Chemical Name	CAS No	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	Acetaldehyde	75070	180	270	-	8.91	26.1	6750	360
VOC	<b>Acetamide</b>	60355	32	-	-	2.112	4.64	1600	64
VOC	Acetonitrile	75058	67	101	-	3.333	9.715	2525	134
VOC	<b>Acetophenone</b>	98862	49.14	-	-	3.243	7.125	2457	98.28
VOC	<b>2-Acetylaminofluorene</b>	53963	-	-	-	-	-	-	-
VOC	Acrolein	107028	0.23	0.69	-	0.02277	0.03335	17.25	0.46
VOC	Acrylamide	79061	0.03	-	-	0.00198	0.00435	1.5	0.06
VOC	Acrylic Acid	79107	5.9	-	-	0.3894	0.8555	295	11.8
VOC	Acrylonitrile	107131	4.3	-	-	0.2838	0.6235	215	8.6
VOC	Allyl chloride	107051	3	6	-	0.198	0.435	150	6
VOC	4-Aminobiphenyl	92671	-	-	-	-	-	-	-
VOC	Aniline	62533	7.6	-	-	0.5016	1.102	380	15.2
VOC	0-Anisidine	29191524	0.5	-	-	0.033	0.0725	25	1
VOC	Benzene(inc. from gasoline)	71432	32	-	-	2.112	4.64	1600	64
VOC	<b>Benzidine</b>	92875	-	-	-	0.016724	1.08 E-05	12.67	1.49 E-04
VOC	<b>Benzotrichloride</b>	98077	-	-	0.8	0.0264	-	20	-

## Hazardous Air Pollutant and Toxic Pollutant Tables

ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )									
Classified as VOC OR PM	Chemical Name	CAS No	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	Benzyl chloride	100447	5.2	-	-	0.3432	0.754	260	10.4
VOC	Biphenyl	92524	1.3	-	-	0.0858	0.1885	65	2.6
VOC	<b>Bis(2-ethylhexyl) phthalate</b>	117817	-	-	-	-	-	-	-
VOC	Bis(chloromethyl) ether	542881	0.0047	-	-	0.00031	0.00068	0.235	0.0094
VOC	Bromoform	75252	5.2	-	-	0.3432	0.754	260	10.4
VOC	1,3 Butadiene	106990	22	-	-	1.452	3.19	1100	44
VOC	Calcium cyanamide	156627	0.5	-	-	0.033	0.0725	25	1
VOC	Captan	133062	5	-	-	0.33	0.725	250	10
VOC	Carbaryl	63252	5	-	-	0.33	0.725	250	10
VOC	Carbon disulfide	75150	31	-	-	2.046	4.495	1550	62
VOC	Carbon tetrachloride	56235	31	-	-	2.046	4.495	1550	62
VOC	<b>Carbonyl sulfide</b>	463581	0.8	-	-	0.0528	0.116	40	1.6
VOC	Catechol	120809	23	-	-	1.518	3.335	1150	46
VOC	<b>Chloramben</b>	133904	-	-	-	-	-	-	-
VOC	Chlordane	57749	0.5	-	-	0.033	0.0725	25	1
	Chlorine	7782505	1.5	2.9	-	0.0957	0.2175	72.5	3
VOC	<b>Chloroacetic acid</b>	79118	-	-	-	-	-	-	-
VOC	2-Chloroacetophenone	532274	0.32	-	-	0.02112	0.0464	16	0.64
VOC	Chlorobenzene	108907	46	-	-	3.036	6.67	2300	92
VOC	<b>Chlorobenzilate</b>	510156	-	-	-	-	-	-	-
VOC	Chloroform	67663	49	-	-	3.234	7.105	2450	98
VOC	<b>Chloromethyl methyl ether</b>	107302	-	-	-	-	-	-	-
VOC	Chloroprene	126998	36	-	-	2.376	5.22	1800	72
VOC	Cresols/Cresylic acid (isomers and mixture)	1319773	22	-	-	1.452	3.19	1100	44
VOC	o-Cresol	95487	22	-	-	1.452	3.19	1100	44
VOC	m-Cresol	108394	22	-	-	1.452	3.19	1100	44
VOC	p-Cresol	106445	22	-	-	1.452	3.19	1100	44
VOC	Cumene	98828	246	-	-	16.236	35.67	12300	492

Hazardous Air Pollutant and Toxic Pollutant Tables

**ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )**

<u>Classified as VOC OR PM</u>	<u>Chemical Name</u>	<u>CAS No</u>	<u>TLV mg/m<sup>3</sup></u>			<u>Exemption Levels</u>		<u>SAAC</u>	
			<u>TWA</u>	<u>STEL</u>	<u>CEIL</u>	<u>HOURLb/hr</u>	<u>YEAR T/yr</u>	<u>HOURL μg/m<sup>3</sup></u>	<u>YEAR μg/m<sup>3</sup></u>
VOC	<b>2,4-D, (2,4-Dichlorophenoxyacetic Acid) salts and esters</b>	94757	-	-	-	-	-	-	-
VOC	<b>DDE (1,1-dichloro-2,2-bis(p-chlorophenyl) ethylene)</b>	72559	-	-	-	-	-	-	-
VOC	Diazomethane	334883	0.34	-	-	0.02244	0.0493	17	0.68
VOC	<b>Dibenzofurans</b>	132649	0.0015	-	-	9.9 E-05	2.18 E-04	0.075	0.003
VOC	<b>1,2, Dibromo-3-chloropropane</b>	96128	-	-	-	-	-	-	-
VOC	Dibutyl phthalate	84742	5	-	-	0.33	0.725	250	10
VOC	1,4-Dichlorobenzene(p)	106467	451	661	-	21.813	65.395	16525	902
VOC	<b>3,3',- Dichlorobenzidene</b>	91941	0.0388	-	-	0.002561	0.005626	1.94	0.0776
VOC	Dichloroethyl ether ( Bis(2-chlorethyl)ether)	111444	29	58	-	1.914	4.205	1450	58
VOC	1,3-Dichloropropene	542756	4.5	-	-	0.297	0.6525	225	9
VOC	Dichlorvos	62737	0.9	-	-	0.0594	0.1305	45	1.8
VOC	Diethanolamine	111422	13	-	-	0.858	1.885	650	26
VOC	Dimethylaniline (N,N-Dimethylaniline)	121697	25	50	-	1.65	3.625	1250	50
VOC	<b>Diethyl sulfate</b>	64675	2.5	-	-	0.165	0.3625	125	5
VOC	<b>3,3 Dimethoxybenzidine</b>	119904	-	-	-	-	-	-	-
VOC	<b>4-Dimethyl aminoazobenzene</b>	60117	-	-	-	-	-	-	-
VOC	<b>3,3'-Dimethyl benzidine</b>	119937	-	-	0.02	0.00066	-	0.5	-
VOC	<b>Dimethyl carbamoyl chloride</b>	79447	-	-	-	-	-	-	-
VOC	Dimethyl formamide	68122	30	-	-	1.98	4.35	1500	60
VOC	1,1-Dimethyl hydrazine	57147	1.2	-	-	0.0792	0.174	60	2.4
VOC	Dimethyl phthalate	131113	5	-	-	0.33	0.725	250	10
VOC	Dimethyl sulfate	77781	0.52	-	-	0.03432	0.0754	26	1.04
VOC	4,6-Dinitro-o-cresol, and salts	534521	0.2	-	-	0.0132	0.029	10	0.4
VOC	<b>2,4-Dinitrophenol</b>	51285	0.1	-	-	0.0066	0.0145	5	0.2
VOC	<b>2,4-Dinitrotoluene</b>	121142	1.5	-	-	0.099	0.218	75	3
VOC	1,4-Dioxane (1,4-Diethyleneoxide)	123911	90	-	-	5.94	13.05	4500	180
VOC	<b>1,2-Diphenylhydrazine</b>	122667	0.0039	-	-	0.000257	0.000566	0.195	0.0078
VOC	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898	7.6	-	-	0.5016	1.102	380	15.2

Hazardous Air Pollutant and Toxic Pollutant Tables

ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )									
Classified as VOC OR PM	Chemical Name	CAS No	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	<b>1,2-Epoxybutane</b>	106887	20.6	-	-	1.3596	2.987	1030	41.2
VOC	Ethyl acrylate	140885	20	61	-	2.013	2.9	1525	40
VOC	Ethyl benzene	100414	434	543	-	17.917	62.93	13575	868
VOC	<b>Ethyl carbamate (Urethane)</b>	51796	-	-	-	-	-	-	-
VOC	Ethyl chloride(Chloroethane)	75003	2640	-	-	22.8	100	132000	5280
VOC	<b>Ethylene dibromide(Dibromoethane)</b>	106934	0.346	1	-	0.033	0.05017	25	0.692
VOC	Ethylene dichloride (1,2 -Dichloroethane)	107062	40	-	-	2.64	5.8	2000	80
VOC	Ethylene glycol	107211	-	-	127	4.191	-	3175	-
VOC	Ethylenimine(Aziridine)	151564	0.88	-	-	0.05808	0.1276	44	1.76
VOC	Ethylene oxide	75218	1.8	-	-	0.1188	0.261	90	3.6
VOC	<b>Ethylene thiourea</b>	96457	-	-	-	-	-	-	-
VOC	Ethylidene dichloride (1,1 Dichloroethane)	75343	810	1010	-	22.8	100	25250	1620
VOC	Formaldehyde	50000	1.2	2.5	-	0.0825	0.174	62.5	2.4
VOC	Heptachlor	76448	0.5	-	-	0.033	0.0725	25	1
VOC	<b>Hexachlorobenzene</b>	118741	0.002	-	-	0.000132	0.00029	0.1	0.004
VOC	Hexachlorobutadiene	87683	0.21	-	-	0.01386	0.03045	10.5	0.42
VOC	Hexachlorocyclopentadiene	77474	0.11	-	-	0.00726	0.01595	5.5	0.22
VOC	Hexachloroethane	67721	9.7	-	-	0.6402	1.4065	485	19.4
VOC	Hexamethylene-1,6-diisocyanate	822060	0.034	-	-	0.002244	0.00493	1.7	0.068
VOC	Hexamethyl phosphoroamide	680319	-	-	-	-	-	-	-
VOC	Hexane	110543	176	-	-	11.616	25.52	8800	352
	Hydrazine	302012	0.13	-	-	0.00858	0.01885	6.5	0.26
	Hydrochloric acid (Hydrogen Chloride)	7647010	-	-	7.5	0.2475	-	187.5	-
	Hydrogen fluoride (Hydrofluoric acid)	7664393	-	-	2.6	0.0858	-	65	-
VOC	Hydroquinone	123319	2	-	-	0.132	0.29	100	4
VOC	Isophorone	78591	-	-	28	0.924	-	700	-
VOC	Lindane(all isomers)	58899	0.5	-	-	0.033	0.0725	25	1
VOC	Maleic anhydride	108316	1	-	-	0.066	0.145	50	2

Hazardous Air Pollutant and Toxic Pollutant Tables

ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )									
Classified as VOC OR PM	Chemical Name	CAS No	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	Methanol	67561	262	328	-	10.824	37.99	8200	524
VOC	Methoxychlor	72435	10	-	-	0.66	1.45	500	20
VOC	Methyl bromide (Bromomethane)	74839	19	-	-	1.254	2.755	950	38
VOC	Methyl chloride ( Chloromethane)	74873	103	207	-	6.831	14.935	5175	206
	Methyl chloroform (1,1,1-Trichloroethane)	71556	1910	2460	-	22.8	100	61500	3820
VOC	Methyl ethyl ketone (2-Butanone)	78933	590	885	-	22.8	85.55	22125	1180
VOC	Methyl hydrazine	60344	-	-	0.38	0.01254	-	9.5	-
VOC	Methyl iodide ( Iodomethane)	74884	12	-	-	0.792	1.74	600	24
VOC	Methyl isobutyl ketone (Hexone)	108101	205	307	-	10.131	29.725	7675	410
VOC	Methyl isocyanate	624839	0.047	-	-	0.003102	0.006815	2.35	0.094
VOC	Methyl methacrylate	80626	410	-	-	22.8	59.45	20500	820
VOC	<b>Methyl tert butyl ether</b>	1634044	-	-	-	-	-	-	-
VOC	4,4'-Methylene bis (2-chloroaniline)	101144	0.22	-	-	0.01452	0.0319	11	0.44
	Methylene chloride (Dichloromethane)	75092	174	-	-	11.484	25.23	8700	348
VOC	Methylene diphenyl diisocyanate (MDI)	101688	0.051	-	-	0.003366	0.007395	2.55	0.102
VOC	4,4- Methylene dianiline	101779	0.81	-	-	0.05346	0.11745	40.5	1.62
VOC	Naphthalene	91203	52	79	-	2.607	7.54	1975	104
VOC	Nitrobenzene	98953	5	-	-	0.33	0.725	250	10
VOC	<b>4-Nitrodiphenyl</b>	92933	-	-	-	-	-	-	-
VOC	<b>4-Nitrophenol</b>	100027	1	-	-	0.066	0.145	50	2
VOC	2-Nitropropane	79469	36	-	-	2.376	5.22	1800	72
VOC	<b>N-Nitroso-N-methylurea</b>	684935	-	-	-	-	-	-	-
VOC	<b>N-Nitrosodimethylamine</b>	62759	-	-	-	0.003142	0.000051 8	2.38	7.14 E-4
VOC	<b>N-Nitrosomorpholine</b>	59892	-	-	-	-	-	-	-
VOC	Parathion	56382	0.1	-	-	0.0066	0.0145	5	0.2
VOC	Pentachloronitrobenzene (Quintobenzene)	82688	0.5	-	-	0.033	0.0725	25	1
VOC	Pentachlorophenol	87865	0.5	-	-	0.033	0.0725	25	1
VOC	Phenol	108952	19	-	-	1.254	2.755	950	38



## Hazardous Air Pollutant and Toxic Pollutant Tables

ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )									
Classified as VOC OR PM	Chemical Name	CAS No	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	p-Phenylenediamine	106503	0.1	-	-	0.0066	0.0145	5	0.2
VOC	Phosgene	75445	0.4	-	-	0.0264	0.058	20	0.8
	Phosphine	7803512	0.42	1.4	-	0.0462	0.0609	35	0.84
	Phosphorus	7723140	0.1	-	-	0.0066	0.0145	5	0.2
VOC	Phthalic anhydride	85449	6.1	-	-	0.4026	0.8845	305	12.2
VOC	Polychlorinated biphenyls (Aroclors, Chlorodiphenyl )	1336363	0.5	-	-	0.033	0.0725	25	1
VOC	1,3- Propane sultone	1120714	-	-	-	-	-	-	-
VOC	beta-Propiolactone	57578	1.5	-	-	0.099	0.2175	75	3
VOC	<b>Propionaldehyde</b>	123386	-	-	-	-	-	-	-
VOC	Propoxur (Baygon)	114261	0.50	-	-	0.033	0.0725	25	1
VOC	Propylene dichloride (1,2-Dichloropropane)	78875	347	508	-	16.764	50.315	12700	694
VOC	Propylene oxide	75569	48	-	-	3.168	6.96	2400	96
VOC	1,2-Propyleneimine (2-Methyl aziridine)	75558	4.7	-	-	0.3102	0.6815	235	9.4
VOC	<b>Quinoline</b>	91225	-	-	-	-	-	-	-
VOC	Quinone	106514	0.44	-	-	0.02904	0.0638	22	0.88
VOC	Styrene	100425	213	426	-	14.058	30.885	10650	426
VOC	<b>Styrene oxide</b>	96093	-	-	-	-	-	-	-
VOC	<b>2,3,7,8- Tetrachlorodibenzo -p-dioxin</b>	1746016	-	-	-	-	-	-	-
VOC	1,1,2,2-Tetrachloroethane	79345	6.9	-	-	0.4554	1.0005	345	13.8
	Tetrachloroethylene (Perchloroethylene)	127184	339	1357	-	22.8	49.155	33925	678
	<b>Titanium tetrachloride</b>	7550450	-	-	-	-	-	-	-
VOC	Toluene	108883	377	565	-	18.645	54.665	14125	754
VOC	<b>2,4 Toluene diamine</b>	95807	0.1	-	-	0.0066	0.0145	5	0.2
VOC	2,4- Toluene diisocyanate	584849	0.0369	0.14	-	0.00462	0.00522	3.5	0.072
VOC	o-Toluidine	95534	8.8	-	-	0.5808	1.276	440	17.6
VOC	Toxaphene (chlorinated camphene)	8001352	0.5	1	-	0.033	0.0725	25	1
VOC	1,2,4-Trichlorobenzene	120821	-	-	37	1.221	-	925	-
VOC	1,1,2-Trichloroethane	79005	55	-	-	3.63	7.975	2750	110

Hazardous Air Pollutant and Toxic Pollutant Tables

ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )									
Classified as VOC OR PM	Chemical Name	CAS No	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	Trichloroethylene	79016	269	1070	-	22.8	39.005	26750	538
VOC	<b>2,4,5- Trichlorophenol</b>	95954	50	-	-	3.3	7.25	2500	100
VOC	<b>2,4,6- Trichlorophenol</b>	88062	0.31	-	-	0.02046	0.04495	15.5	0.62
VOC	Triethylamine	121448	41	62	-	2.046	5.945	1550	82
VOC	<b>Trifluralin</b>	1582098	-	-	-	-	-	-	-
VOC	<b>2,2,4- Trimethylpentane</b>	540841	350	-	-	22.8	50.75	17500	700
VOC	Vinyl acetate	108054	35	70	-	2.31	5.075	1750	70
VOC	Vinyl bromide	593602	22	-	-	1.452	3.19	1100	44
VOC	Vinyl chloride	75014	13	-	-	0.858	1.885	650	26
VOC	Vinylidene chloride (1,1,-Dichloroethylene)	75354	20	79	-	2.607	2.9	1975	40
VOC	Xylenes(isomers and mixture)	1330207	434	651	-	21.483	62.93	16275	868
VOC	o-Xylene	95476	434	651	-	21.483	62.93	16275	868
VOC	m-Xylene	108383	434	651	-	21.483	62.93	16275	868
VOC	p-Xylene	106423	434	651	-	21.483	62.93	16275	868
<b>COMPOUNDS</b>									
PM	Antimony compounds	7440360	0.5	-	-	0.033	0.0725	25	1
PM	Arsenic compounds (Inorganic including arsine)	-	0.2	-	-	0.0132	0.029	10	0.4
PM	Beryllium compounds	7440417	0.002	-	-	0.000132	0.00029	0.1	0.004
PM	Cadmium compounds	-	0.05	-	-	0.0033	0.00725	2.5	0.1
PM	Chromium II &III compounds	-	0.5	-	-	0.033	0.0725	25	1
PM	Chromium VI compounds	-	0.05	-	-	0.0033	0.00725	2.5	0.1
PM	Cobalt compounds	-	0.05	-	-	0.0033	0.00725	2.5	0.1
VOC	<b>Coke oven emissions</b>	-	0.2	-	-	0.0132	0.029	10	0.4
VOC	Cyanide compounds <sup>1</sup>	-	5	-	-	0.33	0.725	250	10
VOC	<b><u>Glycol ethers with TLV's<sup>2</sup></u></b>								
	Butoxyethanol	111-76-2	121			7.986	17.545	6050	242
	2-Ethoxyethanol	110-80-5	27			1.782	3.915	1350	54

Hazardous Air Pollutant and Toxic Pollutant Tables

<b>ALPHABETICAL LIST OF HAP AND TOXIC POLLUTANTS ( FROM 1991-92 ACGIH HANDBOOK )</b>									
<u>Classified as VOC OR PM</u>	<u>Chemical Name</u>	<u>CAS No</u>	<u>TLV mg/m<sup>3</sup></u>			<u>Exemption Levels</u>		<u>SAAC</u>	
			<u>TWA</u>	<u>STEL</u>	<u>CEIL</u>	<u>HOURLb/hr</u>	<u>YEART/yr</u>	<u>HOURLμg/m<sup>3</sup></u>	<u>YEAREμg/m<sup>3</sup></u>
	Isopropoxyethanol	109-59-1	106			6.996	15.37	5300	212
	2-Methoxyethanol	109-86-4	18			1.188	2.61	900	36
PM	Lead compounds		0.15	-	-	0.0099	0.02175	7.5	0.3
PM	lead chromate(Pb)		0.05	-	-	0.0033	0.00725	2.5	0.1
PM	lead chromate (Cr)		0.012	-	-	0.00079	0.00174	0.6	0.024
PM	Manganese compounds	-	5	-	-	0.33	0.725	250	10
PM	Mercury compounds (Alkyl)		0.01	0.03	-	0.00099	0.00145	0.75	0.02
PM	(Aryl & inorganic)		0.1	-	-	0.0066	0.0145	5	0.2
PM	(All other forms)		0.05	-	-	0.0033	0.00725	2.5	0.1
PM	Nickel Compounds (Soluble)	-	0.1	-	-	0.0066	0.0145	5	0.2
PM	(Insoluble)	-	1	-	-	0.066	0.145	50	2
VOC	<b>Polycyclic organic matter<sup>3</sup></b>	-	-	-	-	-	-	-	-
PM	Selenium compounds	7782492	0.2	-	-	0.0132	0.029	10	0.4

NOTE: For all listings above which contain the word “compounds” and for the glycol ethers, the following applies:

Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical’s infrastructure.

1. X’CN where X = H’ or any other group where formal dissociation may occur. For example, KCN or Ca(CN)<sub>2</sub>
2. Includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>-OR’ where  
 n = 1,2 or 3  
 R = alkyl or arylgroups  
 R’ = R, H, or groups which, when removed, yield glycol ethers with the structure: R(OCH<sub>2</sub>CH)<sub>n</sub>-OH.  
 Polymers are excluded from the glycol category.

