

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 116055 and PSDTX1386

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

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (4)	
			lbs/hour	TPY
FLRL	LNG Storage LP Flare	NO <sub>x</sub>	113.36	8.41
		CO	971.94	67.18
		VOC	14.77	0.94
		SO <sub>2</sub>	0.32	0.11
WDFLR	Wet and Dry Gas Ground Flare	NO <sub>x</sub>	3.82	16.75
		CO	32.79	143.62
		VOC	0.16	0.71
		SO <sub>2</sub>	0.01	0.05
WDFLRMSS	Wet and Dry Gas Ground Flare MSS	NO <sub>x</sub>	1,610.02	22.61
		CO	13,804.46	193.84
		VOC	2,606.03	14.67
		SO <sub>2</sub>	6.95	0.08
AXBL	Auxiliary Boiler	NO <sub>x</sub>	6.95	5.00
		NO <sub>x</sub> (6)	8.10	--
		CO	10.81	7.78
		CO (6)	12.15	--
		VOC	1.30	0.93
		VOC (6)	1.46	--
		SO <sub>2</sub>	0.08	0.03
		PM	2.40	1.73
		PM (6)	2.70	--
		PM <sub>10</sub>	2.40	1.73
		PM <sub>10</sub> (6)	2.70	--

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		PM <sub>2.5</sub>	2.40	1.73
		PM <sub>2.5</sub> (6)	2.70	--
GT-HRSG-1 and GT-HRSG-1MSS	MR Compressor Gas Turbine Driver 1/ HRSG	NH <sub>3</sub>	16.06	70.36
		NO <sub>x</sub>	21.73	95.38
		NO <sub>x</sub> (6)	42.70	--
		CO	15.87	70.29
		CO (6)	231.65	--
		VOC	6.05	26.51
		VOC (6)	7.69	--
		PM	4.36	19.24
		PM (6)	28.54	--
		PM <sub>10</sub>	4.36	19.24
		PM <sub>10</sub> (6)	28.54	--
		PM <sub>2.5</sub>	4.36	19.24
		PM <sub>2.5</sub> (6)	28.54	--
		SO <sub>2</sub>	0.44	0.96
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.07
GT-HRSG-2 and GT-HRSG-2MSS	MR Compressor Gas Turbine Driver 2/ HRSG	NH <sub>3</sub>	16.06	70.36
		NO <sub>x</sub>	21.73	95.38
		NO <sub>x</sub> (6)	42.70	--
		CO	15.87	70.29
		CO (6)	231.65	--
		VOC	6.05	26.51
		VOC (6)	7.69	--
		PM	4.36	19.24
		PM (6)	28.54	--
		PM <sub>10</sub>	4.36	19.24
		PM <sub>10</sub> (6)	28.54	--
		PM <sub>2.5</sub>	4.36	19.24

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		PM <sub>2.5</sub> (6)	28.54	--
		SO <sub>2</sub>	0.44	0.96
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.07
GT-HRSG-3 and GT-HRSG-3MSS	MR Compressor Gas Turbine Driver 3/ HRSG	NH <sub>3</sub>	16.06	70.36
		NO <sub>x</sub>	21.73	95.38
		NO <sub>x</sub> (6)	42.70	--
		CO	15.87	70.29
		CO (6)	231.65	--
		VOC	6.05	26.51
		VOC (6)	7.69	--
		PM	4.36	19.24
		PM (6)	28.54	--
		PM <sub>10</sub>	4.36	19.24
		PM <sub>10</sub> (6)	28.54	--
		PM <sub>2.5</sub>	4.36	19.24
		PM <sub>2.5</sub> (6)	28.54	--
		SO <sub>2</sub>	0.44	0.96
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.07
GT-HRSG-4 and GT-HRSG-4MSS	Propane Compressor Gas Turbine Driver 1/ HRSG	NH <sub>3</sub>	16.06	70.36
		NO <sub>x</sub>	21.73	95.38
		NO <sub>x</sub> (6)	42.70	--
		CO	15.87	70.29
		CO (6)	231.65	--
		VOC	6.05	26.51
		VOC (6)	7.69	--
		PM	4.36	19.24
		PM (6)	28.54	--
		PM <sub>10</sub>	4.36	19.24
		PM <sub>10</sub> (6)	28.54	--

