## Emission Sources - Maximum Allowable Emission Rates

## Permit Number 20800

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)	<b>Emission Rates</b>	
			lbs/hour	TPY (4)
HF-01	HF Scrubber Process Vent (6)	SO2	6.84	29.90
		HF	0.17	0.75
		PM	0.01	0.02
		PM10	0.01	0.02
		PM2.5	0.01	0.02
HF-04F	HF Process Fugitives (5)	HF	0.08	0.35
		HFC	2.3	10.1
		HCFC	2.9	12.7
HF-05	Reactor Heater Vent	NOx	0.58	2.54
		СО	0.45	1.98
		VOC	0.04	0.18
		PM	0.05	0.21
		PM10	0.05	0.21
		PM2.5	0.05	0.21
		SO2	0.01	0.02
HF-07F	Spar Handling Fugitives	PM	0.01	0.01
		PM10	0.01	0.01
		PM2.5	0.01	0.01
HF-08	North Silo Vent	РМ	0.48	2.11
		PM10	0.13	0.55
		PM2.5	0.02	0.11

Project Number: 193766, 193774

## Emission Sources - Maximum Allowable Emission Rates

HF-09	South Silo Vent	PM	0.48	2.11
	-	PM10	0.13	0.55
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		PM2.5	0.02	0.11
HF-10	Feed Bin Vent	PM	0.15	0.66
		PM10	0.04	0.17
		PM2.5	<0.01	0.03
HF-12	Spar Dryer Vent	NOx	5.40	23.65
		СО	0.15	0.65
		VOC	0.17	0.72
		PM	2.09	9.16
		PM10	0.55	2.40
		PM2.5	0.11	0.46
		SO <sub>2</sub>	0.02	0.08
HF-14	Emergency Generator	NOx	1.59	0.04
		СО	2.46	0.06
		VOC	0.02	0.01
		PM	0.01	<0.01
		PM10	0.01	<0.01
		PM2.5	0.01	<0.01
		SO2	0.01	0.01
HFMSS	Equipment opening for Maintenance	HF	2.78	0.13
	ioi mantenance _	H2SO4	0.01	0.01
HFRXMSS	HF Reactor Opening for Maintenance	HF	0.02	0.01
HFSPHMSS	HF Sphere Opening for Maintenance	HF	0.23	0.01
HF-25	Lime Tank	HF	<0.01	<0.01

Project Number: 193766, 193774

## Emission Sources - Maximum Allowable Emission Rates

	SO2	<0.01	<0.01
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- (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) Exempt Solvent Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
  - 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  $PM_{10}$  and  $PM_{2.5}$ , 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

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

HF - hydrogen fluorideHFC - hydrofluorocarbonsHCFC - hydrochlorofluorocarbons

- (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.
- (6) Planned startup, shutdown and maintenance clearing of the vessels listed in Attachment A and their ancillary piping and equipment are part of the emission limit for this source.

Date: September 16, 2015

Project Number: 193766, 193774