Under 9 VAC 5-60-210 and 9 VAC 5-60-310 we only look at four glycol ethers:

- 2-methoxyethanol -TWA 16mg/m<sup>3</sup>
- 2-ethoxyethanol -TWA 18mg/m<sup>3</sup>
- 2-butoxyethanol (EGBE)- TWA 121 mg/m<sup>3</sup>
- Isopropoxyethanol – TWA 106mg/m<sup>3</sup>

3. Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C. (See K:/Agency/TitleIII.out for list of POM)

**TABLE 10-2**

Hazardous Air Pollutant and Toxic Pollutant Tables

**LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )**

<u>Classified as VOC OR PM</u>	<u>CAS No</u>	<u>Chemical Name</u>	<u>TLV mg/m<sup>3</sup></u>			<u>Exemption Levels</u>		<u>SAAC</u>	
			<u>TWA</u>	<u>STEL</u>	<u>CEIL</u>	<u>HOUR lb/hr</u>	<u>YEAR T/yr</u>	<u>HOUR µg/m<sup>3</sup></u>	<u>YEAR µg/m<sup>3</sup></u>
VOC	50000	Formaldehyde	1.2	2.5	-	0.0825	0.174	62.5	2.4
VOC	51285	<b>2,4-Dinitrophenol</b>	0.1	-	-	0.0066	0.0145	5	0.2
VOC	51796	<b>Ethyl carbamate (Urethane)</b>	-	-	-	-	-	-	-
VOC	53963	<b>2-Acetylaminofluorene</b>	-	-	-	-	-	-	-
VOC	56235	Carbon tetrachloride	31	-	-	2.046	4.495	1550	62
VOC	56382	Parathion	0.1	-	-	0.0066	0.0145	5	0.2
VOC	57147	1,1-Dimethyl hydrazine	1.2	-	-	0.0792	0.174	60	2.4
VOC	57578	beta-Propiolactone	1.5	-	-	0.099	0.2175	75	3
VOC	57749	Chlordane	0.5	-	-	0.033	0.0725	25	1
VOC	58899	Lindane(all isomers)	0.5	-	-	0.033	0.0725	25	1
VOC	59892	<b>N-Nitrosomorpholine</b>	-	-	-	-	-	-	-
VOC	60117	<b>4-Dimethyl aminoazobenzene</b>	-	-	-	-	-	-	-
VOC	60344	Methyl hydrazine	-	-	0.38	0.01254	-	9.5	-
VOC	60355	<b>Acetamide</b>	32	-	-	2.112	4.64	1600	64
VOC	62533	Aniline	7.6	-	-	0.5016	1.102	380	15.2
VOC	62737	Dichlorvos	0.9	-	-	0.0594	0.1305	45	1.8
VOC	62759	<b>N-Nitrosodimethylamine</b>	-	-	-	0.003142	5.18 E-5	2.38	7.14 E-4
VOC	63252	Carbaryl	5	-	-	0.33	0.725	250	10
VOC	64675	<b>Diethyl sulfate</b>	2.5	-	-	0.165	0.3625	125	5
VOC	67561	Methanol	262	328	-	10.824	37.99	8200	524
VOC	67663	Chloroform	49	-	-	3.234	7.105	2450	98
VOC	67721	Hexachloroethane	9.7	-	-	0.6402	1.4065	485	19.4
VOC	68122	Dimethyl formamide	30	-	-	1.98	4.35	1500	60
VOC	71432	Benzene(inc. from gasoline)	32	-	-	2.112	4.64	1600	64
	71556	Methyl chloroform (1,1,1-Trichloroethane)	1910	2460	-	22.8	100	61500	3820
VOC	72435	Methoxychlor	10	-	-	0.66	1.45	500	20
VOC	72559	<b>DDE (1,1-dichloro-2,2-bis(p-chlorophenyl) ethylene)</b>	-	-	-	-	-	-	-
VOC	74839	Methyl bromide (Bromomethane)	19	-	-	1.254	2.755	950	38

Hazardous Air Pollutant and Toxic Pollutant Tables

**LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )**

<u>Classified as VOC OR PM</u>	<u>CAS No</u>	<u>Chemical Name</u>	<u>TLV mg/m<sup>3</sup></u>			<u>Exemption Levels</u>		<u>SAAC</u>	
			<u>TWA</u>	<u>STEL</u>	<u>CEIL</u>	<u>HOUR lb/hr</u>	<u>YEAR T/yr</u>	<u>HOUR µg/m<sup>3</sup></u>	<u>YEAR µg/m<sup>3</sup></u>
VOC	74873	Methyl chloride ( Chloromethane)	103	207	-	6.831	14.935	5175	206
VOC	74884	Methyl iodide ( Iodomethane)	12	-	-	0.792	1.74	600	24
VOC	75003	Ethyl chloride(Chloroethane)	2640	-	-	22.8	100	132000	5280
VOC	75014	Vinyl chloride	13	-	-	0.858	1.885	650	26
VOC	75058	Acetonitrile	67	101	-	3.333	9.715	2525	134
VOC	75070	Acetaldehyde	180	270	-	8.91	26.1	6750	360
	75092	Methylene chloride (Dicloromethane)	174	-	-	11.484	25.23	8700	348
VOC	75150	Carbon disulfide	31	-	-	2.046	4.495	1550	62
VOC	75218	Ethylene oxide	1.8	-	-	0.1188	0.261	90	3.6
VOC	75252	Bromoform	5.2	-	-	0.3432	0.754	260	10.4
VOC	75343	Ethylidene dichloride (1,1 Dichloroethane)	810	1010	-	22.8	100	25250	1620
VOC	75354	Vinylidene chloride (1,1,-Dichloroethylene)	20	79	-	2.607	2.9	1975	40
VOC	75445	Phosgene	0.4	-	-	0.0264	0.058	20	0.8
VOC	75558	1,2-Propyleneimine (2-Methyl aziridine)	4.7	-	-	0.3102	0.6815	235	9.4
VOC	75569	Propylene oxide	48	-	-	3.168	6.96	2400	96
VOC	76448	Heptachlor	0.5	-	-	0.033	0.0725	25	1
VOC	77474	Hexachlorocyclopentadiene	0.11	-	-	0.00726	0.01595	5.5	0.22
VOC	77781	Dimethyl sulfate	0.52	-	-	0.03432	0.0754	26	1.04
VOC	78591	Isophorone	-	-	28	0.924	-	700	
VOC	78875	Propylene dichloride (1,2-Dichloropropane)	347	508	-	16.764	50.315	12700	694
VOC	78933	Methyl ethyl ketone (2-Butanone)	590	885	-	22.8	85.55	22125	1180
VOC	79005	1,1,2-Trichloroethane	55	-	-	3.63	7.975	2750	110
VOC	79016	Trichloroethylene	269	1070	-	22.8	39.005	26750	538
VOC	79061	Acrylamide	0.03	-	-	0.00198	0.00435	1.5	0.06
VOC	79107	Acrylic Acid	5.9	-	-	0.3894	0.8555	295	11.8
VOC	79118	<b>Chloroacetic acid</b>	-	-	-	-	-	-	-
VOC	79345	1,1,2,2-Tetrachloroethane	6.9	-	-	0.4554	1.0005	345	13.8
VOC	79447	<b>Dimethyl carbamoyl chloride</b>	-	-	-	-	-	-	-

## Hazardous Air Pollutant and Toxic Pollutant Tables

## LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )

Classified as VOC OR PM	CAS No	Chemical Name	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	79469	2-Nitropropane	36	-	-	2.376	5.22	1800	72
VOC	80626	Methyl methacrylate	410	-	-	22.8	59.45	20500	820
VOC	82688	Pentachloronitrobenzene (Quintobenzene)	0.5	-	-	0.033	0.0725	25	1
VOC	84742	Dibutyl phthalate	5	-	-	0.33	0.725	250	10
VOC	85449	Phthalic anhydride	6.1	-	-	0.4026	0.8845	305	12.2
VOC	87683	Hexachlorobutadiene	0.21	-	-	0.01386	0.03045	10.5	0.42
VOC	87865	Pentachlorophenol	0.5	-	-	0.033	0.0725	25	1
VOC	88062	<b>2,4,6- Trichlorophenol</b>	0.31	-	-	0.02046	0.04495	15.5	0.62
VOC	91203	Naphthalene	52	79	-	2.607	7.54	1975	104
VOC	91225	<b>Quinoline</b>	-	-	-	-	-	-	-
VOC	91941	<b>3,3',- Dichlorobenzidene</b>	0.0388	-	-	0.002561	0.00562 6	1.94	0.0776
VOC	92524	Biphenyl	1.3	-	-	0.0858	0.1885	65	2.6
VOC	92671	4-Aminobiphenyl	-	-	-	-	-	-	-
VOC	92875	<b>Benzidine</b>	-	-	-	0.016724	1.08E- 05	12.67	1.49 E-4
VOC	92933	<b>4-Nitrodiphenyl</b>	-	-	-	-	-	-	-
VOC	94757	<b>2,4-D, (2,4-Dichlorophenoxyacetic Acid) salts and esters</b>	-	-	-	-	-	-	-
VOC	95476	o-Xylene	434	651	-	21.483	62.93	16275	868
VOC	95487	o-Cresol	22	-	-	1.452	3.19	1100	44
VOC	95534	o-Toluidine	8.8	-	-	0.5808	1.276	440	17.6
VOC	95807	<b>2,4- Toluene diamine</b>	0.1	-	-	0.0066	0.0145	5	0.2
VOC	95954	<b>2,4,5- Trichlorophenol</b>	50	-	-	3.3	7.25	2500	100
VOC	96093	<b>Styrene oxide</b>	-	-	-	-	-	-	-
VOC	96128	<b>1,2- Dibromo-3-chloropropane</b>	-	-	-	-	-	-	-
VOC	96457	<b>Ethylene thiourea</b>	-	-	-	-	-	-	-
VOC	98077	<b>Benzotrichloride</b>	-	-	0.8	0.0264	-	20	-
VOC	98828	Cumene	246	-	-	16.236	35.67	12300	492
VOC	98862	<b>Acetophenone</b>	49.14	-	-	3.243	7.125	2457	98.28
VOC	98953	Nitrobenzene	5	-	-	0.33	0.725	250	10

## Hazardous Air Pollutant and Toxic Pollutant Tables

## LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )

Classified as VOC OR PM	CAS No	Chemical Name	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	100027	<b>4-Nitrophenol</b>	1	-	-	0.066	0.145	50	2
VOC	100414	<b>Ethyl benzene</b>	434	543	-	17.919	62.93	13575	868
VOC	100425	Styrene	213	426	-	14.058	30.885	10650	426
VOC	100447	Benzyl chloride	5.2	-	-	0.3432	0.754	260	10.4
VOC	101144	4,4'-Methylene bis (2-chloroaniline)	0.22	-	-	0.01452	0.0319	11	0.44
VOC	101688	Methylene diphenyl diisocyanate (MDI)	0.051	-	-	0.003366	0.00739 5	2.55	0.102
VOC	101779	4,4- Methylene dianiline	0.81	-	-	0.05346	0.11745	40.5	1.62
VOC	106423	p-Xylene	434	651	-	21.483	62.93	16275	868
VOC	106445	p-Cresol	22	-	-	1.452	3.19	1100	44
VOC	106467	1,4-Dichlorobenzene(p)	451	661	-	21.813	65.395	16525	902
VOC	106503	p-Phenylenediamine	0.1	-	-	0.0066	0.0145	5	0.2
VOC	106514	Quinone	0.44	-	-	0.02904	0.0638	22	0.88
VOC	106887	<b>1,2-Epoxybutane</b>	20.6	-	-	1.3596	2.987	1030	41.2
VOC	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	7.6	-	-	0.5016	1.102	380	15.2
VOC	106934	<b>Ethylene dibromide(Dibromoethane)</b>	0.346	1	-	0.033	0.05017	25	0.692
VOC	106990	1,3 Butadiene	22	-	-	1.452	3.19	1100	44
VOC	107028	Acrolein	0.23	0.69	-	0.02277	0.03335	17.25	0.46
VOC	107051	Allyl chloride	3	6	-	0.198	0.435	150	6
VOC	107062	Ethylene dichloride (1,2 -Dichloroethane)	40	-	-	2.64	5.8	2000	80
VOC	107131	Acrylonitrile	4.3	-	-	0.2838	0.6235	215	8.6
VOC	107211	Ethylene glycol	-	-	127	4.191	-	3175	-
VOC	107302	<b>Chloromethyl methyl ether</b>	-	-	-	-	-	-	-
VOC	108054	Vinyl acetate	35	70	-	2.31	5.075	1750	70
VOC	108101	Methyl isobutyl ketone (Hexone)	205	307	-	10.131	29.725	7675	410
VOC	108316	Maleic anhydride	1	-	-	0.066	0.145	50	2
VOC	108383	m-Xylene	434	651	-	21.483	62.93	16275	868
VOC	108394	m-Cresol	22	-	-	1.452	3.19	1100	44
VOC	108883	Toluene	377	565	-	18.645	54.665	14125	754

## Hazardous Air Pollutant and Toxic Pollutant Tables

## LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )

Classified as VOC OR PM	CAS No	Chemical Name	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
VOC	108907	Chlorobenzene	46	-	-	3.036	6.67	2300	92
VOC	108952	Phenol	19	-	-	1.254	2.755	950	38
VOC	110543	Hexane	176	-	-	11.616	25.52	8800	352
VOC	111422	Diethanolamine	13	-	-	0.858	1.885	650	26
VOC	111444	Dichloroethyl ether ( Bis(2-chlorethyl)ether)	29	58	-	1.914	4.205	1450	58
VOC	114261	Propoxur (Baygon)	0.50	-	-	0.033	0.0725	25	1
VOC	117817	<b>Bis(2-ethylhexyl) phthalate</b>	-	-	-	-	-	-	-
VOC	118741	<b>Hexachlorobenzene</b>	0.002	-	-	0.000132	0.00029	0.1	0.004
VOC	119904	<b>3,3 Dimethoxybenzidine</b>	-	-	-	-	-	-	-
VOC	119937	<b>3,3'-Dimethyl benzidine</b>	-	-	0.02	0.00066	-	0.5	-
VOC	120809	Catechol	23	-	-	1.518	3.335	1150	46
VOC	120821	1,2,4-Trichlorobenzene	-	-	37	1.221	-	925	-
VOC	121142	<b>2,4-Dinitrotoluene</b>	1.5	-	-	0.099	0.218	75	3
VOC	121448	Triethylamine	41	62	-	2.046	5.945	1550	82
VOC	121697	N,N- Dimethylaniline (N,N-Dimethylaniline)	25	50	-	1.65	3.625	1250	50
VOC	122667	<b>1,2-Diphenylhydrazine</b>	0.0039	-	-	0.000257	0.00056 6	0.195	0.0078
VOC	123319	Hydroquinone	2	-	-	0.132	0.29	100	4
VOC	123386	<b>Propionaldehyde</b>	-	-	-	-	-	-	-
VOC	123911	1,4-Dioxane (1,4-Diethyleneoxide)	90	-	-	5.94	13.05	4500	180
VOC	126998	Chloroprene	36	-	-	2.376	5.22	1800	72
	127184	Tetrachloroethylene (Perchloroethylene)	339	1357	-	22.8	49.155	33925	678
VOC	131113	Dimethyl phthalate	5	-	-	0.33	0.725	250	10
VOC	132649	<b>Dibenzofurans</b>	0.0015	-	-	9.9 E-5	2.18 E- 4	0.075	0.003
VOC	133062	Captan	5	-	-	0.33	0.725	250	10
VOC	133904	<b>Chloramben</b>	-	-	-	-	-	-	-
VOC	140885	Ethyl acrylate	20	61	-	2.013	2.9	1525	40
VOC	151564	Ethylenimine(Aziridine)	0.88	-	-	0.05808	0.1276	44	1.76
VOC	156627	Calcium cyanamide	0.5	-	-	0.033	0.0725	25	1



## Hazardous Air Pollutant and Toxic Pollutant Tables

## LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )

Classified as VOC OR PM	CAS No	Chemical Name	TLV mg/m <sup>3</sup>			Exemption Levels		SAAC	
			TWA	STEL	CEIL	HOUR lb/hr	YEAR T/yr	HOUR µg/m <sup>3</sup>	YEAR µg/m <sup>3</sup>
	302012	Hydrazine	0.13	-	-	0.00858	0.01885	6.5	0.26
VOC	334883	Diazomethane	0.34	-	-	0.02244	0.0493	17	0.68
VOC	463581	<b>Carbonyl sulfide</b>	0.8	-	-	0.0528	0.116	40	1.6
VOC	510156	<b>Chlorobenzilate</b>	-	-	-	-	-	-	-
VOC	532274	2-Chloroacetophenone	0.32	-	-	0.02112	0.0464	16	0.64
VOC	534521	4,6-Dinitro-o-cresol,and salts	0.2	-	-	0.0132	0.029	10	0.4
VOC	540841	<b>2,2,4- Trimethylpentane</b>	350	-	-	22.8	50.75	17500	700
VOC	542756	1,3-Dichloropropene	4.5	-	-	0.297	0.6525	225	9
VOC	542881	Bis(chloromethyl) ether	0.005	-	-	0.00033	0.00072 5	0.25	0.01
VOC	584849	2,4- Toluene diisocyanate	0.0369	0.14	-	0.00462	0.00522	3.5	0.072
VOC	593602	Vinyl bromide	22	-	-	1.452	3.19	1100	44
VOC	624839	Methyl isocyanate	0.047	-	-	0.003102	0.00681 5	2.35	0.094
VOC	680319	<b>Hexamethyl phosphoroamide</b>	-	-	-	-	-	-	-
VOC	684935	<b>N-Nitroso-N-methylurea</b>	-	-	-	-	-	-	-
VOC	822060	Hexamethylene-1,6-diisocyanate	0.034	-	-	0.002244	0.00493	1.7	0.068
VOC	1120714	1,3- Propane sultone	-	-	-	-	-	-	-
VOC	1319773	Cresols/Cresylic acid (isomers and mixture)	22	-	-	1.452	3.19	1100	44
VOC	1330207	Xylenes(isomers and mixture)	434	651	-	21.483	62.93	16275	868
VOC	1336363	Polychlorinated biphenyls (Aroclors)	0.5	-	-	0.033	0.0725	25	1
VOC	1582098	<b>Trifluralin</b>	-	-	-	-	-	-	-
VOC	1634044	<b>ether Methyl tert butyl</b>	-	-	-	-	-	-	-
VOC	1746016	<b>2,3,7,8- Tetrachlorodibenzo -p-dioxin</b>	-	-	-	-	-	-	-
	7550450	<b>Titanium tetrachloride</b>	-	-	-	-	-	-	-
	7647010	Hydrochloric acid (Hydrogen Chloride)	-	-	7.5	0.2475	-	187.5	-
	7664393	Hydrogen fluoride (Hydroflouric acid)	-	-	2.6	0.0858	-	65	-
	7723140	Phosphorus	0.1	-	-	0.0066	0.0145	5	0.2
	7782505	Chlorine	1.5	2.9	-	0.0957	0.2175	72.5	3
	7803512	Phosphine	0.42	1.4	-	0.0462	0.0609	35	0.84

Hazardous Air Pollutant and Toxic Pollutant Tables

**LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )**

<u>Classified as VOC OR PM</u>	<u>CAS No</u>	<u>Chemical Name</u>	<u>TLV mg/m<sup>3</sup></u>			<u>Exemption Levels</u>		<u>SAAC</u>	
			<u>TWA</u>	<u>STEL</u>	<u>CEIL</u>	<u>HOUR lb/hr</u>	<u>YEAR T/yr</u>	<u>HOUR µg/m<sup>3</sup></u>	<u>YEAR µg/m<sup>3</sup></u>
VOC	8001352	Toxaphene (chlorinated camphene)	0.5	1	-	0.033	0.0725	25	1
VOC	29191524	0-Anisidine	0.5	-	-	0.033	0.0725	25	1
<b>COMPOUNDS</b>									
PM	7440360	Antimony compounds	0.5	-	-	0.033	0.0725	25	1
PM	-	Arsenic compounds (Inorganic including arsine)	0.2	-	-	0.132	0.029	10	0.4
PM	7440417	Beryllium compounds	0.002	-	-	0.000132	0.00029	0.1	0.004
PM	-	Cadmium compounds	0.05	-	-	0.0033	0.00725	2.5	0.1
PM	-	Chromium II & III compounds	0.5	-	-	0.033	0.0725	25	1
PM	-	Chromium IV compounds	0.05	-	-	0.0033	0.00725	2.5	0.1
PM	-	Cobalt compounds	0.05	-	-	0.0033	0.00725	2.5	0.1
VOC	-	<b>Coke oven emissions</b>	0.2	-	-	0.0132	0.029	10	0.4
VOC	-	Cyanide compounds <sup>1</sup>	5	-	-	0.33	0.725	250	10
VOC	-	Glycol ethers <sup>2</sup>							
	111-76-2	2-Butoxyethanol	121			7.986	17.545	6050	242
	110-80-5	2-Ethoxyethanol	27			1.782	3.915	1350	54
	109-59-1	Isopropoxyethanol	106			6.996	15.37	5300	212
	109-86-4	2-Methoxyethanol	18			1.188	2.61	900	36
PM	-	Lead compounds	0.15	-	-	0.0099	0.02175	7.5	0.3
PM	-	lead chromate (Pb)	0.05	-	-	0.0033	0.00725	2.5	0.1
PM	-	lead chromate (Cr)	0.012	-	-	0.00079	0.00174	0.6	0.024
PM	-	Manganese compounds	5	-	-	0.33	0.725	250	10
PM		Mercury compounds (Alkyl)	0.01	0.03	-	0.00099	0.00145	0.75	0.02
PM		(Aryl & inorganic)	0.1	-	-	0.0066	0.0145	5	0.2
PM		(All other forms)	0.05	-	-	0.0033	0.00725	2.5	0.1
PM	-	Nickel Compounds (Soluble)	0.1	-	-	0.0066	0.0145	5	0.2
PM	-	(Insoluble)	1	-	-	0.066	0.145	50	2

Hazardous Air Pollutant and Toxic Pollutant Tables

LIST OF HAP AND TOXIC POLLUTANTS SORTED BY CAS NO. ( FROM 1991-92 ACGIH HANDBOOK )

<u>Classified as VOC OR PM</u>	<u>CAS No</u>	<u>Chemical Name</u>	<u>TLV mg/m<sup>3</sup></u>			<u>Exemption Levels</u>		<u>SAAC</u>	
			<u>TWA</u>	<u>STEL</u>	<u>CEIL</u>	<u>HOURLb/hr</u>	<u>YEAR T/yr</u>	<u>HOURL μg/m<sup>3</sup></u>	<u>YEAR μg/m<sup>3</sup></u>
VOC	-	Polycyclic organic matter <sup>3</sup>	-	-	-	-	-	-	-
PM	7782492	Selenium compounds	0.2	-	-	0.0132	0.029	10	0.4

NOTE: For all listings above which contain the word “compounds” and for the glycol ethers, the following applies:

Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical’s infrastructure.

1 X’CN where X = H’ or any other group where formal dissociation may occur. For example, KCN or Ca(CN)<sub>2</sub>

2 Includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub> –OR’ where

n = 1,2 or 3

R = alkyl or arylgroups

R’ = R, H, or groups which, when removed, yield glycol ethers with the structure: R(OCH<sub>2</sub>CH)<sub>n</sub> –OH.

Polymers are excluded from the glycol category.

Under 9 VAC 5-60-210 and 9 VAC 5-60-310 we only look at four glycol ethers:

2-methoxyethanol -TWA 16mg/m<sup>3</sup>

2-ethoxyethanol -TWA 18mg/m<sup>3</sup>

2-butoxyethanol (EGBE)- TWA 121 mg/m<sup>3</sup>

Isopropoxyethanol – TWA 106mg/m<sup>3</sup>

3 Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C

## Appendix GG General Permit: Sample Letters

### Contents:

General Permit: Sample Coverage Approval Letter  
General Permit: Sample Application Deficiency Letter  
General Permit: Sample Coverage Denial Letter

## General Permit: Sample Coverage Approval Letter

### Regional Letterhead

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
AFS ID No.: 51-**{FIPS county code}**-**{five digit plant code}**

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality (DEQ) has completed its review of your application for coverage under the General Permit for {source type}, 9 VAC 5-**{insert reference}**.

Based upon this review, {facility name} meets all of the requirements for General Permit coverage contained in 9 VAC 5-80-1250 and all of the criteria for coverage under the General Permit for {facility type} 9 VAC 5-**{insert reference}**. By this letter, authority is granted to {company name} to operate {facility name} in accordance with the terms of the General Permit for {facility type} found in **{insert regulatory reference for the applicable general permit}**. [A copy of the General Permit is enclosed with this letter.]

You are reminded that if {facility name} is later determined by the Department not to qualify for coverage under the terms and conditions of the General

General Permit Sample Letters

Permit for {facility type}, then {facility name} will be subject to enforcement action under the provisions of 9 VAC 5-80-1210 and the enforcement provisions of the General Permit for operation without a permit.

If you have any questions concerning this matter, please contact me at {regional permit writer phone number}.

Sincerely,

{name of regional permit writer}  
{title of regional permit writer}

[encl: General Permit for {facility type}]

**General Permit: Sample Application Deficiency Letter**

**Regional Letterhead**

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
AFS ID No.: 51-**{FIPS county code}**-**{five digit plant code}**

Dear {Mr./Mrs./Ms.} {company responsible official name}:

This letter acknowledges receipt of your application dated {application date} for coverage under the General Permit for {source type}, 9 VAC 5-{insert reference}. The {name of regional office} Regional Office of the Department of Environmental Quality (DEQ) has completed its initial review of your request.

Based upon this initial review, the application does not contain sufficient information to determine if your facility qualifies for coverage under the General Permit. Additional information is needed before [processing may begin and] your qualification for coverage can be determined:

- [{description of information needed}]

[In order to further clarify your application, please respond to the following question(s):

- {question concerning a specific item on the application}]

General Permit Sample Letters

By this letter, you are notified that your application for coverage under the General Permit for {source type} is deficient and that {facility name} is not qualified for coverage based upon the deficient application.

[It is important that you provide the information indicated above so that the engineering staff can complete the review of your application in a timely manner.] [Please submit the requested information by {information request date}.] [If the requested information is not received within {number of days request period} days of the date of this letter, your General Permit application may be withdrawn from further consideration by the Department.] [and the application returned to you.] [An extension may be granted if requested in writing before the end of that period.]

If a later analysis of the permit application indicates that additional information is required to support your application, such information will be requested at that time.

You are reminded that construction of a source subject to permitting requirements in Chapter 80 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, without the appropriate permit, can result in enforcement action.

If you have any questions concerning this matter, please contact me at {regional permit writer phone number}.

Sincerely,

{name of regional permit writer}  
{title of regional permit writer}

## General Permit: Sample Coverage Denial Letter

### Regional Letterhead

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
**AFS ID No.: 51-{FIPS county code}-{five digit plant code}**

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality (DEQ) has completed its review of your application for coverage under the General Permit for {source type} (9 VAC 5-{insert reference}) for {facility name}.

