EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 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** (include start-up and shutdown emissions which total 72.4 hours per year)	VOC	220.2	4.6
		NO_x	1,039.9	29.8
		CO	92.4	3.0
		NH_3	87.2	1.9
10FLR-002	No. 2 Converter Start-up Flare** (include start-up and shutdown emissions which total 72.4 hours per year)	VOC	220.2	4.6
		NO_x	1,039.9	29.7
		CO	92.4	3.0
		NH_3	86.2	1.9
10FLR-003	No. 3 Converter Start-up Flare** (include start-up and shutdown emissions which total 72.4 hours per year)	VOC	220.2	4.6
		NO_x	1,039.9	29.7
		CO	92.4	3.0
		NH_3	86.2	1.9
10FLR-004	Ammonia Start-up Flare (5) (include start-up and shutdown emissions which total 112 hr/yr)	NO_x	848.3	23.3
		CO	18.0	0.7
		NH_3	78.0	2.2
10FLR-004A	Ammonia Tank Flare	Emergency service only		
10FLR-004B	Butadiene Flare	VOC	1.9	0.1
		NO_x	1.0	0.3
		CO	8.7	2.2
10FLR-005	Adiponitrile Flare (6) (8)	VOC	58.5	175.9
		NO_x	20.2	69.3
		CO	151.3	498.3
		NH_3	<0.1	<0.1

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 (7) (9)	VOC	59.6	179.5
		NO_x	38.8	104.9
		CO	278.6	901.8
		NH_3	<0.1	<0.1
10FLR-005A	Diamine Flare (8) (10)	VOC	0.3	0.2
		NO_x	<0.1	<0.1
		CO	0.2	0.1
10FLR-005A	Diamine Flare (9) (10)	VOC	1.8	6.9
		NO_x	4.2	18.4
		CO	5.6	24.0
		NH_3	11.3	49.4
10TFX-010	Fresh Ligand Tank	VOC	<0.1	<0.1
10TFX-025	WFE Feed Tank	VOC	<0.1	<0.1
10TFX-025A	WFE Feed Tank	VOC	<0.1	<0.1
10TFX-025B	WFE Tails Tank	VOC	<0.1	<0.1
10TFX-027	Refined Adiponitrile Tank	VOC	<0.1	<0.1
10TFX-028	Refined Adiponitrile Tank	VOC	<0.1	<0.1
10TFX-029	Refined Adiponitrile Tank	VOC	<0.1	<0.1
10TFX-030	Refined Adiponitrile Tank	VOC	<0.1	<0.1
10TFX-031	Refined Adiponitrile Tank	VOC	<0.1	<0.1
10TFX-032	Refined Adiponitrile Tank	VOC	<0.1	<0.1
10TFX-032B	Refined Adiponitrile Tank	VOC	<0.1	<0.1

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-033	Multi-Purpose Raffinate Tank	VOC	0.4	1.2
10TFX-034A	Multi-Purpose Raffinate Tank	VOC	0.4	1.1
10TFX-034B	Multi-Purpose Raffinate Tank	VOC	0.4	1.1
10TFX-035	Multi-Purpose PN 1 Tank	VOC	1.9	4.8
10TFX-035B	Multi-Purpose PN 1A Tank	VOC	0.5	1.3
10TFX-035C	Multi-Purpose PN 1C Tank	VOC	0.5	1.3
10TFX-035D	Multi-Purpose 2PN 1B Tank	VOC	2.7	1.9
10TFX-036	Refined MGN Tank	VOC	<0.1	<0.1
10TFX-036A	Crude 2PN Tank	VOC	1.5	1.2
10TFX-037	Crude Dinitriles Tank	VOC	<0.1	<0.1
10TFX-037A	Crude MGN Tank	VOC	0.2	0.4
10TFX-038	Ethylene Glycol Tank	VOC	<0.1	<0.1
10CLT-040	Cooling Tower (4)	VOC	3.0	13.1
		NH_3	3.0	13.0
10LRC-041A	AND Rail Loading	VOC	<0.1	<0.1
10LRC-041B	AND Load/Unload	VOC	<0.1	<0.1
10LRC-041C	AND Rail Loading	VOC	<0.1	<0.1
10LRC-041E	MGN Rail Loading	VOC	<0.1	<0.1

