EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 48437

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant property covered by this permit. The emission rates shown are those derived from the information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

		AIR CONTAMINANTS DATA		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (4)	TPY (5)
Existing, original boilers:				
17A	Boiler Nos. 1 and 2 (Lignite-fired, 1500 MMBtu/hr each)	NO_x	1,920	8,400
		Sulfur dioxide	12,000	43,200
		Carbon monoxide	449	1,965
		PM/PM_{10}	300	1,080
		VOC	30	108
		Hydrogen chloride	30	47
		Hydrogen fluoride	6.0	7.7
		Sulfuric acid	21	76
		Antimony	0.019	0.031
		Arsenic	1.3	5.1
		Barium	4.4	6.0
		Beryllium	0.050	0.056
		Cadmium	0.037	0.037
		Chromium	0.38	0.77
		Cobalt	0.10	0.21
		Copper	0.58	1.2
		Lead	0.29	0.46
		Manganese	4.8	4.7
		Mercury	0.21	0.31
		Nickel	0.39	0.28
		Selenium	2.7	3.4
		Vanadium	1.0	2.0

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (4)	TPY (5)
17B	Boiler No. 3 (Lignite-fired, 1500 MMBtu/hr)	NO_x	960	4,200
		Sulfur dioxide	6,000	21,600
		Carbon monoxide	224	982
		PM/PM_{10}	150	540
		VOC	15	54
		Hydrogen chloride	15	24
		Hydrogen fluoride	3.0	3.8
		Sulfuric acid	11	38
		Antimony	0.0093	0.015
		Arsenic	0.65	2.5
		Barium	2.2	3.0
		Beryllium	0.025	0.028
		Cadmium	0.018	0.019
		Chromium	0.19	0.38
		Cobalt	0.052	0.11
		Copper	0.29	0.58
		Lead	0.14	0.23
		Manganese	2.4	2.4
		Mercury	0.10	0.15
		Nickel	0.20	0.14
		Selenium	1.3	1.7
		Vanadium	0.51	1.0
Combined existing boiler emissions:				
17A + 17B	Total	NO_x	--	9,730
Replacement Boilers:				
17CFB	Circulating Fluid Bed Boiler No. 1 (Lignite-fired, 2960 MMBtu/hr)	NO_x	296	1,296
		Sulfur dioxide	592	2,593
		Carbon monoxide	296	1,296
		PM/PM_{10}	44.4	194
Replacement Boilers (cont'd):				

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (4)	TPY (5)
17CFB		VOC	15.1	66
		Hydrogen chloride	0.66	1.0
		Hydrogen fluoride	0.78	1.0
		Sulfuric acid	6.2	27
		Ammonia	15.9	55
		Antimony	0.0061	0.010
		Arsenic	0.077	0.088
		Barium	1.4	2.0
		Beryllium	0.016	0.018
		Cadmium	0.0024	0.0024
		Chromium	0.12	0.25
		Cobalt	0.034	0.069
		Copper	0.19	0.38
		Lead	0.085	0.14
		Manganese	1.6	1.5
		Mercury	0.033	0.048
		Nickel	0.13	0.092
		Selenium	0.12	0.15
		Vanadium	0.33	0.65
17CFB	Circulating Fluid Bed Boiler No. 2 (Lignite-fired, 2960 MMBtu/hr)	NO_x	296	1,296
		Sulfur dioxide	592	2,593
		Carbon monoxide	296	1,296
		PM/PM_{10}	44.4	194
		VOC	15.1	66
		Hydrogen chloride	0.66	1.0
		Hydrogen fluoride	0.78	1.0
		Sulfuric acid	6.2	27
		Ammonia	15.9	55
		Antimony	0.0061	0.010
		Arsenic	0.077	0.088
		Barium	1.4	2.0
		Beryllium	0.016	0.018
		Cadmium	0.0024	0.0024
		Chromium	0.12	0.25
		Cobalt	0.034	0.069
		Copper	0.19	0.38

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (4)	TPY (5)
		Lead	0.085	0.14
		Manganese	1.6	1.5
		Mercury	0.033	0.048
		Nickel	0.13	0.092
		Selenium	0.12	0.15
		Vanadium	0.33	0.65
17CFB	Circulating Fluid Bed Boiler Nos. 1 and 2, combined emissions	NO_x	592	2,593
		Sulfur dioxide	1,184	5,186
		Carbon monoxide	592	2,593
		PM/PM_{10}	89	389
		VOC	30	132
		Hydrogen chloride	1.3	2.1
		Hydrogen fluoride	1.6	2.0
		Sulfuric acid	12.4	54
		Ammonia	32	111
		Antimony	0.012	0.020
		Arsenic	0.15	0.18
		Barium	2.9	3.9
		Beryllium	0.033	0.036
		Cadmium	0.0048	0.0048
		Chromium	0.24	0.50
		Cobalt	0.067	0.14
		Copper	0.37	0.75
		Lead	0.17	0.27
		Manganese	3.2	3.1
		Mercury	0.065	0.10
		Nickel	0.26	0.18
		Selenium	0.23	0.30
		Vanadium	0.67	1.3
19AQA	Aqueous Ammonia Storage Tank	Ammonia	12.1	1.76

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (4)	TPY (5)

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source name. For fugitive sources, use an area name or fugitive source name.
(3) NO_x - total oxides of nitrogen, expressed as nitrogen dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
(4) For pollutants which are not required by this permit to be monitored with a continuous emissions monitor system (CEMS), compliance with the hourly emission limits is based on a three-hour average of stack tests. For pollutants which are required by this permit to be monitored with a CEMS, compliance with the hourly emission limits is based on a 30-day rolling average of the hourly CEMS data. With the first amendment, alteration or renewal of this permit following two years of operation with a certified CEMS, the holder of this permit shall submit hourly emission data from the CEMS which will be considered in establishing new hourly limits for the monitored pollutants based on a one-hour average.
(5) Compliance with annual emission limits is based on a rolling 12-month period. Annual emissions of trace elements (antimony, arsenic, barium, beryllium, cadmium, chloride, chromium, cobalt, copper, fluoride, lead, manganese, mercury, nickel, selenium, and vanadium) are based on average concentration measurements in the lignite, whereas hourly emissions are based on maximum concentrations in the lignite. Compliance with the annual trace element emission limits may be established if the initial demonstration of compliance testing of trace element emissions supports the removal efficiencies represented in the permit application and trace element concentrations in the lignite remain consistent with representations in the permit application.

*CFB annual emissions are based on 8,760 hours per year operation at maximum firing rate (2,960 MMBtu/hr).

Dated September 25, 2003