

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

PART 4. EMISSION LIMITATIONS AND PROHIBITIONS— SULFUR-BEARING COMPOUNDS

R 336.1401 Emission of sulfur dioxide from power plants.

Rule 401. (1) In a power plant, it is unlawful for a person to burn fuel that does not comply with the sulfur content limitation of table 41 or which, when burned, results in sulfur dioxide (SO₂) emissions exceeding an equivalent emission rate as shown in table 41. In a power plant located in Wayne county, it is unlawful for a person to burn fuel that does not comply with the sulfur content limitation of table 42 and unlawful to cause or permit a discharge into the atmosphere from fuel-burning equipment SO₂ in excess of the SO₂ concentration limit shown in table 42.

(2) Tables 41 and 42 read as follows:

**TABLE 41
Fuel and SO₂ Emission Limitations for Power Plants**

Plant Capacity ^(a)	Maximum Average Sulfur Content in Fuel ^(b, e) (Percent by Weight)	Equivalent Emission Rates			
		Parts per Million by Volume (ppmv) Corrected to 50% Excess Air ^(e)		Pounds of SO ₂ per Million Btu of Heat Input ^(e)	
		Solid Fuel ^(c) (12,000 Btu/lb)	Liquid Fuel ^(d) (18,000 Btu/lb)	Solid Fuel ^(c) (12,000 Btu/lb)	Liquid Fuel ^(d) (18,000 Btu/lb)
0-500,000 lbs Steam per Hour Plant Capacity	1.5	890	630	2.5	1.67
Greater than 500,000 lbs Steam per Hour Plant Capacity	1.0	590	420	1.67	1.11
(a) The total steam production capacity of all coal- and oil-burning equipment in a power plant as of August 17, 1971.					
(b) "Maximum average sulfur content in fuel" means the average sulfur content in all fuels burned at any 1 time in a power plant. The sulfur content shall be calculated on the basis of 12,000 Btu per pound for solid fuels and 18,000 Btu per pound for liquid fuels.					
(c) Solid fuels include both pulverized coal and all other coal.					
(d) Liquid fuels include distillate oil (No. 1 and No. 2), heavy oil (No. 4, No. 5, and No. 6), and crude oil.					
(e) A person shall sample, analyze, calculate, and record for each day of operation for each unit at the power plant, the sulfur content of the fuel combusted or the fuel's equivalent SO ₂ emission rate in accordance with as-fired fuel sampling and analysis procedures found in appendix A of 40 CFR part 60; in particular the "Standard Test Methods for Sulfur in Petroleum Products:" ASTM D129-01, D1266-98, or D1552-01 and the "Standard Test Methods for Total Sulfur in the Analysis of Coal and Coke:" ASTM D3177-89 or D4239-02; as referenced in 40 C.F.R. part 60.17, adopted by reference in R 336.1802a. Records shall be kept, including the identification of the power plant, days of operation, and maximum sulfur content of fuel combusted for each day of operation. Records shall be maintained on site for 5 years and submitted to the department upon written request.					

TABLE 42
Fuel and SO₂ Concentration Limitations for Power Plants Located
in Wayne County

Fuel Type	Maximum Weight Percent Sulfur Content in Fuel ^(a & b) Limitations for Fuel-Burning Equipment	SO ₂ ppmv Emission Rates Corrected to 50% Excess Air ^(b)
Pulverized Coal	1.00	550
Other Coal	0.75	420
Distillate Oil Nos. 1 & 2	0.30	120
Used Oil	1.00	300
Crude and Heavy Oil Nos. 4, 5, & 6	1.00	400
(a) "Maximum weight percent sulfur content in fuel" means the maximum weight percent sulfur content in all fuels burned at any 1 time in a power plant.		
(b) A person shall sample, analyze, calculate, and record for each day of operation for each unit at the power plant, the sulfur content of the fuel combusted and the fuel's equivalent SO ₂ emission rate in accordance with as-fired fuel sampling and analysis procedures found in appendix A of 40 CFR part 60; in particular the "Standard Test Methods for Sulfur in Petroleum Products:" ASTM D129-01, D1266-98, or D1552-01 and the "Standard Test Methods for Total Sulfur in the Analysis of Coal and Coke:" ASTM D3177-89 or D4239-02; as referenced in 40 C.F.R. part 60.17, adopted by reference in R 336.1802a. Records shall be kept, including the identification of the power plant, days of operation, and maximum sulfur content of fuel combusted for each day of operation. Records shall be maintained on site for 5 years and submitted to the department upon written request.		

(3) The following provisions apply to persons in Wayne county:

(a) The maximum weight percent sulfur content in fuel limitations for fuel-burning equipment provisions of table 42 of this rule shall not apply to any person who uses a combination of fuels in such ratios as to meet the SO₂ concentration limitations specified in table 42 and has obtained written approval from the department for this exemption. The allowable concentration limit will be based on the value in the table for the fuel having the higher allowable concentration limit.

(b) The maximum weight percent sulfur content in fuel limitations for fuel-burning equipment provisions of table 42 of this rule shall not apply to any person who has received an installation permit from the department on a control device to desulfurize the stack gases and the control device is installed and operating properly.

(4) Instead of conducting daily as-fired fuel sampling and analysis pursuant to subrule (2) of this rule, a person at any power plant equipped with a SO₂ continuous emissions monitoring system (CEMS) may compute and record the daily equivalent emission rates as determined by the SO₂ CEMS. The SO₂ CEMS shall be calibrated, maintained, and operated in accordance with the procedures in 40 CFR 60.13(d), (e), (f), and (h) and in performance specification 2, appendix B of 40 CFR part 60 or 40 CFR part 75 excluding the data substitution outlined in subpart D, adopted by reference in R 336.1802a. Records shall be maintained on site for 5 years and submitted to the department upon written request.

History: 1980 AACS; 2002 AACS; 2008 AACS; 2013 MR 6, Eff. March 11, 2013.