TITLE 45
LEGISLATIVE RULE
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF AIR QUALITY

SERIES 27
TO PREVENT AND CONTROL THE EMISSIONS OF TOXIC AIR POLLUTANTS

§45-27-1. General.

1.1. Scope. -- The purpose of 45CSR27 is to prevent and control the discharge of toxic air pollutants requiring the application of best available technology.

1.2. Authority. -- W. Va. Code §22-5-1 et seq.

1.3. Filing Date. -- May 1, 1990.

1.4. Effective Date. -- June 30, 1990.

§45-27-2. Definitions.

2.1. "Air Pollution", 'statutory air pollution' has the meaning ascribed to it W. Va. Code §22-5-2.

2.2. "Air Pollution control Device" means any equipment used for the purpose of preventing, reducing, or controlling the emission of toxic air pollutants into the open air.

2.3. "BAT", 'Best Available Technology' means an emissions limitation requiring the application of the maximum degree of reduction and control which the Director, on a case-by-case basis, determines is achievable for each toxic air pollutant which would be emitted from any stack, pipe, air pollution control device, or from any other equipment or facilities associated with a chemical processing unit. In the case of chemical processing units constructed or modified after the effective date of this rule, BAT may be less stringent than requirements for new or modified units. for all facilities, BAT shall represent the maximum degree of emission reduction that the Director determines is achievable taking into consideration the cost of achieving such mission reduction, and public health and environmental impacts. No BAT proposal shall be approvable that represents a level of control less stringent than any requirement for a chemical processing unit under 40CFR61 or 40CFR60. BAT shall include but not be limited to measures which:

2.3.a. reduce or eliminate the emission rate of toxic pollutants through process changes or substitution of materials,

2.3.b. enclose or seal equipment or systems to eliminate toxic air pollutant emissions,

2.3.c. collect, capture, destroy and/or otherwise treat toxic air pollutants released from a process, stack, storage, or fugitive emissions point,

2.3.d. are work practice or operational methods.

2.4. "Chemical Processing Unit" means an assembly of reactors, tanks, distillation columns, heat exchangers, vaporizers, compressors, dryers, decanters, and/or other equipment used to treat, store, manufacture, or use toxic air pollutants. For the purpose of this rule, the term chemical processing unit includes surface coating equipment or similar equipment utilizing a toxic air pollutant as a solvent or for other purposes but does not include equipment used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.

2.5. [RESERVED]

2.6. "Director" means the Director of the Division of Environmental Protection.

2.7. "Plant" or "facility" means all chemical processing units existing on one or more contiguous or adjacent properties, which are owned by or under the control of the same person or persons.

2.8. "Person" means any and all persons, natural or artificial, including the State of West Virginia or any other state, the United States of America, any municipal, statutory, 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.

2.9. "Stack", for the purpose of this rule, means, but is not limited to, any stack, vent, duct, control equipment exhaust, or similar apparatus, from which a toxic air pollutant is or may be emitted into the open air.

2.10. "Toxic Air Pollutant" means any of the following chemicals: Acrylonitrile, Allyl chloride, Benzene, 1,3,-Butadiene, Carbon tetrachloride, Chloroform, Ethylene dichloride, Ethylene oxide, Formaldehyde, Methylene chloride, Propylene oxide, Trichloroethylene, Vinyl chloride, Vinylidene chloride.

2.11. "Toxic Air Pollutant Service" means for the purpose of this rule that a piece of equipment such as a pump, valve or flange contains or contacts a process fluid containing 10% or more by weight of a toxic air pollutant.

2.12. "Modification" or "Modified" means any physical change or change in the method of operation of a chemical processing unit which increases its potential to emit a toxic air pollutant.

§45-27-3. Chemical Processing Units.

3.1. Except as provided in Sections 3.2 and 3.3 of this rule, the owner or operator of a plant that discharges or may discharge a toxic air pollutant into the open air in excess of the amount shown in the Table A shall employ BAT at all chemical processing units emitting the toxic air pollutant: Provided, that any source or equipment specifically subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such regulation or standard.

3.2. A BAT program for a plant containing multiple chemical processing units or emission sources may, for each chemical, consider the overall effectiveness of emissions control measures within a unit or the plant. All BAT programs shall fully consider the additive or cumulative health and environmental impacts of multiple pollutant and multiple unit emissions.