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		PM <sub>2.5</sub>	4.36	19.24
		PM <sub>2.5</sub> (6)	28.54	--
		SO <sub>2</sub>	0.44	0.96
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.07
GT-HRSG-5 and GT-HRSG-5MSS	Propane Compressor Gas Turbine Driver 2/ HRSG	NH <sub>3</sub>	16.06	70.36
		NO <sub>x</sub>	21.73	95.38
		NO <sub>x</sub> (6)	42.70	--
		CO	15.87	70.29
		CO (6)	231.65	--
		VOC	6.05	26.51
		VOC (6)	7.69	--
		PM	4.36	19.24
		PM (6)	28.54	--
		PM <sub>10</sub>	4.36	19.24
		PM <sub>10</sub> (6)	28.54	--
		PM <sub>2.5</sub>	4.36	19.24
		PM <sub>2.5</sub> (6)	28.54	--
		SO <sub>2</sub>	0.44	0.96
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.07
GT-HRSG-6 and GT-HRSG-6MSS	Propane Compressor Gas Turbine Driver 3/ HRSG	NH <sub>3</sub>	16.06	70.36
		NO <sub>x</sub>	21.73	95.38
		NO <sub>x</sub> (6)	42.70	--
		CO	15.87	70.29
		CO (6)	231.65	--
		VOC	6.05	26.51
		VOC (6)	7.69	--
		PM	4.36	19.24
		PM (6)	28.54	--
		PM <sub>10</sub>	4.36	19.24

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		PM <sub>10</sub> (6)	28.54	--
		PM <sub>2.5</sub>	4.36	19.24
		PM <sub>2.5</sub> (6)	28.54	--
		SO <sub>2</sub>	0.44	0.96
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.07
TO1	Thermal Oxidizer 1	NO <sub>x</sub>	2.68	11.74
		CO	0.37	1.63
		VOC	1.57	6.30
		PM	0.10	0.45
		PM <sub>10</sub>	0.10	0.45
		PM <sub>2.5</sub>	0.10	0.45
		SO <sub>2</sub>	0.25	1.10
		H <sub>2</sub> S	0.04	0.18
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.08
TO2	Thermal Oxidizer 2	NO <sub>x</sub>	2.68	11.74
		CO	0.37	1.63
		VOC	1.42	6.20
		PM	0.10	0.45
		PM <sub>10</sub>	0.10	0.45
		PM <sub>2.5</sub>	0.10	0.45
		SO <sub>2</sub>	0.25	1.10
		H <sub>2</sub> S	0.04	0.18
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.08
TO3	Thermal Oxidizer 3	NO <sub>x</sub>	2.68	11.74
		CO	0.37	1.63
		VOC	1.42	6.20
		PM	0.10	0.45
		PM <sub>10</sub>	0.10	0.45
		PM <sub>2.5</sub>	0.10	0.45

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		SO <sub>2</sub>	0.25	1.10
		H <sub>2</sub> S	0.04	0.18
		H <sub>2</sub> SO <sub>4</sub>	0.02	0.08
TO4	Thermal Oxidizer 4	NO <sub>x</sub>	0.65	2.85
		CO	0.09	0.39
		VOC	0.34	1.50
		PM	0.03	0.11
		PM <sub>10</sub>	0.03	0.11
		PM <sub>2.5</sub>	0.03	0.11
		SO <sub>2</sub>	0.01	0.01
		H <sub>2</sub> S	0.01	0.04
		H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
GEN 1	Essential Diesel Generator 1	NO <sub>x</sub>	56.44	1.13
		CO	30.86	0.62
		VOC	2.01	0.04
		PM	1.76	0.04
		PM <sub>10</sub>	1.76	0.04
		PM <sub>2.5</sub>	1.76	0.04
		SO <sub>2</sub>	0.07	0.01
GEN 2	Essential Diesel Generator 2	NO <sub>x</sub>	56.44	1.13
		CO	30.86	0.62
		VOC	2.01	0.04
		PM	1.76	0.04
		PM <sub>10</sub>	1.76	0.04
		PM <sub>2.5</sub>	1.76	0.04
		SO <sub>2</sub>	0.07	0.01
GEN 3	Essential Diesel Generator 3	NO <sub>x</sub>	56.44	1.13
		CO	30.86	0.62
		VOC	2.01	0.04

