Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 136130 and N250M2

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)
CT-1	Cooling Tower	VOC	6.76	2.96
		$Al(OH)_3$	0.17	0.07
		PM	0.68	2.96
		PM_{10}	0.20	0.89
		$PM_{2.5}$	<0.01	<0.01
FUG	LAO Plant Equipment Leak Fugitives (5)	VOC	3.27	14.31
		$Al(OH)_3$	0.21	0.92
		NH_3	0.04	0.17
		Cl_2	<0.01	0.02
FUG-2	PAO Plant Equipment Leak Fugitives (5)	VOC	0.32	1.40
		NaOH	<0.01	<0.01
T-7813A	C12 Storage Tank	VOC	0.07	—
T-7813B	C12 Storage Tank	VOC	0.07	—
T-7857	C12 Storage Tank	VOC	0.72	—
T-7815A	C14 Storage Tank	VOC	<0.01	—
T-7815B	C14 Storage Tank	VOC	<0.01	—
T-7859	C14 Storage Tank	VOC	0.08	—
T-7819A	C16–18 Storage Tank	VOC	<0.01	—
T-7819B	C16–18 Storage Tank	VOC	<0.01	—
T-7821A	C20–24 Storage Tank	VOC	<0.01	—
T-7821B	C20–24 Storage Tank	VOC	<0.01	—
T-7582A	2cST Product Rundown Tank	VOC	<0.01	—
T-7582B	2cST Product Rundown Tank	VOC	<0.01	—
T-7722A	2cST Product Tank	VOC	0.22	—
T-7722B	2cST Product Tank	VOC	0.22	—
T-7584A	4cST Product Rundown Tank	VOC	0.22	

Emission Sources - Maximum Allowable Emission Rates

T-7584B	4cST Product Rundown Tank	VOC	0.22	
T-7586A	6cST/8cST Product Rundown Tank	VOC	0.22	
T-7586B	6cST/8cST Product Rundown Tank	VOC	0.22	
T-7724A	4cST Product Tank	VOC	0.22	
T-7724B	4cST Product Tank	VOC	0.22	
T-7726A	6cST Product Tank	VOC	0.22	
T-7726B	6cST Product Tank	VOC	0.22	
T-7728A	8cST Product Tank	VOC	0.22	
T-7728B	8cST Product Tank	VOC	0.22	
TANK-CAP (6)	LAO and PAO Fixed Roof Tank CAP	VOC	—	0.40
T-7729	Rework Tank	VOC	3.32	0.08
T-7531	NaOH Storage Tank	NaOH	<0.01	<0.01
GASTK	Gasoline Storage Tank	VOC	6.01	0.07
DIESELTK	Diesel Storage Tank	VOC	0.13	< 0.01
DIESELTK_2	Diesel Storage Tank No. 2	VOC	0.03	<0.01
T-7823	Heavy Ends Storage	VOC	<0.01	<0.01
T-7951	H_2SO_4 Storage Tank	H_2SO_4	0.05	0.02
T-7906	CG Wash	VOC	0.08	<0.01
T-7962	Heavy Alcohol Storage Tank	VOC	<0.01	<0.01
MVCU	Marine Vapor Combustor — Barge Loading	VOC	2.61	0.42
		NO_X	1.92	3.73
		CO	1.66	5.06
		PM	0.24	0.46
		PM_{10}	0.24	0.46
		$PM_{2.5}$	0.24	0.46
		SO_2	0.01	0.04
L-1	LAO Truck and Railcar Loading	VOC	6.45	—
BARGELOAD	LAO & PAO Barge Loading	VOC	2.78	—
L-2	PAO Truck & Rail Loading	VOC	1.46	—
LOADCAP	LAO & PAO Annual Barge, Railcar and Truck Loading Cap (7)	VOC	—	0.47
RER	Reactor Emergency Relief (Pilot gas only)	VOC	<0.01	0.02
		NO_X	0.07	0.32
		CO	0.03	0.14
		SO_2	<0.01	<0.01
THOx	PAO and LAO Thermal Oxidizer Emissions Normal Process Operation (8)	VOC	1.01	0.13
		NO_X	0.90	0.16