3.3. The Director may exempt a chemical processing unit from the BAT requirement if the owner/operator can demonstrate to the satisfaction of the Director that the maximum toxic air pollutant emissions from the source or unit, taking into the consideration all other toxic air pollutant sources at the plant and other sources in the area of the plant, cause insignificant impacts upon public health and the environment. If the Director so exempts a unit from the BAT requirement, the maximum emission rates of toxic air pollutants discharged to the air from the unit shall be set forth as enforceable limitations within the compliance program required or established under Section 11 of this rule.

3.4. All chemical processing units shall be properly instrumented to alert the operator of process upsets, leaks, and other abnormal discharges of toxic air pollutants into the air and the operator shall record all such incidents and the associated emissions estimated from direct measurements of toxic air pollutant concentration and/or calculations using other process measurements.

3.5. The Director may on a case-by-case basis require the installation and proper operation of monitoring devices to continuously or intermittently determine the concentrations or mass emission rates of toxic air pollutants normally or routinely emitted to the air.

§45-27-4. Fugitive Emissions of Toxic Air Pollutants.

4.1. All owners and operators subject to the requirements of this rule shall, by application of BAT, prevent and control fugitive emissions to the air of toxic air pollutants as a result of leakage from equipment in toxic air pollutant service including but not limited to, pump seals, compressor seals, valves, sampling connections, open-ended lines, safety relief valves, and flanges. In no event shall any equipment standard, program, or work practice less stringent than required under 40CFR61, Subpart V be deemed to represent BAT for control of toxic air pollutant emissions: Provided, that any source or equipment specifically subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such federal regulation and standard. Equipment to be used in toxic air pollutant service installed after the effective date of this rule shall, to the maximum extent possible, be designed and operated so as to prevent leaks of toxic air pollutants.

4.2. In quantifying plant or facility emissions of a toxic air pollutant pursuant to determining the applicability of this rule under Section 3.1, emissions from potentially leaking equipment components which handle streams containing the toxic air pollutant shall be included. Such quantification shall be in accordance with estimation methods approved by the Director.

§45-27-5. Tanks.

5.1. Owners and operators of chemical processing units or facilities subject to the requirements of this rule shall prevent and control working and filling losses of toxic air pollutants from tanks by routing such tank emissions to BAT control devices. The Director may approve the use of floating roof storage tanks as BAT, provided that such tanks are designed and operated in a manner which minimizes toxic air pollutant emissions taking into consideration the toxic air pollutant emission rate, tank size, and control efficiency associated with such tanks. On a case-by-case basis, the Director may exempt very small process or storage tanks or tanks storing material mixtures containing low mass fractions of toxic air pollutants from the BAT requirements taking into consideration the actual level of emissions control and/or the toxic air pollutant emission rate from the tank.

§45-27-6. Wastewater from Chemical Processing Units.

6.1. Owners and operators of chemical processing units and/or wastewater treatment systems subject to this rule shall employ BAT to remove and control or destroy toxic air pollutants from wastewater at the source and/or apply BAT at the wastewater treatment plant to prevent or control the discharge to toxic air pollutants resulting from air stripping or evaporation: Provided, that this provision shall not be more stringent than any specifically applicable federal regulation or standard.

6.2. In quantifying total plant or facility emissions of a toxic air pollutant pursuant to determining the applicability of this rule under Section 3.1, emissions of a toxic air pollutant resulting from the discharge of the toxic air pollutant to wastewater streams and the subsequent treatment of wastewater shall be included. Emissions shall be determined by a method specified or approved by the Director.

6.3. The Director may exempt wastewater treatment units, tanks, or equipment from the requirement for BAT if the owner or operator can demonstrate to the satisfaction of the Director that air stripping or volatilization and emission to the air of toxic air pollutants from such sources does not occur or is insignificant from the standpoint of emissions and/or impact upon public health.

§45-27-7. Loading and Unloading Railcars and Tank Trucks.

7.1. Owners and operators of chemical processing units or facilities subject to the requirements of this rule shall employ BAT to prevent or control toxic air pollutant discharges in the loading and unloading of railcars and tank trucks with toxic air pollutants or material mixtures containing toxic air pollutants.

§45-27-8. Registration.

8.1. No later than ninety (90) days after the effective date of this rule, all persons owning and/or operating an existing chemical processing unit(s) which discharges or may discharge a toxic air pollutant shall register each such chemical processing unit with the Director. The information required for registration shall be determined by the Director, and shall be provided in the manner specified by the Director.

§45-27-9. Permits.

9.1. No person shall construct, modify, or relocate chemical processing units) without first obtaining a permit in accordance with the provisions of W. Va. Code §22-5-11,and all applicable rules of this agency. If the construction of a new chemical processing unit or the modification of an existing chemical processing unit at a plant increases total plant emissions of a toxic air pollutant to a level in excess of that in Table A, all chemical processing units emitting the pollutant shall be come subject to BAT requirements or alternatively total plant emissions of the toxic air pollutant shall be reduced below the level of Table A.

