

**326 IAC 7-4-1.1 Lake County sulfur dioxide emission limitations**

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 1.1. (a) All fossil fuel-fired combustion sources and facilities subject to 326 IAC 7-1.1 located in Lake County shall burn natural gas only, unless an alternative sulfur dioxide emission limit is provided in subsection (b) or (c). A facility subject to 326 IAC 7-1.1, but not located at a source specifically listed in subsection (b) or (c), may burn distillate oil with sulfur dioxide emissions limited to three-tenths (0.3) pounds per million Btu if the fuel combustion unit has a maximum capacity of less than twenty (20) million Btu per hour actual heat input.

(b) The following sources and facilities located in Lake County shall burn natural gas or distillate oil, and sulfur dioxide emissions shall be limited to three-tenths (0.3) pounds per million Btu:

- (1) American Can Co.-coil coating oven and three (3) incinerators.
- (2) American Steel-Hammond-furnaces: Boiler 4-5509.
- (3) C & A Wallcovering-boiler.
- (4) Keil Chemical-Boilers B-3, B-4, and B-5.
- (5) Keyes Fibre-FM boiler.
- (6) National Briquette-dryer.
- (7) U.S. Gypsum-perlite expander burner, gypsum calcining kettle.
- (8) U.S. Reduction-preheat melting pot exhaust, reverberatory furnaces I-5.

(c) The following sources and facilities located in Lake County shall comply with the sulfur dioxide emission limitations in pounds per million Btu, unless otherwise specified, and other requirements:

## Final Rules

<u>Source</u>	<u>Facility Description</u>	<u>Emission Limitations</u>
(1) AMAIZO	(A) Boilers 6, 7, 8, and 10	2.07 each (784 pounds per hour total)
	(B) Record keeping requirements: (i) AMAIZO shall maintain records of average sulfur content, fuel oil usage, and boiler operating load for each hour in which any boiler operates on fuel oil. (ii) AMAIZO shall submit a report to the department within thirty (30) days after the end of each calendar quarter containing the records listed in this clause and a calculation of the total sulfur dioxide emissions from all boilers for each hour.	
(2) AMOCO	(A) No. 1 Power Station Boilers 1, 2, 3, 4, 5, 6, and 7: Prior to September 1, 1990	0.395 each
	On and after September 1, 1990	0.2 each
	(B) No. 1 Power Station Boiler 8: Prior to September 1, 1990	0.395
	On and after September 1, 1990	0.033
	(C) No. 3 Power Station Boilers 1, 2, 3, 4, and 6	0.4
	(D) No. 11 Pipe Still: H-1X Heater	0.407
	H-2 Vacuum Heater	0.418
	H-3 Vacuum Heater	0.404
	H-101, 102, 103, and 104 Coker Preheaters	0.033 each
	H-200 Crude Charge	0.411
	H-300 Furnace	0.402
	(E) No. 12 Pipe Still: H-1A, H-1B Preheaters, and H-2 Vacuum Heater	0.32 each
	H-1CN, H-1CX, and H-1CS Crude Preheaters	0.033 each
	(F) No. 2 Isomerization: H-1 Feed Heater Furnace	0.034
	F-7 Furnace	0.035
	(G) No. 3 Ultraformer: H-1 Feed Heater Furnace	0.033
	H-2 Feed Heater Furnace	0.034
	F-7 Furnace	0.035
	Waste Heat Recovery	0.033
	(H) No. 4 Ultraformer: F-1 Ultrafiner Furnace	0.034
	F-8A and F-8B Reboilers, F-2 Preheat Furnace, F-3 No. 1 Reheat Furnace, F-4, F-5, and F-6 Reheat Furnaces, and F-7 Furnace	0.033 each
	(I) Aeromatic Recovery Unit F-200A and F-200B Furnace	0.035
(J) Blending Oil Desulfurization Furnace F-401	0.034	
(K) No. 1 CRU F-101 Feed Preheater, F-102 Stripper Reboiler, F-201 Steam Superheater, and F-202 Butamer Superheater	0.04 each	
(L) FCU 500	50.0 pounds per ton coke burned	
(M) FCU 600	35.0 pounds per ton coke burned	
(N) No. 37 Pipe Still: B-1 Feed Preheater	0.223	
B-2 Wax Fractioner	0.223	
(O) NMP Extraction Unit: B-105 Furnace	0.29	
B-106 Furnace	0.034	
(P) Wastewater Sludge Fluid Bed Incinerator	0.05 pounds per ton feed material	

