Emission Sources - Maximum Allowable Emission Rates

Permit Number 20011

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)	Emission Rates	
			lbs/hour	TPY (4)
10FLR-005	Adiponitrile Flare C12 Normal Op (6)	VOC	20.46	10.64
		NO_x	4.89	3.84
		CO	37.17	30.22
		NH_3	1.10	0.62
	Adiponitrile Flare C12 MSS (8)	VOC	4.26	0.01
		NO_x	0.26	0.01
		CO	2.24	0.01
07TFX-005	No. 1 WAK HUT	VOC	8.94	1.41
07TFX-005A	No. 2 WAK HUT	VOC	21.13	2.50
07TFX-005B	No.3 WAK HUT	VOC	0.38	0.18
07TFX-005C	No.4 WAK HUT	VOC	0.38	0.18
O7VNT-006	DCC MSS Vent (8)	VOC	8.85	0.05
		CO	2.10	0.01
07VNT-008	Filter Jet Vent	NO_x	5.80	25.30
		CO	0.18	0.81
07FLT-014F	Refined Filter Inspection Door Openings	NO_x	1.00	1.10
		CO	0.09	0.10
		HNO_3	0.87	0.95
07FLT-013	Crude Filter Vent	NO_x	0.30	1.30
		CO	0.03	0.12
07FLT-013F	Crude Filter Inspection Door Openings	NO_x	0.38	0.41
		CO	0.03	0.04
		HNO_3	0.33	0.36
07LTR-016	Op. 11-12 Truck Loading Losses through the Carbon Adsorption System	VOC	0.01	0.01

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07LTR—016F	Op. 11-12 Truck Uncaptured Loading Loss and Line Disconnect	VOC	0.25	0.19
07LTR-015A	CDD and CDDA/K Truck Loading with Loading Line Purge	VOC	1.44	0.61
07LTR-015AF	CDD and CDDA/K Truck Loading Line Disconnect	VOC	0.01	0.01
07LTR-015D	WFE Tails Uncaptured Loading Loss	VOC	1.04	0.20
07TFX-023	DCC Decanter	VOC	12.13	2.00
07TFX-024	2nd Stage Decanter	VOC	21.08	4.06
07TFX-025	NVR Residue HUT	VOC	3.40	0.13
07TFX-026A	DBW Tank A	VOC	0.01	0.01
		NO_x	0.02	0.01
		HNO_3	0.01	0.01
07TFX-026B	DBW Tank B	VOC	0.01	0.01
		NO_x	0.02	0.01
		HNO_3	0.01	0.01
07FLT-028	DDDA Rework Filter	PM	3.50	0.30
07VNT-029	Op. 15 Backup Vent (7)	NO_x	0.04	0.20
		CO	0.39	1.69
		SO_2	0.01	0.04
	Op. 15 Backup Vent during DeColorizer operation (8)	NO_x	129.22	11.63
		CO	9.34	0.84
		SO_2	0.24	0.02
07TFX-032A	“A” PDT (CDDT) Receiver	VOC	1.80	0.40
07TFX-032B	“B” PDT (CDDT) Receiver	VOC	1.80	0.40
07TFX-032C	“C” PDT (CDDT) Receiver	VOC	1.80	0.40
07TFX-032D	“D” PDT (CDDT) Receiver	VOC	1.80	0.40

