

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 86088, HAP 28, PAL 26, and PSD-TX-1160

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from 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	TPY*
1-A	Unit 1 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO _x	330	1,012
		SO ₂	377	1,239
		CO	726	1,590
		VOC	16.5	72
		PM ₁₀ (filterable)	36.3	159
		PM ₁₀ (total)	109	390
		PM _{2.5} (4)	86.4	294
		H ₂ SO ₄	53	231
		NH ₃	16.9	37
		Hg	0.013	0.012
		HCl	22.2	46.7
		HF	1.3	3.7
		Pb	0.026	0.037
		NO _x (start-up)	371	--
		SO ₂ (start-up)	3,141	--
		H ₂ SO ₄ (start-up)	238	--
		HCl (start-up)	665	--
		HF (start-up)	13.4	--
1-B	Unit 2 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO _x	330	1,012
		SO ₂	377	1,239
		CO	726	1,590
		VOC	16.5	72
		PM ₁₀ (filterable)	36.3	159

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		PM ₁₀ (total)	109	390
		PM _{2.5} (4)	86.4	294
		H ₂ SO ₄	53	231
		NH ₃	16.9	37
		Hg	0.013	0.012
		HCl	22.2	46.7
		HF	1.3	3.7
		Pb	0.026	0.037
		NO _x (start-up)	371	--
		SO ₂ (start-up)	3,141	--
		H ₂ SO ₄ (start-up)	238	--
		HCl (start-up)	665	--
		HF (start-up)	13.4	--
2-A	Unit 3 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO _x	330	1,012
		SO ₂	377	1,239
		CO	726	1,590
		VOC	16.5	72
		PM ₁₀ (filterable)	36.3	159
		PM ₁₀ (total)	109	390
		PM _{2.5} (4)	86.4	294
		H ₂ SO ₄	53	231
		NH ₃	16.9	37
		Hg	0.013	0.012
		HCl	22.2	46.7
		HF	1.3	3.7
		Pb	0.026	0.037
		NO _x (start-up)	371	--
		SO ₂ (start-up)	3,141	--
		H ₂ SO ₄ (start-up)	238	--
		HCl (start-up)	665	--
		HF (start-up)	13.4	--

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2-B	Unit 4 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO _x	330	1,012
		SO ₂	377	1,239
		CO	726	1,590
		VOC	16.5	72
		PM ₁₀ (filterable)	36.3	159
		PM ₁₀ (total)	109	390
		PM _{2.5} (4)	86.4	294
		H ₂ SO ₄	53	231
		NH ₃	16.9	37
		Hg	0.013	0.012
		HCl	22.2	46.7
		HF	1.3	3.7
		Pb	0.026	0.037
		NO _x (start-up)	371	--
		SO ₂ (start-up)	3,141	--
		H ₂ SO ₄ (start-up)	238	--
		HCl (start-up)	665	--
		HF (start-up)	13.4	--
DC-FUEL1	Unit 1 Fuel/Limestone Dust Collector	PM/PM ₁₀	0.51	2.25
		PM _{2.5}	0.13	0.56
DC-FUEL2	Unit 2 Fuel/Limestone Dust Collector	PM/PM ₁₀	0.51	2.25
		PM _{2.5}	0.13	0.56
DC-FUEL3	Unit 3 Fuel/Limestone Dust Collector	PM/PM ₁₀	0.51	2.25
		PM _{2.5}	0.13	0.56
DC-FUEL4	Unit 4 Fuel/Limestone Dust Collector	PM/PM ₁₀	0.51	2.25
		PM _{2.5}	0.13	0.56
DC-FLYASH1	Unit 1 Fly Ash Dust Collector	PM/PM ₁₀	0.19	0.81
		PM _{2.5}	0.05	0.20

