

REGULATION 6.24 Standard of Performance for Existing Sources Using Organic Materials

Air Pollution Control District of Jefferson County Jefferson County, Kentucky

Relates To: KRS Chapter 77 Air Pollution Control

Pursuant To: KRS Chapter 77 Air Pollution Control

Necessity And Function: KRS 77.180 provides that the Air Pollution Control Board may make and enforce all needful orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation provides for the control of organic materials emissions from existing affected facilities.

SECTION 1 Applicability

- 1.1 This regulation applies to any affected facility using any organic materials which was in being or had a construction permit issued by the District prior to the effective date of this regulation except when a specific regulation exists for the source.
 - 1.1.1 Those portions of any series of affected facilities designed for processing a continuous web, strip, or wire which emit organic materials shall be taken collectively to determine compliance with this regulation;
 - 1.1.2 Emissions of organic materials resulting from air or heated drying of products for the first 12 hours after their removal from an affected facility shall be included in determining compliance with this regulation; and
 - 1.1.3 Emissions of organic materials to the atmosphere from the cleanup with organic materials of any affected facility shall be included with other emissions of organic materials from that affected facility for determining compliance with this regulation.
- 1.2 This regulation shall not apply to:
 - 1.2.1 The use of equipment for which other requirements are specified by Regulation 6 for existing sources or which are exempt from air pollution control requirements by the regulation;
 - 1.2.2 The spraying or other employment of insecticides, pesticides, or herbicides;
 - 1.2.3 The employment, application, evaporation, or drying of saturated halogenated hydrocarbons or perchlorethylene;
 - 1.2.4 The use of any material in any affected facility described in section 1.1 if the volatile content of the material prior to application consists only of Class III solvent and a solid content comprising not less than 70% by volume of the material as applied; or
 - 1.2.5 The use of any material in any affected facility described in section 1.1 if the volatile content of the material prior to application consists only of water and Class III solvent and the organic solvent comprises not more than 20% of the volatile content by volume as applied.

SECTION 2 Definitions

Terms used in this regulation not defined herein shall have the meaning given them in Regulation 1.02.

- 2.1 "Affected Facility" means any article, machine, equipment, or other contrivance used for employing or applying any organic material.
- 2.2 "Class I Solvent" means any organic material which comes into contact with flame or is baked, heat-cured, or heat-polymerized in the presence of oxygen, unless it can be demonstrated to the satisfaction of the District that no new compounds are created through such contact.
- 2.3 "Class II Solvent" means any organic material except perchlorethylene, which has an aggregate of more than 20% of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations referred to the total volume of organic materials:
- 2.3.1 A combination of hydrocarbons having an olefinic or cycloolefinic type of unsaturation - 5%;
- 2.3.2 A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene - 8%; or
- 2.3.3 A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene, or toluene - 20%;
- When any organic material or a constituent of an organic material may be classified by its chemical structure into more than one of the above groups of organic compounds, it shall be considered as a member of the most reactive chemical group, that is, that group having the least allowable percent of the total volume of organic materials.
- 2.4 "Class III Solvent" means any organic material which is not classified as a Class I or a Class II solvent.
- 2.5 "Organic materials" means VOCs which are used as solvers, reaction media, viscosity reducers, cleaning agents, reactants, diluents, or thinners, except that such materials which have a vapor pressure less than 0.5 mm Hg at 220 °F shall not be considered to be included unless exposed to temperatures exceeding 220 °F.

SECTION 3 Standard for Organic Materials

- 3.1 No owner or operator subject to this regulation shall discharge into the atmosphere more than 15 pounds of organic materials in any one day, or more than three pounds in any one hour, from any existing affected facility in which any Class I solvent is used unless said discharge has been reduced by at least 85% by weight.
- 3.2 No owner or operator subject to this regulation shall discharge into the atmosphere more than 40 pounds of organic materials in any one day, nor more than eight pounds in any one hour, from any existing affected facility in which any Class II solvent is used unless said discharge has been reduced by at least 85% by weight.
- 3.3 No owner or operator subject to this regulation shall discharge into the atmosphere more than 3,000 pounds of organic materials in any one day, nor more than 450 pounds in any one hour, from any existing affected facility in which any Class III solvent or any material containing such solvent is employed or applied unless the discharge has been reduced by at least 85% by weight.
- 3.4 If incineration is the control method used to achieve compliance with sections 3.1, 3.2, or 3.3, then 90% of the carbon in the organic material must be oxidized to carbon dioxide.

SECTION 4 Monitoring and Reporting

- 4.1 Any person controlling the emission of organic materials pursuant to this regulation shall provide, properly install, and maintain in calibration, in good working order and in operation devices as specified in the permit to construct or the permit to operate, or as specified by the District, for indicating temperatures, pressures, rates of flow or other operating conditions necessary to determine the degree and effectiveness of air pollution control.
- 4.2 Any person using organic materials or any material containing organic materials shall supply the District, upon request and in the manner and form prescribed, written evidence of the chemical composition, physical properties, and amount consumed for each organic material used.

SECTION 5 Compliance

- 5.1 In all cases, the design of any control system is subject to approval by the District.
- 5.2 Compliance with the standard in section 3 shall be demonstrated by material balance except in those cases where the District determines a material balance is not possible. For those cases where a material balance is not possible, compliance will be determined based upon an engineering analysis of: the control system design, control device efficiency, control system capture efficiency, and any other factors that could influence the performance of the system. If so requested by the District, performance tests as specified by the District shall be conducted in order to determine the efficiency of the control device.

SECTION 6 Exemption

Facilities that manufacture surface coatings for other facilities, that use or apply surface coatings and that are in compliance with an applicable emission standard exemption in Regulation 6 or 7 are exempt from the standards in section 3 for the manufacture of those particular coatings.

SECTION 7 Compliance Timetable

Any affected facility shall be in compliance as of the effective date of this regulation.

Adopted v1/6-13-79; effective 6-13-79, amended v2/3-17-93.