Emission Sources - Maximum Allowable Emission Rates

07TFX-032E	“E” PDT (CDDT) Receiver	VOC	1.80	0.40
07TFX-032F	PDT Shore Tank	VOC	0.35	0.30
07TFX-033A	CDD Receiver A	VOC	2.09	0.47
07TFX-033B	CDD Receiver B	VOC	2.09	0.47
07TFX-034	CDD Storage Tank	VOC	11.06	0.85
07TFX-037A	PAK Receiver A	VOC	4.42	0.23
07TFX-037B	PAK Receiver B	VOC	4.42	0.23
07TFX-037C	PAK Receiver C	VOC	4.42	0.23
07TFX-038A	PAK Storage A	VOC	4.42	0.32
07TFX-038B	PAK Storage B	VOC	4.42	0.32
07TFX-039	RDD HUT Vent Maintenance (8)	VOC	0.22	0.06
07TFX-040	Organic HUT	VOC	34.21	7.17
07TFX-040A	EAW Neutralization Tank	VOC	2.95	0.83
07CWA-041	Cooling Water	VOC	0.84	2.39
07VNT-045	H2 Separator Vent	VOC	0.90	3.94
07TFX-051	Op. 11 Organic Hut	VOC	0.06	0.03
07TFX-053	WFE Jet Tank	VOC	0.01	0.01
07TFX-054	Clean Out Drum	VOC	0.01	0.01
07TFX-054A	Inhibitor Tank	VOC	0.01	0.01
07TFX-057	Op. 14 Aqueous Waste Decanter	VOC	8.84	2.33
07TFX-058	Op. 14 Building Decanter	VOC	2.14	0.56
07TFX-075	Op. 15 Refined Crystallizer Fume Header Maintenance (8)	VOC	0.01	0.01
		NO_x	0.23	0.02
		HNO_3	0.14	0.01
07TFX-630	Op. 15 Flasher Feed Tank Fume Header Maintenance (8)	VOC	0.01	0.01
		HNO_3	0.09	0.01
07TFX-631	Op. 15 Dilute Nitric Acid Tank Fume Header Maintenance (8)	HNO_3	0.05	0.01

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07TFX-632	Op. 15 Conc. Nitric Acid Tank Fume Header Maintenance (8)	HNO_3	0.08	0.01
07TFX-632A	Op. 15 #1 Crude Crystallizer Fume Header Maintenance (8)	VOC	0.01	0.01
		NOx	0.08	0.01
		HNO_3	0.05	0.01
07TFX-632B	Op. 15 #2 Crude Crystallizer Fume Header Maintenance (8)	VOC	0.01	0.01
		NOx	0.08	0.01
		HNO_3	0.05	0.01
07TFX-634	Op. 15 NAFM Tank Fume Header Maintenance (8)	VOC	0.01	0.01
		HNO_3	0.09	0.01
07TFX-644	Op 11-14 Storm Water Tank	VOC	1.51	0.04
07TFX-697	Op. 16 NML Tank Fume Header Maintenance (8)	VOC	0.01	0.01
		HNO_3	0.09	0.01
07TFX-698	Op. 16 DBW Extractor Fume Header Maintenance (8)	VOC	0.01	0.01
		HNO_3	0.02	0.01
07VNT-122	DDDA Flaker Visual Inspections	PM	3.15	1.16
		PM_{10}	0.05	0.02
		$PM_{2.5}$	0.05	0.02
07VNT-123	M1 Flaker Visual Inspections	PM	1.13	0.42
		PM_{10}	0.02	0.01
		$PM_{2.5}$	0.02	0.01
18TFL-027	Class "A" Waste Tank	VOC	0.28	0.65
	Roof Landing & Cleaning (8)	VOC	12.17	0.15
18LTR-027	Class “A” Waste Truck and Frac Tank Loading (8)	VOC	12.30	0.15

Emission Sources - Maximum Allowable Emission Rates

18LTR-073	TRI Oil Truck Loading	VOC	0.01	0.01
	WET Tank Truck Loading Class “A” Desludging Waste (8)	VOC	3.94	0.02
18TFL-030	Class "A" Oil Tank	VOC	0.33	0.03
	Roof Landing & Cleaning (8)	VOC	0.43	0.01
18LTR-030	Class “A” Oil Truck Loading through a Carbon Adsorption System	VOC	0.05	0.01
18LTR-30C	Class “A” Oil Truck Loading of tank landing and cleaning material (8)	VOC	3.94	0.04
18LTR-30F	Class “A” Oil Truck Uncaptured Loading Loss and Line Disconnect	VOC	0.46	0.07
18TFX-062	Unloading Tank	VOC	0.01	0.01
		HNO_3	0.01	0.01
18TFX-062A	RF Separator	VOC	0.01	0.01
		HNO_3	0.01	0.01
18SMP-063	Settler Sump (9)	VOC	0.01	0.01
18TFL-065	A/B Swing Tank	VOC	0.98	2.30
		HNO_3	0.09	0.27
	Roof Landing & Cleaning (8)	VOC	0.18	0.01
18TFX-072	Waste Collection Tank	VOC	0.01	0.01
		HNO_3	0.01	0.01
18TFX-073	Waste Equalization Tank	VOC	0.01	0.01
18SEP-075	A Tank Oil/Water Separator (9)	VOC	0.01	0.01
18TRN-027	Trench from 18TFL027 (8)	VOC	0.13	0.01