Based upon this review, {facility name} does not meet the criteria for coverage under the General Permit for {facility type}. 9 VAC 5-80-1250 C.1 requires that those criteria be met in order for {facility name} to be granted authority to operate under that General Permit. Specifically, the application indicates that {facility name} does not:

- {criteria that the facility does not meet}

By this letter, you are notified that {facility name} is not qualified for coverage under that General Permit. [A Form 7 application for a permit to operate {facility name} under the provisions of Chapter 80, Article 6 is attached.]

You are reminded that construction of a source subject to permitting requirements in Chapter 80 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, without the appropriate permit, can result in enforcement action.



General Permit Sample Letters

If you have any questions concerning this matter, please contact me at {regional permit writer phone number}.

Sincerely,

{name of regional permit writer}  
{title of regional permit writer}

[encl: Form 7]

## Appendix HH - Sample Letters for NSR Permit Changes

- A. Sample Administrative Amendment Approval Letter
- B. Sample Administrative Amendment Deficiency Letter
  - C. Sample Minor Amendment Approval Letter
  - D. Sample Minor Amendment Deficiency Letter
  - E. Sample Significant Amendment Approval Letter
  - F. Sample Significant Amendment Deficiency Letter
  - G. Sample Notice of DEQ Intent to Re-open a Permit
- H. Sample Cover Letter for DEQ Re-opening and Amending a Permit

### Sample Administrative Amendment Approval Letter

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

**Location: {source county/city}**

**Registration No.: {source registration number}**

AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality has completed its review of your request for an administrative permit amendment to your permit to [construct][modify] and operate {facility name} pursuant to the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 80, Article 6.

Based on that review, your request for an administrative permit amendment is complete within the meaning of 9 VAC 5-80-1140 and 9 VAC 5-80-1150, as of {application complete date}. Your request has met the requirements of 9 VAC 5-80-1270 A for an administrative amendment.

Enclosed is the requested administrative amendment to your new source review permit dated {permit issue date} to [construct][modify] and operate a {facility type} in accordance with the provisions of the Commonwealth of

NSR Permit Change Sample Letters

Virginia Regulations for the Control and Abatement of Air Pollution. Permit changes are reflected [in condition(s) {insert permit condition numbers}][on page(s) {insert page numbers}]. [This amended permit supersedes your permit dated {permit issue date}.] [The amended pages supersede the corresponding pages on your permit dated {permit issue date}.]

If you have any questions concerning this permit amendment, please call the regional office at {regional office phone number}.

Sincerely,

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

- 27. encl: [Amended Permit]
- 28. [Amended permit page[s] {list pages}]  
[NSPS, Subpart {subpart}]  
[NESHAP, Subpart {subpart}]
- 29. cc: Director, OAPP (electronic file submission)  
Manager, Office of Data Analysis (electronic file submission)[*major only*]  
[Chief, Air Enforcement Branch (3AT20), U.S. EPA, Region III][*major or NSPS only*]
- 30.

**Sample Administrative Amendment Deficiency Letter**

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

1. CERTIFIED MAIL/RETURN RECEIPT REQUESTED

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality has completed its review of your application for an administrative permit amendment to your permit to [construct][modify] and operate {facility name} pursuant to the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 80, Article 6.

The change to your permit that you requested is not eligible for the administrative permit amendment process because [list reasons, or] [the change does not meet the criteria for an administrative amendment listed in 9 VAC 5-80-1270 A]. [This change may be addressed through a minor permit amendment process, pursuant to 9 VAC 5-80-1280.][This change may be addressed through a significant permit amendment process, pursuant to 9 VAC 5-80-1290]. [The proposed change is/may be a modification to your facility and requires new source review pursuant to Article 6 of the Regulations.]

At this time, you are required to resume operating {facility name} in accordance with the terms of your existing permit dated {date of permit}.

If you wish to pursue this change to your permit, please submit [a letter which resolves the deficiencies cited above][or][a request for a minor permit amendment in accordance with 9 VAC 5-80-1280 D][a request for a significant permit amendment in accordance with 9 VAC 5-80-1290 B][an application for a permit to modify your facility in accordance with 9 VAC 5-80-1140 and -1150] to this office at your earliest convenience.

NSR Permit Change Sample Letters

[Please note that the change for which a significant permit amendment is requested, may not be made until the significant permit amendment (or other permit action) has been issued which authorizes that change.

[You are reminded that modification of a source subject to the permitting requirements in Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution, without the appropriate new source review permit, can result in enforcement action.]

If you have any questions concerning this matter, please contact {name of regional permit writer} at {regional permit writer phone number}.

Sincerely,

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

31.

32. cc: file

33.

34.

### Sample Minor Amendment Approval Letter

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality has completed its review of your request for a minor permit amendment to your permit to [construct][modify] and operate {facility name} pursuant to the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 80, Article 6.

Based on that review, your request for a minor permit amendment is complete within the meaning of 9 VAC 5-80-1140 and 9 VAC 5-80-1150, as of {application complete date}. Your request has met the requirements of 9 VAC 5-80-1280 A, B and C for a minor amendment.

Enclosed is the requested minor amendment to your new source review permit dated {permit issue date} to [construct][modify] and operate a {facility type} in accordance with the provisions of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Permit changes are reflected [in condition(s) {insert permit condition numbers}][on page(s) {insert page numbers}]. [This amended permit supersedes your permit dated {permit issue date}.] [The amended pages supersede the corresponding pages on your permit dated {permit issue date}.]

If you have any questions concerning this permit amendment, please call the regional office at {regional office phone number}.

Sincerely,

NSR Permit Change Sample Letters

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

35.

36. encl: [Amended Permit]

37. [Amended permit page[s] {list pages}]

[NSPS, Subpart {subpart}]

[NESHAP, Subpart {subpart}]

38.

cc: Director, OAPP (electronic file submission)

Manager, Office of Data Analysis (electronic file submission)[*major only*]

[Chief, Air Enforcement Branch (3AT20), U.S. EPA, Region III][*major or NSPS only*]

39.

## Sample Minor Amendment Deficiency Letter

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

1. CERTIFIED MAIL/RETURN RECEIPT REQUESTED

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality has completed its review of your application for a minor permit amendment to your permit to [construct][modify] and operate {facility name} pursuant to the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 80, Article 6.

The change to your permit that you requested is not eligible for the minor permit amendment process because [{list reasons, or}] [the change does not meet the criteria for a minor amendment listed in 9 VAC 5-80-1280 A, B and C]. [This change may be addressed through a significant permit amendment process, pursuant to 9 VAC 5-80-1290]. [The proposed change is/may be a modification to your facility and requires new source review pursuant to Article 6 of the Regulations.]

At this time, you are required to resume operating {facility name} in accordance with the terms of your existing permit dated {date of permit}.

If you wish to pursue this change to your permit, please submit [a letter which resolves the issues cited above][or][a request for a significant permit amendment in accordance with 9 VAC 5-80-1290 B][an application for a permit to modify your facility in accordance with 9 VAC 5-80-1140 and -1150] to this office at your earliest convenience.



NSR Permit Change Sample Letters

[Please note that the change for which a significant permit amendment is requested, may not be made until the significant permit amendment (or other permit action) has been issued which authorizes that change.

[You are reminded that modification of a source subject to the permitting requirements in Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution, without the appropriate new source review permit, can result in enforcement action.]

If you have any questions concerning this matter, please contact {name of regional permit writer} at {regional permit writer phone number}.

Sincerely,

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

40. cc: file

## Sample Significant Amendment Approval Letter

[Regional Office letterhead]

{date}

{Mr.\Mrs.\Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

**Location: {source county/city}**

**Registration No.: {source registration number}**

AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality has completed its review of your request for a significant permit amendment to your permit to [construct][modify] and operate {facility name} pursuant to the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 80, Article 6.

Based on that review, your request for a significant permit amendment is complete within the meaning of 9 VAC 5-80-1140 and 9 VAC 5-80-1150, as of {application complete date}. Your request has met the requirements of 9 VAC 5-80-1290 A, B and C for a significant amendment. Public participation procedures required by 9 VAC 5-80-1170 for this application were completed on {public comment period closing date} [, and included a public hearing held on {public hearing date}].

Enclosed is the requested significant amendment to your new source review permit dated {permit issue date} to [construct][modify] and operate a {facility type} in accordance with the provisions of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Permit changes are reflected [in condition(s) {insert permit condition numbers}][on page(s) {insert page numbers}]. [This amended permit supersedes your permit dated {permit issue date}]. [The amended pages supersede the corresponding pages on your permit dated {permit issue date}].

NSR Permit Change Sample Letters

If you have any questions concerning this permit amendment, please call the regional office at {regional office phone number}.

Sincerely,

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

41.

42. encl: [Amended Permit]

43. [Amended permit page[s] {list pages}]

[NSPS, Subpart {subpart}]

[NESHAP, Subpart {subpart}]

44.

cc: Director, OAPP (electronic file submission)

Manager, Office of Data Analysis (electronic file submission)[*major only*]

[Chief, Air Enforcement Branch (3AT20), U.S. EPA, Region III][*major or NSPS only*]

45.

46.

## Sample Significant Amendment Deficiency Letter

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

1. CERTIFIED MAIL/RETURN RECEIPT REQUESTED

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality has completed its review of your application for a minor permit amendment to your permit to [construct][modify] and operate {facility name} pursuant to the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 80, Article 6.

The change to your permit that you requested is not eligible for the significant permit amendment process because [{list reasons, or}] [the proposed change is a modification to your facility and requires new source review pursuant to Article 6 of the Regulations.]

[If you wish to pursue this change to your permit, please submit an application for a permit to modify your facility in accordance with 9 VAC 5-80-1140 and -1150] to this office at your earliest convenience.]

[You are reminded that modification of a source subject to the permitting requirements in Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution, without the appropriate new source review permit, can result in enforcement action.]

If you have any questions concerning this matter, please contact {name of regional permit writer} at {regional permit writer phone number}.

Sincerely,

NSR Permit Change Sample Letters

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

47. cc: file

**Sample Notice of DEQ Intent to Re-open and Amend a Permit**

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

[CERTIFIED MAIL/RETURN RECEIPT REQUESTED]

**Location: {source county/city}**  
**Registration No.: {source registration number}**  
**AFS ID No.: 51-{FIPS county code}-{five digit plant code}**

Dear {Mr./Mrs./Ms.} {company responsible official name}:

The {name of regional office} Regional Office of the Department of Environmental Quality has determined that your permit, dated {permit date}, previously issued pursuant to the Regulations for the Control and Abatement of Air Pollution, 9 VAC 5 Chapter 80, Article 6, must be re-opened for cause in accordance with 9 VAC 5-80-1300. The permit requires re-opening because {state the reasons and the parts of the permit affected, and how they fit any of the four situations in 9 VAC 5-80-1300 A.}

This procedure requires that the permit process issuance process be repeated for those portions of the permit which require re-opening.

[Please submit an application for a permit to modify and operate {facility name} which addresses the matters described above not later than {date at least 30 days after date of the letter except in emergency}.

If you have any questions concerning this matter, please contact me at {regional permit writer phone number} or by email at {regional permit writer email address}.

Sincerely,

NSR Permit Change Sample Letters

{regional permit writer name}  
{regional permit writer title}

{regional permit writer initials}/{filename}

48.

49. cc: file

## Sample Cover Letter for DEQ Re-opening and Amending a Permit

[Regional Office letterhead]

{date}

{Mr./Mrs./Ms.}{company responsible official name}  
{company responsible official position title}  
{company name}  
{company mailing street address}  
{company mailing address city, state and zip code}

**[CERTIFIED MAIL/RETURN RECEIPT REQUESTED]**

Location: {source county/city}  
Registration No.: {source registration number}  
AFS ID No.: 51-{FIPS county code}-{five digit plant code}

Dear {Mr./Mrs./Ms.} {company responsible official name}:

Enclosed is a[n administrative][minor][significant] amendment to your new source review permit dated {permit issue date} to [construct][modify] and operate a {facility type} in accordance with the provisions of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Permit changes are reflected [in condition(s) {insert permit condition numbers}][on page(s) {insert page numbers}]. [This amended permit supersedes your permit dated {permit issue date}.] [The amended pages supersede the corresponding pages on your permit dated {permit issue date}.]

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

The Department of Environmental Quality (DEQ) reopened this permit in accordance with the provisions of 9 VAC 5-80-1300 and determined that the necessary changes met the requirements of [9 VAC 5-80-1270 A for an administrative amendment.][9 VAC 5-80-1280 A, B and C for a minor amendment.][9 VAC 5-80-1290 A for a significant amendment.] [The Department solicited written public comments by placing a newspaper advertisement in the {name of newspaper} on {date of advertisement}.] [A public hearing was held on {public hearing date}.] [The required comment period expired on {public comment period closing date}.]



NSR Permit Change Sample Letters

This permit amendment approval shall not relieve {company name} of the responsibility to comply with all other local, state, and federal permit regulations.

The Regulations, as contained in Title 9 of the Virginia Administrative Code 5-170-200 provides that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-180 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision (the date you actually received this amendment decision or the date on which it was mailed to you, whichever occurred first), within which to initiate an appeal of this decision by filing a Notice of Appeal with:

{director name}, Director  
Department of Environmental Quality  
P. O. Box 10009  
Richmond, VA 23240-0009

In the event that this decision is served on you by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit amendment, please call the regional office at {regional office phone number}.

Sincerely,

{regional permit manager name}  
Regional Permit Manager

{regional permit manager initials}/{regional permit writer initials}/{filename}

- 50. encl: [Amended Permit]
- 51. [Amended permit page[s] {list pages}]  
[NSPS, Subpart {subpart}]  
[NESHAP, Subpart {subpart}]
- 52. cc: Director, OAPP (electronic file submission)  
Manager, Office of Data Analysis (electronic file submission)[major only]

NSR Permit Change Sample Letters

[Chief, Air Enforcement Branch (3AT20), U.S. EPA, Region III][*major or NSPS only*]

## Appendix II - Significance Levels and PSD/NA Applicability

As stated in **Chapter 5**, section **K**, the determination of PSD/NA NSR permitting applicability is a complex topic. A complete discussion of the issues is beyond the scope of this Manual. However, because state minor NSR often involves understanding the intricacies of major NSR, the topic warrants at least a general discussion, which is presented here.

The PSD and NA regulations contained in 9 VAC 5 Chapter 80, Articles 8 and 9, respectively, are both federal pre-construction review and permitting programs. PSD regulations apply in classified PSD areas, or those areas that achieve attainment with the National Ambient Air Quality Standards (NAAQS). NA area regulations apply in those areas which do not meet or achieve compliance with the NAAQS. Both permitting programs apply only to major sources and major modifications as the terms are defined under the respective regulations.

The NA and PSD permitting programs are not mutually exclusive. For example, a facility proposing to locate in an ozone non-attainment area which will emit SO<sub>2</sub>, NO<sub>x</sub>, and CO at rates exceeding the major source thresholds established in the regulations would be subject to the permitting requirements of both PSD and NA rules. In this case, PSD permitting provisions would apply for SO<sub>2</sub> and CO, and NA permitting would apply for NO<sub>x</sub>. If the same source emitted VOCs at rates below the NA major source threshold, but above the permitting exemption thresholds for new sources established in the state NSR regulations, state permitting requirements would also apply. In this case, only one permit would be issued, but it would contain requirements established by all three regulations.

(1) PSD/NA applicability. The PSD and NA rules apply to the following:

- (A) newly constructed major sources, or greenfield sources, considering the pollutant-specific major source thresholds defined in the rules;
- (B) modifications at major sources which result in a significant net emissions increase of a regulated pollutant; or,
- (C) a physical change at a source if the change would constitute a major source by itself.

(2) PSD Major Source Levels and Significance Levels<sup>14</sup> The threshold for determining whether a new or existing source is major under the PSD

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<sup>14</sup> The article entitled "The New Source Review Reform Proposal: On Target or Near Miss?" by Gary D. McCutchen and William Palermo, published in the September 1998 edition of the AWMA publication EM, was used as a reference for compiling the discussion on PSD and NA applicability.

program depends on the type of source and the pollutant(s) emitted. There are 28 source categories listed in the major stationary source definition in 9 VAC 5-80-1710; the threshold is 100 tons per year potential to emit or actual emissions. If a source falls within one of the categories on the list, and has the potential to emit 100 tons per year or more of any regulated pollutant, then it is a PSD major source. If a source type is not found on the list, then it must have the potential to emit 250 tons per year, or more, of a regulated pollutant to be classified as major. Note that the fugitive emissions of a source are only counted in determining its potential to emit if the source type is one of the listed 28 categories, or if the source type was subject to regulation under NSPS or NESHAP prior to August 7, 1980.

A new major source is subject to PSD review. An existing major source would become subject to PSD review if a physical change or a change in the method of operation results in a significant net emissions increase. A "significant net emissions increase" is defined in the Regulations at 9 VAC 5-80-1710 for the PSD pollutants. Additionally, the Regulations state that for any regulated pollutant which does not have a significance level listed, any increase in emissions is considered significant. Also, major sources located within 10 kilometers of a Class I area which have an impact of one microgram per cubic meter (24-hour average) as a result of any emissions rate or a net emissions increase are considered significant. Table II-1 on the next page provides a comparison of significance levels under the PSD and NA regulations.

## Appendix JJ- Netting

As stated in **Chapter 5**, section **M**, netting is the use of an emission reduction credit plant-wide at an expanding or modernizing major source to lower the net emissions increase below "significant" levels at the same source and thus to avoid PSD and non-attainment review. Emission reductions used for netting are always internal to the source seeking credit. The emission reductions must be permanent, surplus, quantifiable, and practically enforceable. The baseline for calculating an emission reduction credit is the lower of actual or allowable emissions, generally the average of the most recent two years. If a source subject to Reasonably Available Control Technology (RACT) requirements submits an application for a permit to modify proposing netting, then the lower of actual emissions or SIP allowable emissions (including RACT allowable emissions) is used to establish the baseline for netting.

(1) Calculating emissions for netting. Actual emissions calculations use historical measured parameters, such as sulfur content of fuel, not the allowable or permit limit. Note that Virginia uses the "plant-wide" definition of a stationary source which is "any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the Federal Clean Air Act." Netting out of non-attainment review is allowed, even if the proposed emission unit or modification is major provided the net emissions increase is less than the non-attainment significance level.

(2) Netting and minor sources. Emission reduction credit anywhere in a contiguous plant may compensate for potential emission increases at individual emitting units within the plant. Netting may exempt modifications of existing major sources from major source review, as long as the net increase falls below significance levels. Minor sources can not "net out" of PSD or non-attainment review. For example, a 50 tpy source with a proposed modification of 260 tpy can not "net out" by shutting down a 20 tpy unit and claiming a net increase of 240 tpy. For major sources, by "netting out," the modification is not considered major. The modification must nevertheless meet applicable NSPS, NESHAP, and preconstruction applicability review requirements under 40 CFR 51.160(a) - (e) and 51.161 - 51.164, and SIP requirements, and would be subject to permit requirements under 9 VAC 5 Chapter 80, Article 6. Netting out of BACT is not allowed. Instead, the source must conduct either PSD BACT analysis or minor NSR BACT analysis.

(3) "Contemporaneous" emission increases and decreases. All increases and decreases must be accounted for in a contemporaneous period as defined under the "net emissions increase" definition in 9 VAC 5-80-1700 et seq. and 9 VAC 5-80-2000 et seq. of the Regulations and the EPA's New Source Review Workshop Manual, October 1990 Draft, Chapter A, Section III B.2. To be contemporaneous, the changes must occur within a period:

## Netting

- Beginning 5 years before construction is expected to commence on the modification; and
  - Ending when the emission increase from the modification occurs.

In addition, emission increases and decreases can only be used if the facility has not previously used them in another netting analysis.

Table II-1. Comparison of Significance Levels for the PSD and NA Permitting Programs

Pollutant	PSD Significance Level Tons/yr	NA Significance Level for Serious or Severe Ozone Non-attainment Areas <sup>1</sup> Tons/yr
Carbon Monoxide	100	100
Nitrogen Oxides	40	25
Sulfur Dioxide	40	40
Particulate Matter	25	25
PM <sub>10</sub>	15	---
Ozone	40 (VOC)	25 (VOC)
Lead	0.6	0.6
Fluorides	3	---
Sulfuric Acid Mist	7	---
Hydrogen Sulfide (H <sub>2</sub> S)	10	---
Total Reduced Sulfur (including H <sub>2</sub> S)	10	---
Reduced Sulfur Compounds (including H <sub>2</sub> S)	10	---
Municipal Waste Combustor Organics (dioxins/furans)	3.5 x 10 <sup>-6</sup>	---
Municipal Waste Combustor Metals	15	---
Municipal Waste Combustor Acid Gases	40	---
Municipal Solid Waste Landfill Gases (as NMOC) <sup>2</sup>	50	---
Any other regulated pollutant under the CAA	any increase	----

Notes:

<sup>1</sup> The significance levels for other non-attainment areas are the same as the PSD significance levels for CO, NO<sub>x</sub>, SO<sub>2</sub>, PM, ozone, and lead.

<sup>2</sup> The significance levels for the MSW Landfill Gases (as NMOC) are not included in the Regulations. This significance level is established in 40 CFR 52.21(b)(23)(i).

(3) Non-attainment Major Source Levels and Significance Levels. The NA area permitting program applicability is similar in concept to the PSD program. However, the major source thresholds are defined differently depending on the attainment classification of the geographic region. NA area permitting applies to the construction of major sources, or major modifications at existing major sources in non-attainment areas. A non-attainment area designation is pollutant-specific.

The major source PTE threshold for all regulated pollutants under the NA program is 100 tons per year, except for specific non-attainment pollutants. The major source threshold for a non-attainment pollutant is dependent on severity of the NAAQS violation in that region. The major source thresholds for the non-attainment pollutants are listed below in Table II-2. **Appendix N** contains a listing of the non-attainment regions in Virginia and the non-attainment classifications (see 9 VAC 5-20-204 for the official list).

*Table II-2. Major Source Thresholds of Non-attainment Pollutants*

<b>NA Area Classification</b>	<b>Pollutant</b>	<b>Threshold (tons/yr)</b>
Unclassifiable	VOC, CO, PM <sub>10</sub> , NO <sub>x</sub>	100
Marginal	VOC, NO <sub>x</sub> , CO, PM <sub>10</sub>	100
Moderate	VOC, NO <sub>x</sub> , CO, PM <sub>10</sub>	100
Serious	VOC, NO <sub>x</sub>	50
Severe	VOC, NO <sub>x</sub>	25
Extreme	VOC, NO <sub>x</sub>	10
Ozone Transport Region	VOC	50
Ozone Transport Region	NO <sub>x</sub>	100
Serious	CO	50
Serious	PM <sub>10</sub>	70

As with the PSD program, the fugitive emissions of a facility are only counted in determining the potential to emit if the source type is one of the listed 28 categories, or if the source type was subject to regulation under NSPS or NESHAP prior to August 7, 1980.

Similar to the PSD program, an existing major source would become subject to NA review if a physical change or a change in the method of operation results in a significant net emissions increase. A significant net emissions increase is defined in the regulations at 9 VAC 5-80-2010 for the NA permitting program pollutants. Table II-1 provides a comparison of significance levels under the PSD and NA regulations.



## Appendix KK- Non-Attainment Review

As discussed in **Chapter 5**, section N, a proposed new or modified source is subject to a Non-attainment New Source Review pursuant to 9 VAC 5 Chapter 80, Article 9 (9VAC 5-80-2000 et seq.) when it is located in a non-attainment area, and is either a major source, or an existing major source undergoing a major modification that will emit, or will have potential to emit, non-attainment pollutant(s) at or above emission thresholds..

The EPA's New Source Review Workshop Manual, October 1990 Draft, Chapter F is also an aid in making major source determinations. In discussing non-attainment, EPA uses two definitions of source, the "plant-wide" definition and the "dual source" definition. Virginia has adopted the plant-wide definition of source, which is less stringent than the dual source definition and is the same definition that is used in PSD permitting. Many different layers of requirements make this process difficult and must be carefully reviewed before proceeding with permit formulation.

**Appendix N** lists the emissions thresholds for sources locating in various non-attainment areas in Virginia (see 9 VAC 5-20-204 for the official list). This table also lists the non-attainment classification (marginal, moderate, or serious) of the areas as of 2/1/2002.

