

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 6051 and PSD-TX-55M3

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
WHRU501	Turbine Exhaust Duct Burner (30 MM BTU/Hour)	NO _x	4.61	20.19
		CO	18.96	83.04
		SO ₂	0.02	0.08
		PM ₁₀	0.25	1.07
		VOC	0.18	0.78
WHRU502	Turbine Exhaust Duct Burner (30 MM BTU/Hour)	NO _x	4.61	20.19
		CO	18.96	83.04
		SO ₂	0.02	0.08
		PM ₁₀	0.25	1.07
		VOC	0.18	0.78
WHRU503	Turbine Exhaust Duct Burner (30 MM BTU/Hour)	NO _x	4.61	20.19
		CO	18.96	83.04
		SO ₂	0.02	0.08
		PM ₁₀	0.25	1.07
		VOC	0.18	0.78
BOZURN	Power Steam Boiler/ Zurn Auxiliary Boiler (93 MM BTU/Hour Design)	NO _x	8.39	7.03
		CO	7.05	5.91
		SO ₂	0.05	0.05
		PM ₁₀	0.64	0.54
		VOC	0.46	0.38
CMK201A	Residue or Treated Gas Compressor Engine Stack with Catalytic Converter 16.90	NO _x	5.79	25.35
		CO		3.86
	Waukesha L-7042GSI (875 Horsepower)	SO ₂	0.46	2.00
		VOC	2.70	11.84

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
CMK201B	Treated Gas Compressor Engine Stack		NO _x	5.79
	25.35			
	with Catalytic Converter	CO	3.86	16.90
	Waukesha L-7042GSI	SO ₂	0.46	2.00
	(875 Horsepower)	VOC	2.70	11.84
CMK201C	Treated Gas Compressor Engine Stack		NO _x	5.79
	25.35			
	with Catalytic Converter	CO	3.86	16.90
	Waukesha L-7042GSI	SO ₂	0.46	2.00
	(875 Horsepower)	VOC	2.70	11.84
CMK201D	Treated Gas Compressor Engine Stack		NO _x	5.79
	25.35			
	with Catalytic Converter	CO	3.86	16.90
	Waukesha L-7042GSI	SO ₂	0.46	2.00
	(875 Horsepower)	VOC	2.70	11.84
CMK201E	Sour Gas Compressor Engine Stack	NO _x	5.79	25.35
	with Catalytic Converter	CO	3.86	16.90
	Waukesha L-7042GSI	SO ₂	0.46	2.00
	(875 Horsepower)	VOC	2.70	11.84
FL-CLD	Cold Plant/Gas Liquids Recovery Flare (5)	NO _x	<0.01	<0.01
		CO	<0.01	<0.01
		SO ₂	<0.01	0.01
		VOC	<0.01	0.01
FL-FLD	Well Flowline/Field Flare (5)	NO _x	<0.01	<0.01
		CO	<0.01	0.01
		SO ₂	<0.01	0.02
		VOC	<0.01	0.02
FL-PROC	Plant Process Flare (5)	NO _x	<0.01	<0.01

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			lb/hr	TPY
		CO	<0.01	0.01
		SO ₂	<0.01	0.02
		VOC	<0.01	0.02
FWPUMP	Firewater Pump Engine (Emergency and Maintenance Use)	NO _x	<0.01	0.04
		CO	<0.01	0.01
		SO ₂	<0.01	<0.01
		PM ₁₀	<0.01	<0.01
		VOC	<0.01	<0.01
INSTK	Tail Gas Incinerator Stack	NO _x	8.46	37.05
		CO	3.69	15.9
		SO ₂ (6,7)	350.0	1,095.0
		PM ₁₀ (6)	<0.01	<0.01
		VOC	<0.01	<0.01
		H ₂ S	10.00	
TRTDFUG	Treated Gas Fugitive Emissions (4)	VOC	0.16	0.70
NGLFUG	Cold Plant Fugitive Emissions (4)	VOC	0.11	0.48
RESFUG	Residue Gas Fugitive Emissions (4)	VOC	0.08	0.37
INLETFUG	Inlet Gas Fugitive Emissions (4)	VOC	0.31	1.36
		H ₂ S	0.93	4.07
SLUG-FUG	Slug Catcher Fugitive Emissions (4,8)	VOC	0.49	2.15
		H ₂ S	0.11	0.49
CUDFUG	Condensate Area Fugitive Emissions (4) 0.48		VOC	0.11
SO2FUG	Sulfur Plant Fugitive Emissions (4)	SO ₂	<0.01	0.01
		H ₂ S	0.01	0.06

