EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 7186 and PSD-TX-1079

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**
10FLR-001	Converter Flares (6)	VOC	0.20	0.84
10FLR-002		NO_x	0.11	0.49
10FLR-003		CO	0.92	4.01
10FLR-003A		SO_2	0.01	0.02
		NH_3	0.01	0.01
10FLR-001	Converter Flares	VOC	342.61	13.85
10FLR-002	MSS (7)	NO_x	130.43	9.75
10FLR-003		CO	307.75	24.14
10FLR-003A		SO_2	0.19	0.02
		NH_3	125.47	8.22
10FLR-004	Ammonia Start-Up Flare	VOC	0.04	0.16
		NO_x	0.03	0.10
		CO	0.19	0.80
		SO_2	0.01	0.01
		NH_3	0.05	0.20
10FLR-004	Ammonia Start-Up Flare	VOC	8.87	0.55
		MSS Emissions NO_x	2.71	55.66
		CO	64.82	4.71
		SO_2	0.05	0.01
		NH_3	95.80	4.30
10FLR-004A	Ammonia Tank Flare	VOC	0.02	0.08
		NO_x	0.02	0.05
		CO	0.10	0.40

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		SO_2	0.01	0.01
10FLR-004A	Ammonia Tank Flare	VOC	0.59	0.03
		MSS Emissions NO_x	0.31	7.52
		CO	8.73	0.35
		SO_2	0.01	0.01
		NH_3	13.00	0.52
10FLR-004B	Butadiene Flare	VOC	2.74	5.81
		NO_x	2.35	7.33
		CO	4.68	14.62
		SO_2	0.01	0.04
10FLR-004B	Butadiene Flare MSS Emissions	VOC	7.49	0.33
		NO_x	2.97	0.21
		CO	5.92	0.41
		SO_2	0.01	0.01
10FLR-004C	Ammonia Pipeline and Bullet Tank Flare	VOC	0.03	0.12
		NO_x	0.07	0.02
		CO	0.14	0.60
		SO_2	0.01	0.01
10FLR-004C	Ammonia Pipeline and Bullet Tank Flare MSS Emissions	VOC	11.70	0.14
		NO_x	0.13	10.50
		CO	0.76	63.00
		SO_2	0.07	0.01
		NH_3	6.24	0.08

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
10FLR-005	Adiponitrile Flare	VOC	526.47	479.10
		NO_x	127.89	185.54
		CO	1643.36	2543.21
		SO_2	0.08	0.12
		NH_3	2.89	8.32
10FLR-005	Adiponitrile Flare MSS Emissions	VOC	946.88	42.41
		NO_x	213.82	7.23
		CO	1031.20	40.18
		SO_2	0.64	0.03
		NH_3	0.01	0.01
04FLR032	Diamine Flare (8)	VOC	0.63	0.28
		NO_x	0.28	0.08
		CO	0.36	0.13
		SO_2	0.01	0.01
		NH_3	0.19	0.01
10FLR-TMP	TEMP Flare (5)	VOC	3.07	0.48
		NO_x	0.41	0.07
		CO	2.03	0.33
		SO_2	0.01	0.01
		NH_3	0.05	0.01
10CLT-040	Cooling Tower	VOC	3.83	16.75
		PM_{10}	1.10	4.21
		NH_3	3.83	16.75
10FUG	ADN Fugitives (4)	VOC	50.14	182.14
		CO	0.15	0.45
		NH_3	2.44	7.91
		H_2S	0.01	0.01
10FUG2	311 Fugitives (4)	VOC	1.00	4.35

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		NH_3	0.02	0.05
10MSS-001	MSS Emissions	VOC	314.850	1.51
		ADN Area NH_3	0.01	0.13
10MSS-002	MSS Emissions 311 Area	VOC	21.78	0.05
10FLT-063	Nickel Addition Bag Filter	PM_{10}	0.01	0.01
10FLT-063A	Nickel Powder Vacuum System	PM_{10}	0.05	0.01
10LBA-061B	ADN Barge Loading	VOC	0.04	0.01
10LBA-061D	NH_3 Barge Loading	NH_3	0.69	0.05
10LDR-326A	ADN Drum Loading	VOC	0.01	0.01
10LDR-326B	2M3BN Drum Loading	VOC	0.01	0.01
10LRC-041A	ADN Railcar Loading	VOC	0.01	0.01
10LRC-041B	ADN Load/Unload	VOC	0.01	0.01
10LRC-041C	ADN Railcar Loading	VOC	0.01	0.01
10LRC-041E	MGN Railcar Loading	VOC	0.03	0.01
10LRC-041F	2PN Railcar Degassing	VOC	9.42	0.18
10LTR-036	REF MGN Truck Loading	VOC	0.01	0.01
10LTR-056	No. 3 Tank Farm Truck Spot	VOC	0.86	0.02

