

Repealed
Title
45-21
7-7-93

TITLE 45
LEGISLATIVE RULES
AIR POLLUTION CONTROL COMMISSION

SERIES 24
REGULATIONS PERTAINING TO
TO PREVENT AND CONTROL AIR POLLUTION FROM THE EMISSION
OF VOLATILE ORGANIC COMPOUNDS FROM PETROLEUM REFINERY
SOURCES

§45-24-1. General.

1.1. Scope. -- It is intent of the Commission that all persons engaged in the operation of vacuum producing system, wastewater separators, and process unit turnarounds at petroleum refining sources control the emission of volatile organic compounds through the application of reasonably available control technology.

1.2. Authority. -- W. Va. Code §16-20-5

1.3. Filing Date. -- June 8, 1979

1.4. Effective Date. -- October 27, 1979.

§45-24-2. 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).

§45-24-3. Definitions.

3.1. "Accumulator." -- Shall mean the reservoir of a condensing unit receiving the condensing from the condenser.

3.2. "Air Pollution." -- 'statutory air pollution', shall have the meaning ascribed to it in chapter sixteen, Article twenty, of the Code of West Virginia, as amended.

3.3. "Approved." -- Shall mean approved by the designated official of the West Virginia Air Pollution Control Commission.

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

3.5. "Condensate." -- Shall mean hydrocarbon liquid separated from natural gas which condenses due to change in temperature and/or pressure and remains liquid at standard conditions.

3.6. "Condenser." -- Shall mean any heat transfer device used to liquefy vapors by removing their latent heats of vaporization. Such devices include, but are not limited to, shell and tube, coil, surface, or contact condensers.

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

3.8 "Control Device". -- Shall mean equipment (incinerator, adsorber, or the like) used to destroy or remove air pollutant(s) prior to discharge to the ambient air.

3.9. "Day." -- Shall mean a 24 hour period beginning at midnight.

3.10. "Director." -- Shall mean the Director of the West Virginia Air Pollution Control Commission.

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

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

3.13. "Firebox." -- Shall mean the chamber or compartment of a boiler or furnace in which materials are burned but does not mean the combustion chamber of an incinerator.

3.14. "Forebays." -- Shall mean the primary sections of a wastewater separator.

3.15. "Hot Well." -- Shall mean the reservoir of a condensing unit receiving the warm condensate from the condenser.

3.16. "Hydrocarbon." -- Shall mean any organic compound of carbon and hydrogen only.

3.17. "Organic Material." -- Shall mean a chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate.

3.18. "Owner or Operator." -- Shall mean any person who owns, leases, controls, operates or supervises a facility, an emission source, or air pollution control equipment.

3.19. "Person." -- Shall mean any and all persons, natural or artificial, including 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.

3.20. "Petroleum Liquids." -- Shall mean crude oil, condensate, and any finished or intermediate products manufactured or extracted in a petroleum refinery.

3.21. "Petroleum Refinery." -- Shall mean any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or reforming of unfinished petroleum derivatives.

3.22. "Petroleum Refinery Source." -- Shall mean and include vacuum producing systems, wastewater separators, and processing units at petroleum refineries.

3.23. "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 necessarily identical, source categories.

3.24. "Refinery Fuel Gas." -- Shall mean any gas which is generated by the petroleum refinery process unit and which is combusted, including any gaseous mixture of natural gas and fuel gas.

3.25. "Standard Conditions." -- Shall mean a temperature of twenty degrees C (20 degrees C) sixty-eight degrees F (68 degrees F) and pressure of seven hundred sixty millimeters (760 millimeters), twenty-nine point ninety-two inches (29.92 inches) of mercury.

3.26. "Turnaround." -- Shall mean the procedure of shutting a refinery unit down after a run to do necessary maintenance and repair work and putting the unit back on stream.

3.27. "Vacuum Producing System." -- Shall mean any reciprocating, rotary, or centrifugal blower or compressor, or any jet ejector or device that takes suction from a pressure below atmospheric and discharges against atmospheric pressure.

