

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF AIR POLLUTION CONTROL

AIR QUALITY PROGRAM POLICIES AND PROCEDURES

TITLE: TEST METHODS AND PROCEDURES FOR FACILITIES SUBJECT TO EMISSION
STANDARDS FOR VOLATILE ORGANIC COMPOUNDS

NUMBER: AQP-1

EFFECTIVE DATE: July 1, 1991

APPROVED: Wallace N. Davis

Wallace N. Davis
Executive Director

PURPOSE

The purpose of this document is to prescribe the test methods and procedures for facilities subject to emission standards for volatile organic compounds.

BACKGROUND

A. The test methods and procedures outlined in this document are those specified in the U.S. Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards Guideline Series documents. For each specific source type the appropriate EPA guideline document is listed. In cases where the definitions, standards and other provisions of the EPA guideline documents differ from this document or the Regulations for the Control and Abatement of Air Pollution (VR 120-01) [hereinafter the regulations], this document and the regulations shall take precedence. Use of test methods and procedures not specified in this document is acceptable if approved by the department within the context of the provisions of subsection C below.

B. In order for the Commonwealth to fulfill its obligations under the federal Clean Air Act, some provisions of state regulations are required to be approved by the U. S. Environmental Protection Agency (EPA) and when approved those provisions become federally enforceable.

C. In cases where state regulations specify that procedures or methods shall be approved by, acceptable to or determined by the board or other similar phrasing or specifically provide for decisions to be made by the board or department, it may be necessary to have such actions (approvals, determinations, exemptions, exclusions, or decisions) reviewed and confirmed as acceptable or approved by EPA in order to make them federally enforceable.

D. It has been determined, in accordance with EPA regulations and policy, that this document is to be submitted to EPA and upon approval become part of the State Implementation Plan. Accordingly, any amendments to this

document must be approved through the same administrative process.

GENERAL REFERENCES

Regulations for the Control and Abatement of Air Pollution (VR 120-01), § 120-04-03 A and § 120-05-03 A.

LOCATION OF REFERENCED DOCUMENTS

The documents referenced above and any others that may be referenced throughout this document are available for viewing at the central office of the department and are otherwise available as indicated below:

A. Regulations for the Control and Abatement of Air Pollution.

The regulations are available for viewing at any regional office of the department and copies are available upon request from the central office of the department. A nominal fee may be required.

B. EPA documents.

Copies of the documents may be obtained, for a nominal fee, from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161; (703) 487-4650.

C. American Society for Testing and Materials (ASTM) documents.

Copies of the documents may be obtained, for a nominal fee, from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103; phone (215) 299-5400.

RECISION

This document supersedes any previously issued documents except for regulations relative to this matter.

CONTACT

Richard Olin, Senior Environmental Engineer, Division of Program Development, 804-786-7564 may be contacted about any questions or decisions regarding this document.

DEFINITIONS

As used in this document, all terms not defined herein shall have the meaning given them in the regulations, unless otherwise required by context.

INSTRUCTIONS

I. Applicability and designation of affected facility.

These methods and procedures are to be used to determine the compliance of existing sources subject to the emission standards prescribed under Rules 4-5, 4-6, 4-11, 4-24, 4-25, and 4-37 through 4-39 of the regulations and new or modified sources subject to volatile organic compound emission standards prescribed pursuant to Part VIII of the regulations.

II. Test methods and procedures for specific source types.

A. General.

1. Solvent metal cleaning.

Test methods and procedures to determine compliance with § 120-04-2403 of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from Solvent Metal Cleaning," EPA-450/2-77-022, November 1977, Chapter 6.0.

2. Filling of storage tanks.

Test methods and procedures to determine compliance with § 120-04-2503 A of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from Gasoline Bulk Plants," EPA-450/2-77-035, December 1977, Chapter 6.0.

3. Volatile organic compound storage - fixed roof tanks.

Test methods and procedures to determine compliance with § 120-04-2503 B of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed Roof Tanks," December 1977, Chapter 6.0.

4. Volatile organic compound storage - floating roof tanks.

Test methods and procedures to determine compliance with § 120-04-2503 C of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks," EPA-450/2-78-047, December 1978, Chapter 5.0.

B. Petroleum industry.

1. Gasoline bulk loading - bulk terminals.

Test methods and procedures to determine compliance with § 120-04-3703 C of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals," EPA-450/2-77-026, October 1977,

Chapter 6.0 and Appendix A.

2. Miscellaneous petroleum refinery sources.

Test methods and procedures to determine compliance with § 120-04-1106 of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Refinery Vacuum Producing Systems, Wastewater Separators and Process Unit Turnarounds," EPA-450/2-77-025, October 1977, Chapter 6.0.