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DC-FLYASH2	Unit 2 Fly Ash Dust Collector	PM/PM ₁₀	0.19	0.81
		PM _{2.5}	0.05	0.20
DC-FLYASH3	Unit 3 Fly Ash Dust Collector	PM/PM ₁₀	0.19	0.81
		PM _{2.5}	0.05	0.20
DC-FLYASH4	Unit 4 Fly Ash Dust Collector	PM/PM ₁₀	0.19	0.81
		PM _{2.5}	0.05	0.20
DCBEDASH12	Unit 1 and 2 Bed Ash Dust Collector	PM/PM ₁₀	0.34	1.48
		PM _{2.5}	0.08	0.37
DCBEDASH34	Unit 3 and 4 Bed Ash Dust Collector	PM/PM ₁₀	0.34	1.48
		PM _{2.5}	0.08	0.37
DC-LIME12	Unit 1 and 2 Lime Silo Dust Collector	PM/PM ₁₀	0.03	0.14
		PM _{2.5}	0.01	0.04
DC-LIME34	Unit 3 and 4 Lime Silo Dust Collector	PM/PM ₁₀	0.03	0.14
		PM _{2.5}	0.01	0.04
DCCARBON12	Unit 1 and 2 Carbon Silo Dust Collector	PM/PM ₁₀	0.03	0.14
		PM _{2.5}	0.01	0.04
DCCARBON34	Unit 3 and 4 Carbon Silo Dust Collector	PM/PM ₁₀	0.03	0.14
		PM _{2.5}	0.01	0.04
DC-RAIL-UL	Railcar Unloading Building	PM/PM ₁₀	7.29	18.21
		PM _{2.5}	1.82	4.55
DC-CRUSHER	Crusher Building	PM/PM ₁₀	0.43	1.07
		PM _{2.5}	0.11	0.27
SP-1	Petcoke/Coal Storage Pile (5)	PM	2.04	8.94
		PM ₁₀	1.02	4.47
		PM _{2.5}	0.15	0.68

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SP-2	Limestone Storage Pile (5)	PM	0.42	1.83
		PM ₁₀	0.21	0.91
		PM _{2.5}	0.03	0.14
LF-1	Ash Disposal Landfill (5)	PM	0.37	1.62
		PM ₁₀	0.18	0.81
		PM _{2.5}	0.03	0.12
FASHLOAD1	Fly Ash No. 1 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM ₁₀	0.38	0.56
		PM _{2.5}	0.06	0.09
FASHLOAD2	Fly Ash No. 2 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM ₁₀	0.38	0.56
		PM _{2.5}	0.06	0.09
FASHLOAD3	Fly Ash No. 3 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM ₁₀	0.38	0.56
		PM _{2.5}	0.06	0.09
FASHLOAD4	Fly Ash No. 4 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM ₁₀	0.38	0.56
		PM _{2.5}	0.06	0.09
BASHLOAD12	Bed Ash No. 1 Truck Loading Fugitives (5)	PM	1.53	1.22
		PM ₁₀	0.38	0.30
		PM _{2.5}	0.06	0.05
BASHLOAD34	Bed Ash No. 2 Truck Loading Fugitives (5)	PM	1.53	1.22
		PM ₁₀	0.38	0.30
		PM _{2.5}	0.06	0.05
BARGE1	Barge Unloading to Hopper (5)	PM	0.64	1.07
		PM ₁₀	0.30	0.50

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		PM _{2.5}	0.05	0.08
BARGE2	Barge Hopper to CO-1 (5)	PM	0.64	1.07
		PM ₁₀	0.30	0.50
		PM _{2.5}	0.05	0.08
CONV1	Conveyor No. 1 (5)	PM	0.19	0.32
		PM ₁₀	0.09	0.15
		PM _{2.5}	0.01	0.02
TRSFR1	CO-1 to CO-2 (5)	PM	0.10	0.16
		PM ₁₀	0.05	0.08
		PM _{2.5}	0.01	0.01
CONV2	Conveyor No. 2 (5)	PM	0.38	0.64
		PM ₁₀	0.18	0.30
		PM _{2.5}	0.03	0.05
RAILFUG	Rail Unloading Fugitives (5)	PM	0.10	0.16
		PM ₁₀	0.05	0.08
		PM _{2.5}	0.01	0.01
TRUCK1	Truck Unloading to Hopper (5)	PM	0.64	1.07
		PM ₁₀	0.30	0.50
		PM _{2.5}	0.05	0.08
TRUCK2	Truck Hopper to CO-3 (5)	PM	0.64	1.07
		PM ₁₀	0.30	0.50
		PM _{2.5}	0.05	0.08
CONV3	Conveyor No. 3 (5)	PM	0.10	0.16
		PM ₁₀	0.05	0.08
		PM _{2.5}	0.01	0.01
TRSFR2	CO-3 to CO-4 or CO-5 (5)	PM	0.10	0.16
		PM ₁₀	0.05	0.08