3.28. "Vapor Control System." -- Shall mean a system that prevents release to the atmosphere of organic material emitted during the operation of any transfer, storage, or process equipment.

3.29. "Volatile Organic Compound." (also denoted as VOC) -- Shall mean any compound of carbon that has vapor pressure greater than point one millimeter (0.1 millimeter) of mercury at standard conditions excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, or carbonates, and ammonium carbonate.

3.30. "Wastewater (Oil/Water) Separator." -- Shall mean any device or piece of equipment, other than a treatment lagoon, which utilizes the difference in density between oil and water to remove oil and associated chemicals from water, or any device, such as a flocculation tank, clarifier, etc., which removes petroleum derived compounds from waste water.

§45-24-4. Control and Prevention of Emissions.

4.1. (a) The owner or operator of a petroleum refin-

ery with any vacuum producing system may not permit the emission of any noncondensable volatile organic compounds from the condensers, hot wells or accumulators of the system.

(b) The emission limit under paragraph (a) of this SubSection shall be achieved by:

(1) piping the noncondensable vapors to a firebox or incinerator; or,

(2) compressing the vapors and adding them to the refinery fuel gas; or,

(3) installing an equally effective alternative control system, approved by the Commission.

4.2. The owner or operator of a petroleum refinery with any wastewater (oil/water) separators shall:

(a) Provide covers or seals approved by the Director on all separators and forebays, and equip all openings in covers, separators, and forebays with lids or seals such that the lids or seals are in the closed position at all times except when in actual use; or,

(b) Install an equally effective alternative control system approved by the Commission.

4.3. The owner or operator of a petroleum refinery shall minimize and record VOC emissions during process unit turnarounds by:

(a) Depressurization venting of the process unit or vessel to a vapor control system, flare or firebox; and,

(b) Preventing emissions of volatile organic compounds from a process unit or vessel unless its internal pressure is one hundred thirty-six (136) kilo Pascals (nineteen and seven tenths (19.7) psia) or less; and,

(c) Record keeping of the following items:

(1) every date that each process unit or vessel is shut down; and,

(2) the approximate vessel volatile organic compound concentration when the volatile organic compounds were discharge to the atmosphere; and,

(3) the approximate total quantity of volatile

organic compounds emitted to the atmosphere.

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 petroleum refinery source, 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 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 this Section; and,

(3) a scheduled 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 petroleum refinery source shall be notified 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.

§45-24-5. Registration.

5.1. Within thirty (30) days after the effective date of this regulation all persons owning and/or operating a petroleum refinery source(s) 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 such a petroleum refinery source 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) within this thirty (30) day period.

§45-24-6. Permits.

After the effective date of this regulation, no person shall construct or modify any petroleum refinery source subject to this regulation without first obtaining a permit for such construction or modification. Applications for such 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, 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 11b of the Code of West Virginia, as amended, and Series 13 of this agency.

§45-24-7. Reports and Testing.

7.1. At such reasonable times as the Director may designate, the owner or operator of any petroleum refinery source subject to this regulation may be required to conduct or have conducted or have conducted tests to determine the compliance of such source(s) with the limitations of Section 4. 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 for test equipment, and the required safety equipment to comply with generally accepted good safety practices

7.2. The Director, or his duly authorized represen-

tative, may conduct such other tests as he may deem necessary to evaluate air pollution emission other than those noted in Section 4.

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

§45-24-8. Compliance Programs and Schedules.

8.1. In the event that a petroleum refinery having a source(s) of volatile organic compounds subject to this regulation and in existence prior to the adoption of this regulation does not meet the limitations of Section 4, an acceptable program to fully comply with this regulation shall be developed and offered to the Commission by the person responsible for said source. This program shall be submitted upon the request of, and within such time as shall be fixed by the Commission. The owner and/or operator of such source 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 a petroleum refinery having such 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.

§45-24-9. Variance.

If the provisions of Section 4 cannot be satisfied due to unavoidable malfunction of equipment, the Director may permit the owner or operator of a petroleum refinery source subject to this regulation to continue to operate said source 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 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.