



[PROPOSED]  
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TITLE 45  
LEGISLATIVE RULES  
WEST VIRGINIA AIR POLLUTION CONTROL COMMISSION

SERIES 23  
REGULATIONS TO PREVENT AND CONTROL AIR POLLUTION FROM  
THE EMISSION OF VOLATILE ORGANIC  
COMPOUNDS FROM BULK GASOLINE TERMINALS

**§45-23-1. General.**

1.1. Scope. — It is the intent of the commission that all persons engaged in the operation of bulk gasoline terminals and the appurtenant equipment necessary to load tank trucks or trailer compartments control the emission of volatile organic compounds through the application of reasonably available control technology.

1.2. Authority. — W.V. Code §16-20-5.

1.3. Filing Date. —

1.4. Effective Date. —

**§45-23-2. Area Affected.**

This regulation applies to sources located in ~~West Virginia Air Quality Control Region IV~~ (Putnam County, Kanawha County, and Valley Magisterial District of Fayette County), Wood County, Cabell County, Wayne County, and Greenbrier County.

**§45-23-3. Definitions.**

3.1. "Air Pollution", 'statutory air pollution' ~~shall have~~ has the meaning ascribed to it in article twenty, chapter sixteen of the ~~Code of West Virginia~~ W.V. Code, as amended.

3.2. "Approved" ~~shall~~ means approved by the designated official of the West Virginia Air Pollution Control Commission.

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3.3. "Bulk Gasoline Terminal" shall mean a gasoline storage facility which receives gasoline from refineries primarily by, but not limited to, pipeline, ship or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck; and has a daily through-put of more than 76,000 liters (20,000 gallons) of gasoline.

3.4. "Commission" shall mean the West Virginia Air Pollution Control Commission.

3.5. "Condensate" shall mean hydrocarbon liquid which condenses due to change in temperature and/or pressure and remains liquid at standard conditions.

3.6. "Construction" shall mean commencement of onsite fabrication, erection, or installation of an emission source, air pollution control equipment, or a facility.

3.7. "Control Device" shall mean equipment (incinerator, adsorber, or the like) used to destroy or remove air pollutant(s) prior to discharge of vapor to the ambient air.

3.8. "Day" shall mean a twenty-four (24)-hour period beginning at midnight.

3.9. "Director" shall mean the director of the West Virginia Air Pollution Control Commission.

3.10. "Emission" shall mean the release or discharge, whether directly or indirectly, of any air pollutant into the ambient air from any source.

3.11. "Facility" shall mean any building, structure, installation, or combination thereof which contains a stationary source of air pollutants.

3.12. "Gasoline" shall mean a petroleum distillate having a Reid vapor pressure of 27.6 kPa (four (4) pounds/square inch) or greater which is used as a fuel for internal combustion engines.

~~3.13. "Hydrocarbon" shall mean any organic compound of carbon and hydrogen only.~~

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~~3.14.~~ "Organic material" means a chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

~~3.15.~~ 3.13. "Owner or Operator" shall mean any person who owns, leases, controls, operates or supervises a facility, an emission source, or air pollution control equipment.

~~3.16.~~ 3.14. "Person" shall mean any and all persons, natural or artificial, including any municipal, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership, or association of whatever nature.

~~3.17.~~ 3.15. "Reasonably Available Control Technology" (also denoted as RACT) shall mean 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. It may require technology that has been applied to similar, but not necessarily identical, source categories.

~~3.18.~~ 3.16. "Reid Vapor Pressure" shall mean the absolute pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases as determined by ~~American Society for Testing and Materials, Part seventeen (17), 1973, D-323-72 (Re-approved 1977)~~ the test methods contained in 40 CFR part 80, Appendix E, 54FR 11897 - 11903 (March 22, 1989; Volatility Regulations for Gasoline and Alcohol Blends Sold in Calendar Years 1989 and Beyond; Final Rule).

~~3.19.~~ 3.17. "Standard Conditions" shall mean a temperature of twenty (20) degrees C (68°F) and pressure of 760 millimeters of mercury (29.92 inches of mercury).