VOC and NO<sub>x</sub> are considered non-attainment pollutants in an ozone non-attainment area. If a source is major for one and emits the other in significant amounts, then it is subject to non-attainment review. For example, a 100 tpy VOC source proposing a 40 tpy NO<sub>x</sub> increase is subject to non-attainment review.

If a major source locating in a non-attainment area emits, or has potential to emit, any attainment pollutant(s), review of the attainment pollutant(s) must be performed in accordance with PSD requirements.

Fugitive emissions are counted in determining whether a non-attainment review applies if the emissions of the non-attainment pollutant(s) are from one of the 29 processes listed under the definition of major stationary source in 9 VAC 5-80-2010.

Special regulatory requirements for major source non-attainment permits are shown below.

(1). Lowest Achievable Emission Rate (LAER). The source must apply LAER, which is defined in 9 VAC 5-80-2010.

(2). Emission Offset. The source must obtain external offsets or commit to

internal netting of the significant non-attainment emissions at an amount greater than the permitted allowable. The external offsets must meet the criteria of 9 VAC 5-80-2120. These are:

- Emission offsets must be of the same pollutant category.
- Emission offsets must occur within the same non-attainment area.
- Emission offsets must be federally enforceable before the final permit is issued.
- Emission offsets must be in place prior to commencement of operations of the proposed source.
- Emission offsets must represent a positive net air quality benefit in the non-attainment area to ensure reasonable further progress toward attainment of the NAAQS.

(3) Other Requirements

- All the existing major sources owned by the applicant in the State must have an emission limit and either be in compliance or on an enforceable compliance schedule before the permit is issued.
- Proposed non-attainment area sources that may impact a Class I area are subject to review by the Class I area FLM. (See **Chapter 3**, section **C**. for names and addresses.)

All non-attainment NSR must go through the public participation process.

## Appendix LL - Sample Public Notices

### A. Sample Notice for a Combined Public Hearing & Public Comment Period:

PUBLIC NOTICE  
**PROPOSED AIR PERMIT**  
**PUBLIC COMMENT PERIOD**  
**PUBLIC HEARING**

The Virginia Department of Environmental Quality (DEQ), {name of regional office} Regional Office has received an application for a New Source Review permit from {company name} to [construct][modify] and operate {facility name}, a [major] stationary source, pursuant to 9 VAC 5 Chapter 80, Article 6 of the Virginia Regulations for the Control and Abatement of Air Pollution. The proposed {facility type} would be located at {facility location}, {facility county or city}, Virginia.

The Department staff has completed its review of the permit application and is ready to receive and consider public comments on air quality issues associated with the proposed facility. [The proposed permit would allow the combustion of {list the amount of each fuel authorized by the permit} at the proposed facility.] [The maximum annual emissions of air pollutants from the proposed facility would be {number of tons per year, air pollutant; number of tons per year, air pollutant; etc.}.] [The resulting impact on the local air quality due to the emission of these pollutants is predicted to be {description of impact}.] The Department's preliminary determination is that the proposed project meets the standards for issuing the air permit in accordance with 9 VAC 5-80-1180 of the Regulations.

The public may examine the application, the preliminary review and analysis of the application, and the preliminary decision by the Department on the application at the DEQ {name of regional office} Regional Office on each business day between the hours of 8:30 a.m. and 4:30 p.m., [for 30 days following the appearance of this notice in the newspaper][until 15 days after the public hearing, which is {date 15 days after the public hearing}]. Additional information and copies of relevant documents may be obtained from the regional office by contacting {name of regional office contact} at {regional office contact phone number}.

The Department will also conduct a public hearing to receive written and oral comments concerning the application. The purpose of the public hearing is to obtain input that may not have been considered during the review process. This hearing will be held on {date} at {time} in {meeting room, building and address}, Virginia. [Persons desiring to make a statement at the hearing are requested to

## Sample Public Notices

sign up on a sheet to be provided {number of minutes} minutes before the public [hearing][briefing] and are requested to furnish the office two copies of their testimony, along with the originals of any supporting documents or exhibits. Individuals may sign up only for themselves. The amount of time allowed for each statement will be determined by the hearing officer, but is not normally more than three minutes.]

[In addition, the Department will conduct an informal briefing {number of minutes} minutes prior to the public hearing. This briefing will explain the activity for which the permit is sought and the Department staff's rationale for its preliminary determination. Questions are welcome and will be answered until the time that the public hearing is scheduled to begin.]

Written comments may be submitted in lieu of oral comments at the public hearing, or may be mailed to the DEQ {name of regional office} Regional Office. Written comments must be received by the DEQ {name of regional office} Regional Office no later than the close of business on {date 15 days after public hearing}. Only those comments received within this period will be considered. E-mailed comments are also acceptable, provided they include the name, address, and phone number of the writer and are timely.

The address and phone number of this office are {address and city of regional office}, Virginia; {phone number of regional office}; the e-mail address is {regional permit writer email address}. All testimony, exhibits, and comments received are public records.

**Sample Notice for a Public Comment Period (no Public Hearing):**

**PUBLIC NOTICE**  
**PROPOSED AIR PERMIT**  
**PUBLIC COMMENT PERIOD**

The Virginia Department of Environmental Quality (DEQ), {name of regional office} Regional Office has received an application for a New Source Review permit from {company name} to [construct][modify] and operate {facility name}, a [major] stationary source, pursuant to 9 VAC 5 Chapter 80, Article 6 of the Virginia Regulations for the Control and Abatement of Air Pollution. The proposed {facility type} would be located at {facility location}, {facility county or city}, Virginia.

The Department staff has completed its review of the permit application and is ready to receive and consider public comments on air quality issues associated with the proposed facility. The Department's preliminary determination is that the proposed project meets the standards for issuing the air permit in accordance with 9 VAC 5-80-1180 of the Regulations.

The public may examine the application, the preliminary review and analysis of the application, and the preliminary decision by the Department on the application at the DEQ {name of regional office} Regional Office on each business day between the hours of 8:30 a.m. and 4:30 p.m. for 30 days following the appearance of this notice in the newspaper. Additional information and copies of relevant documents may be obtained from the regional office by contacting {name of regional office contact} at {regional office contact phone number}.

Written comments and requests for a public hearing must be received by the DEQ {name of regional office} Regional Office no later than the close of business on the 30th day following the appearance of this notice in the newspaper, which is {date of 30<sup>th</sup> day}. Only those comments and requests received within this period will be considered. E-mailed comments are also acceptable, provided they include the name, address, and phone number of the writer and are timely. Requests for a public hearing to reconsider the Department's preliminary decision must be made in writing to the DEQ {name of regional office} Regional Office within 30 days of the appearance of this notice in the newspaper, and must include: (1) the name, mailing address and telephone number of the requester, and (2) the reason why a hearing is requested.

The address and phone number of the DEQ {name of regional office} Regional Office are {address and city of regional office}, Virginia; {phone number of

Sample Public Notices

[regional office](#); the e-mail address is [{email address}](#). All testimony, exhibits, and comments received are public records.

**Sample Notice for Public Hearing (Separate from Public Comment Notice):**

**PUBLIC NOTICE**  
**PROPOSED AIR PERMIT**  
**PUBLIC HEARING**

The Virginia Department of Environmental Quality (DEQ), {name of regional office} Regional Office has received an application for a New Source Review permit from {company name} to [construct][modify] and operate {facility name}, a [major] stationary source, pursuant to 9 VAC 5 Chapter 80, Article 6 of the Virginia Regulations for the Control and Abatement of Air Pollution. The proposed {facility type} would be located at {facility location}, {facility county or city}, Virginia.

The Department staff published a notice in this newspaper on {date of public notice publication} that it had completed its review of the permit application and was ready to receive public comments on air quality issues associated with the application. The Department's preliminary determination was that the proposed project met the standards for issuing the air permit in accordance with 9 VAC 5-80-1180 of the Regulations. The Department subsequently received comments or requests that justify holding a public hearing.

The public may continue to examine the application, the preliminary review and analysis of the application, and the preliminary decision by the Department at the DEQ {name of regional office} Regional Office on each business day between the hours of 8:30 a.m. and 4:30 p.m. until the end of the public comment period, which has been extended until 15 days after the date of public hearing. Additional information and copies of relevant documents may be obtained from the regional office by contacting {name of regional office contact} at {regional office contact phone number}.

The Department will also conduct a public hearing to receive written and oral comments concerning the application. The purpose of the public hearing is to obtain input that may not have been considered during the review process. This hearing will be held on {date} at {time} in {meeting room, building and address}, Virginia. [Persons desiring to make a statement at the hearing are requested to sign up on a sheet to be provided {number of minutes} minutes before the public [hearing][briefing] and are requested to furnish the office two copies of their testimony, along with the originals of any supporting documents or exhibits. Individuals may sign up only for themselves. The amount of time allowed for each statement will be determined by the hearing officer, but is not normally more than three minutes.]

## Sample Public Notices

[In addition, the Department will conduct an informal briefing {number of minutes} minutes prior to the public hearing. This briefing will explain the activity for which the permit is sought and the Department staff's rationale for its preliminary determination. Questions are welcome and will be answered until the time that the public hearing is scheduled to begin.]

Written comments may be submitted in lieu of oral comments at the public hearing, or may be mailed to the DEQ {name of regional office} Regional Office. Written comments must be received by the DEQ {name of regional office} Regional Office no later than the close of business on {date 15 days after public hearing}. Only those comments received within this period will be considered. E-mailed comments are also acceptable, provided they include the name, address, and phone number of the writer and are timely.

The address and phone number of this office are {address and city of regional office}, Virginia; {phone number of regional office}; the e-mail address is {regional permit writer email address}. All testimony, exhibits, and comments received are public records.



**Sample of an Approvable Applicant's Notice of Application :**

**PUBLIC NOTICE**  
**AIR PERMIT APPLICATION**

[{Company name}](#) has submitted an application to the Virginia Department of Environmental Quality (DEQ), [{name of regional office}](#) Regional Office for a New Source Review permit to [construct][modify] and operate [{facility name}](#), a major stationary source, pursuant to 9 VAC 5 Chapter 80, Article 6 of the Virginia Regulations for the Control and Abatement of Air Pollution. The proposed [{facility type}](#) would be located at [{facility location}](#), [{facility county or city}](#), Virginia.

The maximum annual emissions of air pollutants from the proposed facility would be [{number of tons per year, air pollutant; number of tons per year, air pollutant; etc.}](#). The control technology that is proposed to mitigate the impact of these pollutants on the ambient air quality is [{description of the proposed controls}](#). The resulting impact on the local air quality due to the emission of these pollutants is predicted to be [{description of impact}](#).

Information on the proposed facility may be obtained by contacting [{name of company contact person}](#) at [{phone number of company contact person}](#).

## Appendix MM- Confidential Information Guidance

### Introduction

This appendix provides guidance on confidential information in air permitting and responding to FOIA requests for air permitting records. While this guidance is applied to minor NSR permitting, it has been developed with an eye toward compliance with restrictions on confidential information protection under the federal Clean Air Act Title V permitting program. Permit writers should note differences with past minor NSR confidentiality guidance.

The objectives of this guidance are to provide procedures for:

- submitting permit applications and application-related documents and correspondence containing confidential information, including recommended format of showings
- evaluating permit applications containing information claimed to be confidential information
- responding to FOIA requests involving air permitting records
- evaluating information requested under FOIA for confidential information
- writing practically enforceable permits while protecting confidential information

There are two overriding statutory and regulatory restrictions on confidential information that will be repeated throughout this document:

- “Emissions data” cannot be confidential information (9 VAC 5-170-60), and
- the contents of a Title V permit cannot be kept confidential (CAA § 503(e))

However, state and federal laws and regulations also recognize and protect trade secrets. For many firms in many industries, keeping certain information confidential is vital to economic competitiveness and company survival. The challenge facing environmental regulators is to achieve a proper balance of protecting confidential business information while assuring public availability of information to which the public is entitled. This appendix provides guidance to help DEQ air permit writers to achieve this balance.

This appendix is organized as follows:<sup>15</sup>

Section A – Procedure for submitting permits applications containing confidential information

Section B – Emissions data

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<sup>15</sup> Also note Attachments:

- A. Checklist for Evaluating Claims of Confidential Information in Permit Applications
- B. Letter to Source Evaluating Confidentiality Claim
- C. Description of Emissions Data
- D. Examples of Permit Conditions Incorporating Confidentiality Protection

## Confidential Information Guidance

Section C – Regional office evaluation of permit applications for confidential information

Section D – Evaluation of specific information as confidential information

Section E -- Responding to an FOIA request involving air permitting records

Section F -- Writing practically enforceable permits while protecting confidential information

### **Procedure for submitting permits applications containing confidential information**

## **Number of copies**

The applicant must submit a public copy along with the number of confidential copies required by the permit program. This submission must also include a “showing” as required by 9 VAC 5-170-60 B.

If warranted (as will be discussed in Section F), the applicant should submit a key. A key, which is kept confidential, relates confidential details to non-confidential identifiers that will appear in the permit. Such identifiers may include reference numbers, aggregated process units, material or chemical categories, and surrogate parameters, among other methods. The key allows a permit to be kept non-confidential in a way that protects a company's confidential details while preserving public accessibility to emissions data. The key allows DEQ access to confidential details for purposes of compliance inspection, emission inventory calculation, and other necessary functions. The permit applicant must certify the key as true, accurate, and complete.<sup>16</sup> See Section F of this Appendix for discussion and examples.

## **Public copy**

The public copy must have the information considered to be confidential removed or blacked out. However, only the specific items considered and shown to be confidential can be removed or blacked out. The public version should indicate which information or data have been removed or blacked out due to confidentiality by labeling those parts or elements of the application as confidential. If an entire page is confidential, there should

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<sup>16</sup> The key certification reads as follows and is to be accompanied by the signature, date, printed name, title, company name, and registration number of the applicant:

***I acknowledge that this confidential key is an attachment to the Air Permit Application and is subject to the certification statement found on the Air Permit Application Document Certification Form.***

***I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.***

References: [Virginia Regulations for the Control and Abatement of Air Pollution \(Regulations\)](#), 9 VAC 5-20-230B.

be a corresponding non-confidential page describing the type of information held confidential, for instance, "Process Flow Diagram (confidential)."

Confidentiality requests should be as specific and narrow as possible. For example, if several pieces of information are present on a single page, it is possible that some of that information will meet confidential information criteria and the remaining information on the page will not. In such a case, the applicant would not be justified in removing from the public copy all of the information on the page.

As was mentioned in the introduction, emission data cannot be kept confidential. See Section B for assistance as to what constitutes emission data and how such data must be reported.

## **Confidential copies**

The front of the confidential copies must be marked with wording such as "Trade Secret," "Proprietary," or "Company Confidential." In addition, specific items considered confidential within the confidential copy(ies) must also be so marked conspicuously, and each page containing such marked items should also be conspicuously marked at the top or along the margin with the words "Trade Secret", "Proprietary", or "Company Confidential". One way in which this could be done would be to mark them using red ink. Any information not specifically identified as confidential will not be treated as confidential.

### **Showings**

Showings must contain justification sufficient to demonstrate that the information claimed as confidential satisfies DEQ confidentiality requirements at 9 VAC 5-170-60 C. However, since much of the information submitted to DEQ (particularly in the Title V permitting process) can or will at some point be released to EPA, the showings submitted to DEQ should meet both DEQ's requirements and EPA criteria as defined in 40 CFR 2.

The showing itself will not be confidential and is to be part of the public record. If an FOIA request is received, the requester will be given the public version of the application and the showing. The showing will inform the information requester what has been removed from the application as confidential and why.

When a permit applicant has submitted a permit application containing information claimed to be confidential, DEQ will not consider the permit application complete until it has approved the showing of confidentiality.

## **Format of Showings**

Showings of confidential information should include one or more blocks of descriptions of items being claimed as confidential along with descriptions of the measures being taken to protect confidentiality, how disclosure of the information may cause substantial harm to the owner, and a statement indicating that, to the best of the applicant's knowledge, the information is neither publicly available or reasonably obtainable by unauthorized parties. At the end of this block or these blocks should be a certification worded as follows:

I hereby certify under penalty of law that to the best of my knowledge and belief, after diligent inquiry, the information claimed above as confidential meets the confidential information criteria of 9 VAC 5-170-60 C and 40 CFR 2.208 and is not "emissions data." Further, to the best of my knowledge, this information has never been determined not to be confidential information by EPA or any other agency, nor has it ever been disclosed to the public by EPA or any other agency.

The showing must be dated and signed by a "responsible official of the regulated entity" as defined at 9 VAC 5-20-230A(1).

An applicant may use a "boilerplate" showing document for multiple submittals, provided that the document contains all of the above-described information, is currently dated, and contains an original signature of the applicant's responsible official.

An example showing follows:

### **Example Showing**

Throughout the referenced application, XYZ Company claims throughputs of Equipment A, B, and C and composition information of our final blended products as confidential.

#### Throughputs

XYZ protects the confidentiality of this information by:

- Keeping the information under lock and key except when designated employees have need of its use.
- Allowing only those employees who have a "need to know" access to this information. Other XYZ employees do not have access to this information.
- Requiring all employees who have access to this information to sign a confidentiality agreement.

Disclosure of the throughputs of Equipment A, B, and C could cause substantial harm to XYZ by allowing competitors to better determine our costs. Both fixed and variable costs in our industry are highly dependent on the scale of operations. Disclosure of this information would give competitors information with which they could determine our production capacity, which we believe they do not know at this time. To the best of our knowledge, this information is not publicly available and is not reasonably obtainable by the public or other unauthorized parties.

#### Product Composition

XYZ protects the confidentiality of this information by:

- Keeping the information under lock and key except when designated employees have need of its use.
- Allowing only those employees who have a "need to know" access to this information. Other XYZ employees do not have access to this information.
- Requiring all employees who have access to this information to sign a confidentiality agreement.
- Requiring customers who have access to this information to sign confidentiality agreements

Disclosure of the composition of our final blended products could cause substantial harm to XYZ by allowing competitors to reverse engineer our products. XYZ has invested significant resources over many years developing these products. Disclosure of these compositions could allow competitors to copy our products without them being required to expend the resources we have spent developing them, thereby reducing our current competitive advantage. To the best of our knowledge, this information is not publicly available and is not reasonably obtainable by the public or other unauthorized parties.

#### Certification

I hereby certify under penalty of law that to the best of my knowledge and belief, after diligent inquiry, the information claimed above as confidential meets the confidential information criteria of 9 VAC 5-170-60 C and 40 CFR 2.208 and is not "emissions data." Further, to the best of my knowledge, this information has never been determined not to be confidential information by EPA or any other agency, nor has it ever been disclosed to the public by EPA or any other agency.

Typed Name and Title of Responsible Official \_\_\_\_\_

Signature of Responsible Official \_\_\_\_\_

Date \_\_\_\_\_

## Emissions data

There is currently no definition of emissions data in the regulations that govern the development of air permits in Virginia. Federal regulations (40 CFR 2 §2.301) define "emissions data" as follows:

**Emission data** means, with reference to any source of emission of any substance into the air --

*(A) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of any emission which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing;*

*(B) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emissions which, under an applicable standard or limitation, the source was authorized to emit (including, to the extent necessary for such purposes, a description of the manner or rate of operation of the source); and*

*(C) A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).*

Paragraph (§2.301(a)(2)(1)(A)) of the definition refers to "any emission which has been emitted". This is directed at actual emissions. Emissions data can then be interpreted to include any information needed to identify what the actual emissions are, determine the amount that is emitted, and establish the concentration of the pollutant in the emissions. The portion of the definition that refers to "other characteristics" is qualified by the phrase "to the extent related to air quality". This phrase is intended to provide a constraint on the general nature of the term "other characteristics".

The construction of paragraph (§2.301(a)(2)(1)(B)) closely parallels that of paragraph (A) but is directed toward what "the source was authorized to emit". This can have several connotations. Where a source has a permit and the permit contains emissions limitations, these limitations cannot be confidential because they are emissions that "the source was authorized to emit." Where a source is an existing source and is subject to a process rate standard the source will have to provide the information necessary to determine the emissions that the source was "authorized to emit." This interpretation is consistent with the parenthetical phrase "including, to the extent necessary for such purposes, a description of the manner or rate of operation of the source."

While not specifically providing information on the amount, nature or concentration of emissions, location information cannot be deemed confidential because the emissions data must be associated with a specific facility. Attachment C discusses a draft of an EPA policy document that identifies the items EPA designated as information that provides a "description of the location and/or

## Confidential Information Guidance

nature of the source." Where the applicability of a standard is dependent on the "description of the manner or rate of operation of the source" the delineation of emissions data can be defined in general terms. Please see the examples below.

### "Emissions data" determinations based on applicability or compliance with applicable requirements

Below are several examples of how to evaluate the extent to which data can be deemed to be "emissions data" based on applicability or compliance with applicable requirements. When applying these examples, refer to the regulatory criteria for deeming information confidential, 9 VAC 5-170-60 C. If the information that you are reviewing is "reasonably obtainable" by other legitimate means then the information cannot be deemed confidential. The examples below are intended to guide confidentiality decisions and not as prescriptive solutions. Each determination of confidentiality should be based on an evaluation of the specific requests of the applicant.

**Example A:** Facility A has a single 95 million BTU boiler built in 1990 and information on the size of the boiler is not reasonably obtainable except by requesting information through the company. For the sake of this example, assume that the only applicable requirement is NSPS Subpart Dc. The confidential version of the application must state that it is a 95 million BTU boiler. However, the public version may include only the information required to provide the public with the fact that it is subject to Subpart Dc. For example, the public copy could simply state that the boiler's heat input is between 10 and 100 million BTU/hr (as well as any other information needed to determine regulation applicability and compliance, such as what fuel the boiler uses).

**Example B:** Facility B is a site that uses 10,000 megagrams/year of benzene. The permit application requires the actual benzene usage be provided. The confidential version would list the actual usage of 10,000 Mg/year. The public copy could list benzene usage as "> 1000 Mg/year", the applicability threshold of 40 CFR 61 Subpart J. By stating that annual usage is >1000 Mg/yr, the public would be able to determine that the rule applies.

**Example C:** A chemical facility modifies a reactor that is applicable to Subpart RRR of the federal NSPS (40 CFR §60.700 et seq.). The facility has consistently maintained the production data for the affected process as confidential and information associated with this process is only available through the company that operates the facility. The application includes a Total Resource Effectiveness (TRE) analysis that indicates the TRE index is less than 1.0 indicating the need for controls. The TRE analysis required the facility to perform Method 18 analyses to properly speciate the gas stream. The non-confidential version of the application can be submitted with a statement from the source that the TRE value is lower than 1.0, that pollution control equipment submitted with the application will meet the reduction requirements of 40 CFR §60.702 and the emissions estimates associated with this process can be reported as VOC's without having speciated information included.

See Attachment C for additional description of what constitutes emissions data.

#### A. Evaluation of permit applications for confidential information

If information claimed to be confidential is contained in the application, use the following procedure:



### Confidential Information Guidance

As discussed previously, the applicant should have submitted one non-confidential copy of the application for the public file, a number of complete confidential copies, and a certified confidentiality showing document. In addition a confidential key may have been submitted to relate confidential information to non-confidential information and conditions to be included in the permit. The applicant must certify the key, as discussed previously in Section A, footnote 1.

The Regional Director (RD)(or designee) reviews each item in the application claimed to be confidential information in accordance with the next section "Evaluation of specific information as confidential information."

If all confidential information claims are determined to be valid, the RD submits a letter (see Attachment B) to the applicant that all confidential information claims have been accepted.

However, if one or more of the items claimed to be confidential information are determined not to be valid, the regional office shall send a letter (Attachment B) to the applicant listing the deficiencies in the confidential information claims. If the applicant agrees with the findings listed in the letter, the applicant should submit a revised public copy and/or showing to address the identified deficiencies. The revised public copy will be reviewed as earlier described.

Where a source indicates that there are contested issues relative to deficiencies identified in the letter, the regional office should discuss these issues with the applicant to be sure that the deficiencies are properly understood. After all of the confidential information issues have been resolved, the regional office shall send the letter to the applicant stating that all confidential information claims have been accepted.

At the end of the permitting process, the confidential version of the application will be secured in confidential files. Because documents generated during the permitting process are public information, separate public and confidential versions of internal documents associated with permit processing (e.g., engineering analyses) will be prepared for the public and confidential files.

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## Evaluation of specific information as confidential information

If an item is “emission data,” it is not confidential information (9 VAC 5-170-60 A).

See section B above for assistance in determining whether or not information is “emission data.”