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
REGNHR	Molecular Sieve Regenerator Gas Heater (7.5 MM BTU/Hour)	NO _x	0.81	3.53
		CO	0.68	2.97
		SO ₂	<0.01	0.02
		PM ₁₀	0.06	0.27
		VOC	0.04	0.19
H-101	Condensate Stabilizer Bottoms Heater (15 MM BTU/Hour)	NO _x	1.61	7.06
		CO	1.35	5.93
		SO ₂ (6)	0.01	0.04
		VOC	0.09	0.39
		PM ₁₀ (6)	0.12	0.54
H-102	Inhibitor Oil Tank Bottoms Heater (15 MM BTU/Hour)	NO _x	1.61	7.06
		CO	1.35	5.93
		SO ₂	0.01	0.04
		VOC	0.09	0.39
		PM ₁₀	0.12	0.54
TURBOX501	Allison 501KB Gas Turbine Generator (Horsepower)	NO _x	10.50	45.99
		CO	21.25	93.08
		SO ₂ (6)	0.67	2.95
		VOC	0.11	0.48
TURBOX502	Allison 501KB Gas Turbine Generator (Horsepower)	NO _x	10.50	45.99
		CO	21.25	93.08
		SO ₂ (6)	0.67	2.95
		VOC	0.11	0.48
TURBOX503	Allison 501KB Gas Turbine Generator (Horsepower)	NO _x	10.50	45.99
		CO	21.25	93.08
		SO ₂ (6)	0.67	2.95
		VOC	0.11	0.48
WH20PIT	Wastewater Pit	VOC	5.77	25.29

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
V-109	Methanol Storage Tank	MeOH	0.18	0.04
CTATNK	Cooling Tower Acid Storage Tank	H ₂ SO ₄	<0.01	<0.01
SLPTNK	Slop Tank	VOC	0.08	0.19
INHOILTANK	Inhibitor Oil Storage Tank	VOC	<0.01	<0.01
DEMIN1	Demineralizer Acid Storage Tank	H ₂ SO ₄	<0.01	<0.01
SLOAD	Sulfur Railcar Loading Area			

(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 General Rule 101.1

PM - particulate matter, suspended in the atmosphere, including PM₁₀.

PM₁₀ - particulate matter 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.

SO₂ - sulfur dioxide

NO_x - total oxides of nitrogen

CO - carbon monoxide

MM BTU - million British Thermal Units

H₂S - hydrogen sulfide

H₂SO₄ - sulfuric acid

DIPA - diisopropanolamine

MeOH - methyl alcohol (methanol)

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

(5) Maximum allowable emissions listed for the flares are based on combustion of the assist gas flow to the flare pilots only. Upset and maintenance related emissions from the flares are not shown and are subject to the TNRCC General Rules (30 TAC Chapter 101). Standard Permit No. 41832 for the Flare Tips Replacement Project is incorporated into Permit Nos. 6051 and PSD-TX-55M3.

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Emission	Source	Air Contaminant	<u>Emission Rates *</u>	
Point No. (1)	Name (2)	Name (3)	<u>lb/hr</u>	<u>TPY</u>

- (6) Pollutants are authorized under Permit No. PSD-TX-55M3.
(7) SO₂ emissions shall not exceed an average rate of 250 pounds per hour calculated on a 24-hour rolling average basis (daily maximum allowable SO₂ emission rate of 3 tons).
(8) The Slug Catcher Addition was previously authorized under Exemption Registration No. 36892.

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

_____ Hrs/day ____ Days/week ____ Weeks/year or 8,784 Hrs/year

Dated _____