

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 2341

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.

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
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PHASE 2 EMISSION RATES

P1001	HOT OIL HEATER B-301	CO	0.68	2.98
		NO _x	2.79	12.22
		PM	0.05	0.22
		SO _x	0.01	0.05
		VOC	0.05	0.22
P4001	HOT OIL HEATER B-401	CO	0.66	2.89
		NO _x	1.41	6.18
		PM	0.03	0.13
		SO _x	0.01	0.03
		FORMALDEHYDE	0.03	0.13
		VOC (other)	<0.01	<0.01
P5002	HOT OIL HEATER B-501	CO	1.76	7.71

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			lb/hr	TPY
P3001	HOT OIL HEATER B-601	NO _x 2.83	12.40	
		PM	0.06	0.26
		SO _x 0.01	0.02	
		VOC	0.05	0.21
		CO	0.07	0.31
		NO _x 0.29	1.27	
		PM	0.01	0.04
		SO _x 0.01	0.04	
		FORMALDEHYDE	0.01	0.04
		VOC (other)	<0.01	<0.01
P3002	HOT OIL HEATER B-602	CO	0.10	0.44
		NO _x 0.42	1.84	
		PM	0.01	0.05
		SO _x 0.01	0.04	
		FORMALDEHYDE	0.01	0.04
		VOC (other)	<0.01	<0.01
P3003	HOT OIL HEATER B-603	CO	0.35	1.55
		NO _x 1.41	6.18	
		PM	0.03	0.13
		SO _x 0.01	0.03	
		FORMALDEHYDE	0.03	0.13
		VOC (other)	<0.01	<0.01
P3022	HOT OIL HEATER B-604	CO	0.07	0.31
		NO _x 0.29	1.27	
		PM	0.01	0.03
		SO _x 0.01	0.04	
		FORMALDEHYDE	0.01	0.04
		VOC (other)	<0.01	<0.01
P6003	HOT OIL HEATER B-690	CO	0.86	3.55
		NO _x 1.05	4.40	

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		PM	0.31	1.32
		SO _x 0.01	0.06	
		VOC	0.13	0.56
P2001	HOT OIL HEATER B-701	CO	0.28	1.23
		NO _x 1.53	6.70	
		PM	0.03	0.14
		SO _x 0.01	0.03	
		FORMALDEHYDE	0.02	0.09
		VOC (other)	<0.01	<0.01

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
P1003	STEAM BOILER B-503	CO	0.73	3.20
		NO _x 3.19	13.99	
		PM	0.46	2.03
		SO _x 1.62	7.11	
		VOC	0.84	3.67
P1004	STEAM BOILER B-505	CO	2.94	12.88
		NO _x 4.74	20.78	
		PM	0.21	0.93
		SO _x 0.02	0.09	
		VOC	0.11	0.47
P1005	STEAM BOILER B-506	CO	2.94	12.88
		NO _x 4.74	20.78	
		PM	0.21	0.93
		SO _x 0.02	0.09	
		VOC	0.11	0.47
P2002	STEAM BOILER B-507	CO	3.30	14.46
		NO _x 5.35	23.45	
		PM	0.17	0.72
		SO _x 0.02	0.10	
		VOC	0.12	0.51
P1023	THERMAL OXIDIZER B-504	CO	0.40	1.75
		NO _x 1.34	5.87	
		PM	1.20	5.26
		SO _x 2.26	9.90	
		VOC	0.25	1.10
P3023	CHEMICAL HOT BOX	VOC	1.35	1.21
P1016	E-307 VAC PUMP J-320	VOC	0.07	0.29
P1017	E-308 VAC PUMP J-321	VOC	0.10	0.44

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			lb/hr	TPY
P1018	E-306 VAC PUMP J-820	VOC	0.06	0.26
P1006	E-309 STEAM JET V-309	VOC	0.01	0.04
P1007	E-310 STEAM JET V-310	VOC	0.01	0.04
P1008	E-311 STEAM JET V-311	VOC	0.01	0.04
P3014	FLARE X-601	VOC	10.94	20.14
		NO _x 1.48	2.71	
		CO	2.95	5.42
		SO ₂ <0.01	<0.01	
P3015	FLARE X-602	VOC	0.04	0.01
		NO _x 0.01	<0.01	
		CO	0.01	<0.01
		SO ₂ <0.01	<0.01	
P4004	FLARE X-401	VOC	0.15	0.66
		NO _x 2.36	0.59	
		CO	4.72	1.16
		SO ₂ <0.01	<0.01	
P6001	FLARE X-695	VOC	0.10	0.01
		NO _x 0.01	0.05	
		CO	0.03	0.10
		SO ₂ <0.01	<0.01	
P1024	COOLING TOWER W-501	VOC	0.72	3.11
P5004	COOLING TOWER W-502	VOC	0.72	3.11
P5005	COOLING TOWER W-503	VOC	0.65	2.80

