EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 4449

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 Rates * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission lb/hr	Emission TPY
100ABLDG1	Butanol Unit Building 1 Vent Analyzer	VOC	0.27	1.20
100A9379	Butanol Unit V713/714 Outlet Vent Analyzer	VOC	0.04	0.17
100A9380	Butanol Unit V713/V714 Outlet Vent Analyzer	VOC	0.04	0.17
100F	Fugitives (4)	VOC	9.29	41.21
100V23	Tank 23	VOC	0.04	<0.01
100V30	Tank 30	VOC	5.55	0.65
100V34	Tank 34	VOC	5.55	0.65
100V35	Tank 35	VOC	5.55	0.65
100V917	Tank 917	VOC	0.01	<0.01
251AV37	Tank 37	VOC	0.25	0.45
251AV119	Tank 119	VOC	0.28	0.012
251AV866	Tank 866	VOC	0.30	0.79

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
251AV994	Tank 994	VOC	0.11	0.22
251AV995	Tank 995	VOC	0.11	0.22
251DM1205	Shipping Flare (5) (6)	VOC	44.43	16.29
		NO_x	2.28	7.40
		SO_2	<0.10	<0.10
		CO	19.60	63.45
251DM2224	Barge Incinerator (6)	VOC	0.82	0.14
		NO_x	5.00	8.78
		SO_2	<0.01	<0.01
		CO	0.40	0.88
		PM	<0.01	<0.01
251DBL	Barge Area	VOC	<0.01	<0.01
251DTC	Railcar Area	VOC	0.32	0.01
251DTCF	RR Area Fugitives (4)	VOC	0.52	1.20
251DTL	Truck Area	VOC	0.32	0.01
301M150	Cooling Tower (4)	VOC	0.10	0.43
303M1239	Ethylene Flare (7)	VOC	0.47	1.98
		NO_x	0.03	0.14
		SO_2	<0.01	<0.01
		CO	0.17	0.76
304M24	Reformer	VOC	0.17	0.73
		NO_x	16.74	73.33
		SO_2	0.072	0.31
		CO	4.78	20.95

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
		PM	0.60	2.62

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
304M375	Reformer	VOC	0.29	1.26
		NO_x	28.75	125.94
		SO_2	0.12	0.54
		CO	8.22	35.98
		PM	1.03	4.50
304M490	Reformer	VOC	0.60	2.65
		NO_x	60.50	264.98
		SO_2	0.26	1.14
		CO	17.28	75.71
		PM	2.16	9.46
304V206	Tank 206	MEA	<0.01	<0.01
AREA 7	API Separators (8)	VOC	3.36	14.70
AREA 7	Wastewater Treatment Plant (9)	VOC	1.13	1.59
308M2309	Sludge Dryer (9)	VOC	0.04	0.04
		NO_x	1.77	2.25
		SO_2	0.01	0.01
		CO	0.44	0.56
		PM	0.17	0.22

(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 General Rule 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
CO - carbon monoxide
PM - particulate matter
MEA - monoethanolamine

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Railcar loading and cleaning operations do not occur simultaneously.
(6) These emissions represent the total emissions from the vapor combustion system.
(7) Flare emissions attributable to this facility. (Refer to Permit No. 2447 for total emission rate.)
(8) Emissions prior to completion of wastewater treatment project.
(9) Emissions after completion of wastewater treatment project.

* 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 _____

Dated ____