

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 3150

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 **
AG_D103302	Acid Gas Flare	CO	4.65	20.40
		H <sub>2</sub> S	0.63	2.76
		NO <sub>x</sub>	0.54	2.38
		SO <sub>2</sub>	61.43	269.10
		VOC	1.19	5.23
AMINE	Amine Unit Heater 9 MMBtu/hr	CO	0.82	3.61
		NO <sub>x</sub>	0.98	4.30
		PM <sub>10</sub>	0.07	0.33
		SO <sub>2</sub>	0.01	0.03
		VOC	0.05	0.24
AMINE-1	Amine Unit Heater 9 MMBtu/hr	CO	0.82	3.61
		NO <sub>x</sub>	0.98	4.30
		PM <sub>10</sub>	0.07	0.33
		SO <sub>2</sub>	0.01	0.03
		VOC	0.05	0.24
CAT1	Caterpillar Engine 2,370-hp	CO	1.31	5.72
		NO <sub>x</sub>	4.54	19.90
		PM <sub>10</sub>	0.17	0.73
		SO <sub>2</sub>	0.01	0.05
		VOC	1.67	7.32
CAT2	Caterpillar Engine 2,370-hp	CO	1.31	5.72
		NO <sub>x</sub>	4.54	19.90
		PM <sub>10</sub>	0.17	0.73
		SO <sub>2</sub>	0.01	0.05
		VOC	1.67	7.32

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
CAT3	Caterpillar Engine 2,370-hp	CO	1.31	5.72
		NO <sub>x</sub>	4.54	19.90
		PM <sub>10</sub>	0.17	0.73
		SO <sub>2</sub>	0.01	0.05
		VOC	1.67	7.32
COOL-21	Cooling Tower (5)	VOC (6)	1.50	6.37
		VOC (7)	0.17	0.74
D40103	Solar Centaur Turbine 4,100-hp	CO	10.66	46.67
		NO <sub>x</sub>	16.07	70.41
		PM <sub>10</sub>	0.24	1.07
		SO <sub>2</sub>	0.03	0.13
		VOC	0.09	0.40
D40105	Solar Centaur Turbine 4,100-hp	CO	10.66	46.67
		NO <sub>x</sub>	16.07	70.41
		PM <sub>10</sub>	0.24	1.07
		SO <sub>2</sub>	0.03	0.13
		VOC	0.09	0.40
EM_D103301	Emergency Gas Flare Pilot Fuel Only	CO	0.02	0.07
		NO <sub>x</sub>	0.01	0.02
		SO <sub>2</sub>	0.01	0.01
		VOC	0.01	0.01
	Glycol Dehydrator Regenerator Vent Only	CO	0.82	3.60
		NO <sub>x</sub>	0.21	0.92
		VOC	1.34	5.89
GLYCOL	Glycol Reboiler 4 MMBtu/hr	CO	0.38	1.65
		NO <sub>x</sub>	0.45	1.96
		PM <sub>10</sub>	0.03	0.15
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.11

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
HMH-1	Heat Medium Heater 11.00 MMBTU/hr	CO	1.01	4.42
		NO <sub>x</sub>	1.20	5.26
		PM <sub>10</sub>	0.09	0.40
		SO <sub>2</sub>	0.01	0.04
		VOC	0.07	0.29
K1A	Cooper Compressor Engine GMXE 835-hp	CO	2.39	10.50
		NO <sub>x</sub>	20.20	88.60
		PM <sub>10</sub>	0.31	1.37
		SO <sub>2</sub>	0.01	0.02
		VOC	0.77	3.38
K1B	Cooper Compressor Engine GMXE 835-hp	CO	2.39	10.50
		NO <sub>x</sub>	20.20	88.60
		PM <sub>10</sub>	0.31	1.37
		SO <sub>2</sub>	0.01	0.02
		VOC	0.77	3.38
K1C	Cooper Compressor Engine GMXE 835-hp	CO	2.39	10.50
		NO <sub>x</sub>	20.20	88.60
		PM <sub>10</sub>	0.31	1.37
		SO <sub>2</sub>	0.01	0.02
		VOC	0.77	3.38
K2A	Cooper Compressor Engine GMXE 250-hp	CO	0.72	3.14
		NO <sub>x</sub>	6.06	26.50
		PM <sub>10</sub>	0.09	0.41
		SO <sub>2</sub>	0.01	0.01
		VOC	0.23	1.01
K2B	Cooper Compressor Engine GMXE 300-hp	CO	0.86	3.76
		NO <sub>x</sub>	7.27	31.85
		PM <sub>10</sub>	0.11	0.49
		SO <sub>2</sub>	0.01	0.01
		VOC	0.28	1.22

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
K3A	Cooper Compressor Engine GMXE 800-hp	CO	2.29	10.00
		NO <sub>x</sub>	19.40	84.90
		PM <sub>10</sub>	0.30	1.31
		SO <sub>2</sub>	0.01	0.02
		VOC	0.74	3.24
K3B	Cooper Compressor Engine GMXE 800-hp	CO	2.29	10.00
		NO <sub>x</sub>	19.40	84.90
		PM <sub>10</sub>	0.30	1.31
		SO <sub>2</sub>	0.01	0.02
		VOC	0.74	3.24
K4A	Cooper Compressor Engine GMXE 650-hp	CO	1.86	8.15
		NO <sub>x</sub>	15.70	69.00
		PM <sub>10</sub>	0.24	1.07
		SO <sub>2</sub>	0.01	0.02
		VOC	0.60	2.63
K4B	Cooper Compressor Engine GMXE 650-hp	CO	1.86	8.15
		NO <sub>x</sub>	15.70	69.00
		PM <sub>10</sub>	0.24	1.07
		SO <sub>2</sub>	0.01	0.02
		VOC	0.60	2.63
K5A	Cooper Compressor Engine GMXD 800-hp	CO	2.64	11.60
		NO <sub>x</sub>	21.10	92.60
		PM <sub>10</sub>	0.32	1.39
		SO <sub>2</sub>	0.01	0.02
		VOC	0.80	3.51
RGH-N	North Regeneration Gas Heater 9.60 24.00 MMBTU/hr	CO		2.19
		NO <sub>x</sub>	2.61	11.42
		PM <sub>10</sub>	0.20	0.87
		SO <sub>2</sub>	0.02	0.08
		VOC	0.14	0.63

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RGH-S	South Regeneration Gas Heater		CO	1.69
	7.42			
	18.55 MMBTU/hr	NO <sub>x</sub>	2.02	8.84
		PM <sub>10</sub>	0.15	0.67
		SO <sub>2</sub>	0.01	0.06
		VOC	0.11	0.49
FUG-KKK	Process Fugitives (4)	H <sub>2</sub> S	0.01	0.01
		VOC	0.65	2.85
FUG-STATE	Process Fugitives (4)	H <sub>2</sub> S	0.01	0.01
		VOC	1.49	6.55

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) CO - carbon monoxide  
H<sub>2</sub>S - hydrogen sulfide  
NO<sub>x</sub> - total oxides of nitrogen  
PM<sub>10</sub> - particulate matter (PM) 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.  
SO<sub>2</sub> - sulfur dioxide  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

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- (5) Emission rate is an estimate and is enforceable through compliance with the applicable Special Condition(s) and permit application representations.
- (6) Pre control emission value
- (7) Post control emission value

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

24 Hrs/day 7 Days/week 52 Weeks/year

\*\* Compliance with annual emission limits is based on a rolling 12-month period.

Dated July 14, 2008