

# Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 136130 and N250

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
		HOCI	< 0.01	< 0.01
		Al(OH) <sub>3</sub>	0.17	0.07
		PM	0.20	0.89
		PM <sub>10</sub>	0.20	0.89
		PM <sub>2.5</sub>	< 0.01	< 0.01
FUG	Equipment Leak Fugitives (5)	VOC	1.57	6.87
		Al(OH) <sub>3</sub>	0.05	0.20
		NH <sub>3</sub>	0.04	0.17
		Cl <sub>2</sub>	< 0.01	0.02
T-7801	Flush rework tank	VOC	0.18	< 0.01
THOX (7)	T-7807A Hexene Storage	VOC	—	—
THOX (7)	T-7807B Hexene Storage	VOC	—	—
THOX (7)	T-7807C Hexene Storage	VOC	—	—
THOX (7)	T-7809A Octene Storage	VOC	—	—
THOX (7)	T-7809B Octene Storage	VOC	—	—
THOX (7)	T-7809C Octene Storage	VOC	—	—
THOX (7)	T-7811A Decene Storage	VOC	—	—
THOX (7)	T-7811B Decene Storage	VOC	—	—
THOX (7)	T-7811C Decene Storage	VOC	—	—
T-7813A	C12 Storage Tank	VOC	0.05	—
T-7813B	C12 Storage Tank	VOC	0.05	—
T-7813C	C12 Storage Tank	VOC	0.55	—

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T-7815A	C14 Storage Tank	VOC	< 0.01	—
T-7815B	C14 Storage Tank	VOC	< 0.01	—
T-7815C	C14 Storage Tank	VOC	0.06	—
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	—
TANK-CAP (6)	C12–C24 Tank cap	VOC	—	0.17
T-7802	Product Rework Tank	VOC	0.28	0.10
T-7823	Heavy Ends Storage	VOC	< 0.01	< 0.01
T-7906	CG Wash	VOC	< 0.01	< 0.01
T-7962	C8 Alcohol Storage Tank	VOC	0.08	< 0.01
DIESELTK	Diesel Storage Tank	VOC	0.05	< 0.01
THOX (7)	Thermal Oxidizer — Storage Tank Vapors	VOC	< 0.01	< 0.01
		NO <sub>x</sub>	< 0.01	< 0.01
		CO	< 0.01	< 0.01
		PM	< 0.01	< 0.01
		PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
THOX	Thermal Oxidizer — Process Waste Gas	VOC	0.02	0.04
		NO <sub>x</sub>	0.02	0.05
		CO	0.05	0.11
		PM	< 0.01	< 0.01
		PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01

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THOX	Thermal Oxidizer — Truck and Railcar Loading	VOC	0.52	—
		NO <sub>x</sub>	0.60	—
		CO	0.20	—
		PM	0.02	—
		PM <sub>10</sub>	0.02	—
		PM <sub>2.5</sub>	0.02	—
THOX	Thermal Oxidizer — Natural Gas Combustion	VOC	0.09	0.39
		NO <sub>x</sub>	0.98	4.30
		CO	1.35	5.90
		PM	0.12	0.53
		PM <sub>10</sub>	0.12	0.53
		PM <sub>2.5</sub>	0.12	0.53
		SO <sub>2</sub>	< 0.01	< 0.01
MVCU	Marine Vapor Combustor — Barge Loading	VOC	1.39	—
		NO <sub>x</sub>	0.36	—
		CO	0.12	—
		PM	0.01	—
		PM <sub>10</sub>	0.01	—
		PM <sub>2.5</sub>	0.01	—
MVCU	Marine Vapor Combustor — Natural Gas Combustion	VOC	0.07	0.29
		NO <sub>x</sub>	0.73	3.22
		CO	1.01	4.42
		PM	0.09	0.40
		PM <sub>10</sub>	0.09	0.40
		PM <sub>2.5</sub>	0.09	0.40
		SO <sub>2</sub>	< 0.01	< 0.01
L-1	Truck and Railcar Loading Fugitives	VOC	6.85	—
BARGELOAD	Barge Loading Fugitives	VOC	0.58	—