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			<u>lb/hr</u>	<u>TPY</u>
P5006	COOLING TOWER W-503A	VOC	0.22	0.95
WW001	ENCL. SKIMMER F-530	VOC	<0.01	<0.01
WW002	WW COLLECTION SUMP	VOC	<0.01	<0.01
WW003	WW SURGE TANK	VOC	<0.01	<0.01
P1019	BAGHOUSE R-301	PM	1.03	2.00
P1009	STORAGE TANK F-320	VOC	0.89	0.20
P1010	STORAGE TANK F320-A	VOC	0.68	0.02
T0001	STORAGE TANK F-401	VOC	0.18	0.80
T1001	STORAGE TANK F-402	VOC	0.55	0.54
P1011	STORAGE TANK F-403	VOC	0.06	0.12
T1002	STORAGE TANK F-404	VOC	0.32	0.33
T1003	STORAGE TANK F-405	VOC	0.32	0.33
T1004	STORAGE TANK F-408	VOC	0.17	0.06
T1005	STORAGE TANK F-409	VOC	0.05	0.17
P1012	STORAGE TANK F-414	VOC	0.05	0.23
P1013	STORAGE TANK F-504	VOC	0.37	1.61
T1006	STORAGE TANK F-505	VOC	0.31	1.17
P5001	STORAGE TANK F-560	VOC	0.18	0.13

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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>
P1014	STORAGE TANK F-604	VOC	0.01	0.01
P3005	STORAGE TANK F-605	VOC	0.81	3.54
T3001	STORAGE TANK F-606	VOC	0.23	0.18
T3002	STORAGE TANK F-607	VOC	0.03	0.14
T3003	STORAGE TANK F-608	VOC	0.01	0.02
P3006	STORAGE TANK F-608A	VOC	0.01	0.03
P3007	STORAGE TANK F-608B	VOC	0.01	0.03
T3004	STORAGE TANK F-609	VOC	0.01	0.03
P3008	STORAGE TANK F-609A	VOC	0.01	0.02
P3009	STORAGE TANK F-609B	VOC	0.01	0.02
T1007	STORAGE TANK F-610	VOC	0.02	0.07
T1008	STORAGE TANK F-611	VOC	0.01	0.07
P3010	STORAGE TANK F-611A	VOC	0.01	0.07
T1009	STORAGE TANK F-612	VOC	0.01	0.07
T4001	STORAGE TANK F-612A	VOC	0.10	0.44
T4002	STORAGE TANK F-612AA	VOC	0.10	0.44
T2001	STORAGE TANK F-612B	VOC	0.58	0.05

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
T3005	STORAGE TANK F-612C	VOC	0.02	0.16
T4003	STORAGE TANK F-612D	VOC	0.01	0.01
P3011	STORAGE TANK F-613	VOC	<0.01	<0.01
T3006	STORAGE TANK F-615	VOC	0.01	0.06
T3007	STORAGE TANK F-615A	VOC	0.01	0.07
P3012	STORAGE TANK F-616A	VOC	2.54	0.15
P3013	STORAGE TANK F-616B	VOC	0.03	0.15
T3008	STORAGE TANK F-617	VOC	0.39	0.11
T4004	STORAGE TANK F-618	VOC	0.01	0.01
T4005	STORAGE TANK F-619	VOC	2.17	0.40
T4006	STORAGE TANK F-620	VOC	0.01	0.05
T4007	STORAGE TANK F-621	VOC	0.01	0.01
T4008	STORAGE TANK F-640	VOC	0.01	0.01
T4009	STORAGE TANK F-641	VOC	<0.01	0.02
T4010	STORAGE TANK F-642	VOC	0.02	0.07
T4011	STORAGE TANK F-643	VOC	0.01	0.01
T4012	STORAGE TANK F-644	VOC	0.01	0.01
T4013	STORAGE TANK F-645	VOC	0.07	0.02

