

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

AIR POLLUTION CONTROL

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

Filed with the secretary of state on

These rules take effect immediately upon filing with the secretary of state unless adopted under section 33, 44, or 45a(6) of the administrative procedures act of 1969, 1969 PA 306, MCL 24.233, 24.244, or 24.245a. Rules adopted under these sections become effective 7 days after filing with the secretary of state.

(By authority conferred on the director of the department of ~~environmental quality~~ **environment, great lakes, and energy** by sections 5503 and 5512 of **the natural resources and environmental protection act**, 1994 PA 451, MCL 324.5503 and 324.5512)

R 336.1401, R 336.1401a, R 336.1402, and R 336.1404 of the Michigan Administrative Code are amended, and R 336.1420 of the Code is rescinded, as follows:

**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. CFR part 60.17, adopted by reference in R 336.4802a1902. Records shall shall must 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 must 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
<p>(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.</p>		
<p>(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 SO₂ 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. CFR part 60.17, adopted by reference in R 336.1802a1902. Records shall must 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 must be maintained on site for 5 years and submitted to the department upon written request.</p>		

(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~~ **do** 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~~ **do** not apply to any person who has received an installation permit from the department ~~on~~ **for** a control device to desulfurize the stack gases ~~and if~~ 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~~ **must** 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~~**1902**. Records ~~shall~~ **must** be maintained on site for 5 years and submitted to the department upon written request.

R 336.1401a Definitions.

Rule 401a. As used in this part:

(a) "Power plant" means a single structure devoted to steam or electric generation, or both, and may contain multiple boilers.

(b) "Sulfur recovery plant" means any plant that recovers elemental sulfur from any gas stream.

~~(c) "Used oil" means any fuel that is produced from used oil, as defined in R 299.9109(p).~~

R 336.1402 Emission of SO₂ from fuel-burning equipment at a stationary source other than power plants.

Rule 402. (1) For fuel burning equipment at a stationary source other than a power plant it is unlawful for a person to cause or allow the emission of SO₂ from the combustion of any coal or oil fuel in excess of 1.7 pounds per million Btu of heat input for oil fuel or in excess of 2.4 pounds per million Btu of heat input for coal fuel.

(2) The provisions of subrule (1) of this rule do not apply to fuel-burning equipment at a stationary source that is unable to comply with the specified emission limits because of SO₂ emissions caused by the presence of sulfur in other raw materials charged to the fuel-burning equipment. This exception ~~shall apply~~ **applies** if at any time the actual SO₂ emission rate exceeds the expected theoretical SO₂ emission rate from fuel burning. The expected theoretical SO₂ emission rate ~~shall~~ **must** be based on the quantity of fuel burned and the average sulfur content of the fuel.

(3) For fuel burning equipment at a stationary source located in Wayne county other than a power plant, it is unlawful for a person to burn fuel that does not comply with the sulfur content limitation of table 43 and unlawful to cause or allow a discharge into the atmosphere from fuel burning equipment SO₂ in excess of the SO₂ concentration limit shown in table 43.

(4) Table 43 reads as follows:

Table 43
Fuel and SO₂ Concentration Limitations for Fuel Burning Equipment^(c) at a Stationary
Source Located in Wayne County Other than a Power Plant

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
Coal	0.75	420
Distillate Oil Nos. 1 & 2	0.30	120
Used Oil	1.0	300
Crude and Heavy Oil Nos. 4, 5, & 6	1.00	400
<p>(a) The determination of sulfur content (percent by weight) of fuel shall be carried out in accordance with -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 CFR part 60.17, adopted by reference in R 336.1802a1902.</p>		
<p>(b) Records shall must be kept, including the identification of the fuel burning equipment, days of operation, and maximum sulfur content of fuel combusted for each day of operation. Records shall must be maintained on site for 5 years and submitted to the department upon written request.</p>		
<p>(c) For table 43, fuel burning equipment includes residential and commercial space and water heating. The maximum weight percent sulfur content in fuel and SO₂ ppmv emission rate limitations for distillate, crude, and heavy oils listed above also apply to these units.</p>		

(5) 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 43 of this rule ~~shall do~~ not apply to a person who uses a combination of fuels in such ratios as to meet the SO₂ concentration limitations specified in table 43 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 43 of this rule ~~shall do~~ not apply to a person who has received an installation permit from the department for a control device to desulfurize the stack gases ~~and if~~ the control device is installed and operating properly.

R 336.1404 Emission of SO₂ and sulfuric acid mist from sulfuric acid plants.

Rule 404. (1) It is unlawful for a person to cause or allow the emission of sulfuric acid mist from any sulfuric acid plant in excess of 0.50 pounds per ton of acid produced, the production being expressed as 100% sulfuric acid.

(2) It is unlawful for a person in Wayne county to cause or allow SO₂ emissions into the atmosphere from any sulfuric acid plant to exceed 6.5 pounds per ton of acid produced.

(3) Compliance with this rule ~~shall~~**must** be demonstrated using 40 C.F.R. **CFR** part 60, appendix A, reference test method no. 8, adopted by reference in R 336.2004(1)(1)**1902**.

R 336.1420. **Rescinded.** ~~Applicability determinations, definitions, and permitting requirements under CAIR SO₂ trading program.~~

~~Rule 420. (1) As used in this rule, "CAIR" means clean air interstate rule.~~

~~(2) The provisions of 40 C.F.R. §97.202, §97.220 to §97.224 and the opt in provisions of 40 C.F.R. §97.280 to §97.288 (2011) are adopted by reference in this rule and are applicable to these rules. Copies of 40 C.F.R. §97.202, §97.220 to §97.224, and §97.280 to §97.288 are available for inspection and purchase at the Department of Environmental Quality, Air Quality Division, 525 West Allegan Street, P.O. Box 30260, Lansing, Michigan 48909-7760, at a cost as of the time of adoption of this rule of \$76.00. Copies may be also obtained from the Superintendent of Documents, U.S. Government Printing Office, 732 North Capitol Street, NW, Washington, DC 20401, by calling 1-866-512-1800 or by accessing their online bookstore at <http://bookstore.gpo.gov> at a cost as of the time of adoption of this rule of \$66.00. The standards can be viewed and/or printed free of charge at <http://ecfr.gpoaccess.gov>.~~

~~(3) Each CAIR SO₂ source, as defined in 40 C.F.R. §97.202 is required to apply for a CAIR permit in accordance with 40 C.F.R. §97.220 to §97.224. This permit shall be administered in accordance with the procedural requirements of R 336.1214 and shall be incorporated into the facility's renewable operating permit as an attachment.~~