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LOADCAP	Annual Barge, Railcar and Truck Loading Cap (8)	VOC	—	1.82
		NO <sub>x</sub>	—	0.12
		CO	—	0.04
		PM	—	< 0.01
		PM <sub>10</sub>	—	< 0.01
		PM <sub>2.5</sub>	—	< 0.01
RER	Reactor Emergency Relief (Pilot and sweep gas only)	VOC	< 0.01	0.02
		NO <sub>x</sub>	0.07	0.32
		CO	0.03	0.14
		SO <sub>2</sub>	< 0.01	< 0.01
FLR-1	Elevated Flare (Routine)	VOC	0.12	0.53
		NO <sub>x</sub>	0.18	0.80
		CO	0.70	3.05
		SO <sub>2</sub>	< 0.01	< 0.01
HTR-1	Hot Oil Heater	VOC	0.49	2.15
		NO <sub>x</sub>	3.66	7.40
		NO <sub>x</sub> MSS	12.37	—
		CO	9.38	41.10
		PM	1.94	8.52
		PM <sub>10</sub>	1.94	8.52
		PM <sub>2.5</sub>	1.94	8.52
		SO <sub>2</sub>	0.15	0.67
		NH <sub>3</sub>	1.14	5.00

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DIESEL-1	Diesel Generator	NOx	0.66	0.03
		CO	0.58	0.03
		VOC	0.66	< 0.01
		SO <sub>2</sub>	< 0.01	< 0.01
		PM	0.04	< 0.01
		PM <sub>10</sub>	0.04	< 0.01
		PM <sub>2.5</sub>	0.04	< 0.01
OVEN-1	Filter Oven MSS	VOC	< 0.01	< 0.01
		NOx	0.30	0.08
		CO	0.25	0.06
		PM	0.02	< 0.01
		PM <sub>10</sub>	0.02	< 0.01
		PM <sub>2.5</sub>	0.02	< 0.01
		SO <sub>2</sub>	< 0.01	< 0.01
WWT-1	Wastewater Pre-treatment	VOC	< 0.01	< 0.01
TKMSS	Tank MSS (Uncontrolled)	VOC	47.23	0.07
THOX, TEMPCTRL	Tank MSS (Controlled)	VOC	13.85	< 0.01
		NOx	0.10	< 0.01
		CO	0.10	< 0.01
		PM	< 0.01	< 0.01
		PM <sub>10</sub>	< 0.01	< 0.01
		PM <sub>2.5</sub>	< 0.01	< 0.01
MSSFUG	Uncontrolled MSS Activities (non-tank)	VOC	99.55	0.89
		IOC-U	4.69	< 0.01
MSS-CTRL (FLR-1 or TEMPCTRL)	Controlled MSS	VOC – MSS	1045.	4.76
		NOx – MSS	140.32	0.72
		CO - MSS	558.84	2.88

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- (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<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- Al(OH)<sub>3</sub> - aluminum hydroxide
- NH<sub>3</sub> - ammonia
- HOCl - hypochlorous acid
- Cl<sub>2</sub> - chlorine
- (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) Emission limit covers total emissions for the following sources: T-7813A, T-7813B, T-7813C, T-7815A, T-7815B, T-7815C, T-7819A, T-7819B, T-7821A, T-7821B.
- (7) Emission limit covers total emissions for the following sources (including collateral emissions of products of combustion): T-7807A, T-7807B, T-7807C, T-7809A, T-7809B, T-7809C, T-7811A, T-7811B, T-7811C.
- (8) Emission limit applies to total uncaptured (fugitive) and controlled emissions from truck, railcar and barge loading activities, excepting emissions from combustion of assist/enrichment gas.

Date: November 14, 2016