In order to be confidential information, the item must meet all the following criteria of 9 VAC 5-170-60 C:

- The owner has been taking and will continue to take measures to protect confidentiality of the information; (9 VAC 5-170-60 C 1)
- The information has not been and is not presently reasonably obtainable without the owner's consent by private citizens or other firms through legitimate means other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding (9 VAC 5-170-60 C 2 )
- The information is not publicly available from sources other than the owner. (9 VAC 5-170-60 C 3); and
- Disclosure of the information would cause substantial harm to the owner (9 VAC 5-170-60 C 4).

Furthermore, the applicant must provide a showing that explains how and certifies that the information claimed as confidential meets the criteria of 9 VAC 5-170-60 B. See Section A above for the recommended format and example of this showing.

Much of the information submitted to DEQ may at some time be submitted to EPA.

Therefore the regional offices should recommend to the applicant that information claimed as confidential also meet the confidentiality criteria of 40 CFR 2.208 and that the source claim confidentiality in accordance with 40 CFR 2.203(b). The showing format recommended in Section A above meets these criteria.

If the identical information has been disclosed to the public (whether by the applicant or by another party), it is considered to be "reasonably obtainable" and therefore no longer confidential information. Also, data and information determined by EPA or other government agencies to not be confidential will not be considered confidential by DEQ.

## Responding to an FOIA request involving air permitting records

If an FOIA request identifies information from a permit file for which the company has requested confidentiality, the Regional Office should strongly consider notifying the company of the FOIA request within one working day. The company will be asked to notify DEQ of its intention to review the files and to complete its review within a time frame that allows DEQ to meet its requirements to respond to the requestor under the FOIA Law. The intent of this is to prevent erroneous release of protected information in response to an FOIA request. DEQ staff should be aware that there might be liabilities associated with the improper release of confidential information. Inviting the company to review its files (but not assert new confidentiality protections) provides an additional measure of care to prevent erroneous release.

This policy of notifying a source of the existence of an FOIA is intended as a transitional measure to be sure that pre-existing files will meet the criteria established in this policy document. There is no need to contact companies that have not previously requested confidentiality. The intent is not to allow companies to make additional confidentiality claims and initiate new showings in light of the FOIA request. If the company chooses not to conduct an additional review of the requested information, the existing DEQ FOIA policy should be followed.

**1. The Regional Director (or designee) reviews each item in the application that is identified in the FOIA and is claimed to be confidential information in accordance with the previously described procedure in Section C “Regional evaluation of permit applications for confidential information”. If one or more of the items claimed to be confidential information are determined not to meet the criteria for confidentiality, send a letter to the applicant (see Attachment B) listing the deficiencies in the confidential information claims. If the applicant agrees with the RD’s findings, they revise the public copy and/or showing to address deficiencies. The revised public copy will be reviewed as in the first paragraph of this section. The regional office must provide an initial response to the FOIA request within 5 days.**

If the company has chosen to conduct a review of the requested information and the information previously deemed confidential was found to be deficient, the requester should be notified that the requested information may contain confidential information and needs to be reviewed before the information request can be honored for the document(s) in question. According to the Virginia FOIA law an initial response must be made within five days. Should the review described above not be completed within five days, DEQ can request another seven working days to respond. Please refer to the general DEQ FOIA policy to review the requirements for requesting the additional seven days. Should it appear that this time will still not be sufficient to complete the review and any required document revisions, notify the DEQ FOIA Officer.

If the company, upon reviewing the requested documents, determines that it contains confidential information consistent with the original showing that has not been held as confidential, the company will be required to prepare a revised public

copy without the information claimed as confidential. The RD evaluates these additional confidential information claims consistent with the description above.

After all of the confidential information claims have been resolved, the regional office responds to the FOIA request, withholding all information determined to be confidential. If the confidentiality issues cannot be resolved within the timeframes provided for in the Agency FOIA policy, contact the DEQ FOIA Officer to determine the appropriate course of action.

### **Writing practically enforceable permits while protecting confidential information**

Under Title V of the Clean Air Act the contents of a permit may not be kept confidential. This is interpreted to mean that the past DEQ practice of having parallel confidential and non-confidential permits (with the latter being "sanitized" through redaction or crossing-out of confidential information) cannot be applied in the Title V program. Instead, other ways must be pursued to protect confidential information. As noted previously, this confidentiality guidance for minor NSR permitting has been developed to be consistent with Title V permitting requirements.

The permit writer must balance the need for information required to ensure practical enforceability of emissions limitations and other permit conditions with the permit applicant's desire to protect confidential information.<sup>17</sup> A permit must provide a means for DEQ to assess and enforce the permittee's compliance with permit conditions. It must also assure that "emissions data," as previously discussed, remain publicly available.

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<sup>17</sup> From 9 VAC 5-80-1110: "Enforceable as a practical matter" means that the permit contains emission limitations that are enforceable by the board or the department and meet the following criteria:

1. Are permanent;
2. Contain a legal obligation for the owner to adhere to the terms and conditions;
3. Do not allow a relaxation of a requirement of the implementation plan;
4. Are technically accurate and quantifiable;
5. Include averaging times or other provisions that allow at least monthly (or a shorter period if necessary to be consistent with the implementation plan) checks on compliance. This may include, but not be limited to, the following: compliance with annual limits [o]n a rolling basis, monthly or shorter limits, and other provisions consistent with 9 VAC 5-80-1180 and other regulations of the board; and
6. Require a level of recordkeeping, reporting and monitoring sufficient to demonstrate compliance.

Confidential Information Guidance

First, to the extent allowed by regulations, the permit writer should refrain from including in a permit detailed information on materials, processes, equipment, and throughput that is extraneous to any DEQ needs for determining emissions and assuring compliance. If after this there remain confidential items that the applicant has justified through the "showing" process then the permit writer has several tools available. Among these are:

- Aggregation
- Categorization
- Surrogate parameters
- Emissions monitoring or sampling
- Parametric monitoring

These approaches are discussed in greater detail below and examples of pertinent permit conditions follow in Attachment D of this appendix.

The permit writer may also invite the applicant to suggest and provide other means that meet the necessary balance. If the applicant offers an alternative, the permit writer will need to determine if the alternative meets requirements for DEQ to have sufficient information for determining emissions levels and permit compliance as well as for keeping public emissions data.

**1. Keys**

The use of such confidentiality tools may sometimes require a confidential key. The key, developed by the permit applicant, would contain confidential information that is not included in the permit itself. It would relate the confidential details to non-confidential information in the permit so that DEQ staff has sufficient information to perform compliance inspections, emissions inventories, and other required activities. The permit writer should have proposed keys reviewed by DEQ inspection personnel to assure that the key is understandable and useful for compliance inspection purposes. Furthermore, to assure accuracy and completeness of the key, the applicant must certify it using the wording in Section A, footnote 1 of this document. The certification is to be accompanied by the signature, date, printed name, title, company name, and registration number of the applicant so that it is clear to which facility and permit the key applies.

Key examples

<b>Permit</b>	<b>Key</b>
"Total annual throughput for coating area A shall not exceed X*..."	"Coating area A consists of the following equipment:" (list equipment and rated capacities)
"Total VOC emissions for coating area A shall not exceed Y* tons per year or Z* pounds per hour..."	"Coating area A consists of the following equipment:" (list equipment and rated capacities)
"Total Suspended Particulates, PM-10, and VOC emissions from the following equipment shall be controlled by Thermal Oxidizers: Ref. No. 15, 16, and 17"	(Table listing reference numbers, equipment, rated capacities, and other pertinent information such as stack numbers)
"Total annual production shall not exceed X* tire manufacturing units."	"One tire manufacturing unit equals 150 pounds of finished tires.
"Total annual production shall not exceed X* tire manufacturing units."	"One tire manufacturing unit equals: 1 heavy vehicle tire (list tire models or sizes), 2.5 medium duty truck tires (list models or

	sizes), 3 light duty truck tires (list models or sizes), or 3.5 passenger automobile (list models or sizes), or 4.5 motorcycle tires (list models or sizes)" (The key may also define the classes of vehicles by gross vehicle weight or other standard definition used by the industry or transportation agencies.)
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X, Y, and Z are used here for convenience. In the actual permit X, Y and Z would be numbers. They do not represent confidential hidden or "sanitized" values.

The reader is reminded that CAA Title V does not allow confidential permit conditions and the intent of this policy guidance is to phase out the use of parallel confidential and non-confidential permits in NSR and other air permits.

## **2. Necessary Versus Extraneous Information**

The purposes of collecting detailed information on the applicant's operations are:

- To determine applicable regulations, emissions limitations, emission abatement measures, and other pertinent federal and state requirements; and
- To ensure mechanisms for DEQ to perform needed compliance, enforcement, and emissions inventory activities.

Some of the types of information typically gathered from applicants include process descriptions; material quantities and compositions; equipment descriptions, throughput, and rated capacities; fuel quality and heat content; and yearly hours of operation.

If an applicant claims certain information to be confidential the permit writer should evaluate whether that information is required for developing a practically enforceable permit. For instance, the type or brand of, say, pump or conveyer is relevant to the permit writer only if there are differing emissions factors. If such details do not affect the potential emissions estimate then they are extraneous and not needed for developing a permit.

Example: XYZ Biopharmaceuticals Co. uses a bioreactor to produce a particular antibiotic. Ethanol can be emitted from the bioreactor vessel as well as at subsequent processing steps. For simplicity, consider ethanol as the only pollutant of concern. XYZ claims confidentiality for the type of bioreactor due to the design of the aerator and impeller. The company also wants the reactor's yearly throughput kept confidential.

The permit writer should only be concerned about the reactor type and design as it affects the potential amount of ethanol that may be emitted. The permit writer needs to determine the maximum amount and concentration of ethanol that may be emitted from the reactor vent to determine the potential to emit from that unit. Total air throughput and production throughput may be needed to calculate the potential to emit from the bioreactor. Volume and throughput may also be required to determine potential ethanol emissions from subsequent processing steps.

The brand, manufacturer, impeller type or design, and aerator type or design are not necessary information and can be omitted from the permit altogether. The reactor's volume, vented air throughput and ethanol concentration, and yearly production throughput may be needed to calculate potential to emit. They may be kept confidential based on a proper "showing" plus a determination that they are not "emissions data" as discussed elsewhere in this guidance. There may be opportunities to keep details confidential through other means, such as those described below.

See Attachment D for permit condition examples.

### **3. Aggregation**

Sometimes DEQ requirements and the applicant's desire to protect information can be accommodated by aggregating (i.e., combining) individual elements of an operation into less detailed totals that adequately convey to the public the amount and types of emissions from a facility without revealing details that may injure the applicant's business competitiveness.

Aggregation may be applied to equipment or to materials, fuels, and chemicals. A permit writer using aggregation will probably write permit conditions in terms of maximum allowable units, capacities, throughput, or other quantities in contrast to the usual permit approach of having an itemized list of all equipment and each of their capacities or limitations.

This technique may be used to establish *emissions limitations or caps* on an aggregated operational unit rather than on individual pieces of equipment. However, it cannot be used to establish aggregated *applicability limits* (i.e., a "mini-PAL").<sup>18</sup>

Example: XYZ Surface Coatings Co. uses flame spray and high velocity oxy-fuel (HVOF) technologies to apply specialized coatings to high value components of engines, turbines, missiles, and other products. The metallic and ceramic coatings provide strength and resistance to corrosion and wear. Among the coatings materials are several toxic or hazardous metals such as nickel and chromium.

The company knows that it needs to provide DEQ with information on the individual coating units (which have different emissions factors based on either AP-42, vendor specifications, or field measurements of comparable units) and on the potential to emit of all regulated pollutants, which, as noted, include hazardous air pollutants (HAPs). The company plans to have five coating units--three flame spray and

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<sup>18</sup> In other words, aggregation of operational units does not negate the need for permit writers to perform New Source Reviews (for instance, BACT analyses, if required) on individual pieces of equipment. Nor does it absolve the permittee of responsibility to follow NSR requirements and, if necessary, apply for a permit amendment or new NSR permit if it wishes to modify, install, or construct individual pieces of equipment.

two HVOF--that in aggregate will have an annual potential capacity to coat 100,000 sq. ft. of product. While the company would like to keep as much about its equipment and potential throughput confidential, it is most concerned that competitors not learn about the type and capacity of its HVOF equipment. All the units are vented to a single pollution abatement unit (say, a filter and wet scrubber) designed to handle particulates and vapors.

In order to facilitate proper permit writing as well as subsequent DEQ compliance inspections, the permit applicant should provide a confidential key that provides itemized equipment descriptions, capacities, and other emissions-relevant parameters while noting which items should be held confidential. The confidential key supplements the non-confidential permit application.

Assuming that XYZ Surface Coatings Co. has made a proper "showing" for confidentiality of its equipment details, the permit writer could word permit limitations in terms of maximum quantities and volumes rather than detailing specific equipment. There may be more than one option for such wording, such as:

- a) "The company may operate no more than five flame spray and/or HVOF units with a combined annual throughput of 100,000 sq. ft. of treated surface or equivalent [perhaps another unit is appropriate; also see section on surrogate measures below]. All of the units shall vent to an operating [name and, if necessary, describe the air pollution control device]. Throughput from the coating equipment shall not cause vented emissions sent to the air pollution control equipment to exceed [the air pollution control equipment's] hourly and annual rated treatment capacity [may provide numerical capacity limits]. [Note: The permit will have separate requirements for adequate operation, maintenance, worker training, and monitoring of the air pollution control device. The permit may also require a certain capture and treatment efficiency for the air pollution control device.]," or
- b) "The company may operate flame spray, HVOF, and related equipment so that all units vent to an operating [name and, if necessary, describe the air pollution control device]. The coatings equipment shall not be operated at a rate that exceeds the rated capacity [X units/hour, Y units per year]<sup>19</sup> of the [name the air pollution control device]. [Note: The permit will have separate requirements for adequate operation, maintenance, worker training, and monitoring of the air pollution control device. The permit may

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<sup>19</sup> X and Y are used here for convenience. In the actual permit they would be numbers. They do not represent confidential hidden or "sanitized" values. The reader is reminded that CAA Title V does not allow confidential permit conditions and the intent of this policy guidance is to phase out the use of parallel confidential and non-confidential permits in NSR and other air permits.



also require a certain capture and treatment efficiency for the air pollution control device]"

See Attachment D for permit condition examples.

The issued permit would have aggregated maximum operation limits with no confidential information. But the confidential key submitted by the company in support of the permit application will be available for DEQ air inspectors so that they can check the number, type, and capacity of the specific coating units in order to assess the company's compliance with operational and emissions limitations.

#### **4. Categorization**

Categorization is similar to aggregation. Rather than combining quantities of production units, capacities, or throughputs, the permit writer would work to combine names and quantities of specific chemicals or materials into pertinent categories. The categories should be specific enough so as to not obscure "emissions data"--which cannot be held confidential--while allowing companies to protect confidential information on product formulation and production processes.

One example of categorization that DEQ uses is to combine various individual VOCs into a single VOC category for purposes of developing emissions limitations and other permit conditions. If "VOC" (or "non-methane organic gases [NMG]" or "non-methane hydrocarbons [NMH]") is the parameter being regulated then the names and quantities or proportions of specific VOC component compounds need not be divulged as public. However, if one or more of the VOC, NMG, or NMH components is subject to particular standards and regulations, for instance as a HAP, then its identity, allowable quantities, and other limitations or requirements must remain publicly accessible emissions data.<sup>20</sup> The permit writer must be careful to identify and apply relevant permit limitations to HAPs or other specifically regulated compounds that the permit applicant intends to use or generate. (See Chapter 10 Toxic Air Pollutants and Appendix FF AQP-5 Priority Pollutant Tables of the New Source Review Permits Program Manual as well as 9 VAC 5 Chapter 60 Hazardous Air Pollutant Sources.)

In particular cases, it may make sense for a permit writer to state restrictions on VOCs in terms of average or maximum vapor pressures if the general VOC category is too broad for delineating emissions restrictions. In other cases, categories of chemicals (VOCs or otherwise) may be described in terms of average molecular weight. And even in the case of HAPs, full speciation of individual compounds may not be required because some toxic air pollutants are regulated as compound categories such as "antimony compounds," "cyanide compounds," or "nickel compounds (soluble)."

Example: XYZ Gas Systems Co. manufactures high value gas handling systems for aerospace and medical use. Lines, compressors, and other components manufactured by the company are degreased to remove oil, grease, moisture, and other contaminants. Very high levels of cleanliness are required.

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<sup>20</sup> A number of HAPs are also listed as ozone depleting compounds (ODCs) under the Clean Air Act and may be subject to certain federal restrictions, though these are beyond the scope of state air permitting programs.

The industry uses a variety of organic solvents. XYZ Gas Systems Co. plans to use hydrofluoroethers (HFEs) with isopropanol (IPA) as a co-solvent. HFEs are non-toxic (non-HAP) and are not considered to be VOCs due to their low reactivity.<sup>21</sup> IPA is a VOC but is not a HAP. The company will incorporate vapor recovery and re-distillation to conserve solvent and reduce emissions. The company wants to keep the composition of its degreasing solvent confidential though it recognizes that VOC emissions and emissions limitations must be disclosed. (For simplicity sake, consider these to be the only solvents the company plans to use.)

Since HFEs are not regulated due to their innocuous environmental, health, and safety effects, the permit writer needs only to be concerned about potential IPA emissions. The permit writer will need to determine the facility's potential to emit IPA based on concentrations of IPA in the HFE-IPA solvent blends. Based on that potential to emit, the permit writer will need to determine applicable limitations and whether the proposed solvent recovery system will meet them or if throughput limitations or additional pollution abatement will be required.

The permit writer can handle the company's confidentiality concerns by stating emissions limitations in terms of allowable VOC throughput and needed pollution controls (vapor recovery in this case) without specifically mentioning HFE (a non-VOC from a regulatory perspective) or IPA. Since the permit limitations would be in terms of VOCs rather than a specific chemical solvent, the company will have the freedom to substitute other VOC (or non-VOC) solvents for IPA. Because of this, the permit writer should include provisions that do not allow HAPs to be used. Reference could be made to a standard list of allowable VOC solvents, if available.

See Attachment D for permit condition examples.

### **5. Surrogate Parameters**

A surrogate parameter is a value that represents throughput, production, or some other variable that the company may want protected as confidential. The surrogate parameter should have a simple and direct relationship to the data that the company wants protected. Through a confidential key, DEQ permit writers and inspectors can relate surrogate parameters to actual values. Yet, the non-confidential surrogate parameters fulfill the need to keep emissions data, emissions limitations, and other pertinent information available to the public.

Development of surrogate parameters that meet public information needs (and EPA acceptance) can be a difficult exercise. This is because "emissions data" that must be kept public includes "information *necessary to determine*" emissions or applicable limits

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<sup>21</sup> HFEs are also non-flammable and are not ODCs, though these characteristics are beyond the scope of state air permitting.

and standards. The practicality and propriety of using surrogate parameters needs to be determined on a case-by-case basis. Because of these difficulties, the use of surrogate parameters should be considered only after exhausting other options (such as the other techniques discussed in this appendix).

The surrogate parameter may be an alternative measure of production or throughput such as the use of weight or volume of production rather than number of manufactured items. Or it may use some other alternative production unit that correlates with production or throughput and with emissions. The example below illustrates both approaches.

Example: XYZ Tires Co. wants to protect information on its production capacity for the various sizes and types of tires it manufactures. However it may be amenable to allowing disclosure of its capacity in terms of mass of tires because different types of tires have different mass, thus not divulging the number of each type of tires produced. The company may also propose the use of a "tire manufacturing unit" that may give different counting weights to different types of tire. For instance, one "tire manufacturing unit" may equal three light duty vehicle (under 6000 lbs. gross vehicle weight [GVW]) tires or 2.5 tires for vehicles of between 6000 and 10,000 lbs. GVW or one heavy truck (over 10,000 lbs. GVW) tire. The weightings of different classes of tires should approximate the mass, volume, tread area, or some other reasonable measure of physical production so that it correlates with emissions potential. Furthermore, there should be a simple direct linear relationship between physical tire production and the surrogate tire manufacturing unit.

See Attachment D for permit condition examples.

The permit writer needs to be assured through engineering analysis and, perhaps, monitoring and testing that the surrogate parameter has a simple direct relationship to the throughput, capacity, rate, or other value that the permit applicant is trying to protect. There may be a need for a permit provision to require periodic testing or monitoring to reconfirm or recalculate the conversion factor between the surrogate parameter and the underlying value that the company wants kept confidential. For instance, a beverage can manufacturer may want to use mass of aluminum as a surrogate for number of cans produced and coated. If the manufacturer changes its process to make thinner cans, more cans will be coated (with more potential VOC emissions) per ton of aluminum consumed.

## **6. Emissions Monitoring or Sampling**

Ideally, a facility's emissions should be determined by emissions monitoring rather than calculations based on assumed emissions factors, input fuels and materials, and production throughputs. Unfortunately, monitoring, especially real-time monitoring, is not yet economically or technically feasible for a large number facilities requiring air emissions permits. Thus detailed questions about facilities' operations are often still required.

However, there may be instances in which real-time monitoring (continuous emissions monitors--CEMs) or statistically valid periodic sampling and monitoring may reliably

provide all the emissions data required by DEQ. Under those circumstances permit writers, inspectors, emissions inventory staff, and other air regulators may not need to include details about production equipment, material throughputs, heat rates, etc. in permits so long as reliable emissions data are provided through monitoring to assure that DEQ and the public have accurate emissions data.

CEMs are currently required for certain facilities, such as large electric power plants. Such plants are required by regulation and through permit conditions to document the proper calibration, operation, and maintenance of the CEMs. Electric power plants seldom have confidentiality issues with respect to air permitting so an alternative hypothetical example follows.

Example: XYZ Specialty Polymers makes specialized plastic products for high-end medical and scientific applications. The company uses several organic compounds, which include listed VOCs and HAPs, as solvents for dissolving polymer resins, forming products, and cleaning. XYZ's facilities will be state-of-the-art, with all solvent handling taking place in totally enclosed chambers. Computer automation controls production processes, including solvent use and evaporation. The enclosed solvent-using units are connected to a solvent recovery unit. Trace amounts of solvent are expected to still be present in air eventually vented from the production units via three stacks.

The company recognizes the need to divulge throughput and potential solvent usage to DEQ for establishing emissions limitations. The company, however, does not want details of its production equipment and throughput to be made public. After consulting DEQ, the company realizes that emissions data must remain public information and that typically such data are calculated by applying emissions factors to specific equipment and calculating potential emissions based on throughputs, equipment capacities, transfer efficiencies, and other details.

XYZ offers to install a CEM employing Fourier transform infrared (FTIR) spectroscopy on the ventilation stacks. FTIR is used in a number of occupational safety and health as well as environmental contexts. The device proposed by XYZ will accurately and reliably measure concentrations of each of the solvents the company intends to use.

In this case, the permit writer may need to consider process throughputs and capacities to determine potential to emit and whether the proposed solvent recovery unit will provide sufficient controls. XYZ can develop a key with solvent amounts and equipment throughput details but such details do not need to appear in the permit itself. Aggregation methods (discussed previously) may be available to protect individual equipment details but allow the public to know aggregate capacity and potential to emit. CEM data will provide emissions data to DEQ that can be made available to the

public. The CEM data are the means for compliance determination and meet the "information necessary to determine" emissions test. So actual throughput or other production details may not need not be divulged as necessary for the public to determine emissions levels. The permit writer will still need to divulge which solvents may be emitted (although a general VOC category may be used instead of naming specific solvents in the case of non-HAP solvents) and at what maximum amount or concentration. The permit may include details on the capacity of the vapor recovery unit while requiring its proper operation and maintenance as well as a certain minimum level of solvent capture and treatment. The permit will also include provisions for proper operations, maintenance, and calibration of the CEM, as well as for transmission of emissions data to DEQ. (Note that other confidentiality techniques, such as aggregation and categorization may also be applicable for this example.)

See Attachment D for additional discussion of permit condition issues pertinent to application of CEMs and other emissions monitoring.

### **7. Parametric Monitoring**

Parametric monitoring combines the use of surrogate parameters and monitoring or sampling in lieu of including detailed throughput, capacity, or other process details. The surrogate parameter should have a simple direct relationship to the data the company wishes to keep confidential. Monitoring of the surrogate should have a simple direct relationship to emissions.

Again, development and use of surrogate parameters requires special care and case-by-case judgement in order to assure that "information *necessary to determine*" emissions or emissions limitations and standards remain publicly accessible. It should be pursued only after exhausting other options for protecting CBI.

