Kansas Administrative Regulations

Department of Health and Environment

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

28-19-63. Automobile and light duty truck surface coating.

(a) The provisions of this regulation shall be applicable to each automobile or light duty truck top coat and primer surfacer surface coating operation and all other automobile or light duty truck surface coating application systems at those facilities which have a VOC potential contaminant emission rate equal to or greater than three tons per year. For the purposes of this rule, surface coating operation means the combination of all coating application systems which apply the specific class of surface coatings identified at table A of subsection (b). The VOC potential contaminant emission rate of a facility shall be determined by:

(1) the maximum hourly production rate of each coating application system; and

(2) the assumption that the facility operates 24 hours per day, 365 days per year provided that the facility's operating hours are not otherwise limited by federally enforceable permit conditions.

(b) An owner or operator of any facility subject to this regulation shall not:

(1) conduct any surface coating operation that emits VOC to the atmosphere in excess of the amount specified in table A below.

Table A

VOC Emission Limits Based on Solids Applied

Surface Coating Operation	Emission Limit (Pounds of VOC/Gal. of Solids Applied)
Top coat	15.1

Primer surfacer	15.1	

(2) operate any surface coating application system that emits VOC to the atmosphere in excess of the amount specified in table B below.

Table B

Surface Coating Application System	Coating Characteristics lb/gal coating (minus exempt VOC and water)	Compliance Date
Body primer coat	1.2	12-31-82
Body primer-surfacer coat	3.0	12-31-82
	2.8	12-31-87
Body top coat	5.8	07-01-80
	5.0	12-31-81
	2.8	12-31-87
Body final repair coat	6.5	07-01-80
	4.8	12-31-87
Miscellaneous metal parts	3.5	07-01-82

(c) Use of additional VOC shall be considered as follows:

(1) for determining the potential contaminant emission rate of the facility in accordance with subsection (a), include that added for thinning coatings and that used for purging or washing coating applicators which cannot be otherwise accounted for in a reclamation system; and

(2) for compliance with subsection (b), include that added for thinning coatings.

(d) The emission limits which will result from the use of coatings in subsection (b) shall be achieved by:

(1) application of coatings which meet or exceed the characteristics of the coatings in table B of subsection (b) per coating application system on a daily weighted average basis. For the purpose of this subsection (d)(1), "daily weighted average" is the total weight of VOC emitted from a coating application system per day, divided by the volume of coating used per day; or

(2) application of coatings to achieve equivalent emissions based on the weight of VOC emitted per gallon of solids applied as specified in table A of subsection (b). For purposes of subsection (d)(2), "daily weighted average" is the total weight of VOC emitted from a surface coating operation per day, divided by the volume of solids applied per day as determined by procedures described in the publication referenced in (f); or

(3) application, for the capture and reduction of VOC emissions through either destruction or collection, of emission control equipment demonstrated through testing as capable of maintaining an overall VOC emission reduction necessary to meet the emission requirements of subsection (b). Use of emission control equipment shall require that continuous monitors be installed, calibrated, operated and maintained. Maintenance records of the monitors shall be kept and made available for department inspection. The monitors shall continuously measure and record 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;

(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; or

(4) any combination of methods approved by the department which results in emissions, when calculated as pounds of VOC per gallon of solids applied per coating application system, that are no greater on a daily weighted basis than those achieved with the appropriate coatings specified in table B of subsection (b).

(e) Prior to 180 days after a facility becomes subject to the provisions of this regulation, the owner or operator of the facility shall demonstrate, at the expense of the owner or operator, initial compliance with this regulation by testing. An owner or operator proposing to conduct testing shall notify the department, in writing, of the intent to test not later than 30 days prior to the proposed date of testing. The owner or operator shall submit to the department any information about the proposed test requested by the department. The department may require, at any time necessary to determine compliance with this regulation, the owner or operator of any facility subject to this regulation to demonstrate compliance by testing, and at the expense of the owner or operator. Testing, for purposes of this regulation, shall be approved by the department and consistent with:

(1) 40 CFR Part 60, appendix A, as in effect July 1, 1989; and

(2) procedures as established by the department in approving proposed test plans consistent with subsection (e)(1).