~~3.20.~~ 3.18. "Vapor Collection System" shall mean a vapor transport system which uses direct displacement by the liquid loaded to force vapors from the tank into a vapor control system.

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~~3.21-3.19.~~ "Vapor Control System" ~~shall mean a system that prevents release to the atmosphere of organic material in the vapors displaced from a tank.~~ means a device or method that collects volatile organic compound emissions from any transfer, storage or process equipment and limits their release to the atmosphere. This includes, but is not limited to, vapor/liquid absorption, vapor compression, vapor cooling, vapor/solid adsorption, and thermal oxidation.

~~3.22-3.20.~~ "Volatile Organic Compound" (also denoted as VOC) ~~shall mean any compound of carbon that has a vapor pressure greater than 0.1 millimeters of mercury at standard conditions excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.--For the purpose of this regulation, methane shall not be considered a volatile organic compound.~~ means any organic compound which participates in atmospheric photochemical reaction. This includes any organic compound other than the following compounds: methane, ethane, methyl chloroform (1,1,1-trichloroethane), CFC-113 (trichlorotrifluoroethane), methylene chloride, CFC-11 (trichlorofluoromethane), CFC-12 (dichlorodifluoromethane), CFC-22 (chlorodifluoromethane), FC-23 (trifluoromethane), CFC-114 (dichlorotetrafluoroethane), CFC-115 (chloropentafluoroethane), HCFC-123 (dichlorotrifluoroethane), HFC-134a (tetrafluoroethane), HCFC-141b (dichlorofluoroethane), HCFC-142b (chlorodifluoroethane), and any other compounds that U.S. EPA lists in Federal Register notices as being photochemically nonreactive. For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. Where such a method also inadvertently measures compounds with negligible photochemical reactivity, an owner or operator may exclude these negligibly reactive compounds when determining compliance with an emissions standard.

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**§45-23-4. Control and Prohibition of Emissions.**

4.1. No owner or operator of a bulk gasoline terminal subject to this regulation may cause, allow or permit mass emissions of volatile organic compounds from the loading of gasoline into any tank trucks or trailers to exceed 80 milligrams per liter of gasoline loaded.

4.2. The emission limit under ~~Subsection 4.1.~~ of this regulation shall be achieved by:

(a) equipping the bulk gasoline terminal with a vapor control system, capable of complying with ~~Subsection 4.1.~~ of this regulation, properly installed, in good working order, in operation and consisting of one of the following:

(1) an approved adsorption, absorption, compression or condensation system which processes and recovers vapors and gases from the equipment being controlled; capable of achieving 90 percent emissions reduction; or,

(2) aan approved vapor collection system which directs all vapors to a fuel gas system; or incinerator; and,

~~(3) ---an equally effective alternative control system approved by the commission; and,~~

(b) venting all displaced vapors and gases only to the vapor control system; and,

(c) providing a means to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and,

(d) equipping all loading and vapor lines with fittings which make vapor-tight connections which close automatically when disconnected.

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4.3. Sources subject to this regulation may not:

- (a) allow gasoline to be discharged in sewers or stored in open containers or handled in any manner that would result in evaporation; nor,
- (b) allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings.

~~4.4. (a) Realizing that compliance with the provisions of this section may, in some cases, be technologically infeasible, the commission may, upon specific application by the owner or operator of a bulk gasoline terminal, grant exemptions from these provisions. However, the petition must be submitted in writing in a manner approved by the director and must contain:~~

~~(1) a detailed description of the proposed alternative operational and/or equipment controls, the magnitude of volatile organic compound emission reduction which will be achieved, and the quantity and composition of volatile organic compounds which will be emitted if the alternative operational and/or equipment controls are instituted; and,~~

~~(2) a plan, which will be instituted in addition to the proposed alternative operational and/or equipment controls, to reduce volatile organic compound emissions from other source operations, not required under this regulation, such that aggregate volatile organic compound emissions from the facility will in no case be greater through application of the alternative control than would be permitted through conformance with Section four (4); and,~~

~~(3) a schedule for the installation and/or institution of the alternative operational and/or equipment controls.~~

~~(b) From time to time the commission shall review such exemptions to determine if they are still warranted. If the commission revises or terminates an exemption, the owner or operator of the affected bulk gasoline terminal shall be notified~~

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~~by certified mail. Such revision or terminations shall not become effective for at least ninety (90) days after the receipt of notification by the owner or operator.~~

4.4. If a source becomes subject to any requirement in this regulation because it exceeds an exemption level, the source shall continue to be subject to all applicable requirements, regardless of whether the source falls below the exemption level in the future.

