

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 9395

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)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
E-AB1	Loading Spot No. AB1	PG	1.14	0.54
E-AB2	Loading Spot No. AB2	PG	1.14	0.54
E-B801N	Hot Oil Heater	VOC	0.33	1.19
		NO _x	5.92	21.60
		CO	4.97	18.14
		PM	0.45	1.64
E-B801S	Hot Oil Heater	VOC	0.33	1.19
		NO _x	5.92	21.60
		CO	4.97	18.14
		PM	0.45	1.64
E-B901	Process Heater	VOC	0.11	0.49
		NO _x	2.06	7.27
		CO	1.44	5.27
		PM	0.13	0.48
E-B902A	Process Heater	VOC	0.10	0.44
		NO _x	1.76	6.85
		CO	1.23	4.49
		PM	0.11	0.41
E-B902B	Process Heater	VOC	0.10	0.38
		NO _x	1.65	5.53
		CO	1.16	4.22
		PM	0.10	0.38

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			<u>lb/hr</u>	<u>TPY</u>
E-B902C	Process Heater	VOC	0.08	0.34
		NO _x	1.45	4.93
		CO	1.02	3.72
		PM	0.09	0.34
E-B1550	Flare	VOC	113.13	94.34
		NO _x	30.95	31.47
		CO	163.53	178.22
		Acetone	5.60	13.14
E-B1501A	Emergency Flare Plant 1	NO _x	0.01	0.04
		CO	0.05	0.20
E-B1501B	Emergency Flare Plant 2	NO _x	0.01	0.06
		CO	0.07	0.32
E-B1501C	Emergency Flare Plant 3	NO _x	0.01	0.06
		CO	0.07	0.32
E-B1751	Hot Oil Heater	VOC	0.08	0.29
		NO _x	1.44	5.26
		CO	1.21	4.42
		PM	0.11	0.40
E-B2890	Hot Oil Heater	VOC	0.43	1.57
		NO _x	7.82	28.54
		CO	6.57	23.97
		PM	0.59	2.17
E-BP1-D	Tank No. BP1-D	Diesel	0.08	0.0003
E-C10942	Tank No. C10942	Inhibitor	6.46	0.04
E-C10943	Tank No. C10943	Dispersant	5.86	0.02
E-C10944	Tank No. C10944	Inhibitor	6.46	0.04

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			<u>lb/hr</u>	<u>TPY</u>
E-C10945	Tank No. C10945	Dispersant	5.86	0.02
E-C15038	Tank No. 15038	Dispersant	5.86	0.02
E-C15039	Tank No. 15039	Inhibitor	9.50	0.03
E-CD4A	Loading Spot No. CD4A	DPG	0.30	0.09
E-CD5B	Loading Spot No. CD5B	PG	0.47	0.23
E-CD6A	Loading Spot No. CD6A	PG	0.47	0.23
E-F201	Tank No. 201	VOC	2.77	0.003
E-F225	Tank No. 225	VOC	2.77	0.002
E-F306	Tank No. 306	VOC	2.77	0.002
E-F322	Tank No. 322	VOC	2.77	0.003
E-F395	Tank No. 395	VOC	2.77	0.003
E-F396	Tank No. 396	VOC	2.77	0.003
E-F398	Tank No. 398	VOC	2.77	0.003
E-F399	Tank No. 399	VOC	2.77	0.003
E-F400	Tank No. 400	VOC	2.77	0.003
E-F401	Tank No. 401	VOC	2.77	0.003
E-F402	Tank No. 402	VOC	2.77	0.002
E-F403	Tank No. 403	VOC	2.77	0.003

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
E-F404	Tank No. 404	VOC	2.77	0.002
E-F410	Tank No. 410	VOC	2.77	0.003
E-F463	Tank No. 463	VOC	2.77	0.003
E-F509	Tank No. 509	VOC	2.77	0.003
E-F551	Tank No. F551	Propylene Carbonate	0.02	0.01
E-F711	Tank No. 711	VOC	2.77	0.003
E-F1005B	Tank No. F1005B	PG	0.35	0.00002
E-F1005C	Tank No. F1005C	PG	0.35	0.00003
E-F1101A	Tank No. F1101A	DPG	0.30	0.02
E-F1101B	Tank No. F1101B	DPG	0.30	0.02
E-F1101C	Tank No. F1101C	PM	4.12	0.81
E-F1101D	Tank No. F1101D	PM	4.12	0.81
E-F1102A	Tank No. F1102A	PG	7.41	0.20
E-F1102B	Tank No. F1102B	PG	7.41	0.20
E-F1102C	Tank No. F1102C	PG	7.41	0.21
E-F1102D	Tank No. F1102D	PG	7.41	0.15
E-F1103A	Tank No. F1103A	DPM	0.34	0.04
E-F1103B	Tank No. F1103B	DPM	0.34	0.04

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
E-F1103C	Tank No. F1103C	TPG	0.01	0.002
E-F1103D	Tank No. F1103D	TPG	0.01	0.002
E-F1104A	Tank No. F1104A	PG	4.95	0.01
E-F1104B	Tank No. F1104B	PG	4.95	0.01
E-F1104C	Tank No. F1104C	DPG	0.32	0.03
E-F1105A	Tank No. F1105A	PG	8.66	0.74
E-F1105B	Tank No. F1105B	PG	8.66	0.74
E-F1108A	Tank No. F1108A	DPM Bottoms	0.20	0.09
E-F1109	Tank No. F1109	TPG Bottoms	0.05	0.01
E-F1110	Tank No. F1110	DPG	0.32	0.02
E-F1164	Tank No. F1164	DPM	11.06	0.20
E-F1204	Tank No. F1204	Caustic	0.93	0.02
E-F1205	Tank No. F1205	Caustic	5.09	0.35
E-F1280	Tank No. F1280	TPG	0.04	0.004
E-F1411	Tank No. F1411	Diesel	0.04	0.0002
E-F1412	Tank No. F1412	Diesel	0.04	0.0002
E-F1413	Tank No. F1413	Diesel	0.08	0.0001
E-F1414	Tank No. F1414	Diesel	0.08	0.0001

