

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 124717

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, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

## Air Contaminants Data

Air Contaminants Data				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Train 1				
ENG-1	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.01	8.80
		VOC	6.26	27.42
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.09
ENG-2	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.01	8.80
		VOC	6.26	27.42
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.09
ENG-3	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.01	8.80
		VOC	6.26	27.42
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.09

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ENG-4	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.01	8.80
		VOC	6.26	27.42
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.09
ENG-5	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.01	8.80
		VOC	6.26	27.42
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.09
ENG-6	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.01	8.80
		VOC	6.26	27.42
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.09
TK-1	Compressor Lube Oil Storage Tank	VOC	0.35	<0.01
TK-2	Engine Lube Oil Storage Tank	VOC	0.35	<0.01
TK-3	Used Lube Oil Storage Tank	VOC	0.35	<0.01
TK-6	Antifreeze/Water Storage Tank	VOC	0.08	<0.01
TK-8	Glycol Storage Tank	VOC	0.04	<0.01
TK-DIESEL	Diesel Fuel	VOC	0.02	<0.01

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TK-GAS	Gasoline Fuel Storage Tank	VOC	5.43	0.07
TK-26	Intercept 400 gal	VOC	<0.01	<0.01
TK-27	Clean Cor 400 gal	VOC	<0.01	<0.01
TK-28	Clean Cor 217 gal	VOC	<0.01	<0.01
H-1	Mole Sieve Regen. Heater	NO <sub>x</sub>	0.62	2.73
		CO	0.86	3.75
		VOC	0.06	0.25
		PM	0.08	0.34
		PM <sub>10</sub>	0.08	0.34
		PM <sub>2.5</sub>	0.08	0.34
		SO <sub>2</sub>	0.01	0.03
H-2	Cryo Hot Oil Heater	NO <sub>x</sub>	1.58	6.91
		CO	2.17	9.49
		VOC	0.14	0.62
		PM	0.20	0.86
		PM <sub>10</sub>	0.20	0.86
		PM <sub>2.5</sub>	0.20	0.86
		SO <sub>2</sub>	0.02	0.07
H-3	Amine Hot Oil Heater	NO <sub>x</sub>	5.40	23.65
		CO	7.41	32.46
		VOC	1.62	7.10
		PM	0.67	2.94
		PM <sub>10</sub>	0.67	2.94
		PM <sub>2.5</sub>	0.67	2.94
		SO <sub>2</sub>	0.09	0.40
H-4	Condensate Stabilization Heater	NO <sub>x</sub>	0.42	1.84
		CO	0.58	2.52
		VOC	0.04	0.17
		PM	0.05	0.23

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		PM <sub>10</sub>	0.05	0.23
		PM <sub>2.5</sub>	0.05	0.23
		SO <sub>2</sub>	<0.01	0.02
H-5	Glycol Regen. Heater	NO <sub>x</sub>	0.18	0.79
		CO	0.25	1.08
		VOC	1.11	4.86
		PM	0.02	0.10
		PM <sub>10</sub>	0.02	0.10
		PM <sub>2.5</sub>	0.02	0.10
		SO <sub>2</sub>	<0.01	0.01
CT-1	Wet Surface Air Condenser	PM	0.27	1.20
		PM <sub>10</sub>	0.27	1.20
		PM <sub>2.5</sub>	0.27	1.20
FL-1	Plant Flare	NO <sub>x</sub>	1.14	0.71
		CO	2.27	1.86
		VOC	6.52	2.85
		SO <sub>2</sub>	<0.01	<0.01
		H <sub>2</sub> S	<0.01	<0.01
FL-2	Plant Flare - Nonassisted	NO <sub>x</sub>	23.41	10.45
		CO	46.76	21.46
		VOC	2.52	1.10
		SO <sub>2</sub>	24.15	10.58
		H <sub>2</sub> S	0.26	0.11
RTO-1	Regenerative Thermal Oxidizer	NO <sub>x</sub>	0.94	4.11
		CO	1.05	4.60
		VOC	1.24	5.44
		PM	0.07	0.31
		PM <sub>10</sub>	0.07	0.31
		PM <sub>2.5</sub>	0.07	0.31

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		SO <sub>2</sub>	24.64	107.94
		H <sub>2</sub> S	0.13	0.57
VCU-2	Vapor Combustion Unit	NO <sub>x</sub>	0.45	0.73
		CO	0.18	0.80
		VOC	3.39	5.25
		PM	0.06	0.10
		PM <sub>10</sub>	0.06	0.10
		PM <sub>2.5</sub>	0.06	0.10
		SO <sub>2</sub>	<0.01	<0.01
		H <sub>2</sub> S	<0.01	<0.01
L-1	Slop Oil Loading	VOC	0.12	<0.01
L-2	Condensate Loading Fugitives	VOC	0.65	0.80
L-4	Slop Water Loading	VOC	1.45	0.46
L-5	Material Unloading Fugitives	VOC	1.64	7.19
FUG-1 (5)	Train 1 Fugitive Emissions	VOC	2.67	11.69
		H <sub>2</sub> S	<0.01	<0.01
Train 2				
ENG-201	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.02	8.82
		VOC	1.97	8.64
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.08
ENG-202	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.02	8.82
		VOC	1.97	8.64
		PM	0.32	1.40