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
10SMP-048	HCN South Sump	SO_2	<0.1	0.2
10TFX-054	W. HCl Tank	HCl	0.3	<0.1
10TFX-054A	E. HCl Tank	HCl	0.3	<0.1
10LRC-061A	NH_3 Rail Spot	NH_3	<0.1	0.3
10LBA-061B	AND Barge Loading	VOC	<0.1	<0.1
10LBA-061D	NH_3 Barge Unloading	VOC	0.7	<0.1
10LTR-062	Misc. Load/Unload	VOC	<0.1	<0.1
10FLT-063	Nickel Addition Bag Filter (9)	PM	<0.01	<0.01
10FLT-063A	Nickel Powder Vacuum System (9)	PM	0.01	<0.01
10HTR-064	Pyrolyzer Heater (9) (5 MMBTU/HR)	VOC	<0.1	0.1
		NO_x (11)	0.5	2.0
		NO_x (12)	2.6	11.1
		CO	0.1	0.4
		PM	0.1	0.2
10FLT-064A	Recovered Nickel Bag Filter (9)	PM	<0.1	0.1
10HTR-065	NAW Column Reboiler (9) (87 MMBTU/HR)	VOC (11)	0.3	1.4
		VOC (12)	0.6	2.5
		NO_x (11)	5.2	21.9
		NO_x (12)	23.7	99.8
		CO	3.0	12.8
		PM	1.2	5.0

10VNT-066	Formate Destruction Unit (9)		VOC	0.2	0.5
			CO	0.2	0.5
			NH_3	0.2	0.5
10LTR-071	HCl Truck Unloading		HCl	0.1	<0.1
10TFX-080	Adiponitrile Storage Docks		VOC	0.1	0.1
10FUG	Fugitives (4)		VOC (13)	19.8	86.7
		NH_3	1.8	7.7	
		HCN	2.5	11.0	
11TFX-036	HCN/HMD AWST		VOC	<0.1	<0.1
11TFX-047	HCN/HMD HUT		VOC	<0.1	<0.1
11TFX-048	Nitrile HUT		VOC	<0.1	<0.1
11TFX-051	RPF East Tank		VOC	<0.1	<0.1
11TFX-052	RPF West Tank		VOC	<0.1	<0.1
11TFX-053	RPF Filtrate Tank		VOC	<0.1	<0.1
11TFX-064	Netz. Filter Feed Tank		VOC	<0.1	<0.1
11TFX-070	Netz. Effluent		VOC	<0.1	<0.1
11TFX-076	Waste Collection Tank		VOC	<0.1	<0.1
			NH_3	0.3	0.2
11TFX-077	Waste Lift Tank		VOC	<0.1	<0.1
			NH_3	0.2	<0.1
11TFX-153	Nitrile Precoat Tank		VOC	<0.1	<0.1
			NH_3	0.1	0.1

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

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

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

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

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(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 General Rule 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
PM - particulate matter
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 1,509.3 lbs/hr for NO_x, 32.3 lbs/hr for CO, and 138.8 lbs/hr for NH_3. Upset emissions contribute 9.0 TPY of NO_x, 0.2 TPY of CO, and 0.8 TPY of NH_3.
(6) This flare is also used to control non-continuous vents. When operating in this mode, emission rates can be 538.4 lbs/hr for VOC, 454.5 lbs/hr for NO_x, and 554.7 lbs/hr for CO. Non-continuous emissions contribute 28.4 TPY of VOC, 49.6 TPY of NO_x, and 269.2 TPY of CO. Both continuous and non-continuous emissions are those attributable to this facility.
(7) This flare is also used to control non-continuous vents. When operating in this mode, maximum emission rates are 519.7 lbs/hr for VOC, 449.8 lbs/hr for NO_x, and 530.9 lbs/hr for CO. Non-continuous emissions contribute 17.4 TPY of VOC, 46.8 TPY of NO_x, and 255.2 TPY of CO. Both continuous and non-continuous emissions are those attributable to this facility.
(8) Phase 1 emission rates.
(9) Phase 2 emission rates.
(10) Emissions are those attributable to this facility. EPN 10FLR-005A is also designated EPN 04FLR-032 (refer to Permit No. 23271).
(11) Facility is using straight natural gas fuel.

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

(12) Facility is using process off-gas as fuel.
(13) VOC emission rates for this EPN do not include HCN.

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

** Only one converter can be in start-up mode at a time.

Hrs/day_____ Days/week_____ Weeks/year_____ or Hrs/year 8,760

Dated_____