Example: XYZ Aluminum Co. wishes to keep its production throughput and capacity confidential. The company notes, and the permit writer confirms, that XYZ's production level correlates directly with electricity consumption. So electric power consumption serves as a surrogate measure for aluminum production and, via the use of emissions factors, for emissions.

DEQ can keep equipment details confidential by use of a confidential key. However, the relationship between the surrogate parameter being monitored (in this case, electric power consumption) and emissions must be kept non-confidential as a form of emissions data.

Example: XYZ Polymers Co. produces nylon but wishes to keep its production rate confidential. The company has demonstrated that throughput is directly correlated with the speed of the polymer supply pumps in revolutions per minute (rpm). In turn these are directly correlated with particulate matter (PM) emissions, which is the only

pollutant of concern. The permit writer may use pump speed as a surrogate parameter for throughput or production and, therefore, may state throughput or production limitations in terms of maximum supply pump speed. Likewise monitoring, reporting, and record keeping may be done for the pump speed surrogate rather than for the underlying mass of polymer.

See Attachment D for permit condition examples.

Permit writers need to be cautious about the use of parametric monitoring. They need to have assurances through historical data or other means that an accurate relationship between the surrogate and emissions exists. Furthermore, there needs to be an enforceable mechanism to require the company to alert DEQ and provide new accurate correlations between the surrogate parameter and emissions should they change. The permit may include a provision requiring periodic testing or monitoring to reconfirm or recalculate the conversion factor between the surrogate parameter and the underlying value that the company wants kept confidential. For example, the hypothetical aluminum company may improve its power supply or electrodes in order to produce more aluminum per unit of electric power consumed. This could cause an underestimate of emissions. Alternatively, improved electrodes may reduce emissions per unit of power consumed and aluminum produced. This could cause an overestimate of emissions if an older correlation between power consumption and emissions is employed.

## **8. Section Summary**

Permit writers must balance legitimate business interests in protecting sensitive business information with DEQ's need for process and product details to administer air quality requirements and with the public's right to emissions data.

Permit writers only require product and process details for purposes of developing practically enforceable permits. The public is entitled to such information only if it falls under the category of emissions data, i.e., it is required in order for the public to identify and calculate emissions. Details not needed for determining potential or actual emissions are extraneous and are not required by DEQ.

A confidential key can be developed in cases where confidential details are required by DEQ for developing permits, performing compliance inspections, and other purposes. The actual permit would not include such confidential details.

Aggregation, categorization, and surrogate parameters are means to protect confidential details while still providing emissions data to the public. Emissions monitoring or statistically sound sampling can provide emissions data without the need to divulge confidential product and process details. Ideally, DEQ should be concerned only with emissions and not with detailed industrial processes. Such details are only needed if complete accurate emissions monitoring is not done. Parametric monitoring may also be applicable but with some cautions.

## Attachment A: Checklist for Evaluating Claims of Confidential Information in Permit Applications

**Note:** If the applicant is not claiming confidentiality on any of the information, there is no need to go through this checklist. The requirements of both 40 CFR 2 and 9 VAC 5 Chapter 170 are covered by this checklist.

### Overall

1. Have both confidential and public versions of the application been submitted? Yes No

2. If necessary, has a confidential key been submitted? Yes No

*A confidential key relates confidential information to non-confidential identifiers by means of reference numbers, aggregated process units, surrogate parameters, or other means to assure that that permits do not contain confidential information while emissions data remain public. See Section F of Appendix MM of the NSR Permits Program Manual for discussion and example.*

3. If a key has been submitted, has it been certified using the language below? Is the certification accompanied by the signature, date, printed name, title, company name, and registration number of the applicant so that it is clear to which facility and permit the key applies? Yes No

*I acknowledge that this confidential key is an attachment to the Air Permit Application and is subject to the certification statement found on the Air Permit Application Document Certification Form.*

*I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

### Comparison of Confidential and Public Applications

4. Is there at least one page in the public version corresponding to each page in the confidential version? Yes No

*One exception to this would be when an entire section is considered confidential. For example, a section of the application might contain several pages of process flow diagrams, all of which the company considers confidential. In that case, including a single page with wording such as "Process Flow Diagrams – Confidential" in the public version would be sufficient.*

### Review of Confidential Copies

5. Have copies containing confidential information been marked in such a way to make it clear that they contain information the applicant considers confidential? (40 CFR 2.203(b)) Yes No

## Confidential Information Guidance

*Examples of such marking would be words such as "trade secret", "proprietary", or "company confidential" on the front of the document.*

6. Has each item that is claimed to be confidential within the confidential copy(ies) been marked as such? (40 CFR 2.203(b))
- |                          |                          |
|--------------------------|--------------------------|
| Yes                      | No                       |
| <input type="checkbox"/> | <input type="checkbox"/> |

## **Review of Public Versions of Applications**

7. Has only information specifically claimed to be confidential been removed from the public version?
- |                          |                          |
|--------------------------|--------------------------|
| Yes                      | No                       |
| <input type="checkbox"/> | <input type="checkbox"/> |

*Companies may not remove an entire page of information when some items on the page are confidential and others are not.*

### Evaluation of Specific Information contained within the document for whether or not it can be claimed confidential

8. Is the data that is being claimed as confidential data "emission data"? If so, it cannot be kept confidential.
- |                          |                          |
|--------------------------|--------------------------|
| Yes                      | No                       |
| <input type="checkbox"/> | <input type="checkbox"/> |

*Section B of Confidential Information Guidance contains procedures to evaluate what can be considered confidential.*

## **Evaluation of Showing**

9. Does the showing cover each type of information claimed to be confidential?
- For example, if the applicant has claimed throughputs as confidential, does the showing state why the applicant believes the throughputs are confidential?*
- |                          |                          |
|--------------------------|--------------------------|
| Yes                      | No                       |
| <input type="checkbox"/> | <input type="checkbox"/> |

10. Does the showing include for each item or type of item a description of the items or types of items being claimed as confidential along with a description of the measures being taken to protect confidentiality?
- |                          |                          |
|--------------------------|--------------------------|
| Yes                      | No                       |
| <input type="checkbox"/> | <input type="checkbox"/> |

11. Does this description contain a discussion of how disclosure of this information would cause substantial harm to the owner?
- |                          |                          |
|--------------------------|--------------------------|
| Yes                      | No                       |
| <input type="checkbox"/> | <input type="checkbox"/> |

12. Does this description indicate that to the best of the applicant's knowledge this information is not publicly available and is not reasonably obtainable by
- |     |    |
|-----|----|
| Yes | No |
|-----|----|



unauthorized parties?

13. Does the showing contain the certification below?

Yes No

*I hereby certify under penalty of law that to the best of my knowledge and belief, after diligent inquiry, the information claimed above as confidential meets the confidential information criteria of 9 VAC 5-170-60 C and 40 CFR 2.208 and is not "emissions data." Further, to the best of my knowledge, this information has never been determined not to be confidential information by EPA or any other agency, nor has it ever been disclosed to the public by EPA or any other agency.*

### **Reviewed by**

Permit Writer:

Signature \_\_\_\_\_ Date \_\_\_\_\_

Air Permit Manager:

Signature \_\_\_\_\_ Date \_\_\_\_\_

**Attachment B: Letter to Source Evaluating Confidentiality Claim**

Regional Letterhead  
Date

Source Name  
Source Address  
Source Address  
City, State zipcode  
Registration No:  
AFS ID No.:

Location:

Dear {name of applicant}

The {Regional Office Name} has reviewed the request in your application dated {enter date of application} for certain information within the application to be deemed confidential. The regulatory criteria for determining whether data can be considered confidential are located at 9 VAC 5-170-60. Please note that 9 VAC 5-170-60 A. states that "Emission data in the possession of the board shall be available to the public without exception". To assist you in understanding those items that are considered "emissions data" a copy of our confidentiality policy is attached for your review.

**(insert if confidentiality request is accepted)**

Based upon our review, the {regional office name} finds that the information as specified in your application dated {enter application date} meets the criteria established in 9 VAC 5-170-60 C for confidentiality. All data as specified in the confidentiality showing submitted with your application will be maintained as confidential information. The public file copies will retain a copy of this showing to assist the public in understanding this designation. Please refer to the attached policy if you have any questions regarding the handling of confidential data.

**(insert if confidentiality request is denied)**

Based upon our review, the following information does not meet the criteria described in 9 VAC 5-170-60 C.:

- {enter list of deficiencies}

Please contact this office if you wish to further discuss this determination or wish to supply additional information to support your request.

If you have any questions regarding this determination or the confidentiality policy in general, please do not hesitate to contact {permit writer name} at {phone number}. Your concern for Virginia's air quality is appreciated.

Signed,

Regional Director

**XXXX Regional Office**

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## Attachment C. Description of Emissions Data

EPA issued a policy statement through the Federal Register in 1991 (56 FR 7042-7043) that defined specific items that were always considered emissions data. This policy was never finalized but is summarized here to provide additional supporting guidance to inform regional confidentiality determinations. This policy was never promulgated and as such does not have the force of regulation. It is included here as additional supporting guidance.

# **Emissions Data is not subject to protection as confidential information**

The following information in most cases should be considered emission data and therefore not subject to protection as confidential information:

### Facility Identification information

- Plant name and related point identifiers
- Address
- City
- County
- AQCR
- MSA, PMSA, CMSA
- State
- Zip Code
- Ownership and point of contact information

### Location identifiers

- Latitude and longitude, or UTM Grid Coordinates

### Emission Point, device, or operation description, information

- SCC Code
- SIC Code

### Emissions Parameters

- Emission type
  1. nature of emission e.g. CO, particulate, etc.
  2. origin of emissions e.g. process vents, storage tanks, equipment leaks
- Emission rate (such as lb/hr, tons/year)
- Release height
- Description of terrain and surrounding structures
- Stack or vent diameter at point of emissions
- Release velocity (such as feet/second)
- Release temperature
- Frequency of release
- Duration of release
- Concentration
- Density of emissions stream or average molecular weight
- Emission estimation method

#### Confidential Information Guidance

When emission estimation method is included in the permit application, it cannot be kept confidential. In cases in which additional information is required, such as the source of an emission factor, those data also cannot be kept confidential. Currently, codes for "emission estimation method" in the Form 7 correspond to:

1. Material balance
2. Stack test
3. Emission factor (including identifying the source of emission factor), and
4. Other (which must be identified)

However, should calculations be included, those can be kept confidential.

#### Information considered emission data to the extent it is necessary to determine applicability or compliance

The following information will be considered to be emission data and therefore not subject to protection as confidential information if necessary to determine applicability of, or compliance with, any underlying applicable requirement.

- Boiler or process design capacity (e.g, the gross heating value of fuel input to a boiler at its maximum design rate)
- Percent space heat
- Hourly maximum design rate

These items will be considered emission data to the extent necessary to determine applicability of or compliance with underlying emissions limitations/applicable requirements. Therefore, in some cases it may be possible for an applicant to provide less specific information in the public copy of the permit application than in the confidential version of the application.

## **Attachment D. Examples of Permit Conditions Incorporating Confidentiality Protection**

### **1. Necessary Versus Extraneous Information**

#### **Typical permit condition without confidentiality measures**

- **Equipment List** - Equipment to be «Constructed» at this facility consists of:

One 1000-liter Chemap Model 2000 continuously stirred tank reactor (Ref. No. A-1), with maximum annual throughput of 55,000 liters and emissions of up to 2.0 lbs/hr of VOC and up to 3 tons/yr of VOC.  
(9 VAC 5-80-1100)

#### **With confidentiality measures**

- **Equipment List** - Equipment to be «Constructed» at this facility consists of:

One 1000-liter fermentation bioreactor (Ref. No. A-1), with maximum emissions of up to 2.0 lbs/hr of VOC and up to 3 tons/yr of VOC.  
(9 VAC 5-80-1100 )

[Note that a confidential key may contain additional information on the bioreactor, such as manufacturer and model, to assist DEQ air inspectors to accomplish their tasks.]

### **2. Aggregation**

#### **Typical without confidentiality measures**

- **Equipment List** - Equipment to be «Constructed» at this facility consists of:

- One flame spray coating line (Ref. No. A-1), rated at annual maximum throughput of 10,000 square feet or equivalent of coated substrate.
- Two flame spray coating lines (Ref. No. A-2 and A-3), each rated at annual maximum throughput of 25,000 square feet or equivalent of coated substrate.
- One high velocity oxy-fuel line (Ref. No. A-4), rated at annual maximum throughput of 10,000 square feet or equivalent of coated substrate.
- One high velocity oxy-fuel line (Ref. No. A-5), rated at annual maximum throughput of 30,000 square feet or equivalent of coated substrate.  
(9 VAC 5-80-1100 )

#### **With confidentiality measures**

- **Equipment List** - Equipment to be «Constructed» at this facility consists of:

- Inorganic Coating Production Unit A consisting of no more than five flame spray and/or high velocity oxy-fuel coating lines (Ref. No. A-1 through A-5),

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with aggregated annual maximum throughput of 100,000 square feet or equivalent of coated substrate.  
(9 VAC 5-80-1100 )

Note that the permittee will have provided details of throughput and emissions of the five individual lines in the permit application and these details would have been labeled and justified as confidential business information (CBI). A confidential key would be available to DEQ permit writers, inspectors, and air emissions staff that provide such details.

**Confidential Key:**

Inorganic Coating Production Unit A consists of:

- One flame spray coating line (Ref. No. A-1) rated at annual maximum throughput of 10,000 square feet or equivalent of coated substrate.
- Two flame spray coating lines (Ref. No. A-2 and A-3) each rated at annual maximum throughput of 25,000 square feet or equivalent of coated substrate.
- One high velocity oxy-fuel line (Ref. No. A-4) rated at annual maximum throughput of 10,000 square feet or equivalent of coated substrate.
- One high velocity oxy-fuel line (Ref. No. A-5) rated at annual maximum throughput of 30,000 square feet or equivalent of coated substrate.

**Typical without confidentiality measures**

- **Emission Limits** - Emissions from the operation of the facility shall not exceed the limits specified below [xx and yy are used here for convenience. In the actual permit they would be numbers. They do not represent confidential hidden or "sanitized" values.]:

**Flame spray coating line Ref. A-1:**

Cadmium compounds	xx lbs/hr	yy tons/yr
Chromium II and III compounds	xx lbs/hr	yy tons/yr
Chromium VI compounds	xx lbs/hr	yy tons/yr
Manganese compounds	xx lbs/hr	yy tons/yr
Nickel compounds	xx lbs/hr	yy tons/yr

**Flame spray coating lines Ref. A-2 and A-3, each:**

Cadmium compounds	xx lbs/hr	yy tons/yr
Chromium II and III compounds	xx lbs/hr	yy tons/yr
Chromium VI compounds	xx lbs/hr	yy tons/yr
Manganese compounds	xx lbs/hr	yy tons/yr
Nickel compounds	xx lbs/hr	yy tons/yr

**High velocity oxy-fuel coating line Ref. A-4:**

Cadmium compounds	xx lbs/hr	yy tons/yr
Chromium II and III compounds	xx lbs/hr	yy tons/yr
Chromium VI compounds	xx lbs/hr	yy tons/yr
Manganese compounds	xx lbs/hr	yy tons/yr
Nickel compounds	xx lbs/hr	yy tons/yr

**High velocity oxy-fuel coating line Ref. A-5:**

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Cadmium compounds	xx lbs/hr	yy tons/yr
Chromium II and III compounds	xx lbs/hr	yy tons/yr
Chromium VI compounds	xx lbs/hr	yy tons/yr
Manganese compounds	xx lbs/hr	yy tons/yr
Nickel compounds	xx lbs/hr	yy tons/yr

**With confidentiality measures**

- **Emission Limits** - Emissions from the operation of the facility shall not exceed the limits specified below [aa and bb are used here for convenience. In the actual permit they would be numbers. They do not represent confidential hidden or "sanitized" values.]:

**Inorganic Coating Production Unit A (Ref. A-1 through A-5):**

Cadmium compounds	aa lbs/hr	bb tons/yr
Chromium II and III compounds	aa lbs/hr	bb tons/yr
Chromium VI compounds	aa lbs/hr	bb tons/yr
Manganese compounds	aa lbs/hr	bb tons/yr
Nickel compounds	aa lbs/hr	bb tons/yr

Note that the permittee will have provided details of throughput and emissions of the three individual lines in the permit application and these details would have been labelled and justified as confidential business information (CBI). A confidential key would be available to DEQ permit writers, inspectors, and air emissions staff that provide such details.

[Same key as shown previously.]

[The permit writer will also include permit conditions requiring, if necessary, coating unit emissions to be treated by appropriate air pollution control equipment. If such equipment is required, there will be permit conditions regarding proper operation, maintenance, monitoring, and performance reporting.]

**3. Categorization**

**Typical without confidentiality measures**

- **Equipment List** - Equipment to be «Constructed» at this facility consists of:
  - Five Vapotech Model XYZ enclosed vapor degreasers (Ref. No. A-1 through A-5), each with 30 gallon solvent capacity, filter, refrigerated chiller, and solvent distillation tank; each with controlled emissions of up to 1.1 lbs/hr and 4.8 tons per year of hydrofluoroethers and 0.5 lbs/hr and 2.4 tons/yr of isopropanol.  
(9 VAC 5-80-1100 )



**With confidentiality measures**

- **Equipment List** - Equipment to be «Constructed» at this facility consists of:
  - Five Vapotech Model XYZ\* enclosed vapor degreasers (Ref. No. A-1 through A-5), each with 30 gallon solvent capacity, filter, refrigerated chiller, and solvent distillation tank; each with controlled emissions of up to 0.5 lbs/hr and 2.4 tons/yr of non-HAP VOC.  
(9 VAC 5-80-1100 )

Confidential pages from permit application may show individual VOCs although this is not necessary if speciation is not required.

\* Brand and model may not be necessary information. Aggregation may also be applied if warranted by defining, say, a "cleaning process unit" consisting of "no more" than a certain number of degreasers of some aggregate capacity and emissions limit.

**Typical without confidentiality measures**

- **Emission Limits** - Emissions from the operation of the facility shall not exceed the limits specified below:

**Enclosed vapor degreasers (Ref. No. A-1 through A-5), each:**

Isopropanol	0.5 lbs/hr	2.4 tons/yr
-------------	------------	-------------

[Note that this is a non-HAPs.]

**With confidentiality measures**

- **Emission Limits** - Emissions from the operation of the facility shall not exceed the limits specified below:

**Enclosed vapor degreasers (Ref. No. A-1 through A-5), each:\***

Volatile Organic Compounds (non-HAP)	0.5 lbs/hr	2.4 tons/yr
---	------------	-------------

Confidential pages from permit application may show individual VOCs although this is not necessary if speciation is not required. Note that these are non-HAPs. HAP compounds must be individually identified unless a given HAP is regulated in terms of a broader category of compounds--for instance, "cyanide compounds" instead of potassium cyanide or sodium cyanide.  
\* Aggregation may also be applied if warranted by defining, say, a "cleaning process unit" consisting of "no more" than a certain number of degreasers of some aggregate capacity and emissions limit.

[The permit writer may also include permit conditions requiring, if necessary, coating unit emissions to be treated by appropriate air pollution control equipment, although in this example full enclosure, vapor recovery, and re-distillation are incorporated into the vapor degreasing units. There may need to be permit conditions regarding proper operation, maintenance, monitoring, and performance reporting.]

**4. Surrogate Parameters**

**Typical without confidentiality measures**

- **Production** - The production of tires shall not exceed 400,000 per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180)

**With confidentiality measures**

[XXXX, YYYY, and ZZZZ are used here for convenience. In the actual permit they would be numbers. They do not represent confidential hidden or "sanitized" values.]

- **Production** - The production of tires shall not exceed 4,000 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180)  
or
- **Production** - The production of tires shall not exceed XXXX square feet of total tread area on finished tires per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180)  
or
- **Production** - The production of tires shall not exceed 100,000 tire production units per year per year, calculated monthly as the sum of each consecutive 12-month period. One tire production unit equals 4 tires for vehicles of under XXXX lbs gross vehicle weight, 3.5 tires for vehicles of greater than XXXX lbs but no more than YYYY lbs gross vehicle weight, 2.5 tires for vehicles of greater than YYYY lbs but no more than ZZZZ lbs gross vehicle weight, or 1.5 tires of greater than ZZZZ lbs gross vehicle weight.  
(9 VAC 5-80-1180)

The confidential key can translate between production units--total tires, mass, tread area, weighted tire production by size or mass ("tire production unit")--as desired. Such a key may not be necessary if the surrogate parameter adequately describes production for purposes of Agency permitting, compliance inspection, and emissions inventorying.

## **5. Emissions Monitoring or Sampling**

Similar to both aggregation (above) and parametric monitoring (below). However, CEMs (or other valid sampling and monitoring) rather than the typical "throughput x emissions factor = emissions" (or "throughput x concentration x control efficiency = emissions") formula would be the means for DEQ to measure compliance. Thus it may be possible for such a permit to *omit* throughput limitations conditions while still assuring that facility emissions limitations are met.

This method is conducive to facilities where emissions flow through a limited number of discrete stacks or points that can be properly monitored by CEMs. The permit would need to have conditions that require that emissions be monitored and that monitoring equipment cannot be bypassed. The permit would have conditions for adequate operation and maintenance of CEM or other monitoring equipment. As a backstop, in case of CEM failure, DEQ could continue to require the company to maintain pertinent throughput data (for instance, VOC use) on-site. However these data do not need to be made public unless CEM or other monitoring fails and "throughput x concentration x control efficiency = emissions" becomes the means to determine emissions. The permit writer should make clear in the permit conditions that throughput data may be made public at times when CEMs fail or are not adequately operated and maintained to guarantee accurate data. With proper monitoring, throughput need not be made public, monitoring data would provide emissions data.

## **6. Parametric Monitoring**

**Typical without confidentiality measures**

[XXX is used here for convenience. In the actual permit it would be a number. It does not represent confidential hidden or "sanitized" values.]

- **Throughput** - The throughput of aluminum ore shall not exceed XXX tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180)

**With confidentiality measures**

[YYY is used here for convenience. In the actual permit it would be a number. It does not represent confidential hidden or "sanitized" values.]

- **Throughput** - The throughput of aluminum ore as represented by electrical power consumption shall not exceed YYY amp-hours per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180)

Note: There would need to be a publicly available emissions factor relating electrical power consumption to emissions from aluminum smelting at the facility and also a provision for the facility to either inform DEQ of any change in the emission factor due to process or equipment change and/or to conduct periodic monitoring to either re-confirm or correct the emission factor. These could be addressed under monitoring or compliance determination conditions in the permit.

Confidential pages from the permit application and its engineering analysis would provide an equation translating the surrogate parameter (power consumption) to product throughput (tons of aluminum) and then, via an emissions factor, to emissions. The publicly available data should provide a power consumption-to-emissions emissions factor. This can also be implied by dividing the facility's emission limitation by its electric power throughput limitation.

---

**Typical without confidentiality measures**

[XXX is used here for convenience. In the actual permit it would be a number. It does not represent confidential hidden or "sanitized" values.]

- **Throughput** - The production of Nylon shall not exceed XXX tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180)

**With confidentiality measures**

[yyy, x.x, and zz.z are used here for convenience. In the actual permit they would be numbers. They do not represent confidential hidden or "sanitized" values.]

- The total polymer supply pump rate (Ref. N-1, N-2, N-14, N-15) shall not exceed yyy revolutions per minute (rpm).
- Emissions from the Nylon fiber production facility shall not exceed the limits specified below:



Early Construction Guidance

of the regulations. This is our first attempt at doing this and what follows should be considered as "interim guidance" until such time as Deb can help us write this in a policy statement format.

As you know, we do not require a permit for someone to build a shell building in an industrial park in the hopes of attracting someone to use it. Where we know ahead of time what is going into the shell building, it becomes a little bit more of a gray area but, realistically, a "shell building" is a "shell building" whether it's a speculation or its end use is known. On Page 312 of our regulations, the term "begin actual construction" is defined. It says "initiation of permanent physical onsite construction of an emissions unit." The remainder of the definition covers all kinds of things, such as, building supports and foundations, but it is my feeling that everything that follows the first sentence should refer only to the "emissions unit." In most cases, the emissions unit is some process that will be installed inside the shell building. A precedent for this was set in the case of O-Sullivan Company, outside of Winchester, where it was agreed that the shell building did not constitute an emissions unit and, therefore, construction of such a building did not come under our permit requirements. Our Board Chairman has also said publicly that we do not "permit shell buildings." The key word in the definition of begin actual construction is "emissions unit."

