Kansas Administrative Regulations

Department of Health and Environment

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

28-19-74. Wool fiberglass manufacturing.

(a) The provisions of this regulation shall be applicable to each wool fiberglass manufacturing facility which has a VOC potential contaminant emission rate equal to or greater than 100 tons per year on a facility-wide basis. A facility's VOC potential contaminant emissions rate shall be determined by:

(1) the facility owner or operator estimate of the maximum hourly production rate of each wool fiberglass manufacturing line; and

(2) assuming that the facility operates 24 hours per day, 365 days per year.

(b) No owner or operator of a wool fiberglass manufacturing line shall cause or allow VOC to be discharged into the atmosphere in excess of five pounds of VOC per ton of glass pulled.

(c) The owner or operator of the affected facility shall demonstrate that each wool fiberglass manufacturing line is in compliance with the VOC emissions rate of subsection (b) through testing as specified in subsection (d) and calculations as specified in subsection (f).

(d) Testing of each wool fiberglass manufacturing line shall be conducted:

(1) initially within 180 days after a facility becomes subject to the provisions of this regulation, if recent department approved testing has not been conducted prior to the time the facility becomes subject to the provisions of this regulation, and thereafter at other times considered by the department necessary to determine compliance with this regulation;

(2) at the expense of the owner;

(3) in accordance with a test plan approved by the department before the testing is scheduled. The plan shall include:

(A) name of testing agency;

(B) testing dates;

(C) sampling location;

(D) sampling equipment;

(E) sampling procedures;

(F) sample recovery methods; and

(G) any other information considered necessary by the department;

(4) not less than 30 days after the owner or operator submits, in writing, the proposed date of testing to the department; and

(5) in a manner consistent with:

(A) procedures established by the department in approving test plans;

(B) 40 CFR Part 60, appendix A, reference method 5E, as in effect July, 1986, with the following stipulations:

(i) the sampling time for each test run being at least two hours and the volume of gas sampled being at least 90 dry standard cubic feet;

(ii) samples collected in the impingers shall be recovered as specified in "Container No. 5" in paragraph 4.2;

(iii) samples shall be analyzed as specified for "Container No. 5" in paragraph 4.3; and

(iv) the concentration of VOC shall be calculated as specified for "Cc" in paragraphs 6.1 and 6.2; and

(C) the reference methods of 40 CFR Part 60, appendix A, as in effect July 1, 1986, for the collection of data required during the testing procedure, as follows:

(i) reference method 1 for stack or duct gas sample and velocity traverses;

(ii) reference method 2 for stack or duct gas velocity and gas volumetric flow rate;

(iii) reference method 3 for stack or duct gas dry molecular weight; and

(iv) reference method 4 for stack or duct gas moisture content.

(e) In addition to the parameters required to be recorded in subsection (d), the owner or operator shall concurrently record the following parameters relating to baseline operating conditions at each wool fiberglass manufacturing line:

(1) the product being produced;

(2) glass pull rate, weight per unit time;

(3) binder type;

(4) binder application rate, weight per unit time;

(5) line speed where applicable, length per unit time;

(6) trimmed mat width where applicable, length;

(7) mat weight where applicable, weight per unit area;

(8) loss on ignition as determined by ASTM Standard Test Method D-2584-68, "Ignition Loss of Cured Reinforced Resin," percent; and

(9) the operating parameters of any VOC emissions control devices at least once during each eight hour work shift, such as:

(A) electrostatic precitator electrical data and inlet temperature;

(B) wet scrubbing device water flow rate, volume per unit time;

(C) wet scrubbing device pressure drop, pressure units; and

(10) other parameters determined by the department to be necessary to establish baseline conditions of the control system.

(f) The actual VOC emissions rate, to be used in determining compliance with the VOC emissions rate of subsection (b), shall be calculated as follows:

(1) The VOC emissions rate, R, from each wool fiberglass manufacturing line being determined using the VOC concentration, Cc, determined in subsection (d)(5)(B)(iv) and the volumetric flow rate, Q, as determined in subsection (d)(5)(C)(ii), using the following equation:

$$R = CcQ$$

where:

R = weight of VOC per unit time

Cc = weight of VOC per unit volume

Q = volumetric flow rate of gas stream at testing location, actual volume per unit time;

(2) for each two hour test run, the average glass pull rate, P, for each wool fiberglass manufacturing line shall be computed from at least three glass pull rates determined at intervals of at least 30 minutes during the test run. The individual glass pull rates shall be:

(A) computed according to the following equation:

$$P = \frac{LWM\,(100 - LOI)}{100}$$

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where:

P = glass pull rate, weight per unit time

L = line speed, length per unit time

W = trimmed mat width, length

M = mat weight, weight per unit area

LOI = loss on ignition, percent, as determined by ASTM Standard Test Method D-2584-68, "Ignition Loss of Cured Reinforced Resins," as in effect 1979; or

(B) determined by measurements of the glass flowing from the rotary spinning process; and

(3) the emissions level, E, for purposes of determining compliance with subsection (b), being computed using the following equation:

$$E = \frac{R}{P}$$

where:

E = emissions level, weight of VOC emissions per unit weight of product, converted to units of the emissions standard in subsection (b)

R = emissions rate, from subsection (f)(1)

P = average glass pull rate, from subsection (f)(2).

(g) The owner or operator of each wool fiberglass manufacturing line subject to this regulation shall keep and maintain at the facility, and make available for inspection by a department representative, records needed to determine continuous compliance of the plant with this regulation. The owner or operator shall keep the records in a form suitable for inspection and shall maintain them at the facility for two years following the date of record. The owner or operator shall maintain a record of the production parameters listed in subsection (e) and any other parameter the department may consider to be necessary to determine compliance with this regulation.

(h) The provisions of this regulation shall be applicable only to affected facilities 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 May 1, 1987; amended, T-88-55, Dec. 16, 1987; amended May 1, 1988.)

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