## Final Rules

(Q) Oil Hydrotreating Unit		0.04
(R) Asphalt Oxidizer No. 1 Incinerator		0.002 pounds per ton feed material
(S) Asphalt Oxidizer No. 2 Incinerator		0.168 pounds per ton feed material
(T) Asphalt Oxidizer No. 3 Incinerator		0.16 pounds per ton feed material
(U) Cat Feed Hydrotreating Unit		0.035
(V) Tail Gas Unit		18.83 pounds per ton feed material
(W) Heavy Oils Unit H-101, H-201, H-202		0.04 each
(X) Sulfur Recovery Unit Incinerator		0.033
(Y) F-1 Berry Lake Distillate Heater		0.033
(Z) F-100 Marine Docks Distillate Heater		0.013
(AA) F-2 Steiglitz Park Residual Heater		0.328
(BB) Grease Works Heater		0.034
(CC) Record keeping requirements:		
	(i) AMOCO shall maintain daily records of fuel type, average sulfur content for each fuel type, average fuel gravity for each fuel type, and total fuel usage for each type for the No. 1 Power Station, the No. 3 Power Station, the NMP Extraction Unit, the No. 11 Pipe Still, the No. 12 Pipe Still, and the No. 37 Pipe Still.	
	(ii) AMOCO shall maintain records of daily fuel type, average sulfur content, and average fuel gravity for each facility specified in this subdivision with sulfur dioxide emission limitations less than four-hundredths (0.04) pounds per million Btu.	
	(iii) AMOCO shall maintain records of daily calculated coke burn and sulfur content of the oil feed for the FCU 500 and FCU 600 and of Claus Train sulfur production, average hydrogen sulfide to sulfur dioxide ratio, fuel gas burned at the incinerator, and total sulfur content of the Tail Gas Unit effluent.	
	(iv) AMOCO shall submit a report to the department within thirty (30) days after the end of each calendar quarter containing the average daily sulfur dioxide emission rate for the facilities specified in items (i) through (iii). AMOCO shall also submit to the department the total daily fuel usage for each fuel type for the No. 1 Power Station, the No. 3 Power Station, the No. 11 Pipe Still, and the No. 12 Pipe Still and the total daily calculated sulfur dioxide emissions from the FCU 500 and FCU 600 in the quarterly report required under this item.	
(3) Associated Box	Space Heating Boiler	0.03
(4) Bucko Construction	Rotary Dryer	0.07 pounds per ton
(5) Commonwealth Edison	(A) Auxiliary Emergency Generator	0.3
	(B) Boilers 1-3 and 1-4	1.2 each
(6) East Chicago Incinerator	Incinerator Units	2.5 pounds per ton municipal waste per unit
(7) Georgia Pacific	Boiler 1	1.2
(8) Harbison Walker	Tunnel Kilns 1 and 2	0.03 (0.28 pounds per ton each)
(9) Horace Mann School	3 Boilers	6.0 each
(10) Inland Steel	(A) Prior to January 1, 1992, Inland Steel shall comply with the sulfur dioxide emission limitations in pounds per million Btu, unless otherwise specified, and other requirements as follows:	
	(i) 76 inch Hot Strip Mill Reheat Furnaces 1, 2, and 3, 12 inch Bar Mill Reheat Furnace, and No. 3 Cold Strip Annealing 5 and 6	natural gas only