By copy of this memorandum, I am asking Deb Feild to help me put this in the form of an official policy statement. Until such time as this can be completed, construction of a shell building without a permit from us should not be considered a violation of our regulations.

John M. Daniel, Jr.

Early Construction Guidance  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Air Enforcement and Compliance Section

INTRA-AGENCY MEMORANDUM

TO: Greg Clayton  
FROM: Boots King  
SUBJECT: PSD Definitions  
DATE: July 21, 1995

§120-08-02 Permits - major stationary sources and major modifications locating in prevention of significant deterioration areas.

§120-08-02 B Definitions

"Begin actual construction" means, in general, initiation of **physical** on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operation, this term refers to those on-site activities-other than preparatory activities which mark the initiation of the change.

"Construction" means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) which would result in a change in actual emissions.

"Commence" as applied to construction of a major stationary source or major modification, means that the owner has all necessary preconstruction approvals or permits and either has:

- (1) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- (2) Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner, to undertake a program of actual construction of the source, to be completed within a reasonable time.

**Appendix OO - Emergency Generator Guidance**  
(Guidance Memo 97-1001)

OPATS-011-97

**MEMORANDUM**

**TO:** Regional Directors

**FROM:** John M. Daniel, Jr., P.E., DEE  
Director, Air Division

**SUBJECT:** Memo Number 97-1001. Emergency Generators -- Permit Exemption Guidance

**Copies:** Robert L. Beasley, Director, Office of Permit Evaluation and  
Technical Support, Air Division  
Regional Permit Managers  
Air Permit Managers

**DATE:** January 22, 1997

**Background and Purpose**

The question has arisen whether we need to continue to register and permit the operation of emergency generators. These are used at some facilities to generate electric power when there is an interruption in power service from their normal supplier. The permit is typically a synthetic minor permit under 9 VAC 5-80-10 (formerly ' 120-08-01) [now 9 VAC 5-80-1100] of the Regulations, a 10B (K:\AGENCY\DTE\PERMAST\EMER-GEN.10B) [not currently among the electronic boilerplates], and the only restriction imposed is use only as an emergency generator.

1. EPA guidance. EPA has addressed itself to the question of permitting emergency generators because of concerns that these units will become subject to Title V or ' 112 of the Clean Air Act by virtue of their potential to emit. In EPA's guidance on the matter (OAQPS memo by John Seitz, dated September 6, 1995), it is pointed out that emergency generators are used only for back-up power to a facility when the utility is down (as above). These generators typically are gasoline or diesel engines, but sometimes they are gas turbines. They emit mostly CO and NO<sub>x</sub>, with small amounts of other pollutants including hazardous air pollutants. EPA goes on to suggest that the potential to emit be calculated for such generators based on two estimates: (1) the number of hours a year that the utility is experiencing a power outage; and (2) the number of hours a year that the emergency generator needs to be run for maintenance purposes. EPA stated that a default assumption of 500 hours total would be acceptable for determining potential to emit. See the attached copy of the EPA memo (enclosure 3).

2. Appendix R (new designation 9 VAC 5-80-11) [now 9 VAC 5-80-1320] provisions. Emergency generators, as described above, appear most likely to fit " IV and



V of 9 VAC 5-80-11, formerly Appendix R [C and D, but now exempted under 9 VAC 5-80-1320 B.2.a and b], of the Regulations. These sections give new source exemption by emission rates (' IV) [now C] and modified source exemption by emission rate increases (' V) [now D], as follows:

<u>pollutant</u>	<u>new source</u>	<u>modified source</u>
CO	100 TPY	100 TPY
NO <sub>2</sub>	40	10
SO <sub>2</sub>	40	10
PM <sub>10</sub>	15	10
VOC	25	10
Lead	0.6	0.6

True emergency generators can fit one or more of these exemptions in Appendix R [now those new sources at 500 hours or less are exempt under 9 VAC 5-80-1320 B., modified and reconstructed existing sources are exempted under 9 VAC 5-80-1320 D].

3. Purpose of this Guidance. The purpose of this guidance memorandum is to convey the EPA guidance in the September 6, 1995 Seitz Memo (copy attached) relative to emergency generator permitting, and to provide examples that may be useful in making permit applicability decisions. This guidance is to be used by DEQ regional offices pending any regulatory revisions which might affect it, including but not limited to the revision to Appendix R [now 9 VAC 5-80-1320] of the Regulations that is now in process.

This guidance does not apply to any emission units or facilities other than emergency generators as described in paragraph 1 above.

### **Exempt Emergency Generator Calculations**

The following calculations show the sizes of emergency generators that can be exempted under 9 VAC 5-80-11 (formerly Appendix R) [now 9 VAC 5-80-1320] based on 500 hours per year and fuel type. An efficiency factor of 90% for the generation of electric power from the engine horsepower output has been used. Larger units may be more efficient while smaller may be less efficient. Smaller units are less likely to reach the permit thresholds.

These are example calculations. When predicting emissions from the emergency generator under consideration, manufacturer's data on efficiency factors and test results on emissions should be considered when available.

**New and modified sources: gasoline-fueled emergency generators** - the pollutant for which a gasoline fueled generator would trigger permitting is CO. The emission factor for these engines is 0.439 lbs CO/hp-hr (AP-42, Table 3.3-2, SCC 2-02-003-01 & 2-03-003-01, dated 1/95). For new and modified sources, the exemption level for CO emissions is 100 tons/yr. At 500 hrs/yr a gasoline fueled emergency generator would have to be smaller than the following to be exempt:

$$\begin{aligned} &100 \text{ tons/yr} \times 2000 \text{ lbs/ton} / 0.439 \text{ lbs/hp-hr} / 500 \text{ hrs/year} \\ &= 911 \text{ hp engine} \\ &= 911 \text{ hp} \times 0.746 \text{ kW/hp} \times 0.90 = 611 \text{ kW generator} \end{aligned}$$

**New sources: diesel-fueled emergency generators** - the pollutant for which a diesel fueled generator would trigger permitting is NO<sub>x</sub>. The emission factor for these engines is 0.024 lbs NO<sub>x</sub>/hp-hr (AP-42, Table 3.4-2, SCC 2-02-004-01, dated 2/96). For new sources, the exemption level for NO<sub>x</sub> emissions is 40 tons/yr. At 500 hrs/yr a diesel fueled emergency generator would have to be smaller than the following to be exempt:

$$\begin{aligned} &40 \text{ tons/yr} \times 2000 \text{ lbs/ton} / 0.024 \text{ lbs/hp-hr} / 500 \text{ hrs/year} \\ &= 6,667 \text{ hp engine} \\ &= 6,667 \text{ hp} \times 0.746 \text{ kW/hp} \times 0.90 = 4,476 \text{ kW generator} \end{aligned}$$

**Modified sources: diesel-fueled emergency generators** - For modified sources, the exemption level for NO<sub>x</sub> emissions is 10 tons/yr. At 500 hrs/yr a diesel fueled emergency generator would have to be smaller than the following to be exempt:

$$\begin{aligned} &10 \text{ tons/yr} \times 2000 \text{ lbs/ton} / 0.024 \text{ lbs/hp-hr} / 500 \text{ hrs/year} \\ &= 1667 \text{ hp engine} \\ &= 1667 \text{ hp} \times 0.746 \text{ kW/hp} \times 0.90 = 1119 \text{ kW generator} \end{aligned}$$

**Turbine generators burning natural gas or distillate oil** - if either of these types of generators has a heat input greater than or equal to 10.7 gigajoules or 10 million BTUs per hour, based on the lower heating value of the fuel, then it requires a permit because it is subject to NSPS Subpart GG. In this case the emission rate does not matter.

### **Policy statement**

DEQ regional offices should determine permit applicability for emergency generators according to a three-tiered guideline. Following the calculations suggested above, there would be one of three courses of action:

**Result #1: Exemption letter** - If the predicted uncontrolled emissions at 500 hours per year are exempt under Appendix R [now 9 VAC 5-80-1320 B.2.a and b], we should issue a permit exemption letter (enclosure 1) which stipulates the purpose of the generators -- that they are to be only used for emergency power generation, periodic maintenance checks, and for operator training - in keeping with the EPA guidance that they are subject to operational limitations.

Review engineers are cautioned in evaluating application of this policy when the emergency generator(s) will be located at an existing source:

- with permit-limited "facility-wide emissions caps," or
- with potential to emit close to Title V thresholds, or
- located at a PSD major source within 10 kilometers of a Class I area.

In addition, permit engineers should take the following precautions:

(1) review the emergency generator and accompanying source for possible PSD applicability; and

(2) ensure that record-keeping is sufficient to show that no attempt is being made to exempt multiple generators, which together would require permitting, in a piecemeal fashion (see 9 VAC 5-80-10.A.4., formerly ' 120-08-01.A.4.); and

(3) As is typical with an exemption letter, direct the attention of the source to the fact that change in use of the equipment may subject it to permitting.

**Result #2: 10B Permit** - If some emissions are not exempt, we should issue a 10B permit and registration which contains limits on hours of operation intended to keep emissions within Appendix R [now 9 VAC 5-80-1320] exemption levels (enclosure 2). This would mean that there is no need for a regular 10A permit under 9 VAC 5-80-10 (formerly ' 120-08-01) [now 9 VAC 5-80-1320]. Again, in every case, the 10B permit and registration would warn that upward trends in emissions might result in a 10A permit requirement.

**Result #3: Permit required** - If the generator cannot qualify for Result #1 or Result #2, then it requires a regular permit (normally 10A) under 9 VAC 5-80-10 (formerly ' 120-08-01) [now 9 VAC 5-80-1320]. As indicated under the discussion of turbine generators above, permits will be required, regardless of emission rates, for turbine generators burning natural gas or distillate oil and having a heat input of 10.7 gigajoules (10 million BTUs per hour) based on the lower heating value of the fuel. This is because such generators are subject to NSPS subpart GG.

enclosures:

1. Exemption letter
2. 10B permit letter
3. EPA memo by John Seitz, subject: "Calculating Potential to Emit for Emergency Generators," dated September 6, 1995

**DRAFT Emergency Generator Exemption Letter**

(LETTERHEAD-DATE)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear \_\_\_\_\_:

The staff of the Virginia Department of Environmental Quality (DEQ), Regional Office has reviewed the information dated \_\_\_\_\_ regarding the proposed installation and operation of a (size) kW generator(s) driven by a (make/manufacture) (model name or number) (fuel type) engine using (fuel). *[Example: a 600 kW generator driven by a Cummins #xyz diesel engine using No. 2 fuel oil.]* The emergency generator(s) (is/are) to be located at (name of the facility) in (location), Virginia. The generator(s) (is/are) to be used **only** for providing power at the location during interruption of service from the normal power supplier, periodic maintenance testing, and operational training. Total emergency generator use may not exceed 500 hours per year; such operation ensures that emissions levels will remain below permit exemption rates. Based on the information submitted, there is no requirement to apply for a permit for this equipment at this time. Hourly use records should be maintained on site to demonstrate compliance with the basis of this exemption from permitting. Any changes in the proposed operation of the emergency generator(s) may require a permit.

In the event of any change in control or ownership of the emergency generator(s), notify the succeeding owner/operator of the existence of this exemption by letter and send a copy of that letter to the Director, \_\_\_\_\_ Regional Air Office. (Section 9 VAC 5-20-110, formerly 120-02-11[**now 9 VAC 5-80-1320**], of the Regulations for the Control and Abatement of Air Pollution).

If you have any questions concerning this approval, please contact this regional office at (\_\_\_\_)\_\_\_\_-\_\_\_\_.

Sincerely,

Air Permitting Manager

(reg dir)/(permit engr)/(typist)/(file name)

Enclosure 2

**Boilerplate 10B permit for emergency generators**

(Modified K:\Agency\PERMAST\Emer-Gen.10B) [no longer available on K:]

**(LETTERHEAD - REGIONAL ADDRESS - DATE)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Location:  
Registration No:  
County-Plant No: \_\_\_\_-

Dear \_\_\_\_\_:

The staff of the Virginia Department of Environmental Quality (DEQ) has reviewed the permit application dated \_\_\_\_\_ regarding the proposed installation and operation of a (size) kW generator(s) driven by a (make/manufacture) (model name or number) (fuel type) engine using (fuel). [Example: a 600 kW generator driven by a Cummins #xyz diesel engine using No. 2 fuel oil.] The emergency generator(s) (is/are) to be located at (name of the facility) in (location), Virginia.

This permit for installation and operation of the proposed emergency generator(s) is approved based upon the information submitted. Also, the generator(s) (is/are) to be used only for providing power at the location during interruption of service from the normal power supplier, periodic maintenance testing, and operational training. The generator(s) shall not operate more than \_\_\_\_\_ hours per \_\_\_\_\_. Operational records shall be maintained on site which demonstrate that this hours-of-operation limit continues to be observed. Failure to comply with these terms may result in a Notice of Violation and civil penalty. (Section 9 VAC 5-20-110, formerly 120-02-11 [now 9 VAC 5-80-1320], of the Regulations for the Control and Abatement of Air Pollution).

This approval should not be construed to mean your entire operation is automatically in compliance with all aspects of the Regulations. Regional personnel will be constantly evaluating all sources for compliance with the Regulations.

In the event of any change in control or ownership of the permitted source, the permittee shall notify the succeeding owner of the existence of this permit by letter and send a copy of that letter to the Director, \_\_\_\_\_ Air Office. (Section 9 VAC 5-20-110, formerly 120-02-11 [now 9 VAC 5-80-1320])

Section 9 VAC 5-20-90 (formerly 120-02-09) [now 9 VAC 5-170-200] of the Regulations provides that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed

Emergency Generator Guidance Memo

or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

Thomas L. Hopkins [now Robert G. Burnley], Director  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, Virginia 23240-0009

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this approval, please contact the regional office at ( )\_-\_\_.

Sincerely,

Regional Permit Manager

(reg dir)/(permit engr)/(typist)/(file name)

cc: Director, OPATS [now OAPP] (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Manager, Enforcement and Compliance (electronic file submission)

September 6, 1995

MEMORANDUM

SUBJECT: Calculating Potential to Emit (PTE) for Emergency Generators

FROM: John S. Seitz, Director  
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Air, Pesticides and Toxics  
Management Division, Regions I and IV  
Director, Air and Waste Management Division,  
Region II  
Director, Air, Radiation and Toxics Division,  
Region III  
Director, Air and Radiation Division,  
Region V  
Director, Air, Pesticides and Toxics Division,  
Region VI  
Director, Air and Toxics Division,  
Regions VII, VIII, IX, and X

The purpose of this guidance is to address the determination of PTE for emergency electrical generators.

Background

In a memorandum dated January 25, 1995, the Environmental Protection Agency (EPA) addressed a number of issues related to the determination of a source's PTE under section 112 and title V of the Clean Air Act (Act). One of the issues discussed in the memorandum was the term "maximum capacity of a stationary source to emit under its physical and operational design," which is part of the definition of "potential to emit." The memorandum clarified that inherent physical limitations, and operational design features which restrict the potential emissions of individual emission units, can be taken into account. This clarification was intended to address facilities for which the theoretical use of equipment is much higher than could ever actually occur in practice. For such facilities, if their physical limitations or operational design features are not taken into account, the potential emissions could be overestimated and consequently

the source owner could be subject to the Act requirements affecting major sources. Although such source owners could in most cases readily accept enforceable limitations restricting the operation to its designed level, EPA believes this administrative requirement for such sources to be unnecessary and burdensome.

On the topic of "physical and operational design," the January 25 memorandum provided a general discussion. In addition, EPA committed to providing technical assistance on the type of inherent physical and operational design features that may be considered acceptable in determining the potential to emit for certain individual small source categories. The EPA is currently conducting category-specific analyses in support of this effort, and hopes as a result of these analyses to generate more general guidance on this issue as well.

The purpose of this memorandum is to address the issue of PTE as it relates specifically to emergency generators. There is a significant level of interest in this source category because there are many thousands of locations for which an emergency generator is the only emitting source. Moreover, based on a review of this source category, there exists a readily identifiable constraint on the operational design of emergency generators. Hence, the EPA believes it would be useful to provide today's guidance before the entire effort is complete.

The policies set forth in this memorandum are intended solely as guidance, do not represent final Agency action, and cannot be relied upon to create any rights enforceable by any party.

### Guidance for Emergency Generators

For purposes of today's guidance, an "emergency generator" means a generator whose sole function is to provide back-up power when electric power from the local utility is interrupted. The emission source for such generators is typically a gasoline or diesel-fired engine, but can in some cases include a small gas turbine. Emissions consist primarily of carbon monoxide and nitrogen oxides. Other criteria pollutants, and hazardous air pollutants, are also emitted, but at much lower levels. Emissions occur only during emergency situations (i.e., where electric power from the local utility is interrupted), and for a very short time to perform maintenance checks and operator training.

The EPA believes that generators devoted to emergency uses are clearly constrained in their operation, in the sense that, by definition and design, they are used only during periods where electric power from public utilities is unavailable. Two factors indicate that this constraint is in fact "inherent." First, while the combined period for such power outages during any one year will vary somewhat, an upper bound can be estimated which would never be expected to be exceeded absent extraordinary circumstances. Second, the duration of these outages are entirely beyond the control of the source, and when they do occur (except in the case of a major catastrophe) rarely last more than a day.



For emergency generators, EPA has determined that a reasonable and realistic "worst-case" estimate of the number of hours that power would be expected to be unavailable from the local utility may be considered in identifying the "maximum capacity" of such generators for the purpose of estimating their PTE. Consequently, EPA does not recommend the use of 8760 hours per year (i.e., full-year operation) for calculating the PTE for emergency generators. Instead, EPA recommends that the potential to emit be determined based upon an estimate of the maximum amount of hours the generator could operate, taking into account (1) the number of hours power would be expected to be unavailable and (2) the number of hours for maintenance activities.

The EPA believes that 500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-case conditions. Alternative estimates can be made on a case-by-case basis where justified by the source owner or permitting authority (for example, if historical data on local power outages indicate that a larger or smaller number would be appropriate). Using the 500 hour default assumption, EPA has performed a number of calculations for some typically-sized emergency generators. These calculations indicate that these generators, in and of themselves, rarely emit at major source levels. (Of course, there may be unusual circumstances where these calculations would not be representative, for example where many generators are present that could operate simultaneously).

### Cautions

Today's guidance is only meant to address emergency generators as described. Specifically, the guidance does not address: (1) peaking units at electric utilities; (2) generators at industrial facilities that typically operate at low rates, but are not confined to emergency purposes; and (3) any standby generator that is used during time periods when power is available from the utility. This guidance is also not intended to discourage permitting authorities from establishing operational limitations in construction permits when such limitations are deemed appropriate or necessary. Additionally, this memorandum is not intended to be used as the basis to rescind any such restrictions already in place.

### Distribution/Further Information

The Regional Offices should send this memorandum to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate Regional Office. Regional Office staff may contact Tim Smith of the Integrated Implementation Group at 919-541-4718. The document is also available on the technology transfer network (TTN) bulletin board, under "Clean Air Act" - "Title V" - "Policy Guidance Memos". (Readers unfamiliar with this bulletin board may obtain access by calling the TTN help line at 919-541-5384).

Emergency Generator Guidance Memo

cc: Air Branch Chief, Region I-X  
Regional Air Counsels, Region I-X  
Adan Schwartz (2344)  
Tim Smith (MD-12)

## Emergency Generator Guidance Memo

### WEBSTER Definitions:

"fabrication" means (1) a fabricating or being fabricated; construction; manufacture.

### OPINION:

The first requirement contained in the definition of "Commence" is for an owner of a major stationary source to obtain all necessary preconstruction approvals or permits. "Section 169 (2) (B) of the Clean Air Act defines "All necessary preconstruction approvals or permits" as meaning those permits or approvals required by the permitting authority as a precondition to undertaking any activity under clauses (1) or (2) of the definition of "Commence". Once these preconstruction approvals or permits have been obtained by the owner, then the owner must either (1) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or (2) enter in binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner, to under take a program of actual construction of the source, to be completed within a reasonable time.

§120-08-02 S adds credence to this opinion. Paragraph S 1 states: "Any owner who constructs or operates a source or modification not in accordance (i) with the application submitted pursuant to this section or (ii) with the terms and conditions of any permit to construct or operate, or any owner of a source or modification subject to this section who commences construction or operation after the effective date of these **regulations without applying for and** receiving a permit hereunder, shall be subject to appropriate enforcement action including, but not limited to, any specified in subsection Z of this section."

Paragraph S 2 states: "Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time."

EPA's December 18, 1978, memorandum "Interpretation of 'Constructed' as it Applies to Activities Undertaken Prior to Issuance of a PSD Permit" add additional conformation on this subject. The issue addressed in this memorandum is where on the continuum from planning to operation of a major emitting facility does a company or other entity violate the PSD regulations if it has not yet received a PSD permit. Commencement of construction is specifically defined in Section 169(2)(A) of the Clean Air Act, 40 CFR 52.21 (b) (8) and §120-08-02 B. However, these definitions are for the purpose of deciding the threshold question of the applicability of the PSD regulations. Therefore, we are not bound by it in deciding what activities may be conducted prior to receiving a necessary PSD permit.

## Emergency Generator Guidance Memo

The memorandum establishes EPA policy and allows certain limited activities **in all cases**. These allowable activities are planning, ordering of equipment and materials, site-clearing, grading, and on-site storage of equipment and materials.. However, the memorandum cautions that any activities undertaken prior to issuance of a PSD permit would be solely at the owner's or operator's risk. That is, even if considerable expense were incurred in site-clearing and purchasing equipment, for example there would be no guarantee that a PSD permit would be forthcoming. Further, the memorandum states that "All on-site activities of a permanent nature aimed at completing a PSD source for which a permit has yet to be obtained are **prohibited under all circumstances**". These prohibited activities include installation of building supports and foundations, paving, laying of underground pipe work, construction of permanent storage structures, and activities of a similar nature."

## **Appendix PP - Case-by-Case MACT**

# **Implementation Guidance for Section 112(g) of the 1990 Clean Air Act Amendments (Case-by-Case MACT for New HAP Sources) Policy No. 99-1007**

**September 2000**

### **DISCLAIMER**

This document is to be used as guidance only. When making a case-by-case MACT determination and preparing a permit the permit writer should use Virginia Regulation 9 VAC 5-80-1400 Permits for New and Reconstructed Major Sources of Hazardous Air Pollutants.

### **Introduction**

On December 27, 1996, the Environmental Protection Agency (EPA) promulgated "Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources", 40 CFR Part 63 Subpart B. This rule implements §112(g) of the 1990 Clean Air Act Amendments (CAAA).

The purpose of §112(g) is to require a new major Hazardous Air Pollutant (HAP) source to utilize the Maximum Achievable Control Technology (MACT) that is currently in use by a similar source if a MACT standard has not been promulgated for that source category. In this situation, MACT is determined on a case-by-case basis. This program is a "gap filling" program in that it assures MACT will be implemented on new major HAP sources even if the MACT standard has not been promulgated. §112(g) applies only to major HAP sources that are being either constructed or reconstructed and ONLY if the process or production unit being constructed or reconstructed is major (pte 10/25 tpy) for HAPs. Facility wide HAP emissions are NOT taken into consideration when determining major source status. However, a source DOES NOT have to be on the source category list as established by §112(c) of the 1990 CAAA to be applicable to §112(g). ANY major constructed or reconstructed HAP source must meet the §112(g) requirements.

The Virginia regulation for implementing §112(g) is 9 VAC 5-80-1400, "Permits for New and Reconstructed Major Sources of Hazardous Air Pollutants." This rule was effective on February 1, 2000. Any major HAP source meeting the applicability requirements under §112(g) would be required to submit all the information specified in

9 VAC 5-80-1400. The appropriate conditions of a permit issued under this program would be incorporated into the source's Title V permit.

This guidance is provided to assist the permit writer in determining the applicability of §112(g), to assist in making an appropriate case-by-case MACT determination, and in determining how to meet the implementation requirements of §112(g) and 9 VAC 5-80-1400.

## **Determining 112(g) Applicability**

*How do you know if §112(g) applies?*

To determine if a source needs to make a §112(g) determination, the following questions should be asked:

- 1) Does the source meet the definition of construction or reconstruction?
- 2) Does the source meet the definition of a major HAP source when only considering the emissions of what is being constructed or reconstructed? (Potential to Emit of 10 tpy for a single HAP or 25 tpy for multiple HAPs including fugitive emissions.)
- 3) Does the source meet the definition of process or production unit?