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		PM	1.76	0.04
		PM <sub>10</sub>	1.76	0.04
		PM <sub>2.5</sub>	1.76	0.04
		SO <sub>2</sub>	0.07	0.01
GEN 4	Essential Diesel Generator 4	NO <sub>x</sub>	56.44	1.13
		CO	30.86	0.62
		VOC	2.01	0.04
		PM	1.76	0.04
		PM <sub>10</sub>	1.76	0.04
		PM <sub>2.5</sub>	1.76	0.04
		SO <sub>2</sub>	0.07	0.01
GEN 5	Essential Diesel Generator 5	NO <sub>x</sub>	56.44	1.13
		CO	30.86	0.62
		VOC	2.01	0.04
		PM	1.76	0.04
		PM <sub>10</sub>	1.76	0.04
		PM <sub>2.5</sub>	1.76	0.04
		SO <sub>2</sub>	0.07	0.01
GEN 6	Essential Diesel Generator 6	NO <sub>x</sub>	56.44	1.13
		CO	30.86	0.62
		VOC	2.01	0.04
		PM	1.76	0.04
		PM <sub>10</sub>	1.76	0.04
		PM <sub>2.5</sub>	1.76	0.04
		SO <sub>2</sub>	0.07	0.01
GEN 7	Essential Diesel Generator 7	NO <sub>x</sub>	42.33	0.85
		CO	23.15	0.46
		VOC	0.98	0.02
		PM	1.32	0.03

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		PM <sub>10</sub>	1.32	0.03
		PM <sub>2.5</sub>	1.32	0.03
		SO <sub>2</sub>	0.05	0.01
FUG	Fugitive Emissions (5)	VOC	13.28	58.18
		NH <sub>3</sub>	0.39	1.70
TRL	Condensate Truck Loading	VOC	1.58	1.05
AMNTK1	Makeup Amine Tank	VOC	0.63	0.04
DSLTK	Diesel Tank	VOC	0.04	0.01
GENTK1	Diesel Essential Generator Tank	VOC	0.02	0.01
GENTK2	Diesel Essential Generator Tank	VOC	0.02	0.01
GENTK3	Diesel Essential Generator Tank	VOC	0.02	0.01
GENTK4	Diesel Essential Generator Tank	VOC	0.02	0.01
GENTK5	Diesel Essential Generator Tank	VOC	0.02	0.01
GENTK6	Diesel Essential Generator Tank	VOC	0.02	0.01
GENTK7	Diesel Essential Generator Tank	VOC	0.02	0.01
MP1 FUG	MP1 Fugitive Emissions	VOC	0.01	0.01
GPLCONTK	MP1 Condensate Storage Tank	VOC	29.10	0.09
MP1TRL	MP1 Condensate Truck Loading	VOC	0.85	0.01
MP1GEN	MP1 Essential Generator	NO <sub>x</sub>	2.87	0.14
		CO	6.16	0.31
		VOC	0.05	0.01
		PM	0.08	0.01
		PM <sub>10</sub>	0.08	0.01
		PM <sub>2.5</sub>	0.08	0.01



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		SO <sub>2</sub>	0.01	0.01
BLWDWN	MP1 Blowdown Vent	VOC	32.70	0.07
		H <sub>2</sub> S	0.04	0.01
Site-Wide	Site-Wide	Individual HAP	--	<10.00
		Total HAPs	--	<25.00

- (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
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- H<sub>2</sub>S - hydrogen sulfide
- NH<sub>3</sub> - ammonia
- H<sub>2</sub>SO<sub>4</sub> - sulfuric acid
- HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
- (4) The pound per hour and ton per year emission limits specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities, unless otherwise noted. 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.
- (6) MSS hourly emission limit only. The tpy emission limit represented in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities. For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply. By-pass stacks for routine gas turbine MSS have been identified and will be utilized.

Date: January 16, 2015