## Final Rules

(ii) No. 1 and 2 Blast Furnace Stoves	0.08 each
(iii) No. 5 and 6 Blast Furnace Stoves	0.625
(iv) No. 7 Blast Furnace Stoves	0.146 (121 pounds per hour)
(v) 'A' and 'B' Blast Furnace Stoves	0.612 each
(vi) No. 6, 7, 8, 9, and 10 Coke Battery Underfire Stacks	2.245 each
(vii) No. 11 Coke Battery Underfire and Ammonia Destruct Device	1.086
(viii) No. 11 Coke Battery Preheaters 1 and 2	0.335 each
(ix) No. 5 Boilerhouse Boilers 501, 502, and 503	0.104
(x) 2AC Station Boilers 207, 208, 209, 210, 211, 212, and 213	0.228 each
Only five (5) of the seven (7) 2AC Station Boilers may operate at the same time.	
(xi) 3AC Station Boilers 301, 302, 303, 304, and 305	0.757 each
(xii) 4AC Station:	
(AA) Stack 1 (Boilers 401 and 402) and Stack 2 (Boilers 403 and 404)	1.5 per stack
(BB) Stack 3 (Boiler 405)	1.0
(CC) Sulfur dioxide emissions from Stacks 1, 2, and 3 shall be limited in accordance with the following equation in units of pounds per million Btu:	
$(\text{Stack 1} + \text{Stack 2})/2 + 0.425 \times \text{Stack 3} \leq 1.6$	
If any one (1) of Boilers 401 through 405 is not operating for a given calendar day, the pounds per million Btu for Stack 3 for the purposes of the equation in this subitem is twenty-four hundredths (0.24) pounds per million Btu.	
(DD) Inland Steel shall maintain and operate sulfur dioxide continuous emission monitoring systems (CEMS) in Stacks 1, 2, and 3. CEMS data shall be used to determine compliance and to determine the sulfur dioxide emission rate in pounds per million Btu for the report required under clause (D)(iii). The CEMS shall be operated in accordance with the procedures specified in 326 IAC 3-1.1 [326 IAC 3-1.1 was repealed filed Jan 30, 1998, 4:00 p.m.: 21 IR 2079.], and records of hourly emissions data shall be maintained and made available to the department upon request.	
(xiii) Sinter Plant Windbox	167 pounds per hour
(xiv) 100 inch Plate Mill Reheat Furnace	0.851
(xv) Lime Plant Firing	0.46
(xvi) No. 4 Slabber Soaking Pits 1-45	1.914
(xvii) No. 2 Bloomer Mill Soaking Pits 1-20	1.96
(xviii) 10 inch Bar Mill Reheat Furnace	0.0
(xix) 80 inch Hot Strip Mill Reheat Furnaces 1, 2, 3, and 4:	
Prior to May 31, 1990	0.492 each
After May 31, 1990	natural gas only
(xx) 28 inch Bar Mill Reheat Furnaces 2, 3, and 4	1.96 each
Only two (2) of three (3) furnaces may operate at the same time.	
(xxi) No. 2 Cold Strip Annealing Furnaces 3 and 4	1.96
(B) By January 1, 1992, Inland Steel shall construct and begin operation of a coke oven gas desulfurization facility at Plant 2 in order to achieve the emission limitations in clause (C), according to the following schedule:	
<u>Compliance Element</u>	<u>Completion Deadline</u>
(i) Complete engineering	July 31, 1990
(ii) Purchase major equipment	September 30, 1990
(iii) Begin construction	January 31, 1991
(iv) Complete construction	October 31, 1991
(v) Start up facility	November 30, 1991
(vi) Test facility performance	December 31, 1991
(C) Beginning January 1, 1992, Inland Steel shall comply with the sulfur dioxide emission limitations in pounds per million Btu, unless otherwise specified, and other requirements as follows:	