Emission Sources - Maximum Allowable Emission Rates

18TRN-030	Trench from 18TFL030 (8)	VOC	0.13	0.01
18TRN-065	Trench from 18TFL065 (8)	VOC	0.13	0.01
18SMP-736	Unloading Sump (9)	VOC	0.01	0.01
	Waste Area Tank Cleaning (8)	VOC	0.03	0.12
18SMP-737	Acids Waste Sump (9)	VOC	0.01	0.01
		HNO_3	0.08	0.35
	Waste Area Tank Cleaning (8)	VOC	0.05	0.21
07SMP-011	Op. 11 Sump and trenches (9)	VOC	0.01	0.01
07SMP-011A	Op. 11A Sump (9)	VOC	0.01	0.01
07SMP-011B	Op. 11A Small Sump (9)	VOC	0.01	0.01
07SMP-011C	Op. 11 Bldg. Catalyst Sump (9)	VOC	0.01	0.01
07SMP-011D	Op. 11 Tank Farm Sumps (North & South) (9)	VOC	0.01	0.01
07SMP-012	Op. 12 Sump and trenches (9)	VOC	0.01	0.01
07SMP-012A	Op. 12 Tank Farm Sump (9)	VOC	0.18	0.79
07SMP-012B	Op. 12 Truck Loading Spot Sump (9)	VOC	0.01	0.01
07TRN-013	Op. 13 Trenches (9)	VOC	0.01	0.04
	Op. 13 Trenches (8)	H_3BO_3	0.03	0.01
07SMP-013E	Op. 13 East Sump, incl. Storm water Sump 013A (9)	VOC	0.01	0.01
	Op. 13 East Sump , incl. Storm water Sump 013A (8)	H_3BO_3	0.02	0.03
07SMP-013W	Op. 13 West Sump, incl. Storm water Sump 013B (9)	VOC	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

	Op. 13 West Sump, incl. Storm water Sump 013B (8)	H_3BO_3	0.03	0.03
07SMP-013C	Op 13 South Tank Farm Sump (9)	VOC	0.01	0.01
07SMP-013D	Op 13 North Tank Farm Sump (9)	VOC	0.01	0.01
07SMP-013F	Op 13 A/K Loading Sump (9)	VOC	0.01	0.01
07SMP-014	Op. 14 Sump, incl. Storm water Sump 014A and trenches	VOC	0.01	0.01
07SMP-014B	Op 14 South Tank Farm Sump and trenches (9)	VOC	0.01	0.01
07SMP-014C	Op 14 South Tank Farm Residue Tank Sump and trenches (9)	VOC	0.01	0.01
07SMP-015	Op. 15 Sump, incl. Storm water Sump 015A and trenches (9)	VOC	0.01	0.01
		HNO_3	0.01	0.02
07SMP-015B	DDDA Super Sump, incl. DDDA Storm water Super Sump 015C and trenches (9)	VOC	0.01	0.01
		HNO_3	0.01	0.02
07SMP-016	Op. 16 Sump, incl. Storm water Sump 016A and trenches (9)	VOC	0.01	0.01
		HNO_3	0.01	0.02
07SMP-016B	Class “B” Header Copper Analyzer Sump (9)	VOC	0.01	0.01
		HNO_3	0.01	0.02
07SMP-016C	Op 16 Hopper Car Loading Sump (9)	VOC	0.01	0.01
07FUG	Fugitive Emissions (5)	VOC	7.51	32.76
		CO	0.01	0.01
		NH_3	0.02	0.06
		HNO_3	0.09	0.33