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
T5003	STORAGE TANK F-650	VOC	1.10	1.54
T5004	STORAGE TANK F-652	VOC	2.26	0.34
T6001	STORAGE TANK F-654	VOC	<0.01	0.01
P6002	STORAGE TANK F-691	VOC	0.29	0.44
T2002	STORAGE TANK F-701	VOC	1.09	0.32
T1010	STORAGE TANK F-702	VOC	0.01	0.04
T1011	STORAGE TANK F-703	VOC	0.01	0.01
T1012	STORAGE TANK F-704	VOC	<0.01	<0.01
T1013	STORAGE TANK F-705	VOC	0.01	0.01
T2003	STORAGE TANK F-706	VOC	<0.01	<0.01
T2004	STORAGE TANK F-707	VOC	1.50	0.01
T-2005	STORAGE TANK F-708	VOC	0.03	0.10
P1015	STORAGE TANK F-709	VOC	<0.01	<0.01
T2006	STORAGE TANK F-713	VOC	0.30	0.16
T5001	STORAGE TANK F-718	VOC	0.01	0.03
T5002	STORAGE TANK F-719	VOC	0.01	0.03
T5006	STORAGE TANK F-720	VOC	<0.01	<0.01

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
T5005	STORAGE TANK F-721	VOC	<0.01	<0.01
T2007	STORAGE TANK F-722	VOC	0.02	<0.01
T2008	STORAGE TANK F-723	VOC	0.02	<0.01
T2009	STORAGE TANK F-724	VOC	0.24	1.04
T2010	STORAGE TANK F-725	VOC	0.24	1.04
T2011	STORAGE TANK F-726	VOC	1.05	1.04
T2012	STORAGE TANK F-727	VOC	0.60	2.61
T2013	STORAGE TANK F-728	VOC	0.01	0.04
T2014	STORAGE TANK F-729	VOC	0.33	1.44
P2004	STORAGE TANK F-730	VOC	1.16	0.02
T3009	STORAGE TANK F-741	VOC	0.33	0.06
T3010	STORAGE TANK F-742	VOC	0.61	0.09
T3011	STORAGE TANK F-743	VOC	0.11	0.50
P3024	STORAGE TANK F-746	VOC	<0.01	<0.01
T5007	STORAGE TANK F-653	VOC	0.56	0.05
LT001	TRUCK LOADING RACK A	VOC	3.00	0.10
LT002	TRUCK LOADING RACK B	VOC	3.00	0.10
LT003	TRUCK LOADING RACK C	VOC	3.00	0.10

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			lb/hr	TPY
LT004	TRUCK LOADING RACK D	VOC	0.50	0.01
LT005	TRUCK LOADING RACK E	VOC	2.50	0.10
LT006	TRUCK LOADING RACK F	VOC	2.50	0.10
LR001	RAILCAR LOADING, TRACK 1, SPOT 1	VOC	3.00	0.10
LR002	RAILCAR LOADING, TRACK 1, SPOT 2	VOC	3.00	0.10
LR003	RAILCAR LOADING, TRACK 2, SPOT 6	VOC	0.50	0.10
LR004	RAILCAR LOADING, TRACK 2, SPOT 7	VOC	0.50	0.10
LR005	RAILCAR LOADING, TRACK 2, SPOT 8	VOC	0.50	0.10
LR006	RAILCAR LOADING, TRACK 3, SPOT 9	VOC	3.00	0.04
LR007	RAILCAR LOADING, TRACK 3, SPOT 10	VOC	0.01	0.05
LR008	RAILCAR LOADING, TRACK 6, SPOT 13	VOC	<0.01	<0.01
LR009	RAILCAR UNLOADING, TRACK 6, SPOT 14	VOC	<0.01	<0.01
P1025	PLANT 1 SAT. WW SUMP	VOC	<0.01	<0.01

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P2005	PLANT 2 SAT. WW SUMP	VOC	<0.01	<0.01
P3024	PLANT 3 SAT. WW SUMP	VOC	<0.01	<0.01
P4005	PLANT 4 SAT. WW SUMP	VOC	<0.01	<0.01
P5007	PLANT 5 SAT. WW SUMP	VOC	<0.01	<0.01
P6004	PLANT 6 SAT. WW SUMP	VOC	<0.01	<0.01
P1026	MAIN WASTEWATER SUMP	VOC	<0.01	<0.01
P1027	CARBON FINES WW SUMP	VOC	<0.01	<0.01
P1028	DRUMMING PLT. WW SUMP	VOC	<0.01	<0.01
F1001	PLANT FUGITIVES (4)	VOC	4.32	21.24

(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) CO - carbon monoxide

NO_x - total oxides of nitrogen

PM - particulate matter

SO_x - sulfur oxides

SO₂ - sulfur dioxide

VOC - volatile organic compounds as defined in General Rule 101.1

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

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>

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

Hrs/day 24 Days/week 7 Weeks/year _____
52 or Hrs/year 8,760

Dated _____