## Final Rules

- (i) 76 inch Hot Strip Mill Reheat Furnaces 1, 2, and 3, 12 inch Bar Mill Reheat Furnace, and No. 3 Cold Strip Annealing 5 and 6 natural gas only
- (ii) No. 1 and 2 Blast Furnace Stoves 0.08 each
- (iii) No. 5 and 6 Blast Furnace Stoves 0.140 each
- (iv) No. 7 Blast Furnace Stoves 0.146
- (v) 'A' and 'B' Blast Furnace Stoves 0.138 each
- (vi) No. 6, 7, 8, 9, and 10 Coke Battery Underfire Stacks 0.51 each
- (vii) No. 6 Coke Battery Underfire 82.1 pounds per hour
- (viii) No. 11 Coke Battery Underfire and Ammonia Destruct Device 1.086 (352.9 pounds per hour)
- (ix) No. 11 Coke Battery Preheaters 1 and 2 0.335 each (26.8 pounds per hour total)
- (x) No. 5 Boilerhouse Boilers 501, 502, and 503 0.104
- (xi) 2AC Station Boilers 207, 208, 209, 210, 211, 212, and 213 0.228
- Only five (5) of the seven (7) 2AC Station Boilers may operate at the same time.
- (xii) 3AC Station Boilers 301, 302, 303, 304, and 305 0.170 each
- (xiii) 4AC Station:
- (AA) Stack 1 (Boilers 401 and 402) and Stack 2 (Boilers 403 and 404) 1.5 per stack
- (BB) Stack 3 (Boiler 405) 1.0
- (CC) Sulfur dioxide emissions from Stacks 1, 2, and 3 shall be limited in accordance with the following equation in units of pounds per million Btu:
- $$(\text{Stack 1} + \text{Stack 2})/2 + 0.425 \times \text{Stack 3} \leq 1.6$$
- If any one (1) of Boilers 401 through 405 is not operating for a given calendar day, the pounds per million Btu for Stack 3 for the purposes of the equation in this subitem is twenty-four hundredths (0.24) pounds per million Btu.
- (DD) Inland Steel shall maintain and operate sulfur dioxide continuous emission monitoring systems (CEMS) in Stacks 1, 2, and 3. CEMS data shall be used to determine compliance and to determine the sulfur dioxide emission rate in pounds per million Btu for the report required under clause (D)(iii). The CEMS shall be operated in accordance with the procedures specified in 326 IAC 3-1.1 [326 IAC 3-1.1 was repealed filed Jan 30, 1998, 4:00 p.m.: 21 IR 2079.], and records of hourly emissions data shall be maintained and made available to the department upon request.
- (xiv) Sinter Plant Windbox 167 pounds per hour
- (xv) 100 inch Plate Mill Reheat Furnace 0.851
- (xvi) Lime Plant Firing 0.46
- (xvii) No. 4 Slabber Soaking Pits 1-45 0.285
- (xviii) No. 2 Bloomer Mill Soaking Pits 1-20 0.286
- (xix) 10 inch Bar Mill Reheat Furnace 0.0
- (xx) 80 inch Hot Strip Mill Reheat Furnaces 1, 2, 3, and 4 natural gas only
- (xxi) 28 inch Bar Mill Reheat Furnaces 2, 3, and 4 0.286 each
- Only two (2) of three (3) furnaces may operate at the same time.
- (xxii) No. 2 Cold Strip Annealing Furnaces 3 and 4 0.286
- (D) Record keeping requirements:
- (i) Inland Steel shall maintain records of the total Plant 2 coke oven gas, Coke Battery 11 coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at each facility listed in clause (A) or (C).
- (ii) Inland Steel shall maintain records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter and of the operational status of 2AC Station Boilers 207, 208, 209, 210, 211, 212, and 213, 4AC Station Boilers 401, 402, 403, 404, and 405, and the twenty-eight (28) inch Bar Mill reheat furnaces.

## Final Rules

	(iii) Inland Steel shall submit to the department within thirty (30) days of the end of each calendar quarter the calculated sulfur dioxide emission rate in pounds per million Btu for each facility for each day during the calendar quarter, the total fuel usage for each type at each facility for each day, and any violations of <del>clauses</del> clause (A)(x), (A)(xx), (C)(xi), or (C)(xxi).	
(11) Kaiser	Rotary Kiln	21.6 pounds per ton of coke
(12) Lehigh Portland Cement	KKI Calcinator Aluminate Kiln	7.0 pounds per ton of process material
(13) Lever Brothers	(A) Boilers 2, 3, and 4	1.52 each
	(B) Dowtherm Boiler, Defi Process	1.6
	(C) Sulfonation Process	3.1 pounds per ton process material
	(D) Dowtherm Boiler, Detergent Bar Soap	0.087
(14) LTV Steel	(A) Utility Boilers:	
	(i) No. 3, 4, 5, 6, 7, and 8	0.896 each
	(ii) Total actual heat input from fuel oil and/or desulfurized coke oven gas usage at all boilers combined shall not exceed nine hundred ninety-three (993) million Btu per hour.	
	(iii) Boilers shall be fired on fuel oil, blast furnace gas, desulfurized coke oven gas, and natural gas only.	
	(iv) Fuel oil burned shall not exceed one and three-tenths percent (1.3%) sulfur and one and thirty-five hundredths (1.35) pounds per million Btu.	
	(B) Hot Strip Mill Slab Heat Reheat Furnaces 1, 2, and 3	1.254 each (535.1 pounds per hour each)
	(C) Sinter Plant Windbox	1.0 pound per ton and 240 pounds per hour
	(D) No. 1, 2, 3, and 4 Blast Furnace Stoves	0.024 each
	(E) No. 2 Sheet Mill Crimson Boilers 7 and 8 and No. 2 Slab Mill Furnaces	natural gas only
	(F) No. 3, 4, and 9 Coke Battery Underfire Stacks	0.177 each
	(G) Record keeping requirements:	
	(i) LTV shall maintain records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at each facility listed in clauses (A) through (F).	
	(ii) LTV shall maintain records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.	
	(iii) LTV shall submit to the department within thirty (30) days of the end of each calendar quarter the calculated sulfur dioxide emission rate in pounds per million Btu for each facility for each day during the calendar quarter and the total fuel usage for each type at each facility for each day.	
(15) Marblehead Lime	(A) Rotary Kilns 1-5	240 pounds per hour total (80 pounds per hour for any one (1) kiln)
	(B) Sulfur dioxide emissions shall be vented from the kilns/kiln gas filter systems at the following heights above grade:	
	<u>Kiln Number</u>	<u>Stack Height (in feet)</u>
	(i) Kiln No. 1	80
	(ii) Kiln No. 2	87
	(iii) Kiln No. 3	87
	(iv) Kiln No. 4	95
	(v) Kiln No. 5	89
(16) Methodist Hospital	Boiler 1	0.61
(17) NIPSCO Mitchell	(A) Gas Turbines 9A, 9B, and 9C	natural gas only