3. Transfer of gasoline - gasoline dispensing facilities (stage I).

a. Test methods and procedures to determine compliance with § 120-04-3703 E of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA-450/2-78-051, December 1978, Appendix A.

b. Monitoring to confirm the continuing existence of vapor tight conditions shall be consistent with the test methods and procedures described in the EPA guideline document, "Control of Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection System," EPA-450/2-78-051, December 1978, Appendix B.

4. Gasoline bulk loading - bulk plants.

Test methods and procedures to determine compliance with § 120-04-3703 D of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from Gasoline Bulk Plants," EPA-450/2-77-035, December 1977, Chapter 6.0.

5. Tank trucks/account trucks and associated vapor collection systems.

a. Test methods and procedures to determine compliance with § 120-04-3703 F of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Organic Compounds Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA-450/2-78-051, December 1978, Appendix A.

b. Monitoring to confirm the continuing existence of vapor tight conditions shall be consistent with the test methods and procedures described in the EPA guideline document, "Control of Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems," EPA 450/2-78-051, December 1978, Appendix B.

6. Petroleum liquid storage - fixed roof tanks.

Test methods and procedures to determine compliance with § 120-04-3703 A of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed Roof Tanks,

"EPA-450/2-77-036, December 1977, Chapter 6.0.

7. Petroleum liquid storage - floating roof tanks.

Test methods and procedures to determine compliance with § 120-04-3703 B of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks," EPA-450/2-78-047, December 1978, Chapter 5.0.

8. Petroleum refinery fugitive emissions.

Test methods and procedures to determine compliance with § 120-04-1109 of the regulation must be consistent with the EPA guideline document, "Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment," EPA-450/2-78-036, Chapter 6.0 and Appendix B.

C. Miscellaneous industry.

1. Asphalt paving operations.

Test methods and procedures to determine compliance with § 120-04-3903 of the regulations must be consistent with the test methods and procedures described in the American Society for Testing and Materials paper, "Standard Test Methods for Emulsified Asphalts - D-244-88."

2. Synthesized pharmaceutical products manufacturing.

Test methods and procedures to determine compliance with § 120-04-0503 of the regulations must be consistent with the test methods and procedures described in the EPA guideline documents:

a. "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products," EPA-450/2-78-029, December 1978, Chapter 7.0.

b. "Measurement of Volatile Organic Compounds," October 1978.

3. Pneumatic rubber tire manufacturing.

a. Test methods and procedures to determine compliance with § 120-04-0603 of the regulations must be consistent with the test methods and procedures described in the EPA guideline documents:

(1) "Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires," EPA-450/2-78-030, December 1978, Appendices A and B.

(2) "Measurement of Volatile Organic Compounds," EPA-450/2-78-041, October 1978.

(3) "Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper,

Fabrics, Automobiles, and Light-Duty Trucks," EPA-450/2-77-008, May 1977, Appendix A.

b. The department may accept, instead of the coating analysis required in subsection C 3 a (3) of this section, a certification by the manufacturer of the composition of the green tire spray, if supported by actual batch formulation records.

4. Dry cleaning (Perchloroethylene).

a. Test methods and procedures to determine compliance with § 120-04-3803 of the regulations must be consistent with the test methods and procedures described in the EPA guideline document, "Control of Volatile Organic Emissions from perchloroethylene Dry Cleaning Systems," EPA-450/2-78-050, December 1978, Chapter 6.0 and Appendix B.

b. Compliance with § 120-04-3803 A 1 shall be determined by means of a visual inspection of the following components:

- (1) Hose connections, unions, couplings and valves.
- (2) Machine door gaskets and seatings.
- (3) Filter head gasket and seating.
- (4) Pumps.
- (5) Base Tanks and storage containers.
- (6) Water separators.
- (7) Filter sludge recovery.
- (8) Distillation unit.
- (9) Diverter valves.
- (10) Saturated lint from lint basket.
- (11) Cartridge filters.

c. Compliance with § 120-04-3803 A 2 shall be determined by:

- (1) A visual inspection and
- (2) A test consistent with EPA guideline document, "Measurement of Volatile Organic Compounds," EPA-450/2-78-041, October 1978, or
- (3) The proper installation, operation and maintenance of equipment which has been demonstrated to be adequate to meet the emission limits in § 120-04-3803 A 2.

d. Compliance with § 120-04-3803 A 3 a and b shall be

determined the procedure in the American Society for Testing and Materials paper, "Standard Method for Gasoline Diluent in Used Gasoline Engine Oils by Distillation - D-322-85."

e. Compliance with § 120-04-3803 A 3 c shall be determined by means of a visual inspection.

I:\DPD\AQPRGPOL\AQP-1