#### **Emission Sources - Maximum Allowable Emission Rates**

#### Permit Numbers 101616 and N214

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

<b>Emission Point No. (1)</b>	Source Name (2)	Air Contaminant	Emissio	on Rates
		Name (3)	lbs/hour	TPY (4)
FLR-5	Flare Routine	со	0.87	3.80
		NO <sub>x</sub>	0.43	1.90
		VOC	0.73	3.20
		H <sub>2</sub> S	0.01	<0.01
	Controlled Planned Maintenance, Startup, and Shutdown (MSS)	со	13.20	0.64
	Emissions	NO <sub>x</sub>	6.62	0.32
		VOC	96.02	11.04
F-07	Hot Oil Heater	со	5.34	23.41
		NO <sub>X</sub>	0.72	3.16
		VOC	0.09	0.38
		SO <sub>2</sub>	0.08	0.37
		РМ	0.58	2.53
		PM <sub>10</sub>	0.58	2.53
		PM <sub>2.5</sub>	0.58	2.53
		NH <sub>3</sub>	0.46	1.99
	Hot Oil Heater MSS	СО	42.73	1.54
		NO <sub>x</sub>	2.63	0.09

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F-08	Hot Oil Heater	СО	5.34	23.41
		NO <sub>x</sub>	0.72	3.16
		VOC	0.09	0.38
		SO <sub>2</sub>	0.08	0.37
		РМ	0.58	2.53
		PM <sub>10</sub>	0.58	2.53
		PM <sub>2.5</sub>	0.58	2.53
		NH <sub>3</sub>	0.46	1.99
	Hot Oil Heater MSS	со	42.73	1.54
		NO <sub>X</sub>	2.63	0.09
AU-4	Amine Still Vent	voc	0.15	0.65
		H <sub>2</sub> S	0.05	0.20
FUG-FRAC5	Train 5 Fugitives (5)	voc	0.33	1.44
FUG-CT-9	Cooling Tower 9	PM	0.55	2.43
		PM <sub>10</sub>	0.17	0.73
		PM <sub>2.5</sub>	0.17	0.73
		voc	0.81	3.56
TK-2	Ucarsol Storage Tank	voc	0.01	0.01
MSS-TRAIN5	Train 5 Uncontrolled Planned MSS Emissions	voc	11.68	0.24
F-10	Hot Oil Heater	со	5.34	23.41
		NO <sub>X</sub>	0.72	3.16
		VOC	0.09	0.38
		SO <sub>2</sub>	0.08	0.37
		РМ	0.58	2.53
		PM <sub>10</sub>	0.58	2.53

## Emission Sources - Maximum Allowable Emission Rates

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		PM <sub>2.5</sub>	0.58	2.53
		NH <sub>3</sub>	0.45	1.99
	Hot Oil Heater MSS	со	42.73	1.54
		NO <sub>x</sub>	2.63	0.09
F-11	Hot Oil Heater	СО	5.34	23.41
		NO <sub>x</sub>	0.72	3.16
		VOC	0.09	0.38
		SO <sub>2</sub>	0.08	0.37
		РМ	0.58	2.53
		PM <sub>10</sub>	0.58	2.53
		PM <sub>2.5</sub>	0.58	2.53
		NH <sub>3</sub>	0.45	1.99
	Hot Oil Heater MSS	СО	42.73	1.54
		NO <sub>X</sub>	2.63	0.09
AU-5	Amine Still Vent	voc	0.15	0.65
		H <sub>2</sub> S	0.05	0.20
FUG-FRAC6	Train 6 Fugitives (5)	voc	0.85	3.72
FUG-CT-10	Cooling Tower 10	PM	0.55	2.43
		PM <sub>10</sub>	0.17	0.73
		PM <sub>2.5</sub>	0.17	0.73
		voc	0.81	3.56
MSS-TRAIN6	Train 6 Uncontrolled Planned MSS Emissions	VOC	11.68	0.24

NO<sub>X</sub> - total oxides of nitrogen

<sup>(1)</sup> Emission point identification - either specific equipment designation or emission point number from plot plan.

<sup>(2)</sup> Specific point source name. For fugitive sources, use area name or fugitive source name.

<sup>(3)</sup> VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

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## Emission Sources - Maximum Allowable Emission Rates

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>, as represented

 $PM_{10}$  - total particulate matter equal to or less than 10 microns in diameter, including  $PM_{2.5}$ , as

represented

PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

 $NH_3$  - ammonia  $H_2S$  - hydrogen sulfide

- (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: September 16, 2016
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