Emission Sources - Maximum Allowable Emission Rates

Permit Number 18978/PSDTX752M5/N162

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)
QE1001B	Furnace 1	NO_X	30.30	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.50
QE1002B	Furnace 2	NO_X	30.30	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.50
QE1003B	Furnace 3	NO_X	30.30	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.50
QE1004B	Furnace 4	NO_X	30.30	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.50

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QE1005B	Furnace 5	NO_X	30.30	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.50
QE1006B	Furnace 6	NO_X	30.3	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.50
QE1007B	Furnace 7	NO_X	30.30	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.5
QE1008B	Furnace 8	NO_X	30.30	121.26
		CO	24.71	31.34
		SO_2	0.30	1.31
		VOC	0.70	3.00
		PM_{10}	1.00	3.50

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QE1009B	Furnace 9	NO_X	31.75	126.58
		CO	33.92	34.45
		SO_2	0.36	1.56
		VOC	0.83	3.63
		PM_{10}	2.10	6.57
QE1010B	Furnace 10	NO_X (start-up)	12.00	----
		NOx (routine)	6.00	24.09
		CO	20.36	81.76
		SO_2	0.35	1.42
		VOC	0.60	2.41
		PM	4.30	17.25
		$PM_{2.5}$	4.30	17.25
		PM_{10}	4.30	17.25
		NH_3	3.11	13.62
QE1011B	Furnace 11	NO_X (start-up)	12.00	----
		NOx (routine)	6.00	24.09
		CO	20.36	81.76
		SO_2	0.35	1.42
		VOC	0.60	2.41
		PM	4.30	17.25
		$PM_{2.5}$	4.30	17.25
		PM_{10}	4.30	17.25
		NH_3	3.11	13.62
QE5802UA	Boiler A	NO_X	22.50	89.70
		CO	20.14	30.27

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		SO_2	0.14	0.61
		VOC	1.43	1.91
		PM_{10}	0.34	1.49
QE5802UB	Boiler B	NO_X	22.50	89.70
		CO	20.14	30.27
		SO_2	0.14	0.61
		VOC	1.43	1.91
		PM_{10}	0.34	1.49
QECOMP1	Diesel Compressor	NO_X (PSD)	6.10	17.21
		CO (PSD)	0.05	0.14
		SO_2	0.13	0.37
		VOC	0.14	0.41
		PM_{10} (PSD)	0.07	0.19
QECOMP2A/B	Diesel Compressor	NO_X (PSD)	6.10	17.21
		CO (PSD)	0.05	0.14
		SO_2	0.13	0.37
		VOC	0.14	0.41
		PM_{10} (PSD)	0.07	0.19
QECOMP3	Diesel Compressor	NO_X	2.33	9.39
		CO	0.50	2.02
		SO_2	0.15	0.62
		VOC	0.19	0.76
		PM_{10}	0.17	0.67
QE6410F	Pyrolysis Gasoline Tank	VOC	2.10	7.90
QE6411F	Pyrolysis Fuel Oil Tank	VOC	0.02	0.09

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QE2410F	Wash Oil Drum	VOC	0.60	0.07
QE1416F	Decoking Drum	CO (PSD)	841.00	326.00
		PM_{10} (PSD)	0.32	0.55
		PM2.5 (PSD)	0.16	0.37
		VOC	0.07	0.06
QE1416FB	Decoking Drum	CO	745.00	222.00
		PM_{10}	2.85	0.37
		PM2.5	1.94	0.25
		VOC	0.04	0.02
QE7801U	Cooling Tower (5)	VOC	7.88	5.34
		PM	1.72	7.53
		$PM_{2.5}$	1.09	4.78
		PM_{10}	1.09	4.78
QE3418F	MAPD Decoke Pot	CO (PSD)	17.30	0.31
QE3050B	ARU Flare	CO (PSD)	21.00	8.98
		NO_X (PSD)	4.04	1.73
		SO_2	0.10	0.10
		VOC	15.02	1.38
QE3050MAINT	ARU Flare Maintenance	CO	50.65	1.27
		NO_X	9.74	0.24
		SO_2	0.10	0.10
		VOC	78.60	1.97
QE8050B	Elevated Flare	CO (PSD)	171.6	49.5
		NO_X (PSD)	76.74	23.20
		SO_2	10.30	0.30

Emission Sources - Maximum Allowable Emission Rates

		VOC	44.95	10.95
QE8050MAINT	Elevated Flare Maintenance	CO	62.10	0.10
		NO_X	12.00	0.20
		SO_2	10.30	0.01
		VOC	58.00	0.10
QE7412F	Wash Oil Tank	VOC	0.67	0.13
QELOAD	Organic Loading	VOC	1.40	1.24
QESTORE	Organic Storage	VOC	0.98	1.01
QE8001A	Wastewater System	VOC	0.35	1.55
QELAB	Analyzers and Sampling	VOC	7.04	2.25
QEFUG	Process Fugitives (6)	VOC	19.69	86.24
		NH3	0.01	0.04
QEANALYZ2	Analyzer's Control Devices (Thermal Oxidizer)	VOC	0.01	0.01
		CO (PSD)	0.01	0.01
		NO_X (PSD)	0.01	0.01
QEUNIT	Dock Thermal Oxidizer (7)	NO_X (PSD)	14.68	4.7
		CO (PSD)	17.73	6.23
		VOC	23.77	7.22
		PM_{10} (PSD)	0.01	0.02
PW7614JA	Emergency Engine	NO_X	15.1	1.7
		CO	3.25	0.37
		VOC	1.22	0.14
		SO_2	1.00	0.11
		PM_{10}	1.07	0.12
PW7605JB	Emergency Engine	NO_X	15.84	6.94

Emission Sources - Maximum Allowable Emission Rates

		CO	3.63	1.59
		VOC	0.47	0.20
		SO_2	5.34	2.34
		PM_{10}	0.46	0.20
PW7605JC	Emergency Engine	NO_X	15.84	6.94
		CO	3.63	1.59
		VOC	0.47	0.20
		SO_2	5.34	2.34
		PM_{10}	0.46	0.20
7407F	Sulfuric Acid Tank	H2SO4	0.01	0.01
7701LL3F	Sulfuric Acid Tank	H2SO4	0.01	0.01
7803UL1F	Sulfuric Acid Tank	H2SO4	0.01	0.01
8703LF5	Sulfuric Acid Tank	H2SO4	0.01	0.01
QEPRCIN	PRC/ERC Inert Vent	VOC	0.05	0.22
QEPGCIN	PGC Inert Vent	VOC	0.32	1.38
QE1ANLYZR4	Analyzer Thermal Oxidizer	NO_X	0.01	0.01
		CO	0.01	0.01
		VOC	0.04	0.17
QENH3SC	Ammonia Clearing	NH3	1.00	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_X - total oxides of nitrogen
SO_2 - sulfur dioxide
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

Emission Sources - Maximum Allowable Emission Rates

(5) Emission rate is an estimate only and is enforceable through compliance with the permit Special Conditions applicable to the cooling tower and with cooling water circulation flow rates represented in the permit application.

(6) Emission rate is an estimate only and is enforceable through compliance with the permit Special Conditions applicable to fugitives and with representations in the permit application.

(7) The dock thermal oxidizer is owned and operated by LyondellBasell Acetyls, LLC, under Permit Number 4751.

Date: January 23, 2013