**§45-23-5. Registration.**

5.1. Within thirty (30) days after the effective date of this regulation all persons owning and/or operating a bulk gasoline terminal subject to this regulation and not previously registered shall have registered such source(s) with the commission. The information required for registration shall be determined and provided in the manner specified by the director. Registration forms should be requested from the director by the owner or operator of such source(s).

5.2. The owner or operator of a bulk gasoline ~~office~~terminal that is under construction or on which construction is initiated within thirty (30) days after the effective date of this regulation shall register such source(s) with the commission.

**§45-23-6. Permits.**

After the effective date of this regulation, no person shall construct or modify any bulk gasoline terminal subject to this regulation without first obtaining a permit for such construction or modification. Applications for permits shall be made upon forms available from the director and shall be filed no less than ninety (90) days prior to the construction or modification. These forms shall include such information as in the judgment of the director will enable him to determine whether such source will be so designed as to operate in conformance with the provisions of this regulation and the ~~Code of West Virginia~~W.V. Code, and will not cause or contribute to the violation of air quality standards. Within ninety (90) days of the receipt of an application the

director shall issue or deny such permit in accordance with the provisions of ~~Chapter Sixteen, Article Twenty, Section 11-b~~ section eleven-b, article twenty, chapter sixteen of the ~~Code of West Virginia~~ W.V. Code, as amended, and ~~Series 13~~ 45CSR13 ~~of this agency.~~

**§45-23-7. Reports and Testing.**

7.1. At such reasonable times as the director may designate, the owner or operator of any bulk gasoline terminal(s) may be required to conduct or have conducted tests to determine the compliance of such terminal(s) with the limitation of section 4 of this regulation. The director, or his duly authorized representative, may at his option witness or conduct such tests. Should the director exercise his option to conduct such tests, the owner or operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the director may require, power or test equipment, and the required safety equipment to comply with generally accepted good safety practices.

7.2. For the purpose of determining the emissions from systems installed to control volatile organic compound vapors resulting from loading operations at bulk gasoline terminals, the following procedures shall be included:

(a) In an approved manner ~~approved by the director~~, direct measurements shall be made to determine the ~~hydrocarbon~~ mass of volatile organic compounds exhausted from the vapor control system.

(b) In an approved manner ~~approved by the director~~, all possible sources of leaks shall be qualitatively checked to ensure that no uncontrolled vapors are emitted to the atmosphere.

7.3. For the purpose of determining the efficiency of a volatile organic compound emission control system, the following procedure shall be included:

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(a) The material containing the volatile organic compounds shall be sampled and analyzed in aan approved manner ~~approved by the director~~ such that the quantity of emissions that could result from the use of the material can be quantified.

(b) The efficiency of any capture system used to transport the volatile organic compound emissions from their point of origination to the control equipment shall be computed using accepted engineering practices and in aan approved manner ~~approved by the director~~.

(c) Samples of the volatile organic compound containing gas stream shall be taken simultaneously at the inlet and outlet of the emissions control device in aan approved manner ~~approved by the director~~.

(d) The total combustible carbon content of the samples shall be determined by aan approved method ~~approved by the director~~.

(e) The efficiency of the control device shall be expressed as a fraction of total combustible carbon content reduction achieved.

(f) The volatile organic compound mass emission rate shall be the sum of emissions from the control device, emissions not collected by the capture system and capture system losses.

7.4. ~~The director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in Section 4.~~ Testing for vapor-tight conditions, as required in sections 4 and 7 of this regulation, shall be conducted as prescribed in Appendix B of the document "Control of Volatile Organic Compound Leaks From Gasoline Tank Trucks and Vapor Collection Systems", EPA - 450/2-78-051, OAQPS No. 1.2-119, December, 1978, which is incorporated by reference.