---

## Final Rules

---

(B) Boilers 4, 5, 6, and 11

1.2 each

(i) Beginning December 31, 1989, one (1) of Boilers 4 or 5 shall burn natural gas only or shall not operate. Operation under either subitem [item] (ii)(BB) or (ii)(CC) shall only be allowed provided that a nozzle is in the stack serving boiler numbers 4 and 5 such that the stack diameter is restricted to eight and three-tenths (8.3) feet.

(ii) Sulfur dioxide emissions for boilers operating under the scenarios listed in subitems (AA), (BB), and (CC) [this item] shall be measured as a daily weighted average by the continuous emissions monitoring systems (CEMS) required in clause (D). NIPSCO may operate under any one (1) of the following scenarios:

(AA) Boiler numbers 4, 5, 6, and 11 may operate simultaneously under the following conditions:

(aa) One (1) of boiler number 4 or 5 may operate on coal if the other boiler is operated on natural gas or is not operating. Sulfur dioxide emissions from the stack serving boiler numbers 4 and 5 shall be limited to one and five-hundredths (1.05) pounds per million Btu and one thousand three hundred thirteen (1,313.0) pounds per hour.

(bb) Boiler numbers 6 and 11 may operate simultaneously on coal. Sulfur dioxide emissions from the stack serving boiler numbers 6 and 11 shall be limited to one and five hundredths (1.05) pound per million Btu and two thousand four hundred seventy-five (2,475.0) pounds per hour.

(BB) Boiler numbers 4, 5, 6, and 11 may operate simultaneously on coal subject to the following conditions:

(aa) Sulfur dioxide emissions from the stack serving boiler numbers 4 and 5 shall be limited to seventy-seven hundredths (0.77) pound per million Btu and one thousand nine hundred twenty-five (1,925.0) pounds per hour.

(bb) Sulfur dioxide emissions from the stack serving boiler numbers 6 and 11 shall be limited to seventy-seven hundredths (0.77) pound per million Btu and one thousand eight hundred fifteen (1,815.0) pounds per hour.

(CC) One (1) set of either boiler numbers 4 and 5 or 6 and 11 may operate on coal, if the other set is not operating, subject to the following conditions:

(aa) Sulfur dioxide emissions from the stack serving boiler numbers 4 and 5 shall be limited to one and five-hundredths (1.05) pounds per million Btu and two thousand six hundred twenty-five (2,625.0) pounds per hour.

(bb) Sulfur dioxide emissions from the stack serving boiler numbers 6 and 11 shall be limited to one and five-hundredths (1.05) pounds per million Btu and two thousand four hundred seventy-five (2,475.0) pounds per hour.

(ii) (iii) NIPSCO shall maintain a daily log of the following for boiler numbers 4, 5, 6, and 11:

(AA) Fuel type and operational status of Boilers 4 and 5.

(BB) Transition time of changes between or within operating scenarios. The log shall be maintained for a minimum of five (5) years and shall be made available to the department and U.S. EPA upon request.

(iii) Beginning April 1, 1992, sulfur dioxide emission from Boilers 4, 5, 6, and 11 shall be limited to one and five-hundredths (1.05) pounds per million Btu on a daily weighted average as measured by the continuous emission monitoring systems (CEMS) required in clause (D). This sulfur dioxide emission limitation is in addition to the limitation contained in this clause. (iv) Emission limits shall be maintained during transition periods within or between operating scenarios.

