EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 46307

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)	Emission Rates * lb/hr	TPY**
EP-5	Plant Flare (7)	VOC	194.00	74.58
		NO_x	29.29	11.52
		SO_2	0.01	0.01
		CO	149.24	58.69
		BD	-----	4.42
		HRVOC	-----	15.00
EP-H21	No. 1 Dehydro Alcorn Heater	VOC	0.86	3.78
		NO_x	9.60	42.05
		SO_2	0.09	0.41
		PM	1.19	5.22
		CO	13.18	57.71
EP-1B905	Off-Gas Incinerators	VOC	2.97	13.04
	1. Air Heater 1B-902	NO_x (6)	74.41	325.90
	2. No. 1 Dehydro Reactor 1B-905	SO_2	0.42	1.87
	3. Generator Turbine 1G-905	PM	4.20	18.41
	4. Generator Turbine 1G-906	CO	28.50	62.40

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
EP-4	OXO Incinerator/Boiler	VOC	0.86	3.78
		NO_x	32.94	144.28
		NO_x (5)	9.60	42.05
		SO_2	0.09	0.41
		PM	1.19	5.22
		CO	13.18	57.71
EP-H10	No. 1 Butylene Heater	VOC	0.30	1.30
		NO_x	5.15	22.57
		NO_x (5)	3.30	14.45
		SO_2	0.03	0.14
		PM	0.41	1.79
		CO	4.53	19.84
EP-H11	No. 1 C.E. Steam Superheater	VOC	0.51	2.24
		NO_x	15.55	68.11
		SO_2	0.06	0.24
		NO_x (5)	5.70	24.97
		PM	0.71	3.10
		CO	7.82	34.27
EP-H13	No. 2 OXO Butylene Heater	VOC	0.30	1.30
		NO_x	6.40	28.02
		NO_x (5)	3.30	14.45
		SO_2	0.03	0.14
		PM	0.41	1.79
		CO	4.53	19.84
EP-H14	No. 2 C.E. Steam Superheater	VOC	0.51	2.24
		NO_x	22.79	99.80
		NO_x (5)	5.70	24.97
		SO_2	0.06	0.24
		PM	0.71	3.10
		CO	7.82	34.27
12DG-15	Boilerhouse Emergency Generator	VOC	0.12	0.05
		NO_x	12.87	5.47

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		SO_2	0.85	0.36
		PM	0.91	0.39
		CO	2.77	1.18
3DG-14	OXO Emergency Generator	VOC	0.04	0.02
		NO_x	4.62	1.96
		SO_2	0.31	0.13
		PM	0.33	0.14
		CO	1.00	0.42
20G-437	Dock Pump Engine 20G-437	VOC	0.06	0.03
		NO_x	1.13	0.48
		SO_2	0.72	0.31
		PM	0.11	0.05
		CO	0.28	0.12
31G-2350	Diesel Water Blaster Engine	VOC	0.75	0.78
		NO_x	3.04	3.16
		SO_2	0.01	0.01
		PM	0.10	0.10
		CO	1.72	1.79
F-CT-1	Cooling Tower CT-1	VOC	50.40	22.08
F-CT-10	Cooling Tower CT-10	VOC	10.00	1.47
F-CT-11	Cooling Tower CT-11	VOC	10.00	0.55
F-CT-14	Cooling Tower CT-14	VOC	23.50	10.30
F-CT-3	Cooling Tower CT-3	VOC	24.40	10.67
F-CT-7	Cooling Tower CT-7	VOC	10.00	2.76
	Combined Cooling Towers CT-1 through CT-14 (8)	BD	-----	2.59

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
CAT-TFR	Catalyst Transfer Hopper	PM	0.01	0.01
CAT-BH	Catalyst Baghouse	PM	0.01	0.01
F-TTR	Truck Rack Loading Facility	VOC	6.47	0.26
T-32	No. 32 Tank	VOC	0.08	0.01
T-33	No. 33 Tank	VOC	0.58	0.01
T-34	No. 34 Tank	VOC	0.29	0.02
T-69-1	No. 69-1 Tank	VOC	0.29	<0.01
T-81	No. 81 Tank	VOC	0.58	0.05
T-82	No. 82 Tank	VOC	1.13	0.07
T-83	No. 83 Tank	VOC	1.13	0.04
T-84	No. 84 Tank	VOC	0.29	0.02
T-85	No. 85 Tank	VOC	0.29	0.01
T-86	No. 86 Tank	VOC	0.58	0.02
T-155	TEA Storage Tank	VOC	0.01	0.01
F-10A	Oil Separation	VOC	0.17	0.76
1A	Isomerization Unit - Fugitives (4)	VOC	2.70	11.83
1B	Hydrogenation Unit - Fugitives (4)	VOC	0.08	0.35
1C	Dimethyl Formamide Unit Fugitives (4)	VOC	10.15	44.48

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1D	Diiso Unit - Fugitives (4)	VOC	2.91	12.72
2A	Fugitive Area No. 2 (4)	VOC	5.10	22.35
2B	Fugitive Area No. 2B (4)	VOC	2.30	10.08
FUG-2C	Tank Car Loading Fugitives (4)	VOC	1.38	6.06
FUG-2D	Truck Rack Loading Fugitives (4)	VOC	0.41	1.80
FUG-3	Fugitive Area No. 3 (4)	VOC	6.18	27.05
FUG-4	Fugitive Area No. 4 (4)	VOC	4.61	20.18
FUG-5	Fugitive Area No. 5 (4)	VOC	0.10	0.45
L-5	Ship and Barge Loading Dock Fugitives (4)	VOC	0.26	1.13

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
CO - carbon monoxide
BD - 1,3 butadiene
HRVOC - BD, butenes, ethylene, and propylene
PM - particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10} - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
(4) Emission rate is an estimate and is only enforceable through compliance with the applicable special condition(s) and permit application representations.
(5) This is the emission rate for NO_x once the emission control is installed no later than March 1, 2007.
(6) This is the emission rate for NO_x once the emission control is installed no later than March 1, 2008.
(7) Annual emissions of BD and total HRVOCs are limited as indicated. The allowable emission rate listed for HRVOCs from this EPN are included in the total VOC emission rate. The HRVOC CAP of 15 tons per year includes the BD emission rate.
(8) The annual emissions of BD from all the cooling towers are limited as indicated. The VOC emission rate of each cooling tower includes BD. While short-term BD emission rates are not established, the hourly VOC emission rate of each cooling tower establishes a maximum BD short-term rate.

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

__24__ Hrs/day __7__ Days/week __52__ Weeks/year or ____ Hrs/year

** Compliance with annual emission limits is based on a rolling 12-month period.

Date July 5, 2010