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
10LTR-057	2PN Truck Unloading	VOC	0.04	0.01
10LTR-058A	NSC Truck Loading	VOC	0.01	0.01
		NH_3	0.01	0.01
10LTR-061	Truck Loading	VOC	4.99	1.62
		NH_3	0.03	0.01
10LTR-062	Misc. Load/Unload	VOC	0.10	0.01
10LTR-072	MDEA Truck Loading/Unloading	VOC		0.03
		0.01		
10LTR-073	Methanol Brine Truck Loading	VOC		0.32
		0.01		
10LTR-074	Anti-foulant Unloading	VOC	0.01	0.01
10SCB-154	HCl Scrubber	HCl	0.38	0.05
10TFX-010	Fresh Ligand Tank	VOC	0.01	0.01
10TFX-025A	South WFE Feed Tank	VOC	3.11	0.15
10TFX-025B	North WFE Feed Tank	VOC	3.11	0.15
10TFX-027	REF ADN Tank No. 1	VOC	0.04	0.01
10TFX-028	REF ADN Tank No. 2	VOC	0.04	0.01
10TFX-029	REF ADN Tank No. 3	VOC	0.04	0.01
10TFX-030	REF ADN Tank No. 4	VOC	0.04	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
10TFX-031	REF ADN Tank No. 5	VOC	0.04	0.01
10TFX-032	REF ADN Tank No. 6	VOC	0.04	0.01
10TFX-032B	REF ADN Tank No. 7	VOC	0.02	0.02
10TFX-033	North Raffinate Sphere	VOC	17.39	0.70
10TFX-034A	Middle Raffinate Sphere	VOC	17.39	0.70
10TFX-034B	South Raffinate Sphere	VOC	17.39	0.70
10TFX-035A	TG MGN Tank	VOC	1.49	0.56
10TFX-036	REF MGN Tank	VOC	0.02	0.02
10TFX-036A	Promoter PN Tank	VOC	3.45	1.52
10TFX-037	Crude DN/MGN Tank	VOC	0.01	0.01
10TFX-037A	Crude MGN Sphere	VOC	0.14	0.03
10TFX-038	Ethylene Glycol Tank	VOC	0.15	0.01
10TFX-047	Methanol Tank	VOC	8.02	0.15
10TFX-059	Ammonia Salt Tank	VOC	0.01	0.01
		NH_3	0.02	0.01
10TFX-067	Produced Water Tank	VOC	0.01	0.01
		NH_3	0.03	0.02
10TFX-080	Barge Dock REF ADN Tank	VOC	0.06	0.05
10TFX-085	MDEA Amine Tank	VOC	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
10TFX-086	Anti-foulant Tank	VOC	0.50	0.01
10VNT-001	Feed Gas Analyzer Vent	VOC	0.01	0.01
		NH_3	0.09	0.36
10VNT-002	HCN Sample Blower Vent	VOC	0.26	0.01
		CO	0.01	0.01
		NH_3	0.19	0.01
10VNT-255	Pump Tank Scrubber	VOC	0.13	0.52
		and Closed Sump CO	0.07	0.02
10VNT-255	Pump Tank Scrubber and Closed Sump MSS Emissions	VOC	37.96	0.05
		CO	0.01	0.01
11TFX-036	HCN/HMD AWST	VOC	0.92	0.27
		NH_3	15.79	4.84
11TFX-047	HCN/HMD HUT	VOC	0.68	0.09
		NH_3	13.23	1.63
11TFX-048	Nitrile HUT	VOC	0.68	0.07
		NH_3	13.22	1.23
11TFX-053	RPF Filtrate Tank No. 1	VOC	0.01	0.01
		NH_3	0.70	0.20
11TFX-054	RPF Filtrate Tank No. 2	VOC	0.01	0.01
		NH_3	0.70	0.20

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
11TFX-055	311 Area Wastewater Tank	VOC	0.04	0.01
		NH_3	0.99	0.26
11SEP-055A	API Decanter	VOC	0.04	0.01
		NH_3	0.99	0.26
11ODP-055B	Organics Dumpster	VOC	0.01	0.01
11TFX-064	NETZ Filter Feed Tank	VOC	0.21	0.13
		NH_3	4.01	2.41
11TFX-070	NETZ Effluent Tank	VOC	0.29	0.12
		NH_3	5.55	2.34
11TFX-076	Waste Collection Tank	VOC	0.02	0.01
		NH_3	0.43	0.28
11TFX-077	Waste Lift Tank	VOC	0.01	0.01
		NH_3	0.04	0.01
11TFX-153	Precoat Tank No. 1	VOC	0.02	0.01
		NH_3	0.47	0.01
11TFX-154	Precoat Tank No. 2	VOC	0.21	0.01
		NH_3	3.97	0.02
10RPF-001	Rotary Precoat Filter No. 1	VOC	0.44	0.20
		NH_3	2.03	0.91
10RPF-002	RPF Conveyor/Bagger 1	VOC	0.01	0.01
		NH_3	0.01	0.01
10RPF-003	Rotary Precoat Filter No. 2	VOC	0.44	0.20
		NH_3	2.03	0.91

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

10RPF-004	RPF Conveyor/Bagger 2	VOC		0.01	0.01
			NH_3	0.01	0.01

(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_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
PM_{10} - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
NH_3 - ammonia
H_2S - hydrogen sulfide
HCl - hydrogen chloride
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) This flare is authorized to operate for 336 hours per year and only when Flare 10FLR-005 is shut down for maintenance during an ADN unit turnaround. **(1/08)**
(6) Only one converter can be in start-up mode at a time.
(7) Converter start-ups are limited to 36 total for all converters in a rolling 12-month period. **(1/08)**
(8) Emissions from sources authorized in Permit Number 7186 only. **(6/08)**

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

** Compliance with annual emission limits is based on a rolling 12-month period. **(9/05)**

Hrs/year 8,760

Dated June 18, 2008