(C) Prior to September 30, 1990, NIPSCO shall install a nozzle in the stack serving Boilers 6 and 11 such that the stack diameter is restricted to eight and three-tenths (8.3) feet.

(D) Beginning May 31, 1992, NIPSCO shall maintain and operate CEMS in the stacks serving Boilers 4, 5, 6, and 11. The CEMS shall be operated in accordance with the procedures specified in 326 IAC 3-1.1 [326 IAC 3-1.1 was repealed filed Jan 30, 1998, 4:00 p.m.: 21 IR 2079.], with the exception of the three (3) hour block period reporting requirements under 326 IAC 3-1.1-3(a) [326 IAC 3-1.1 was repealed filed Jan 30, 1998, 4:00 p.m.: 21 IR 2079.], and Records of daily average emissions data shall be maintained for a minimum of five (5) years and shall be made available to the department and U.S. EPA upon request.

(E) NIPSCO shall submit a written report to the department within thirty (30) days after the end of each calendar quarter. The report shall contain the daily weighted average emission rate in units of pounds per million Btu as measured by the CEMS for each stack venting emissions from those boilers specified in clause (B). The hourly gross megawatt power production from the units connected to each stack may be used as the weighting factor in determining the daily weighted average. Records of the hourly gross megawatt power production shall be maintained for a period of two (2) minimum of five (5) years and shall be made available to the department and U.S. EPA upon request.

Boilers 1 and 2

1.6 each

(18) Premiere Candy Co.

(19) Safety-Kleen Oil Recovery Company

(A) Boilers SB-801, SB-820, SB-821, and SB-822 shall use natural gas only.

(B) Process Heaters H-201 (45 MMBtu/hour), H-301 (19.5 MMBtu/hour), H-302 (16.5 MMBtu/hour), and H-303 (16.5 MMBtu/hour) shall use a combination of natural gas, #2 fuel oil equivalent, and off-gases. The combined sulfur dioxide emissions from these four (4) process heaters shall not exceed three-tenths (0.3) lb/MMBtu actual heat input. In addition, combined sulfur dioxide emissions from these four (4) process heaters shall not exceed fourteen (14) lbs/hour and sixty (60) tons/year.

(C) Process Heaters H-200 (84 MMBtu/hour) and H-701 (17 MMBtu/hour) shall use a combination of natural gas, #2 fuel oil equivalent, and off-gases. Sulfur dioxide emissions from these two (2) process heaters shall not exceed three-tenths (0.3) lb/MMBtu actual heat input. In addition, sulfur dioxide emissions from these two (2) process heaters shall not exceed fourteen (14) lbs/hour and sixty (60) tons/year.

(D) Process Heaters H-401 (15.3 MMBtu/hour), H-402 (19.3 MMBtu/hour), H-404 (10 MMBtu/hour), H-405 (10 MMBtu/hour), H-451 (16.3 MMBtu/hour), H-452 (10 MMBtu/hour), and H-453 (8 MMBtu/hour) shall use a combination of natural gas, #2 fuel oil equivalent, and off-gases. The combined sulfur dioxide emissions from these seven (7) process heaters shall not exceed three-tenths (0.3) lb/MMBtu actual heat input. In addition, combined sulfur dioxide emissions from these seven (7) process heaters shall not exceed sixteen and sixty-seven hundredths (16.67) lbs/hour and seventy (70) tons/year.

(20) Stauffer

(A) Spent Acid Regeneration Unit 4 (Unit 4) and Sulfuric Acid Production Unit 3 (Unit 3) shall comply with the emission limit equations and requirements below:

## Final Rules

- (i)  $(\text{Unit } 3) + (\text{Unit } 4) \leq 782$  in units of pounds per hour, three (3) hour average.
- (ii)  $0.778 \times (\text{Unit } 3) + (\text{Unit } 4) \leq 32.7$ , applies if Unit 4 is  $\leq 6.15$  pounds per ton daily average and package boiler burns natural gas only.
- (iii)  $0.399 \times (\text{Unit } 3) + (\text{Unit } 4) \leq 19.6$ , applies if Unit 4 is  $> 6.15$  pounds per ton daily average and package boiler burns natural gas only.
- (iv)  $0.778 \times (\text{Unit } 3) + (\text{Unit } 4) \leq 30.8$ , applies if Unit 4 is  $\leq 4.69$  pounds per ton daily average and package boiler burns any distillate oil.
- (v)  $0.399 \times (\text{Unit } 3) + (\text{Unit } 4) \leq 17.9$ , applies if Unit 4 is  $> 4.69$  pounds per ton daily average and package boiler burns any distillate oil.
- (vi) The equations in items (ii) through (v) are in units of pounds per ton and do not apply for days in which Unit 3 is not in operation.
- (vii) Compliance with the equations in items (ii) through (v) shall be determined based on daily average pounds per ton calculated from data reported as specified under clause (C). Compliance with the equation in item (i) shall be determined based on a three (3) hour average pounds per hour rate calculated from data reported as specified under clause (C).