Emission Sources - Maximum Allowable Emission Rates

		NOx	0.01	0.01
		N_2O	0.01	0.01
		HNO_2	0.01	0.01
		H_3BO_3	0.04	0.13
		$TiCl_4$	0.01	0.01
07FUG-1	DBW Solids Transloading	NOx	0.01	0.01
		PM	0.63	0.01
		PM_{10}	0.63	0.01
		$PM_{2.5}$	0.63	0.01
07TFX-636A	Urea Mix Tank	VOC	0.02	0.01
07TFX-636	Urea Solution Tank	VOC	0.03	0.01
07LTR-025A	NVR Truck Loading	VOC	0.16	0.02
07LTR-026C	DBW Truck Loading and M1 Transloading	VOC	0.01	0.01
		NO_x	0.02	0.01
		HNO_3	0.01	0.01
		PM	0.66	0.02
		PM_{10}	0.66	0.02
		$PM_{2.5}$	0.66	0.02
07LTR-028A	DDDA Transloading	PM	0.11	0.01
		PM_{10}	0.11	0.01
		$PM_{2.5}$	0.11	0.01
07LTR-028B	M1 Transloading to Drums	PM	0.26	0.01
		PM_{10}	0.26	0.01
		$PM_{2.5}$	0.26	0.01
07LTR-040B	EAW Neut Tank Oil Layer Loading	VOC	1.69	0.03
07RSY-026F	DBW H2 Reactor	NH_3	0.01	0.01
		CO	0.01	0.01
07DIS-026G	DBW Flash Dryer	NH_3	0.01	0.01
		CO	0.01	0.01
07DIS-512	No. 1 Flash Dryer Vent	VOC	0.01	0.01
		HNO_3	0.01	0.01
07FUGMSS	C-12 Unit Grouped Maintenance Activities (8)	VOC	30.74	0.48

Emission Sources - Maximum Allowable Emission Rates

		PM	0.64	0.01
		PM_{10}	0.02	0.01
		$PM_{2.5}$	0.02	0.01
		NH_3	0.24	0.01
		HNO_3	0.38	0.01
		H_3BO_3	0.04	0.02
GEN-1	Annulus System Emergency Generator System No. 1	NOx	0.70	0.06
		CO	27.23	1.98
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		SO2	0.01	0.01
		VOC	0.03	0.01
GEN-2	Annulus System Emergency Generator System No. 2	NOx	0.70	0.06
		CO	27.23	1.98
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		SO2	0.01	0.01
		VOC	0.03	0.01
GEN-3	Annulus System Emergency Generator System No. 3	NOx	0.70	0.06
		CO	27.23	1.98
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		SO_2	0.01	0.01
		VOC	0.03	0.01
GEN1FUG	Annulus System Emergency Generator No. 1 Fugitives	VOC	0.01	0.04
GEN2FUG	Annulus System Emergency Generator No. 2 Fugitives	VOC	0.01	0.04

Emission Sources - Maximum Allowable Emission Rates

GEN3FUG	Annulus System Emergency Generator No. 3 Fugitives	VOC	0.01	0.04

(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
SO_2 - 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
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
NH_3 ammonia
HNO_3 - nitric acid
HNO_2 - nitrous acid
H_3BO_3 - boric acid
$TiCl_4$ - titanium chloride
N_2O - nitrous oxide
(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) Routine emissions attributable to this permits sources, this EPN also has emissions in Permit 7186.
(7) Pilot emissions only
(8) Emissions associated with a planned maintenance activity only.
(9) Emissions include normal operation and planned maintenance, startup and shutdown emissions, note where applied to sumps and trenches the normal and maintenance flow are not distinguishable.

Date: September 17, 2014