EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 7186

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	No. 1 Converter Start-up Flare (10) (includes start-up and shutdown emissions)	VOC	83.5	3.47
		NO_x	17.6	1.33
		CO	210.4	12.66
		NH_3	89.2	4.56
10FLR-002	No. 2 Converter Start-up Flare (10) (includes start-up and shutdown emissions)	VOC	83.4	3.44
		NO_x	17.6	1.17
		CO	210.4	10.90
		NH_3	89.2	4.46
10FLR-003	No. 3 Converter Start-up Flare (10) (includes start-up and shutdown emissions)	VOC	83.4	3.44
		NO_x	17.6	1.17
		CO	210.4	10.90
		NH_3	89.2	4.46
10FLR-004	Ammonia Start-up Flare (5) (includes start-up and shutdown emissions)	NO_x	5.25	0.50
		CO	45.0	4.28
		NH_3	78.0	5.33
10FLR-004A	Ammonia Tank Flare	NO_x	0.72	0.02
		CO	3.66	0.10
		NH_3	13.2	0.37
10FLR-004B	Butadiene Flare	VOC	1.87	0.05
		NO_x	1.01	0.27
		CO	8.68	2.27
10FLR-005	Adiponitrile Flare (6)	VOC	80.58	207.35
		NO_x	30.49	107.67
		CO	265.05	931.66
		NH_3	4.38	9.10

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
10TFX-010	Fresh Ligand Tank	VOC	0.01	0.01
10TFX-025	WFE Feed Tank	VOC	0.01	0.01
10TFX-025A	WFE Feed Tank	VOC	0.01	0.01
10TFX-025B	WFE Tails Tank	VOC	0.01	0.01
10TFX-027	Refined Adiponitrile Tank	VOC	0.01	0.01
10TFX-028	Refined Adiponitrile Tank	VOC	0.01	0.01
10TFX-029	Refined Adiponitrile Tank	VOC	0.01	0.01
10TFX-030	Refined Adiponitrile Tank	VOC	0.01	0.01
10TFX-031	Refined Adiponitrile Tank	VOC	0.01	0.01
10TFX-032	Refined Adiponitrile Tank	VOC	0.01	0.01
10TFX-032B	Refined Adiponitrile Tank	VOC	0.01	0.01
10TFX-033, 10TFX-034A, and 10TFX-034B	Multi-Purpose Raffinate Tanks	VOC	16.43	1.61
10TFX-035	REF PN Multi-Purpose 1	VOC	7.60	4.42
10TFX-035B	2PN Multi-Purpose 1A	VOC	3.91	3.58
10TFX-035C	2PN Multi-Purpose 1C	VOC	3.91	1.61
10TFX-035D	Multi-Purpose 2PN 1B Tank	VOC	2.70	1.89
10TFX-036	Refined MGN Tank	VOC	0.02	0.02
10TFX-036A	Promoter PN Tank	VOC	8.54	1.93

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
10TFX-037	Crude DN or Crude MGN Tank	VOC	0.69	0.10
10TFX-037A	Crude MGN Tank	VOC	0.20	0.44
10TFX-038	Ethylene Glycol Tank	VOC	0.05	0.01
10TFX-039	Crude Cresol Tank	VOC	0.03	0.05
10CLT-040	Cooling Tower (4)	VOC NH_3	3.00 3.00	13.10 13.00
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	0.01	0.01
10LRC-041F	2PN Railcar Degassing	VOC	6.90	0.06
10TFX-054	W. HCl Tank	HCl	0.27	0.02
10TFX-054A	E. HCl Tank	HCl	0.27	0.02
10TFX-055	DN Tails Tank	VOC	0.1	0.1
10LTR-056	DN Tails Loading	VOC	0.01	0.01
10TFX-059	Fertilizer Solution Tank	NH_3	3.23	0.01
10LTR-061	Truck Loading	NH_3	0.03	0.01
10LRC-061A	NH_3 Rail Spot	NH_3	0.10	0.30