In most cases, if the answers to these questions are yes, then §112(g) applies.

§112(g) does NOT apply to the following:

- 1) Electric Utility Steam Generating Units (unless they become a listed source category under §112). This does NOT include major stationary source combustion units that are part of a combined cycle system, such as waste heat recovery units that include duct burners that are part of a combined cycle system\*.
- 2) Research and Development Activities
- 3) Sources with a Promulgated MACT Standard
- 4) Sources in a Source Category that has been Delisted from the §112(c) Source Category List

The most difficult decision in this process is usually determining if the source meets the definition of process or production unit. In order to meet this definition, a source must produce or store an intermediate or final product. A facility may have more than one process or production unit. The next section contains examples, which were provided by EPA, of when §112(g) would or would not apply.

## **EPA Examples of §112(g) Applicability\***

### **Example 1**

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\* EPA Interpretative Rule - May 25, 2000 Federal Register Notice

\* These examples can be found in the December 27, 1996 Federal Register notice

At a plant which manufactures fiberglass reinforced plastic boats, the owners wish to add more spray guns to an existing fabrication line to supplement the existing spray guns in laminating a particular model of boat hulls. The new spray guns will have a PTE greater than 10 tpy of a HAP.

Does §112(g) apply?

No. The newly added spray guns in and of themselves do not produce the intermediate product (in this case, considered as the fiberglass boat hull) and therefore do not meet the requirements for §112(g) review.

### **Example 2**

Using Example 1, assume that the owner adds more spray guns to laminate a second model of boat hulls. The room is large enough to accommodate two lamination processes at the same time. The new spray guns have a PTE greater than 10 tpy.

Does §112(g) apply?

No. The collection of equipment needed to produce the boat hull includes the lamination process as well as the gel coat process. Since the addition of the second lamination process does not produce an intermediate product, if no additional laminating or other essential equipment were added, it would not meet the requirements for §112(g) review.

### **Example 3**

Using Example 2, a gel coat spray booth and supporting equipment needed to manufacture the boat hulls are added in addition to the spray guns.

Does §112(g) apply?

Yes. The process or production unit is the set of equipment that consists of the gel coat spray booths, the spray gun, and the supporting equipment. This new set of equipment can reasonably operate alone and produce an intermediate product. Therefore, all sources of HAP in this set of equipment, which includes the gel coat spray booth and the spray guns in the laminating room, are subject to review under §112(g).

### **Example 4\***

An aluminum reduction plant has several potlines which manufacture aluminum. Each potline consists of between 100 and 200 electrolytic reduction cells or "pots" that are connected together in series electrically to complete a circuit. Each pot produces

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\* At the time Examples 4 & 5 were developed, the Secondary Aluminum Smelting MACT had not been promulgated. That MACT was promulgated on March 23, 2000 and therefore, technically, §112(g) would NOT apply.

molten aluminum. The company wishes to add more pots on each line. The additional pots will result in a major increase in emissions.

Does §112(g) apply?

No. Each separate pot is not a separate process or production unit. Pots within the potline are both functionally and physically interconnected and unable to function alone. Therefore, the individual pots would not be subject to review under §112(g).

### **Example 5\***

Using Example 4, assume the aluminum production facility adds a new potline which is a major source of HAP.

Does §112(g) apply?

Yes. The entire potline is a collection of structures and equipment that produces an intermediate product (i.e., molten aluminum). The potline would be subject to §112(g) review.

### **Example 6**

An automobile assembly paint shop, three coating steps, primer, surfacer, and top coat are used to paint the automobile body. Another parallel top coat step is added to the existing topcoat step. Both top coat steps then feed back into a bake oven. The new top coat step will be a major source of HAP.

Does §112(g) apply?

No. The intermediate product is the painted automobile body. The top coating step cannot take place without the preceding primer and surfacer steps and the supporting infrastructure. Also, the intermediate product cannot be completed without the bake oven step. The top coat by itself would not be discrete process unit and therefore would not be subject to §112(g) review.

These examples were presented by EPA but not everyone will have the same interpretation. Each situation encountered will have to be handled on a case-by-case basis.

## **Case-by-Case MACT Determination**

*Who makes the case-by-case MACT determination?*

It is the responsibility of the source to recommend to the DEQ an appropriate case-by-case MACT determination and it is the responsibility of the DEQ to accept or deny that recommendation. Virginia DEQ is the delegated authority for §112(g). The Virginia permit program to implement §112(g) is 9 VAC 5-80-1400: Permits for New and Reconstructed Major Sources of Hazardous Air Pollutants. The source must



provide all the information as required by the regulation in their permit application. The conditions will be placed in a Virginia New Source Review Permit.

*How do you determine what the MACT should be?*

§112(g) defines MACT as "the emission limitation which is not less stringent than the emission limitation achieved in practice by the *best controlled similar source*, and which reflects the maximum degree of reduction in emissions that the Administrator (DEQ), taking into consideration the cost of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed or reconstructed major source."

Best controlled similar source is defined as "a stationary source that (i) has comparable emissions and is structurally similar in design and capacity to other stationary sources such that the stationary sources could be controlled using the same control technology, and (ii) uses a control technology that achieves the lowest emission rate among all other similar sources in the United States."

It is important to remember that a MACT standard could be an emission limitation, a work practice, or another type of control requirement. The key to making a case-by-case MACT determination is finding the "best controlled similar source". Sources of information that should be used in making the determination include the following:

- 1) Proposed MACT
- 2) Presumptive MACT
- 3) Background Information Documents Developed by EPA
- 4) Information Collected by EPA through §113 of the CAAA
- 5) Information Available through EPA's Database Systems
- 6) Information Available from other States
- 7) Information from Similar Sources
- 8) Any other additional information that can be practically obtained

When looking for the available information, the best places to start are the following web-sites:

- 1) <http://www.epa.gov/ttn/uatw>  
This is the EPA Unified Air Toxics Web-site. The majority of information that is available on all aspects of Title III can be found here. Within this web-site, the following two sites should be the most helpful for gathering information on case-by-case MACT determinations:
  - a) <http://www.epa.gov/ttn/uatw/mactupd.html> -  
This site is a table of all the MACTs yet to be proposed or promulgated. Any information EPA has developed for a specific MACT, such as a presumptive MACT or a Background Information Document, can be found here. Most importantly, the EPA contact for each MACT is listed.
  - b) <http://www.epa.gov/ttn/uatw/112g/112gmact/112gmact.html> -  
This site has a listing of all the 112(g) determinations that have been made to date and that have been submitted to

## Case-by-Case MACT

EPA. The applicable MACT and the State contact people are listed.

2) <http://es.epa.gov/oeca/eptdd/adi.html>

This is the Applicability Determination Index. Applicability determinations of MACTs and other CAA provisions made by EPA can be found on this site.

Even if EPA has developed a presumptive MACT, or possibly even a proposed MACT, this may not represent the "best controlled similar source." It is recommended that the EPA MACT developer be contacted to find out the history of the MACT determination. Also, the Office of Air Permit Programs in the Central Office should be contacted for assistance. Using all reasonably available resources, it should be possible to come up with a MACT determination.

### *When can a source ask to be exempted from making a §112(g) determination?*

Under certain circumstances, a source may be able to forego making a §112(g) determination. This is the case under the following conditions:

- 1) When the HAPs emitted by the process or production unit will be controlled by existing control equipment;
- 2) When a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination was made for the existing control equipment within the 5 years prior to the proposed construction or reconstruction;
- 3) When it is determined the control of HAP emissions from existing equipment is equivalent to the level of control provided by a current BACT or LAER determination;  
or
- 4) When the percent control efficiency for HAP emissions from all sources controlled by the existing control equipment is equivalent to the percent control efficiency before adding the new process or production unit.

The final decision to exempt a source is made by DEQ.

### *What happens after a MACT determination has been made?*

After the MACT determination has been made, the standard procedure for issuing a major source NSR permit applies. In addition to the MACT determination, the permit should include the following:

- 1) All necessary applicable requirements from 40 CFR 63 Subpart A (General Provisions of Part 63)
- 2) All monitoring requirements
- 3) All reporting requirements
- 4) All recordkeeping requirements
- 5) All performance testing requirements
- 6) Any other condition necessary to fulfill the requirements of 9 VAC 5-80-1400

### *What public participation is required?*

As with any major NSR permit, public participation is required. The public participation process is found in 9 VAC 5-80-1460. It's the responsibility of the source to notify the public, in a newspaper of general circulation, of the proposed source within 15 days of receiving the initial determination notification (the initial determination process is found in 9 VAC 5-80-1450). The source must hold the informational briefing at least 30 days, but no later than 60 days, after the newspaper announcement. A 30 day comment period should then be provided and a public hearing held within that time, if necessary. The case-by-case MACT determination is effective on the date of permit issuance.

*Who should be copied on the Final NSR permit?*

A copy of the final permit should be sent to EPA Region III and to all affected States (an affected state is any state located within 50 miles of the source). EPA is posting all §112(g) determinations on their web-site to be utilized by other states. Therefore, an electronic summary of the permit should be prepared and submitted to EPA Region III.

*What about the Title V permit?*

The conditions of the NSR permit should be incorporated into the source's Title V operating permit. If more than 3 years are remaining on the Title V permit, the permit should be opened and the conditions incorporated. If less than 3 years remain on the Title V permit, the conditions should be incorporated upon renewal. The NSR permit is federally enforceable.

*What happens after the MACT is promulgated by EPA?*

As stated earlier, the §112(g) program is a "gap filling" program. A MACT will eventually be promulgated either through §112(d) or §112 (h). The promulgated MACT should be incorporated into the source's Title V operating permit. If the promulgated MACT is more stringent than the case-by-case determination, then the source must meet the more stringent requirements and, at DEQ's discretion, the source can be granted up to 8 years to meet the more stringent MACT. If the promulgated MACT is less stringent than the case-by-case MACT determination, then it is DEQ's decision whether to keep the more stringent requirements or to allow the source to meet the less stringent requirements of the promulgated MACT.

## **Conclusion**

This document is provided as guidance only. The following should be used as the case-by-case MACT determination is being made:

- 1) 9 VAC 5-8-1400 - Permits for New and Reconstructed Major Sources of Hazardous Air Pollutants
- 2) 40 CFR Part 63 Subpart B - Requirements for Control Technology (§63.40 - 63.44)

3) 40 CFR Part 63 Subpart A - General Provisions (§63.1 - 63.15)

Questions may be directed to the Office of Air Permit Programs - Air Toxics.

## **Glossary**

**Affected Source** - the stationary source, the group of stationary sources, or the portion of a stationary source which is regulated by a MACT standard.

**Affected States** - all states:

1. Whose air quality may be affected and that are contiguous to the Commonwealth; or
2. Whose air quality may be affected and that are within 50 miles of the major source for which a case-by-case MACT determination is made.

**Best Controlled Similar Source** - a stationary source that (i) has comparable emissions and is structurally similar in design and capacity to other stationary sources such that the stationary sources could be controlled using the same control technology, and (ii) uses a control technology that achieves the lowest emission rate among all other similar sources in the United States.

**Case-by-case MACT Determination** - a determination by the board, pursuant to the requirements in 9 VAC 5-80-1400, which establishes a MACT emission limitation, MACT work practice, or other MACT requirements for a stationary source subject to 9 VAC 5-80-1400.

**Construct a Major Source** -

1. To fabricate, erect, or install a major source at any undeveloped site, or
2. To fabricate, erect, or install a major process or production unit at any site.

**Construction** -

1. The fabrication, erection, or installation of a major source at any undeveloped site, or
2. The fabrication, erection, or installation of a major process or production unit at any site.

**Control Technology** - measures, processes, methods, systems, or techniques to limit the emission of hazardous air pollutants including, but not limited to, measures that:

1. Reduce the quantity of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications;
2. Enclose systems or processes to eliminate emissions;
3. Collect, capture or treat such pollutant when released from a process, stack, storage, or fugitive emissions point;

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4. Are design, equipment, work practice or operational standards (including requirements for operator training or certification); or
5. Are a combination of 1 through 4.

**Electric Utility Steam Generating Unit** - any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that co-generates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electric output to any utility power distribution system for sale shall be considered an electric utility steam generating unit. In the May 25, 2000 Federal Register EPA issued an interpretative rule which states:

"EPA has determined that case-by-case MACT determinations under Subpart B (§112(g)) must be made for all new or reconstructed major source stationary combustion turbines, regardless of whether they are part of a combined cycle system. Waste heat recovery units, including duct burners, which are part of a combined cycle system are considered to be steam generating units."

(Waste heat recovery units that are electric utility steam generating units would not be subject to §112(g) review.)

**Emission Unit** - any part of a stationary source which emits or would have the potential to emit any hazardous air pollutant.

**Fixed Capital Cost** - means the capital needed to provide all the depreciable components of an existing source.

**Hazardous Air Pollutant** - any air pollutant listed in §112(b) of the federal Clean Air Act, as amended by 40 CFR 63.60.

**MACT Standard** - (i) an emission standard; (ii) an alternative emission standard; or (iii) an alternative emission limitation promulgated in 40 CFR 63 that applies to the stationary source, the group of stationary sources, or the portion of a stationary source regulated by such standard or limitation. A MACT standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator establishes for new or existing sources to which such standard or limitation applies. Every MACT standard established pursuant to §112 of the federal Clean Air Act includes Subpart A of 40 CFR Part 63 and all applicable appendices of 40 CFR Part 63 or of other parts of Title 40 of the Code of Federal Regulations that are referenced in that standard.

**Major Process or Production Unit** - any process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants.

**Major Source** - any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants,

unless the board establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

**Maximum Achievable Control Technology (MACT) Emission Limitation** - the emission limitation which is not less stringent than the emission limitation achieved in practice by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the board, taking into consideration the cost of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed or reconstructed major source.

**New Source Review Program** - a program for the preconstruction review and permitting of new stationary sources or expansions to existing ones in accordance with regulations promulgated to implement the requirements of §§110(a)(2)(C), 165 (relating to permits in prevention of significant deterioration areas) and 173 (relating to permits in nonattainment areas) and 112 (relating to permits for hazardous air pollutants) of the federal Clean Air Act.

**Potential to Emit** - the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment, and restrictions on hours of operation or on the type or amount of material combusted, stored, or process, shall be treated as part of its design only if the limitation or its effect on emissions is state and federally enforceable.

**Presumptive MACT** - a preliminary MACT determination made by EPA, in consultation with states and other stakeholders, after data on a source category's emissions and controls have been collected and analyzed, but before the MACT standard has been proposed or promulgated.

**Process or Production Unit** - any collection of structures or equipment or both, that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one process or production unit.

**Reconstruct a Major Source** - to replace components at an existing major process or production unit whenever:

- 1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new process or production unit; and
- 2) It is technically and economically feasible for the reconstructed major source to meet the applicable standard for new sources established in a permit.

**Reconstruction** - the replacement of components at an existing major process or production unit whenever:

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- 1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct comparable new process or production unit; and
- 2) It is technologically and economically feasible for the reconstructed process or production unit to meet the applicable standard for new sources established in a permit.

**Research and Development Activities** - activities conducted at a research or laboratory facility whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a de minimis manner.

**Similar Source** - a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed major source such that the source could be controlled using the same control technology.

**Source Category List** - the list and schedule issued pursuant to §112(c ) and (e) for promulgating MACT standards issued pursuant to §112(d) of the federal Clean Air Act and published in the Federal Register at 63 FR 7155, February 12, 1998.

**Stationary Source** - any building, structure, facility or installation which emits or may emit any air pollutant.

## Appendix QQ - Permit Rescission

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR DIVISION GUIDANCE DOCUMENT NO. APG-96-239**

**SUBJECT:** Permit Rescission

**DATE:** August 26, 1996

This memorandum provides guidance in regards to rescission of permits where regulatory requirements have been changed since issuance of the permit and no longer apply. It supersedes my memorandum of June 27, 1996 to Air Permit Managers Group on this subject.

Since our regulations do not address rescission of permits, the Office of the Attorney General was contacted for their advice. A copy of their response (dated May 29, 1996) is attached, which states the following.

- To eliminate the conditions in air permits that no longer are required by the Air Law or Regulations, we can amend the permit by letter. However, we should first discuss the amendment with the permittee and then issue the permit amendment.
- To do away with air permits that have become obsolete because the Air Law or Regulations no longer require them, the permittee and DEQ can rescind the permit by agreement. We would then issue a letter to that effect.

Please also consider the following items (not addressed by the Attorney General's Office) while rescinding a permit.

- Permit Conditions needing modification to meet changes in the Air Law or Regulations: As the Air Law and Regulations are constantly changed and updated, some permits may need changes in permit conditions. This will require reissuance of permits with changes in the affected conditions. We should first discuss the changes with the source and make the necessary changes once an agreement is reached with the source.
- Emission Trades and Offsets Approved in the Past: Past emission trades and offsets were approved in accordance with the applicable laws and regulations in existence at that time and should be considered binding. These trades and offsets should not be rescinded. For example, if reductions in acetone emissions were approved as a part of a VOC offset when acetone was defined as a VOC, then such offset should not be rescinded.



Permit Rescission Policy

- Possession of a permit can in some cases be considered more of a right than a burden. I recommend that we should not do away with a permit without prior agreement from the holder.
- Test methodology has to be considered in some of these cases. For example, acetone is no longer a VOC, but a Method 25 test won't distinguish acetone from VOC. To take full advantage of the new definition of VOC, a source may need to measure acetone specifically (e.g. Method 18) and subtract results from the total.
- Question: Suppose a source had a permit to emit 75 TPY of VOC, 50 TPY of which were acetone. Can they now emit 75 TPY of VOC or only 25 TPY of VOC? In most cases, I would say they could emit the whole 75 TPY for now. However, suppose the worst-case product mix they could come up with only resulted in 60 TPY VOC emissions. That establishes a new potential to emit that must be used in future considerations, even if it is not necessary to actually amend the permit immediately.

**APPROVED:**

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John M. Daniel, Jr., Director  
Air Division

Attachment

## **Appendix RR - REGULATION OF FEDERAL HAPS UNDER THE STATE TOXICS PROGRAM AND STATE NSR PROGRAMS**

(Bob Mann, July 2002)

This document provides an explanation of how federal hazardous air pollutants (HAPS) are regulated under the recently adopted state toxics program (Rev. G00) and various recently adopted new source review (NSR) programs (Revs. YY, J97, and K97)

**Where are the applicable regulations found in the regulatory structure?**

### **Applicable State Toxic Program Regulations**

- ◆ Article 4 (9 VAC 5-60-200 et seq.) of 9 VAC 5 Chapter 60 (Rev. G00)
- ◆ Article 5 (9 VAC 5-60-300 et seq.) of 9 VAC 5 Chapter 60 (Rev. G00)

### **State NSR Program Regulations**

- ◆ Article 3 (9 VAC 5-60-120 et seq.) of 9 VAC 5 Chapter 60 (Rev. K97)
- ◆ Article 6 (9 VAC 5-80-1100 et seq.) of 9 VAC 5 Chapter 80 (Rev. YY)
- ◆ Article 7 (9 VAC 5-80-1400 et seq.) of 9 VAC 5 Chapter 80 (Rev. J97)

**How are federal HAPS regulated under the state toxic program?**

Under § 112 of the Clean Air Act, EPA is authorized to regulate HAPS through the promulgation of maximum achievable control technology (MACT) standards. The list of HAPS is found in § 112(b) of the Act as modified by 40 CFR 63.60. The list of source categories for which EPA is required to promulgate MACT standards is called the source category list and is published periodically in the Federal Register (the latest being 67 FR 6521, February 12, 2002). The list of MACT source categories falls into three groups as explained below:

- A. Those source categories for which EPA has promulgated a final MACT standard in 40 CFR Part 63.
- B. Those source categories for which EPA has failed to promulgate a MACT standard.
- C. Those source categories for which EPA has determined that a standard is not necessary.

The state toxic program is now limited to regulating only federal HAPS. However, the state program uses the definition of "toxic pollutant" to identify the pollutants covered and modifies the federal list of HAPS by excluding asbestos, fine mineral fibers, radionuclides, and any glycol ether that does not have a TLV®. Also, source categories

in the source category list are exempt from regulation under the state toxic program as explained below:

Those source categories in group A are exempt under 9 VAC 5-60-200 C 3 and 9 VAC 5-60-300 C 3.

Those source categories in group B are exempt under 9 VAC 5-60-200 C 4 once the state has made the case-by-case MACT determination required under Article 3 (9 VAC 5-60-120 et seq.) of 9 VAC 5 Chapter 60. They are also exempt under and 9 VAC 5-60-300 C 4 provided a case-by-case MACT determination is made according to the applicable NSR regulation.

Those source categories in group C are exempt under 9 VAC 5-60-200 C 5 and 9 VAC 5-60-300 C 5.

### **How are federal HAPS regulated under the state NSR programs?**

In several programmatic regulations under the Clean Air Act, EPA requires states to conduct preconstruction reviews of proposed new facilities and expansions to existing ones and to issue legally enforceable documents that require the facilities to control emissions in accordance with the results of the reviews. For sources subject to federal hazardous air pollutant requirements, the Clean Air Act and EPA regulations provide for four different preconstruction review requirements as follows:

1. 40 CFR 61.05 through 61.08 for preconstruction review requirements under § 112(c)(1) of the Clean Air Act in existence prior to the 1990 Amendments to the Clean Air Act. (These requirements cover the sources subject to the NESHAPS in 40 CFR Part 61.)
2. 40 CFR 63.5 for preconstruction review requirements under § 112(i)(1) of the 1990 Amendments to the Clean Air Act. (These requirements cover source categories in group A discussed above.)
3. 40 CFR 63.54 for preconstruction review requirements under § 112(j)(1) of the 1990 Amendments to the Clean Air Act. (These requirements cover source categories in group B discussed above.)
4. 40 CFR 63.40 through 63.44 for preconstruction review requirements under § 112(g)(2)(B) of the 1990 Amendments to the Clean Air Act. (These requirements cover source categories in group B discussed above and the construction or reconstruction any major source of HAPS even if it is not on the source category list.)

It should be noted that EPA has no preconstruction requirements for source categories in group C discussed above.

Virginia has only three administrative mechanisms it can use to issue legally enforceable emission control requirements: orders, permits and regulations. Of the three, the most practical and appropriate mechanism for enforcing preconstruction review requirements is the permit. Thus, to meet EPA's requirements that the emission controls be legally enforceable, the procedures for implementing the preconstruction review requirements must be included in a permit regulation.

To implement the preconstruction review requirements specified in item 4 above, the state uses a specific NSR regulation which is found in Article 7 (9 VAC 5-80-1400 et seq.) of 9 VAC 5 Chapter 80.

However, for items 1 through 3, it is more practical and expedient to use Article 6 (9 VAC 5-80-1100 et seq.) of 9 VAC 5 Chapter 80 or Minor NSR to implement the federal preconstruction requirements than to develop specific stand-alone state requirements.

Although for items 1 and 2, the Minor NSR regulation is being used to make the emission controls legally enforceable and address other permitting issues, the Minor NSR procedures are a supplement to the procedures found in the EPA regulations cited in items 1 and 2 above. Permits must be issued using the procedures from both the state and federal regulations. Where there are conflicts, this is addressed in the Minor NSR regulation. The intent of this dual procedural arrangement is to issue permits only to facilities that would be subject to the federal preconstruction requirements. The inclusion of 9 VAC 5-80-1320 F in the Minor NSR is one of the ways this is being accomplished. In essence, subsection F states that any source or portion thereof exempt from preconstruction review under the federal program is also exempt under the state program. Please note that subsection F is specifically for affected sources for which a NESHAP or MACT standard has been established but is exempt from the federal preconstruction review requirements cited in items 1 and 2.

As for item 3, permits are also issued using dual procedures but both procedures are found in state regulations, the Minor NSR regulations and Article 3 (9 VAC 5-60-120 et seq.) of 9 VAC 5 Chapter 60. There are no exemptions as such under this review; it is a major NSR program in that the requirements only apply to facilities that meet certain emission rate and other requirements.

As noted above there are no EPA preconstruction requirements for facilities in group C. While affected sources in this group are exempt from the state toxic program, they are not exempt from state NSR requirements. Permits for these sources are to be issued using only the Minor NSR procedures.

# **Appendix SS - Pollution Control Projects Memo**

(Under Development by Yogesh Doshi)