§45-27-10. Reports, Records and Testing.

10.1. At such reasonable times as the Director may designate, the owner or operator of any chemical processing unit may be required to conduct or have conducted tests to determine the compliance with this rule. Such tests shall be conducted in such manner as the Director may specify or approve and be filed on forms and in a manner specified by the Director. 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 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 such as scaffolding, railing, and ladders to comply with generally accepted good safety practices.

10.2. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate toxic air pollutant emissions.

10.3. Written records shall be maintained that identify all pumps, compressors, pressure relief valves, valves, sampling connections, open-ended lines, and flanges of a chemical processing unit that are in toxic air pollutant service. These records shall record the results of all monitoring and inspections, emissions control measures applied and the nature, timing, and results of repair efforts.

10.4. The emission to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following amounts shall be reported to the Director or his authorized representative not later than 24-hours after the chemical processing unit owner/operator has knowledge of such emission:

10.4.a. For ethylene oxide, and vinyl chloride, one (1) pound

10.4.b. For acrylonitrile and butadiene, ten (10) pounds

10.4.c. For all other toxic air pollutants, fifty (50) pounds.

The owner or operator shall file a written report with the Director stating the details of all such incidents resulting in the emission of more than fifty (50) pounds of any toxic air pollutant within seven (7) days of the occurrence. The owner/operator shall submit to the Director, at his request, records of all abnormal toxic air pollutant discharges to the air.

10.5. Any period of failure or inoperability of air pollution control equipment required by this rule shall be reported to the Director not later than 24-hours after the owner/operator has knowledge of such failure. Such reports shall be made in conjunction with necessary requests for variances as provided under Section 12.

§45-27-11. Compliance Programs and Schedules.

11.1. In the event that a chemical processing unit in existence prior to the adoption of this rule does not meet the requirements of this rule an acceptable program to fully comply with this rule shall be submitted to the Director by July 1, 1991 by the owner or operator. Any compliance program for a chemical processing unit submitted to the Director on or before April 1, 1991 and approved by the Director within a Consent Order on or before June 30, 1991 shall be accepted as and deemed to be a voluntary emission reduction plan. A compliance program may be submitted to the Director for individual chemical processing units or alternatively a single compliance program for all chemical processing units at one plant may be submitted.

11.2. In proposing a BAT plan, the owner or operator must fully document and describe all potentially applicable emissions control measures or technologies and fully justify that any selected control measure providing less emission reduction than the most stringent measures achieved in practice for similar processes is technologically or economically infeasible for application to a particular chemical process unit requiring BAT.

11.3. Upon approval by the Director of a compliance program, the owner or operator of a chemical processing unit or facility is not in violation of this rule so long as the approved or amended compliance program is observed: Provided, that the Director may re-evaluate toxic air pollutant emissions, control technology employed, and risks to public health at the end of a seven (7) year period following completion of each compliance program and may require additional or improved control measures.

11.4. Any compliance programs or Consent Orders that have previously been approved by the Director shall remain in effect unless an emissions control program required by this rule must replace a prior program with more stringent control measures.

11.5. All compliance plans and orders required or approved under this rule shall contain detailed compliance plans with increments of progress, schedules or completion dates and to the extent possible, shall set forth maximum compliance emission rates for controlled sources upon completion of the compliance program.

11.6. In the event that an owner or operator subject to this rule fails to submit an acceptable compliance program by July 31, 1991, the Director shall, by Order, determine the compliance program.

§45-27-12. Variance.

12.1. Due to unavoidable malfunction of equipment or other conditions resulting in emissions exceeding a level established in the compliance program, emissions exceeding those provided for in this rule may be permitted by the Director 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 malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

§45-27-13. Inconsistency Between Rules.

13.1. In the event of any inconsistency between this rule and any other rule of the Director, the resolution of such inconsistency shall be resolved by the determination of the Director and such determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

TABLE A

	Pounds/year
Acrylonitrile	500
Allyl Chloride	10,000
Benzene	1,000
1,3 Butadiene	500
Carbon Tetrachloride	1,000
Chloroform	1,000
Ethylene Dichloride	1,000
Ethylene Oxide	500
Formaldehyde	1,000
Methylene Chloride	5,000
Propylene Oxide	5,000
Trichloroethylene	10,000
Vinyl chloride	1,000
Vinylidene Chloride	2,000