Kansas Administrative Regulations

Department of Health and Environment

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

28-19-76. Lithography printing operations.

(a) The provisions of this regulation shall apply to all offset lithography printing facilities with a 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 conditions.

(b) The provisions of this regulation do not apply to:

(1) printing on fabric, metal or plastic;

(2) sheet fed lithographic presses with cylinder widths of 26 inches or less; or

(3) web lithographic presses with cylinder widths of 18 inches or less.

(c) Any owner or operator of an offset lithographic printing press subject to this regulation and employing fountain solution (the solution applied to the image plate to maintain the hydrophilic properties of the non-image areas) containing VOC shall not operate, or cause or allow the operation of, such process unless:

(1) the fountain solution shall continuously contain 10 percent by weight or less of alcohol. For purposes of this regulation, alcohol is defined as isopropanol or isopropyl alcohol;

(2) the fountain solution is refrigerated to a temperature of 55 degrees Fahrenheit or less for alcohol based solutions;

(3) the fountain temperature at the mixing tank is capable of being determined continuously and of being recorded once per shift;

(4) the fountain solution mixing tanks are covered.

(d) Any owner or operator of an offset lithographic printing facility subject to this regulation and employing cleanup solvents containing VOC shall not operate, or cause or allow the operation of, such process unless:

(1) the cleanup solvents are kept in tightly covered tanks or containers during transport and storage; and

(2) cleaning rags used in conjunction with the cleanup solvents are placed, when not in use, in tightly closed containers and collected for proper disposal or recycling.

(e) Any owner or operator of a heatset web-offset lithographic printing press subject to this regulation with an actual emission rate of greater than or equal to 10 tons per year of VOC and employing a dryer shall not operate or cause or allow the operation of such press unless 100 percent of the dryer exhaust is ducted to a control device which achieves 85 percent by weight or greater control efficiency for VOC's as determined by 40 CFR Part 60, Appendix A, reference method 25 or reference method 25A, as in effect July 1, 1989.

(1) The owner or operator shall keep and maintain at the facility, and make available to inspection by a department representative, records for each heatset web-offset lithographic printing press sufficient to demonstrate that control efficiency is maintained.

(2) Use of emission control equipment shall require that continuous monitors be installed, calibrated, operated and maintained. The monitors shall continuously measure the following parameters:

(A) with an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius, or 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; or

(B) 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

(C) any other parameters considered necessary by the department to verify proper operation of emission control equipment.

(f) For purposes of compliance:

(1) The owner or operator of a facility which is subject to the provisions of this regulation shall provide to the department for approval a demonstration of compliance with subsections (c), (d) and (e) of this regulation:

(A) upon alteration of an existing source or upon commencement of operation of an emission source which is not in existence and operating on the effective date of this regulation and at any time thereafter if requested by the department; or

(B) within 18 months after the effective date of this regulation for all other facilities and at any time thereafter if requested by the department, except that sheet-fed lithographic presses with cylinder widths of 60 inches or more which are in existence and operating on the effective date of this regulation shall have 36 months after the effective date of this regulation to provide, for the approval of the department, a demonstration of compliance with subsection (c)(1) of this regulation.

(2) If the demonstration of compliance will not be conducted within 12 months after an existing facility becomes subject to this regulation, a final control plan shall be submitted to the secretary by December 31, 1991 for approval. This plan shall include the following:

(A) a detailed plan for process modification; and

(B) a time schedule for compliance containing increments of progress and a final compliance date.

(g) The owner or operator of a facility subject to this regulation shall keep and maintain at the facility, and make available to inspection by a department representative, records sufficient to determine continuous compliance with this regulation. The records shall include the following information and shall be kept at the facility for two years following the date of record:

(1) properties of inks (determined by the manufacturer's formulation data) as applied, density in pounds per gallon, and total volatile content in weight percent;

(2) quantity of inks as applied to substrate in pounds on a monthly basis;

(3) quantity of alcohol added to the fountain solution of each regulated press in pounds each month;

(4) percent by weight of alcohol in fountain solution as monitored on a once per shift basis using a calibrated hydrometer, refractometer or other approved testing device;

(5) quantity of cleanup solvents used on a monthly basis;

(6) quantity of coatings used on a monthly basis and percent VOC in coating by weight on a formulation basis;

(7) results of any testing conducted on an emission unit at a regulated facility;

(8) maintenance records of any air pollution control equipment;

(9) maintenance records of any continuous air pollution monitoring equipment;

(10) the temperature of the fountain solution as recorded on a once per shift basis; and

(11) records as required by the department.

(h) For the purpose of calculating facility-wide VOC emissions the following factors may be taken into consideration unless an alternative method is approved by the department. The facility may assume that:

(1) when properly disposing of used solvent laden rags, 50 percent of the solvent used for cleanup is retained in the rag, if the facility demonstrates, to the satisfaction of the department, that the solvents are not evaporated into the air during the waste-rag disposal process;

(2) 40 percent of the heatset ink oils stay in the paper web (substrate printed in a continuous roll-fed printing process);

(3) no VOC's are emitted from the inks used in sheet fed presses and non-heatset web presses; and

(4) 50 percent of the solvent from the fountain solution of a heatset web-offset lithographic printing press is emitted from the dryer.

(i) The provisions of this regulation shall be applicable only to offset lithography printing facilities located in areas which have been 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, 1989.

(Authorized by K.S.A. 65-3005; implementing K.S.A. 65-3010; effective Oct. 7, 1991.)

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