(B) Preheater and Package Boiler 0.3 each

(C) Stauffer Chemical shall operate a continuous emission monitoring system (CEMS) in each stack serving Units 3 and 4. Stauffer Chemical shall submit a report to the department within thirty (30) days after the end of each calendar quarter. The report shall contain the following information:

- (i) Three (3) hour average sulfur dioxide emission rate in pounds per hour as measured by the CEMS from each of the two (2) facilities for each three (3) hour period during the calendar quarter in which the combined average emissions exceed the allowable rates specified in clause (A)(i).
- (ii) The daily average emission rate in units of pounds per ton as determined from CEMS and production data for Unit 3 and for Unit 4 for each day of the calendar quarter.
- (iii) The calculated total pounds per ton per the applicable equation in clause (A)(ii) through (A)(v) for each day of the calendar quarter. Stauffer Chemical shall maintain a log of the use of distillate oil on the preheater and the package boiler and shall submit the log to the department in the report required under this clause. The CEMS shall be operated in accordance with the procedures specified in 326 IAC 3-1.1 [326 IAC 3-1.1 was repealed filed Jan 30, 1998, 4:00 p.m.: 21 IR 2079.], and records of hourly emissions data shall be maintained and made available to the department upon request.

(21) U.S. Reduction	Borings Dryer	3.33 pounds per ton
(22) USX	(A) Turboblower Boilers 1, 2, 3, 4, 5, and 6	0.269 each
	(B) No. 4 Boilerhouse	0.219
	(C) Tin Mill Boilers 1, 2, 3, 4, and 5:	
	Prior to June 30, 1989	1.5 each
	On and after June 30, 1989	natural gas only
	(D) No. 2 Coke Plant Boilerhouse:	
	(i) Boilers 1 and 2	natural gas only
	(ii) Boilers 3, 4, 5, and 6	1.2 each
	(iii) Boilers 7 and 8	1.07 each
	(iv) Only four (4) of No. 2 Coke Plant Boilers may operate using coal or coke oven gas at the same time. If more than four (4) boilers are in operation, all but four (4) shall use natural gas.	
	(v) Prior to June 30, 1989, stacks serving Boilers 3, 4, 5, and 6 shall be no less than one hundred thirty-three (133) feet above grade.	
	(E) Coke Battery Underfire Stacks:	
	(i) No. 2, 3, 5, and 7	1.3 each
	(ii) No. 15 and 16	1.1 each