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**
10LBA-061B	ADN Barge Loading	VOC	0.01	0.01
10LBA-061D	NH_3 Barge Unloading	VOC	0.68	0.04
10LTR-062	Misc. Load/Unload	VOC	0.05	0.01
10FLT-063	Nickel Addition Bag Filter	PM_{10}	0.10	0.10
10FLT-063A	Nickel Powder Vacuum System	PM_{10}	0.10	0.10
10HTR-064	Pyrolyzer Heater	VOC	0.02	0.09
		NO_x	0.48	2.28
		CO	0.29	0.52
		SO_2	0.01	0.02
		PM_{10}	0.05	0.20
10FLT-064A	Recovered Nickel Bag Filter	VOC	0.13	0.58
		PM_{10}	0.02	0.09
10HTR-065	NAW Column Reboiler	VOC	0.87	2.16
	(85 MMBtu/hour average, and	NO_x (7)	9.00	22.34
	150 Mmbtu/hour maximum)	NO_x (8)	41.25	102.38
		CO	5.25	13.03
		SO_2	0.09	0.22
		PM_{10}	1.14	2.83
10HTR-066	NRU Hot Oil Heater	VOC	0.03	0.11
		NO_x	0.52	1.91
		CO	0.44	1.60
		SO_2	0.01	0.01
		PM_{10}	0.04	0.15
10TFX-067	Produced Water Tank	VOC	0.01	0.01
		NH_3	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**
10LTR-071	HCl Truck Unloading	HCl	0.14	0.04
10TFX-080	Adiponitrile Storage	VOC	0.07	0.01
10FUG	Fugitives (4)	VOC (9)	11.82	51.74
		NH_3	1.51	6.61
		HCN	2.10	9.20
11TFX-036	HCN/HMD AWST	VOC	0.04	0.01
11TFX-047	HCN/HMD HUT	VOC	0.01	0.01
11TFX-048	Nitrile HUT	VOC	0.01	0.01
11TFX-049	East Vacuum Truck Receiver	VOC	0.01	0.01
11TFX-053	RPF Filtrate Tank	VOC	0.01	0.01
11TFX-055	311 Area Wastewater Tank	VOC	0.02	0.01
11SEP-055A	API Decanter	VOC	0.01	0.01
11ODP-055B	Organics Dumpster	VOC	0.18	0.01
11TFX-064	Neut. Filter Feed Tank	VOC	0.01	0.01
11TFX-070	Neut. Effluent Tank	VOC	0.01	0.01
11TFX-076	Waste Collection Tank	VOC	0.04	0.01
		NH_3	0.02	0.01
11TFX-077	Waste Lift Tank	VOC	0.01	0.01
		NH_3	0.01	0.01
11TFX-153	Nitrile Precoat Tank	VOC	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		NH_3	0.01	0.01
11TOX-078A	Thermal Oxidizer	VOC	0.23	0.61
		NO_x	4.31	8.67
		CO	0.40	1.17
		SO_2	1.20	3.50
		PM_{10}	0.10	0.29
		NH_3	0.10	0.07

(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 particulate matter greater than 10 microns is emitted.
NH_3 - ammonia
HCN - hydrogen cyanide
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 also used to control upset emissions. When operating in this mode, maximum emission rates are 9.33 lbs/hr for NO_x, 80.0 lbs/hr for CO, and 138.8 lbs/hr for NH_3. Upset emissions contribute 0.06 TPY of NO_x, 0.48 TPY of CO, and 0.83 TPY of NH_3.
(6) This flare is also used to control non-continuous vents. When operating in this mode, maximum emission rates are 619.2 lbs/hr for VOC, 803.0 lbs/hr for NO_x, and 726.8 lbs/hr for CO. Non-continuous emissions contribute 18.77 TPY of VOC, 45.79 TPY of NO_x, and 221.85 TPY of CO. Both continuous and non-continuous emissions are those attributable to these facilities.

(7) Facility is using 100 percent natural gas as fuel. The permittee must keep records of 100 percent natural gas firing and demonstrate compliance with these limits except during a six-hour

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

fuel transition period from process off-gas/natural gas mix use to 100 percent natural gas use (period starts when all process off-gas burners are off), or from 100 percent natural gas use to process off-gas/natural gas mix use (period starts when first process off-gas burner is turned on). During these fuel transition periods, the 41.25 lbs/hr and 102.38 TPY limits shall govern this facility.

(8) Facility is using a mixture of process off-gas and natural gas as fuel.

(9) VOC emission rates for this emission point number do not include HCN.

(10) Only one converter can be in start-up mode at a time.

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

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

Hrs/year 8,760

Dated September 22, 2005