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		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.08
ENG-203	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.02	8.82
		VOC	1.97	8.64
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.08
ENG-204	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.02	8.82
		VOC	1.97	8.64
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.08
ENG-205	Caterpillar 3616-4735 BHP	NO <sub>x</sub>	5.22	22.86
		CO	2.02	8.82
		VOC	1.97	8.64
		PM	0.32	1.40
		PM <sub>10</sub>	0.32	1.40
		PM <sub>2.5</sub>	0.32	1.40
		SO <sub>2</sub>	0.02	0.08
H-200	Mole Sieve Regen. Heater	NO <sub>x</sub>	1.44	6.31
		CO	3.29	14.43
		VOC	0.22	0.94
		PM	0.30	1.31
		PM <sub>10</sub>	0.30	1.31

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		PM <sub>2.5</sub>	0.30	1.31
		SO <sub>2</sub>	0.02	0.10
H-201	Hot Oil Heater	NO <sub>x</sub>	3.56	15.61
		CO	8.15	35.71
		VOC	0.53	2.34
		PM	0.74	3.23
		PM <sub>10</sub>	0.74	3.23
		PM <sub>2.5</sub>	0.74	3.23
		SO <sub>2</sub>	0.06	0.26
H-202	Stabilization Heater	NO <sub>x</sub>	0.72	3.15
		CO	1.65	7.21
		VOC	0.11	0.47
		PM	0.15	0.65
		PM <sub>10</sub>	0.15	0.65
		PM <sub>2.5</sub>	0.15	0.65
		SO <sub>2</sub>	0.01	0.05
H-203	Glycol Regen. Heater	NO <sub>x</sub>	0.11	0.47
		CO	0.25	1.08
		VOC	0.02	0.07
		PM	0.02	0.10
		PM <sub>10</sub>	0.02	0.10
		PM <sub>2.5</sub>	0.02	0.10
		SO <sub>2</sub>	<0.01	0.01

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H-204	Trim Reboiler Heater	NO <sub>x</sub>	0.94	4.10
		CO	2.14	9.38
		VOC	0.14	0.61
		PM	0.19	0.85
		PM <sub>10</sub>	0.19	0.85
		PM <sub>2.5</sub>	0.19	0.85
		SO <sub>2</sub>	0.02	0.07
RTO-200	Regenerative Thermal Oxidizer	NO <sub>x</sub>	0.90	3.95
		CO	0.29	1.25
		VOC	0.68	2.98
		PM	0.07	0.29
		PM <sub>10</sub>	0.07	0.29
		PM <sub>2.5</sub>	0.07	0.29
		SO <sub>2</sub>	24.52	107.39
		H <sub>2</sub> S	0.13	0.57
VCU-200	Vapor Combustion Unit	NO <sub>x</sub>	0.33	0.58
		CO	0.04	0.07
		VOC	2.08	3.62
		PM	0.05	0.08
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.05	0.08
		SO <sub>2</sub>	<0.01	0.01
		H <sub>2</sub> S	<0.01	<0.01
L-200	Condensate Truck Loading Fugitives	VOC	1.68	0.14
L-201	Used Lube Oil Truck Loading	VOC	0.21	<0.01
L-202	Wastewater Truck Loading	VOC	0.56	0.01
FL-200	Plant Flare	NO <sub>x</sub>	0.89	0.90
		CO	1.78	1.81



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		VOC	4.16	1.83
		SO <sub>2</sub>	<0.01	<0.01
		H <sub>2</sub> S	<0.01	<0.01
FL-300	Plant Flare - Nonassisted	NO <sub>x</sub>	8.20	34.26
		CO	16.36	68.38
		VOC	1.53	1.59
		SO <sub>2</sub>	24.51	10.74
		H <sub>2</sub> S	0.26	0.11
CT-200	Wet Surface Air Condenser	PM	0.10	0.42
		PM <sub>10</sub>	0.10	0.42
		PM <sub>2.5</sub>	0.10	0.42
TK-200	Bulk Lube Oil Tank	VOC	<0.01	<0.01
TK-201	Engine Lube Oil Tank	VOC	<0.01	<0.01
TK-202	Used Lube Oil Tank	VOC	<0.01	<0.01
TK-203	Water/Antifreeze Tank	VOC	<0.01	<0.01
TK-205	Glycol Tank	VOC	<0.01	0.09
TK-DIESEL2	Diesel Fuel Storage Tank	VOC	<0.01	<0.01
TK-GAS2	Gasoline Fuel Storage Tank	VOC	4.55	0.07
TK-211	Compressor Oil Day Tank	VOC	<0.01	<0.01
TK-212	Compressor Oil Day Tank	VOC	<0.01	<0.01
TK-213	Compressor Oil Day Tank	VOC	<0.01	<0.01
TK-214	Compressor Oil Day Tank	VOC	<0.01	<0.01
TK-215	Compressor Oil Day Tank	VOC	<0.01	<0.01
TK-216	Compressor Oil Day Tank	VOC	<0.01	<0.01
FUG-2 (5)	Train 2 Fugitive Emissions	VOC	2.68	11.76
		H <sub>2</sub> S	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

- (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)

VOC	- volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO <sub>x</sub>	- total oxides of nitrogen
SO <sub>2</sub>	- sulfur dioxide
H <sub>2</sub> S	- hydrogen sulfide
PM	- total particulate matter, suspended in the atmosphere, including PM <sub>10</sub> and PM <sub>2.5</sub> , as represented
PM <sub>10</sub>	- total particulate matter equal to or less than 10 microns in diameter, including PM <sub>2.5</sub> , as represented
PM <sub>2.5</sub>	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: May 11, 2017