7.5. ~~The commission may publish, and from time to time revise, detailed test procedures and reporting instructions implementing the provisions of this regulation.~~

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The test procedures to determine mass emission rate compliance as required in sections 4 and 7 of this regulation shall be as prescribed in Appendix A of the document "Control of Hydrocarbons From Tank Truck Gasoline Loading Terminals", EPA - 450/2-77-026, OAQPS No. 1.2-082, October, 1977, which is incorporated by reference.

7.6. The owner or operator of a bulk gasoline terminal shall maintain and make available to the commission any records which are determined by the director to be necessary to document the compliance of such terminal with the provisions of this regulation. Such records shall be kept for at least two years and include, but not be limited to the information required in this section.

### **§45-23-8. Compliance Programs and Schedules.**

~~8.1. In the event that a bulk gasoline terminal subject to this regulation and in existence prior to the adoption of this regulation does not meet the limitations set forth in section 4, an acceptable program to fully comply with this regulation shall be developed and offered to the commission by the person responsible for the source. This program shall be submitted upon the request of, and within such time as shall be fixed by the commission. Once this program has been approved by the commission, the owner and/or operator of such installation shall not be in violation of this regulation so long as the approved or amended program is observed.~~

~~8.2. In the event that an owner or operator of such a source(s) of volatile organic compounds fails to submit a program or an acceptable program and schedule, the commission shall, by order, determine the compliance program and schedule.~~

For sources previously not subject to the requirements of 45CSR23 (1979) or, for sources that previously complied with the requirements of 45CSR23 (1979), but as a result of amendments to this regulation (1991) are required to make major process changes and/or major capital expenditures, as determined by the commission, an acceptable program to comply with this regulation shall be developed and submitted to

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the commission by the owner and/or operator of such source within sixty (60) days of the effective date of this regulation. The program shall include the dates for ordering, receiving, installation, and start-up of necessary equipment. All such programs shall be approved by the commission. No such compliance program shall exceed one (1) year from the effective date of this regulation unless the owner and/or operator can demonstrate to the commission that compliance within such time limit is technically or economically infeasible. If the owner and/or operator can make such a demonstration, the commission may issue an order for additional time for compliance up to three (3) years from the effective date of this regulation. All such orders shall be issued only after notice to the public. All such orders shall contain a schedule and timetable for compliance, including increments of progress which will require compliance with the applicable requirements as expeditiously as practicable. [NOTE: For federal purposes and for federal enforcement, in the case of any major stationary source, no such order issued by the commission shall be federally approved pursuant to the federal Clean Air Act until the Administrator of U.S. EPA determines that such order was issued in accordance with these requirements, or within the applicable provisions of the federal Clean Air Act, and in the case of any source other than a major stationary source, any such order issued by the commission shall cease to be federally approved upon a determination by the Administrator of U.S. EPA that it was not issued in accordance with these requirements or with the applicable provisions of the federal Clean Air Act.]

**§45-23-9. Variance.**

If the provisions of section 4 of this regulation cannot be satisfied due to unavoidable malfunction of equipment, the director may permit the owner or operator of a bulk gasoline terminal subject to this regulation to continue to operate for periods not to exceed ten (10) days upon specific application to the director. Such application shall be made within twenty-four (24) hours of the equipment malfunction. In cases of major

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equipment failure, additional time periods may be granted by the commission provided a corrective program has been submitted by the owner or operator and approved by the commission.

### **§45-23-10. Exemptions.**

Sources subject to this regulation whose emissions of volatile organic compounds are not more than 6.8 kilograms (fifteen (15) pounds) in any one (1) day, nor more than 1.4 kilograms (three (3) pounds) in any one (1) hour will be exempt from sections 4 through 9 of this regulation, provided the emission rates are determined and certified six (6) months after the effective date of this regulation in aan approved manner ~~approved by the director~~.

### **§45-23-11. Enforceability.**

For the purpose of federal enforceability of the provisions of this regulation, references to the commission and/or director shall also mean the Administrator of the U.S. EPA.