- (F) 46 inch Slab Mill Soaking Pits 2-15 0.772
- (G) 84 inch Hot Strip Mill:
- (i) Actual heat input derived from coke oven gas and fuel oil shall not exceed a total of four hundred seventy-seven (477) million Btu per hour for Waste Heat Boiler 1 and Furnaces 1 and 2 combined and a total of five hundred seven (507) million Btu per hour for Waste Heat Boiler 2 and Furnaces 3 and 4 combined. The remainder of the actual heat input shall be obtained by burning natural gas. Total actual heat input shall not exceed four hundred forty (440) million Btu per hour for each furnace, one hundred seventy (170) million Btu per hour for Waste Heat Boiler 1, and two hundred (200) million Btu per hour for Waste Heat Boiler 2.
  - (ii) Waste Heat Boiler 1 and Furnaces 1 and 2 511.8 pounds per hour total
  - (iii) Waste Heat Boiler 2 and Furnaces 3 and 4 543.9 pounds per hour total
  - (iv) Fuel supplied to the furnaces (coke oven gas, fuel oil, and natural gas) shall not result in a sulfur dioxide emission rate exceeding four hundred forty-seven thousandths (0.447) pounds per million Btu actual heat input.
- (H) 160 inch/210 inch Plate Mill:
- (i) Continuous Furnaces 0.772 each (183 pounds per hour each and 250 million Btu per hour each)
  - (ii) Plate Mill Batch Furnaces natural gas only (30 million Btu per hour each)
  - (iii) USX must notify the department in the event that the 46 inch Slab Mill Soaking Pits permanently cease operation. Subsequent to permanent shutdown of the 46 inch Slab Mill, sulfur dioxide emissions from the 46 inch Slab Mill Soaking Pits shall be limited to zero and zero-tenths (0.0) pounds per million Btu and sulfur dioxide emissions from the facilities at the 160 inch/210 inch Plate Mill Continuous Furnaces and Batch Furnaces 2, 3, and 4 shall be limited to one and seven-hundredths (1.07) pounds per million Btu each.
- (I) No. 3 Sinter Plant Windbox lines 1, 2, and 3 1.0 pounds per ton each  
 Only two (2) of three (3) lines may operate at the same time.
- (J) No. 4, 6, 7, 8, and 13 Blast Furnace Stoves 0.002 each stack
- (i) Only two (2) of three (3) stoves at each of the No. 4, 6, 7, and 8 Blast Furnaces may fire fuel simultaneously.
  - (ii) Only three (3) of the four (4) stoves at No. 13 Blast Furnace may fire fuel simultaneously.
- (K) Total actual heat input from coke oven gas, coal, and fuel oil usage at all facilities operating at USX shall not exceed two thousand seven hundred forty (2,740) million Btu per hour based on five hundred ten (510) million Btu per million cubic feet coke oven gas, twenty-six (26) million Btu per ton coal, and one hundred fifty (150) million Btu per thousand gallons of fuel oil. The sulfur dioxide emission rate from coke oven gas, except at the Coke Battery Underfire Stacks listed in clause (E), and from fuel oil shall not exceed one and seven-hundredths (1.07) pounds per million Btu.
- (L) USX shall notify the department at least twenty-four (24) hours prior to operation of more than four (4) coke batteries. During periods when more than four (4) coke batteries are in operation, sulfur dioxide emissions from the No. 2 Coke Plant Boilers shall be limited to nine-tenths (0.9) pounds per million Btu each and the restriction on total actual heat input from coke oven gas, coal, and fuel oil usage specified in clause (K) shall be revised to three thousand three hundred twenty (3,320) million Btu per hour.

(M) Record keeping requirements:

(i) USX shall maintain records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at each facility listed in clauses (A) through (K).

(ii) USX shall maintain records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter and of the actual heat input for facilities listed in clauses (G) through (H).

(iii) USX shall submit to the department within thirty (30) days of the end of each calendar quarter the calculated sulfur dioxide emission rate in pounds per million Btu, or in pounds per hour for facilities listed in clause (G), for each facility for each day during the calendar quarter, the total fuel usage for each type at each facility for each day, and any violations of clauses (D)(iv), (G)(i), (H)(i), (H)(ii), (I), (J)(i), (J)(ii), (K), or ~~(M)~~: **this clause.**

(d) Sources listed in subsection (c)(1) through (c)(2), (c)(10), (c)(14) through (c)(15), and (c)(21) shall submit a sampling and analysis protocol to the department by December 31, 1988. The protocol shall contain a description of planned procedures for sampling of sulfur-bearing fuels and materials, for analysis of the sulfur content, and for any planned direct measurement of sulfur dioxide emissions vented to the atmosphere. The protocol shall specify the frequency of sampling, analysis, and/or measurement for each fuel and material and for each facility. The department shall incorporate the protocol into the source's operation permit per procedures specified in 326 IAC 2. The department may revise the protocol as necessary to establish acceptable sampling, analysis, and/or measurement procedures and frequency. The department may also require that a source conduct a stack test at any facility listed in this section within thirty (30) days of written notification by the department. (*Air Pollution Control Board; 326 IAC 7-4-1.1; filed Aug 8, 1991, 10:00 a.m.: 14 IR 2206; filed Mar 24, 1998, 4:35 p.m.: 21 IR 2729; filed May 13, 1999, 12:00 p.m.: 22 IR 3070*)

*LSA Document #98-163(F)*

*Proposed Rule Published: August 1, 1998; 21 IR 4259*

*Hearing Held: November 4, 1998*

*Approved by Attorney General: April 27, 1999*

*Approved by Governor: May 12, 1999*

*Filed with Secretary of State: May 13, 1999, 12:00 p.m.*

*Incorporated Documents Filed with Secretary of State: None*

---