Emission Sources - Maximum Allowable Emission Rates

		CO	0.01	0.04
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
		SO_2	<0.01	0.02
THOx	PAO and LAO Thermal Oxidizer MSS Emissions	VOC	1.84	0.05
		NO_X	2.21	0.05
		CO	0.01	<0.01
		PM	0.01	<0.01
		PM_{10}	0.01	<0.01
		$PM_{2.5}$	0.01	<0.01
FLR-1	Elevated Flare (10)	VOC	5.90	10.86
		VOC MSS	970.89	
		NO_X	3.10	12.15
		NOx MSS	61.37	
		CO	12.33	48.37
		CO^{MSS}	244.39	
		SO_2	0.10	0.43
		H_2S	<0.01	<0.01
HTR-1	Hot Oil Heater	VOC	0.49	2.15
		NOx	3.65	7.40
		NOx MSS	12.37	
		CO	9.53	41.72
		PM	1.31	5.72
		PM_{10}	1.31	5.72
		$PM_{2.5}$	1.31	5.72
		SO_2	0.15	0.67
		NH_3	1.16	5.07
HTR-2	Heater No. 2 (10)	VOC	0.46	1.51
		NOx	0.18	0.58
		CO	0.73	2.38
		PM	0.23	0.76
		PM_{10}	0.23	0.76
		$PM_{2.5}$	0.23	0.76
		SO_2	0.01	0.03

Emission Sources - Maximum Allowable Emission Rates

DIESEL-1	Diesel Generator	NOx	6.49	0.32
		CO	0.67	0.03
		VOC	0.13	0.01
		SO_2	<0.01	<0.01
		PM	0.05	<0.01
		PM_{10}	0.05	<0.01
		$PM_{2.5}$	0.05	<0.01
OVEN-1	Filter Oven	VOC	0.03	0.01
		NOx	0.17	0.27
		CO	0.06	0.19
		PM	0.04	0.03
		PM_{10}	0.04	0.03
		$PM_{2.5}$	0.04	0.03
		SO_2	<0.01	<0.01
WWT-1	Wastewater Pre-treatment	VOC	<0.01	<0.01
MSS	MSS Emission CAP (9)	VOC	34.05	0.81

(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
IOC-U - inorganic compounds (unspeciated)
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
$Al(OH)_3$ - aluminum hydroxide
NH_3 - ammonia
HOCl - hypochlorous acid
Cl_2 - chlorine
NaOH - sodium hydroxide
(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) LAO and PAO Fixed Roof Tank CAP, EPN Tank-CAP, Emission limit covers total emissions for the following sources: T-7813A, T-7813B, T-7857, T-7815A, T-7815B, T-7859, T-7819A, T-7819B, T-7821A, T-7821B, T-7582A, T-7582B, T-7722A, T-7722B, T-7584A, T-7584B, T-7586A, T-7586B, T-7724A, T-7724B, T-7726A, T-7726B, T-7728A, and T-7728B.
(7) Emission limit for LAO & PAO Annual truck, rail and barge loading CAP, EPN LOADCAP, applies to total uncontrolled displacement and uncaptured (fugitive) emissions where displacement is directed to control from truck loading. Fugitive emissions are not permitted for controlled rail and barge loading displacement vapors.
(8) PAO and LAO Thermal Oxidizer Emissions Normal Process Operation, EPN THOx, Emission limit covers total emissions for the following sources (including collateral emissions of products of combustion): T-7801, T-7802, T-7807A, T-7807B, T-7851, T-7809A, T-7809B, T-7853, T-7811A, T-7811B, T-7855, T-7712, T-7721, T-7532A and T-7533, and controlled truck and rail vessel loading at L-1 and L-2, and Process Vents from the PAO unit.
(9) The MSS Emissions Cap, EPN MSS, includes Inherently Low Emitting Activities Identified in Special Condition 21A, which are represented at 25 lbs/hr and 0.20 tpy. These emissions shall be assumed to occur in each hour and each twelve-month period that compliance with the allowable emission rate is determined.

Emission Sources - Maximum Allowable Emission Rates

(10) The Heater No. 2, EPN HTR-2, NOx emissions are authorized at 0.55 lbs/hr until low NOx burners are installed which shall occur not later than 6 months after the permit amendment project 335419 is issued. A 1.69 tpy NOx limit shall apply to Heater No. 2 for a maximum of 12 months after the low NOx burners are installed and the annual allowable for the Elevated Flare, EPN FLR-1, shall have an 11.04 tpy NOx allowable on a rolling 12-month basis until Heater No. 2 is operating under the 0.58 tpy NOx allowable in the Table above.

Date: TBD