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		PM _{2.5}	0.01	0.01
TRSFR3	CO-2 to CO-4 or CO-5 (5)	PM	0.10	0.16
		PM ₁₀	0.05	0.08
		PM _{2.5}	0.01	0.01
CONV4	Conveyor No. 4 (5)	PM	3.20	5.33
		PM ₁₀	1.51	2.52
		PM _{2.5}	0.23	0.38
CONV5	Conveyor No. 5 (5)	PM	3.20	5.33
		PM ₁₀	1.51	2.52
		PM _{2.5}	0.23	0.38
TRSFR4	CO-4 to Mobile Stack (5)	PM	0.10	0.16
		PM ₁₀	0.05	0.08
		PM _{2.5}	0.01	0.01
TRSFR5	CO-5 to Mobile Stack (5)	PM	0.10	0.16
		PM ₁₀	0.05	0.08
		PM _{2.5}	0.01	0.01
TRSFR6	Mobile Reclaim to CO-6 or CO-7 (5)	PM	0.08	0.16
		PM ₁₀	0.04	0.08
		PM _{2.5}	0.01	0.01
CONV6	Conveyors No. 6 and No. 7 (5)	PM	3.07	6.40
		PM ₁₀	1.45	3.03
		PM _{2.5}	0.22	0.46
TRSFR7	CO-6 or CO-7 to CO-8 or CO-9 (5)	PM	0.08	0.16
		PM ₁₀	0.04	0.08
		PM _{2.5}	0.01	0.01
CONV7	Conveyors No. 8 and No. 9 (5)	PM	0.08	0.16
		PM ₁₀	0.04	0.08
		PM _{2.5}	0.01	0.03

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CONV8	Conveyors No. 10 and No. 11 (5)	PM	0.15	0.32
		PM ₁₀	0.07	0.15
		PM _{2.5}	0.03	0.06
COOLTWR1	Cooling Tower No. 1	PM	1.21	5.29
		PM ₁₀	0.60	2.65
		PM _{2.5}	0.00	0.02
COOLTWR2	Cooling Tower No. 2	PM	1.21	5.29
		PM ₁₀	0.60	2.65
		PM _{2.5}	0.00	0.02
COOLTWR3	Cooling Tower No. 3	PM	1.21	5.29
		PM ₁₀	0.60	2.65
		PM _{2.5}	0.00	0.02
COOLTWR4	Cooling Tower No. 4	PM	1.21	5.29
		PM ₁₀	0.60	2.65
		PM _{2.5}	0.00	0.02
EMGEN1	Diesel-Fired Emergency Generator 1	NO _x	42.50	10.60
		CO	23.30	5.80
		PM ₁₀	1.07	0.27
		PM _{2.5}	1.07	0.27
		VOC	2.55	0.64
		SO ₂	1.62	0.41
		H ₂ SO ₄	0.13	0.03
EMGEN2	Diesel-Fired Emergency Generator 2	NO _x	42.50	10.60
		CO	23.30	5.80
		PM ₁₀	1.07	0.27
		PM _{2.5}	1.07	0.27
		VOC	2.55	0.64
		SO ₂	1.62	0.41
		H ₂ SO ₄	0.13	0.03

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FIREWTRPMP	Main Diesel-Fired Fire Water Pump	NO _x	1.65	0.41
		CO	1.43	0.36
		PM ₁₀	0.08	0.02
		PM _{2.5}	0.08	0.02
		VOC	0.62	0.16
		SO ₂	0.10	0.03
		H ₂ SO ₄	0.01	0.00
T-WTRPMP	Diesel Tank for Main Diesel-Fired Fire Water Pump	VOC	0.17	0.001
T-EMGEN	Diesel Tank for Emergency Generators	VOC	0.17	0.002
TNK-FO1	No. 2 Fuel Oil Storage Tank No. 1 for CFB Startup	VOC	0.32	0.04
TNK-FO2	No. 2 Fuel Oil Storage Tank No. 2 for CFB Startup	VOC	0.32	0.04
T-DSLVEH	Diesel Storage Tank for Plant Vehicles	VOC	0.17	0.004
T-GASVEH	Gasoline Storage Tank for Plant Vehicles	VOC	7.38	1.51
TNK-ACID	Acid Storage Tank	H ₂ SO ₄	0.21	0.004
FUG-NH3A	Fugitives: Ammonia (5)	NH ₃	0.10	0.46
FUG-NH3B	Fugitives: Ammonia (5)	NH ₃	0.10	0.46
FUG-FO	Fugitives: Fuel Oil (5)	VOC	0.15	0.67

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- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
- (3)
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - CO - carbon monoxide
 - VOC - volatile organic compounds as defined in Title 30 TAC § 101.1
 - PM - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}.
 - PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter.
 - H₂SO₄ - sulfuric acid
 - NH₃ - ammonia
 - Hg - mercury
 - HCl - hydrogen chloride
 - HF - hydrogen fluoride
 - Pb - lead
- (4) Compliance with PM_{2.5} emission limits to be determined upon promulgation of EPA test methods.
- (5) Fugitives emission rate is an estimate and compliance is demonstrated by meeting the applicable Special Condition requirements and permit application representations.

* Annual emission limits for CFB boilers include emissions from startup and shutdown. For combustion sources and storage tanks, compliance is based on a rolling 12-month period. For material handling sources, compliance with annual limits is based on applicable special conditions and permit application representations.

** Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

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