

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 18161

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)
X-A-0	Loading	VOC	3.11	1.03
X-A-1	Loading	VOC	3.11	1.03
X-A-2	Loading	VOC	1.46	0.15
X-A-4	Loading	VOC	1.10	0.08
X-A-5	Loading	VOC	1.95	0.04
X-A-6	Loading	VOC	1.46	0.15
X-A-7	Loading	VOC	1.46	0.15
X-A-8	Loading	VOC	5.64	0.04
X-A-9	Loading	VOC	1.46	0.15
X-A-10	Loading	VOC	1.46	0.15
X-A-11	Loading	VOC	1.46	0.15
X-A-12	Loading	VOC	3.11	1.03
X-A-13	Loading	VOC	1.46	0.15
X-A-14	Loading	VOC	1.46	0.53
X-A-15	Loading	VOC	0.36	<0.01
X-A-16	Loading	VOC	1.46	0.15
X-A-17	Loading	VOC	1.46	0.15
X-A-18	Loading	VOC	1.46	0.15
X-A-19	Byproduct Oil	VOC	0.20	<0.01
X-A-20	Loading	VOC	2.67	0.36
X-A-24	Wastewater	VOC	0.34	<0.01

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X-B-1	Cooling Tower	VOC	0.14	0.50
		PM	0.09	0.30
		PM <sub>10</sub>	0.09	0.30
		PM <sub>2.5</sub>	0.09	0.30
X-C-1	Hot Oil Heater (20 MMBtu/hr)	VOC	0.11	0.48
		NOx	1.20	5.26
		CO	1.68	7.36
		PM	0.15	0.67
		PM <sub>10</sub>	0.15	0.67
		PM <sub>2.5</sub>	0.15	0.67
		SO <sub>2</sub>	0.01	0.05
X-D-1	Flare	VOC	0.64	0.95
		NOx	1.63	2.34
		CO	8.29	11.92
		SO <sub>2</sub>	0.01	0.02
X-E-1	HCl Scrubber	Cl <sub>2</sub>	<0.01	<0.01
X-E-2	Scrubber	VOC	29.27	1.59
		MA	0.01	<0.01
X-E-3	Scrubber	VOC	<0.01	<0.01
		HF	0.01	0.05
		SiF <sub>4</sub>	0.10	0.45
		BF <sub>3</sub>	0.04	0.16
X-G-0	Tank T-1103	VOC	0.76	0.22
X-G-1	Tank T-1105	VOC	<0.01	<0.01
X-G-2	Tank T-1135	VOC	0.05	<0.01
X-G-7	Tank T-1322	VOC	0.60	0.48

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X-G-8	Tank T-1313	VOC	0.83	0.65
X-G-9	Tank T-1380	VOC	2.96	1.22
X-G-10	Tank T-1602	VOC	<0.01	<0.01
X-G-11	Tank T-1102	VOC	<0.01	<0.01
X-G-12	Tank T-1301	VOC	0.98	0.33
X-G-13	Tank T-1311A	VOC	1.02	0.01
X-G-14	Tank T-1311B	VOC	0.13	0.01
X-G-15	Tank T-1311C	VOC	0.03	0.01
X-G-16	Tank T-1305	VOC	0.30	0.02
X-G-17	Tank T-1311D	VOC	0.03	<0.01
X-G-18	Tank T-1314	VOC	0.24	<0.01
X-G-19	Tank T-1317	VOC	0.26	0.01
X-G-20	Tank T-1309	VOC	0.33	0.03
X-G-21	Tank T-1310	VOC	0.12	0.02
X-G-22	Tank T-1334	VOC	2.27	1.48
X-G-23	Tank T-1335	VOC	0.02	0.01
X-G-24	Tank-T-1315	VOC	1.23	0.13
X-G-25	Tank T-1316	VOC	0.06	<0.01
X-G-26	Tank T-1336	VOC	0.31	0.07
X-G-29	Tank T-1171	VOC	<0.01	<0.01
X-G-31	Tank T-1354	VOC	3.31	0.35
X-G-32	Tank T-1390	VOC	1.25	0.22

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X-GZ-0	Fugitives (5)	VOC	2.18	9.52
		MA	<0.01	<0.01
		Cl <sub>2</sub>	0.04	0.19
		BF <sub>3</sub>	0.12	0.52
		HF	0.10	0.42
X-H-0	Tank T-1341	VOC	0.01	<0.01
X-H-1	Tank T-1343	VOC	0.20	0.01
X-H-2	Tank T-1345	VOC	0.11	0.02
X-H-3	Tank T-1346 (6)	VOC	0.69	<0.01
X-H-4	Tank T-1330A	VOC	2.02	0.21
X-H-5	Tank T-1330B	VOC	0.01	0.01
X-H-6	Tank T-1321	VOC	1.68	0.02
X-H-7	Tank T-1349 (6)	VOC	0.69	<0.01
X-H-8	Tank T-1347	VOC	0.04	<0.01
X-H-9	Tank T-1312	VOC	0.83	0.65
X-H-11	Tank T-1325	VOC	1.34	0.30
X-H-12	Tank T-1326	VOC	0.01	0.01
X-H-13	Tank T-1358	VOC	2.67	0.29
X-H-14	Tank T-1359	VOC	2.67	0.29
X-H-16	Tank T-1355	VOC	2.97	0.32
X-H-17	Tank T-1356	VOC	2.97	0.32
X-H-18	Tank T-1357	VOC	2.97	0.32
X-I-0	Tank T-1360A	VOC	2.67	0.29
X-I-1	Tank T-1360B	VOC	2.67	0.29
X-I-2	Tank T-1360C	VOC	2.67	0.29
X-I-5	Tank T-1140	VOC	<0.01	<0.01

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X-I-7	Tank T-1603	VOC	0.05	<0.01
X-I-8	Tank T-1340	VOC	2.78	0.16
X-I-14	Tank T-1606	VOC	0.25	<0.01
X-I-15	Tank T-1612	VOC	0.08	0.01
X-I-16	Tank T-1628	VOC	0.06	0.01
X-J-1	Tank T-1401	VOC	2.55	0.72
X-J-2	Tank T-1402	VOC	0.11	0.23
X-J-3	Tank T-1415	VOC	0.12	0.01
X-J-4	Tank T-1404	VOC	0.91	0.58
X-J-5	Tank T-1405	VOC	0.13	0.03
X-J-6	Tank T-1445	VOC	0.13	0.03
X-J-8	Tank T-1409	VOC	0.04	0.03
X-J-9	Tank T-1411	VOC	0.03	0.02
X-J-10	Tank T-1412	VOC	0.22	0.06
X-J-11	Tank T-1413	VOC	9.02	0.10
X-J-12	Tank T-1414	VOC	<0.01	<0.01
X-J-13	Tank T-1416	VOC	1.22	0.06
X-J-14	Tank T-1417	VOC	0.13	0.03
X-J-22	Tank D-1242	VOC	<0.01	<0.01
X-PD-4	Tank D-1124	VOC	<0.01	<0.01

- (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<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
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  
BF<sub>3</sub> - boron trifluoride  
Cl<sub>2</sub> - chlorine  
CO - carbon monoxide

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HF	- hydrogen fluoride
MA	- maleic anhydride
NAH	- naphthalic anhydride
SiF <sub>4</sub>	- silicon tetrafluoride

- (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) EPNs X-H-3 and X-H-7 are connected such that the combined maximum hourly emissions are 0.68 lb/hr.

Date: September 26, 2017