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
E-F1415	Tank No. F1415	Diesel	0.08	0.0001
E-F1416	Tank No. F1416	Gasoline	1.00	0.005
E-F1418	Tank No. F1418	Diesel	0.45	0.002
E-F1419	Tank No. F1419	Gasoline	80.29	0.61
E-F1420	Tank No. F1420	Diesel	0.04	0.0002
E-F1455A	Tank No. F1455A	Diesel	0.04	0.0002
E-F1455B	Tank No. F1455B	Diesel	0.04	0.0002
E-F1457A	Tank No. F1457A	Diesel	0.04	0.0002
E-F1457B	Tank No. F1457B	Diesel	0.04	0.0002
E-F1503B	Tank No. F1503B	Caustic	1.53	0.02
E-F1503C	Tank No. F1503C	Caustic	1.53	0.01
E-F1675	Tank No. F1675	H ₂ SO ₄	0.005	0.00002
E-F1740	Tank No. F1740	Tert-butanol	18.16	1.36
E-F1801A	Tank No. F1801A	H ₂ SO ₄	0.005	0.00001
E-F1801D	Tank No. F1801D	H ₂ SO ₄	0.005	0.00001
E-F2340	Tank No. F2340	TBA	16.03	1.96
E-F2351	Hopper No. F2351	PM	0.70	0.01
E-F2835	Tank No. F2835	PG	4.12	0.71

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
E-F2866	Tank No. F2866	PG	0.16	0.04
E-F3342A	Tank No. F3342A	Catalyst	0.12	0.0004
		PM	0.70	0.02
E-F3342B	Tank No. F3342B	Catalyst	0.12	0.0004
		PM	0.70	0.02
E-FTOTE	Tank No. FTOTE	H ₂ SO ₄	0.005	0.000001
E-FUGMNT	Solvent Degreasing (4)	VOC	0.01	0.03
E-FUGPNT	Surface Coating/ Abrasive Blasting (4)	VOC	2.80	0.67
		PM	3.26	0.30
		PM ₁₀	0.99	0.11
E-FXXX1	Tank No. XXX1	Bleach	4.98	0.07
E-FXXX2	Tank No. XXX2	Bleach	4.98	0.07
E-FXXX3	Tank No. XXX3	Bleach	4.98	0.07
E-LAB	Lab Exhaust Vent	VOC	5.20	1.15
E-LR4C	Loading Spot No. LR4C	TPG	0.08	0.004
E-LR7	Loading Spot No. LR7	Propylene Carbonate	0.08	0.01
E-P1FUG	Fugitive Area No. P1FUG (4)	VOC	13.22	57.90
E-P2FUG	Fugitive Area No. P2FUG (4)	VOC	14.83	64.95
E-P3FUG	Fugitive Area No. P3FUG (4)	VOC	9.77	42.78
E-P4FUG	Fugitive Area No. P4FUG (4)	VOC	2.93	12.81
E-P5FUG	Fugitive Area No. P5FUG (4)	VOC	2.88	12.62

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E-P6FUG	Fugitive Area No. P6FUG (4)	VOC	1.36	5.97
E-P8FUG	Fugitive Area No. P8FUG (4)	VOC	0.46	2.00
E-PL-D	Tank No. E-PL-D	Diesel	0.08	0.001
E-PL-G	Tank No. E-PL-G	Gasoline	20.07	0.23
E-T5	Loading Spot No. T5	DPG	0.21	0.02
E-T10	Loading Spot No. T10	PG	0.87	0.30
E-T12	Loading Spot No. T12	PG	0.47	0.12
E-T23	Loading Spot No. T23	TPG Bottoms	1.90	0.05
E-T25	Loading Spot No. T25	Spent Caustic	0.0002	0.001
E-U1801	BPI Cooling Tower (4)	VOC	1.09	3.97
		Acetone	0.02	0.08
E-U1802	BP II Cooling Tower (4)	VOC	1.73	6.31
		Acetone	0.04	0.13
E-U1803	BP III Cooling Tower (4)	VOC	1.31	4.78
		Acetone	0.03	0.10
E-V2000	Soil Treatment Vault	TBA	0.20	0.01
		Acetone	0.02	0.001
E-V3000	Affected Soil Storage Vault	TBA	2.92	1.36

(1) Emission point identification - either specific equipment designation or emission point number

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY

from plot plan.

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

- (3) PG - propylene glycol
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 NO_x - total oxides of nitrogen
 CO - carbon monoxide
 PM - particulate matter, suspended in the atmosphere, including PM₁₀
 PM₁₀ - particulate matter, equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.

- DPG - dipropylene glycol
 DPM - dipropylene glycol mono-methyl ether
 TPG - tripropylene glycol
 H₂SO₄ - sulfuric acid
 TBA - tert-butyl alcohol

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

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

_____Hrs/day ____Days/week ____Weeks/year or 8,760 Hrs/year

Dated December 31, 2002