Kansas Administrative Regulations

Department of Health and Environment

Article 19.—Ambient Air Quality Standards and Air Pollution Control—Volatile Organic Compound Emissions.

28-19-71. Printing operations.

(a) The provisions of this regulation shall apply to all packaging rotogravure, publication rotogravure and flexographic printing facilities with potential contaminant emission rate of volatile organic compounds (VOC) equal to or more than 100 tons per year. The potential contaminant emission rate calculations may include federally enforceable permit restrictions.

(b) An owner or operator of an affected facility may not operate, cause, allow or permit the operation of the facility unless:

(1) the ink, as it is applied to the substrate, contains:

(A) for a water borne ink, a volatile content of 25.0 percent or less by volume VOC and 75 percent or more by volume water; and

(B) for a high solids, solvent borne ink, less water, 60.0 percent or more by volume solid fraction; or

(2) the owner or operator installs and operates a vapor processing system which uses a carbon adsorber or an incinerator as a VOC emissions control device or other types of VOC emissions control devices may be used upon department approval. A vapor collection system, the design and operation of which shall be consistent with good engineering practice, shall be used with any vapor processing system. The vapor processing system shall provide, as demonstrated to the satisfaction of the department, an overall emissions reduction of at least:

(A) 75.0 percent where a publication rotogravure process is employed;

(B) 65.0 percent where a packaging rotogravure process is employed; or

(C) 60.0 percent where a flexographic printing process is employed.

(c) The owner or operator of an affected facility not in compliance with subsection (b) after the facility becomes subject to the provisions of this regulation shall meet the increments of progress to achieve compliance in the following schedules:

(1) For process equipment alterations and add-on vapor processing systems requiring purchase orders:

(A) submit final plans for the vapor processing system or process alterations, or both, within 75 days after the facility becomes subject to the provisions of this regulation;

(B) award contracts or purchase orders for the vapor processing system or process alterations, or both, within 135 days after the facility becomes subject to the provisions of this regulation;

(C) initiate onsite construction or installation of the vapor processing system or process alterations, or both, within 200 days after the facility becomes subject to the provisions of this regulation;

(D) complete onsite construction or installation of the vapor processing system or process alterations, within 300 days after the facility becomes subject to the provisions of the regulation; and

(E) achieve final compliance within 365 days after the facility becomes subject to the provisions of this regulation.

(2) for process equipment alterations and vapor processing systems not requiring purchase orders:

(A) submit final plans for the vapor processing system or process alterations, or both, within 45 days after the facility becomes subject to the provisions of this regulation;

(B) award contracts for process alterations or for the vapor processing system, or both, within 90 days after the facility becomes subject to the provisions of this regulation;

(C) initiate onsite construction or installation of process alterations or vapor processing system, or both, within 120 days after the facility becomes subject to the provisions of this regulation;

(D) complete onsite construction or installation of process alterations or vapor processing system, or both, within 180 days after the facility becomes subject to the provisions of this regulation; and

(E) achieve final compliance within 200 days after the facility becomes subject to the provisions of this regulation.

(d) The owner or operator of an affected facility not in compliance with subsection (b) after the facility becomes subject to the provisions of this regulation may submit to the department, and the department may approve, a proposed alternate compliance schedule to those outlined in subsection (c), provided the following requirements are met:

(1) the proposed alternate compliance schedule shall be submitted within 45 days after the facility becomes subject to the provisions of this regulation;

(2) the owner or operator shall demonstrate to the satisfaction of the department the need for an alternate schedule;

(3) the alternate compliance schedule shall contain increments of progress;

(4) sufficient documentation and certification from appropriate suppliers, contractors, manufacturers, or fabricators shall be submitted to the department by the owner or operator of the affected facility to justify the dates proposed for the increments of progress;

(5) the owner or operator shall certify in writing to the department, within five days after the deadline for each increment of progress, that the required increment of progress has been met; and

(6) final compliance shall be achieved within 365 days after the facility becomes subject to the provisions of this regulation.

(e)(1) The owner or operator of an affected facility shall, within 365 days after the facility becomes subject to the provisions of this regulation and at other times considered necessary by the department to determine compliance with this regulation and at the owner or operator's expense, demonstrate compliance to the satisfaction of the department with subsection (b) by the test methods outlined in the following documents or alternate methods demonstrated to the satisfaction of the department to be equivalent:

(A) appropriate reference methods in 40 CFR Part 60, appendix A, as in effect July 1, 1986; and

(B) U.S. environmental protection agency guideline series document "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink and Other Coatings", EPA-450/3-84-011, as in effect December, 1984.

(2) The owner or operator shall notify the department of the intent to test not less than 30 days before the proposed initiation of any tests, and the notification shall contain the information required by, and be in a format approved by, the department.

(f) Subsequent to the initial performance test required in subsection (e), the owner or operator shall monitor compliance with subsection (b) by maintaining and analyzing the daily records required by subsection (h) using composition of the ink as applied to the substrate determined by:

(1) ink analysis conducted by the owner or operator in accordance with 40 CFR Part 60, appendix A, reference method 24A, as in effect July 1, 1986; or

(2) formulation data supplied by the ink manufacturer plus VOC added to alter ink viscosity before application to the substrate. The department may require the manufacturer's data be verified, at the expense of the owner or operator, by method 24A referenced in subsection (f)(1), if the department has reason to believe compliance with subsection (b) is not being achieved.

(g) Use of vapor processing systems shall require that continuous monitors be installed, calibrated, operated and maintained. The continuous monitors shall continuously measure and record the following parameters:

(1) with an accuracy of the greater of ± 0.75 percent of the temperature being measured, expressed in degrees celsius, of 2.5 degrees celsius, the exhaust gas temperature of all VOC destruction devices and the gas temperature immediately upstream and downstream of any catalyst bed; and

(2) with an accuracy of ± 2.00 percent of the amount being monitored, the cumulative amount of VOC recovered during a calendar month for all VOC recovery equipment; and

(3) any other parameters considered necessary by the department.

(h) The owner or operator of an affected facility shall keep and maintain at the facility, and make available for inspection by a department representative, records for each emission unit demonstrating continuous compliance with this regulation. The records shall include daily records of the following information and shall be kept at the facility for two years following the date of record:

(1) properties of inks as supplied: density in pounds per gallon, total volatile content in weight percent, total VOC content in pounds per gallon minus water, water content in weight percent, and nonvolatiles content in weight percent;

(2) properties of dilution solvents: chemical name and density in pounds per gallon;

(3) properties of inks as applied to substrate: weighted average density in pounds per gallon and ink dilution ratio in gallons of solvent to gallons of ink as supplied;

(4) quantity of individual inks as applied to substrate;

(5) results of any testing conducted on an emissions unit at an affected facility; and

(6) maintenance records of the vapor processing systems.

(i) The provisions of this regulation shall be applicable only to the printing operations located within areas which were identified as not meeting the national primary ambient air quality standard for ozone in the manner prescribed by the provisions of the federal clean air act, 42 U.S.C. 7407, as promulgated at 40 CFR Part 81 as in effect July 1, 1986 and amended at 51 Fed. Reg. 25,200 July 11, 1986.

(Authorized by and implementing K.S.A. 65-3005, 65-3010; effective May 1, 1986; amended May 1, 1987; amended, T-88-55, Dec. 16, 1987; amended May 1, 1988.)

***** Authenticated Kansas Administrative Regulation *****