(f) Demonstration of continual compliance per top coat and primer surfacer surface coating operations achieved by subsection (d)(2) shall be based on the procedures in the publication "protocol for determining the daily volatile organic compound emission rate of automobile and light-duty truck topcoat operations," published in EPA document no. EPA-450/3-88-018 (December 1988).

(g) Demonstration of continual compliance per coating application system not covered by subsection (f), achieved by subsection (d)(3) or (d)(4) shall be based on the finding that the results obtained by the formula in (2) are equal to or less than the results obtained by the formula in (1), both results on a daily weighted average basis.

(1) complying coating equivalent emissions expressed as:

$$\frac{\text{VOC, lbs}}{\text{gal. of solids applied}} = \frac{\text{EL}}{(\text{VS})\,(\text{TE})}$$

EL = the coating characteristics established by this regulation, expressed as pounds of VOC per gallon of coating, less exempt VOC and water.

V = volume fraction of solids in EL,
S expressed as a decimal, where the density of coating solvents is assumed to be 7.36 pounds per gallon, less exempt VOC and water.

TE = baseline transfer efficiency as defined at K.A.R. 28-19-61, expressed as a decimal.

(2) Actual coating equivalent emissions expressed as:

$$\frac{\text{VOC, lbs}}{\text{gal. of solids applied}} = \frac{\text{AC}\,(1 - \text{E})}{(\text{vs})\,(\text{te})}$$

AC = pounds of VOC per gallon of the coating as delivered to the coating application system, less exempt VOC and water.

E = the demonstrated efficiency of installed vapor processing system determined by the actual vapor collection system efficiency multiplied by the actual VOC emission control device efficiency, expressed as a decimal.

vs = volume fraction of solids of the

coating as delivered to the coating application system, expressed as a decimal. For water-borne coatings, the volume fraction of solids is determined without water.

te = the demonstrated transfer efficiency of the coating application system, expressed as a decimal.

The owner or operator shall determine AC and vs by using 40 CFR Part 60, appendix A, reference method 24, as in effect July 1, 1989, and data supplied by the coating manufacturer adjusted by the VOC used for thinning purposes; or from analysis of coatings as applied. The analysis shall be conducted by the owner or operator in accordance with reference method 24, as in effect July 1, 1989. If manufacturers formulation data is used, verification of the data may be required by reference method 24, or a department approved equivalent method, and at the expense of the owner or operator.

(h) The owner or operator of each emission unit within a facility subject to this regulation shall keep and maintain records at the facility and make available for inspection by a department representative to determine continuous compliance of the facility with this regulation.

(1) In order to demonstrate compliance for surface coating operations under table A of subsection (b), the records used to complete the calculations found in EPA document no. EPA-450/3-88-018 referenced at subsection (f) shall be kept at the facility for two years following the date of record.

(2) In order to demonstrate compliance for coating application systems under table B of subsection (b), the records shall include the following information and shall be kept at the facility for two years following the date of record:

(A) the type and amount of coatings and thinning solvents delivered daily to each coating application system. The daily record-keeping requirements of this subsection may be waived if the owner or operator:
(i) demonstrates that it uses only coatings that have been determined to be in compliance with table B of subsection (b) of this regulation; and
(ii) has received written approval from the department for a waiver from this requirement;
(B) the manufacturer's coating formulation data, and other test data, including density, weight percent volatiles (as determined using a one hour bake), weight percent water, and weight percent exempt VOC, determined by reference method 24 for each coating;
(C) the coating's solids content, as delivered to the coating application system in volume percent;
(D) the results of any testing conducted at the facility pertaining to transfer efficiencies, capture efficiencies or control equipment reduction efficiencies;
(E) the type, density and amount of solvents used each month for purge and equipment cleaning;
(F) amount and density of waste solvents reclaimed; and
(G) those records as required in subsections (d)(3)(A) through (d)(3)(C).
(i) The owner or operator of a facility shall comply with all emission limits within 180 days after the facility becomes subject to the provisions of this regulation.
(j) The provisions of this regulation shall be applicable only to affected 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 section 107(d) 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, E-81-28, Sept. 10, 1980; effective May 1, 1981; amended May 1, 1986; amended, T-88-55, Dec. 16, 1987; amended May 1, 1988; amended Nov. 8, 1993.)

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