EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 7719A

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**
F-CT3	Cooling Tower	VOC	0.23	0.99
F-R1	Process Fugitives (4)(5)	VOC	0.16	0.7
		H_2S	0.01	0.01
	Process Fugitives (4)(6)	VOC	0.88	3.84
		H_2S	0.06	0.25
F-R2	Product Packaging Stations	PM (12)	0.01	0.02
		PM (13)	0.01	0.03
H-8	No. 1 Heater	CO	2.64	11.54
		NO_x	2.16	9.46
		SO_2	0.87	1.92
		VOC	0.17	0.76
		PM_{10}	0.24	1.04
H-9	No. 2 Heater	CO	2.64	11.54
		NO_x	2.16	9.46
		SO_2	0.87	1.92
		VOC	0.17	0.76
		PM_{10}	0.24	1.04
F-R4	Maintenance - Unplugging Reactor Dump Line	VOC	29.99	0.18
R-V1	Acetic Acid Scrubber	VOC	0.01	0.01

R-V2	Crude NMP Surge Tank Condenser Scrubber	VOC H_2S	4.16 0.10	3.23 0.38
R-V3	Cure Vessel Vent Scrubber YA25	VOC PM_{10} PM	0.48 0.01 0.06	1.04 0.03 0.28
R-V5	Cure Vessel Vent Scrubber YA24	VOC PM_{10} PM	0.48 0.01 0.06	1.04 0.03 0.28
R-V8	A Dehydration Scrubber	VOC H_2S	0.01 0.01	0.03 0.01
R-V11	Heat Treater Scrubber Vent	H_2S	0.01	0.02
R-V12	Process Water Sump	VOC H_2S 0.05 0.24	0.01	0.04
R-V14	A Dryer Vent	VOC PM_{10} Acetone	4.03 1.21 0.27	10.93 5.28 0.74
R-V15	A1 Belt Filter	H_2S	0.01	0.01
R-V16	B Dryer Vent	VOC PM_{10} Acetone	4.02 0.24 0.27	10.92 1.03 0.74
R-V17	B Dehydration Scrubber	VOC H_2S	0.01 0.01	0.03 0.01
R-V19	A2 Belt Filter Vent	H_2S	0.01	0.01
R-V20	B1 Belt Filter Vent	H_2S	0.01	0.01
R-V21	B2 Belt Filter Vent	H_2S 0.01	0.01	
R-V22	Polymer Dryer Vent	VOC	0.11	0.48
R-V23	Caustic Scrubber 95-60020	VOC H_2S	1.01 1.84	4.42 2.94
R-V24	Wash System Scrubber	VOC H_2S	0.02 0.01	0.01 0.01

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T-95-28	Lights Column Phase Separator	VOC	0.07	0.33
T-95-114	NMP Storage Tank	VOC	0.07	0.01
T-95-136	B1 Feed Filter Tank	VOC	0.12	0.45
		H_2S	0.12	0.45
T-95-160	B Slurry Tank	VOC	0.01	0.04
		H_2S	0.05	0.21
T-95-167	Crude NMP Tank (M-6) & NMP Heavies Tank (M-5)	VOC	0.1	0.02
T-95-168	A1 Feed Filter Tank	VOC	0.12	0.45
		H_2S	0.12	0.45
T-95-169A	S. Fresh/Recycle NMP	VOC	0.07	0.01
T-95-169B	N. Fresh/Recycle NMP	VOC	0.07	0.01
T-95-170	NaSH Storage Tank	H_2S	2.96	0.67
T-95-YA15	A Slurry Tank	VOC	0.01	0.04
		H_2S	0.05	0.21
T-95-182	NaSH Waste/Recycle Tank	H_2S	2.84	0.03
R-LR1	Truck Loading at Tank N-2 (14)	VOC	0.46	0.01
T-95-Y-044	No. 1 Supersack Silo	PM_{10}	0.02	0.08
T-95-Y-076	No. 2 Supersack Silo	PM_{10}	0.03	0.12
T-95-Y-084	No.3 Supersack Silo	PM_{10}	0.03	0.12

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
T-95-Y-046	No. 1 Valve Bag Tank	PM_{10}	0.02	0.08
T-95-Y-091	No. 2 Valve Bag Tank	PM_{10}	0.02	0.08
T-95-40140	No.4 Supersack Silo	PM_{10}	0.06	0.25
T-95-40141	No.5 Supersack Silo	PM_{10}	0.11	0.49
T-95-40142	No.6 Supersack Silo	PM_{10}	0.17	0.74
H-10	No. 3 Heater	NO_X	2.94	12.86
		CO (7)	8.65	34.05
		CO (8)	8.65	32.41
		CO (9)	8.65	31.32
		CO (10)	8.65	29.13
		CO (11)	8.65	27.98
		VOC	0.45	1.98
		SO_2	1.24	2.71
		PM_{10}	0.63	2.74
R-LR2	Truck Loading at Quench Heavies Storage Tank	VOC	0.19	0.01
FWW8	Brine Filter Press	VOC	0.01	0.01
		H_2S 0.01	0.01	
T-95-70050	Brine Filter Tank	VOC	0.01	0.01
		H_2S	0.01	0.01
T-95-70060	Post-Filtration Brine Tank	VOC	0.01	0.01
		H_2S	0.01	0.01
T-95-80014	Hot Oil Quench Storage Tank	VOC	0.27	0.01
TN-02	Waste NMP Heavies Tank (14)	VOC	0.05	0.01

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

(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 Section 101.1
H_2S - hydrogen sulfide
PM - particulate matter, suspended in the atmosphere, including PM_{10} from that emission point
PM_{10} - 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.
CO - carbon monoxide
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) Fugitive emissions until startup of third train expansion
(6) Fugitive emission after startup of third train expansion
(7) January 1 to December 31, 2009
(8) January 1 to December 31, 2010
(9) January 1 to December 31, 2011
(10) January 1 to December 31, 2012
(11) From January 1, 2013 and on
(12) Emissions before startup of Ryton® PPS Plant expansion
(13) Emissions after startup of Ryton® PPS Plant expansion
(14) Incorporated by reference, authorized by Standard Exemption 51

* 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

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

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AIR CONTAMINANTS DATA

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

Dated _____