401 KAR 61:030. Existing sulfuric acid plants.

RELATES TO: KRS Chapter 224
STATUTORY AUTHORITY: KRS 224.10-100
NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Environmental and Public Protection Cabinet to prescribe administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation provides standards of performance for existing sulfuric acid plants.

Section 1. Applicability. The provisions of this administrative regulation shall apply to affected facilities associated with sulfuric acid plants commenced before the classification date defined below.

Section 2. Definitions. As used in this administrative regulation, all terms not defined herein shall have the meaning given them in 401 KAR 50:010. "Classification date" means August 17, 1971.

Section 3. Standard for Sulfuric Acid Mist. No person shall cause, suffer, allow, or permit the following emissions into the open air:

(1) Sulfuric acid mist in the effluent in excess of five-tenths (0.50) pound per ton of acid produced, the production being expressed as 100 percent sulfuric acid.

(2) A visible emission which is greater than twenty (20) percent opacity.

Section 4. Standard for Sulfur Dioxide. No person shall cause, suffer, allow, or permit the following emission into the open air: Sulfur dioxide in the effluent in excess of twenty-seven and six-tenths (27.6) pounds per ton of acid produced, the production being expressed as 100 percent sulfuric acid.

Section 5. Test Methods and Procedures.

(1) The reference methods as defined in Appendix A of 40 CFR 60, filed by reference in 401 KAR 50:015, except as provided in 401 KAR 50:045, shall be used to determine compliance with the standards prescribed in Sections 3 and 4 of this administrative regulation:

(a) Reference Method 8 for the concentrations of sulfur dioxide and acid mist;

(b) Reference Method 1 for sample and velocity traverses;

(c) Reference Method 2 for velocity and volumetric flow rate; and

(d) Reference Method 3 for gas analysis.

(2) The moisture content can be considered to be zero. For Reference Method 8 the sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume shall be 1.15 dscm (forty and six-tenths (40.6) dscf) except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the cabinet.

(3) Acid production rate, expressed in metric tons per hour of 100 percent sulfuric acid shall be determined during each testing period by suitable methods and shall be confirmed by a material balance over the production system.

(4) Acid mist and sulfur dioxide emissions, expressed in g/metric ton of 100 percent sulfuric acid shall be determined by dividing the emission rate in g/hr by the acid production rate. The emission rate shall be determined by the equation g/hr = (QS)(c), where QS = volumetric flow rate of the effluent in dscm/hr as determined in accordance with subsection (1)(c) of this section and c = acid mist and sulfur dioxide concentrations in g/dscm as determined in accordance with subsection (1)(a) of this section.

(5 Ky.R. 478; eff. 6-6-1979; TAm eff. 8-9-2007; Crt eff. 1-25-2019.)