EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 318

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	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY **
AMM-CBFL32	Ammonia Storage Flare (Normal Operations)	NO _x CO SO ₂ VOC NH ₃	25.94 0.39 0.01 0.01 45.07	1.34 1.72 0.01 0.03 0.95
AMM-FSTOR	Storage Tank Fugitives (4)	NH ₃	0.07	0.32
AMM-FDKAMB	Dock Fugitives (4)	NH ₃	0.01	0.04
AMM-FPIPE	Warm Pipeline Fugitives (4)	NH ₃	0.02	0.10
AMM-HT401	Glycol Heater Stack No. 1	NO_x CO PM_{10} VOC SO_2	2.08 1.42 0.13 0.09 0.01	9.09 6.24 0.56 0.41 0.04
AMM-HT402	Glycol Heater Stack No. 2	NO_x CO PM_{10} VOC SO_2	2.08 1.42 0.13 0.09 0.01	9.09 6.24 0.56 0.41 0.04
AMM-TFX185	East Diesel Tank for Firewat Pumps	er VOC	0.02	0.01
AMM-TFX186	West Diesel Tank for Firewa Pumps	iter VOC	0.02	0.01

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AIR CONTAMINANTS DATA

Emission	Source	Air Contaminant	Emission	Rates *
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY **
P&S-FNATGS	Natural Gas Handling Faciliti (4)	es VOC	0.04	0.16
AMM-PMP185	East Diesel Fire Pump Engin	$\begin{array}{cc} e & VOC \\ NO_{x} \\ CO \\ PM_{10} \\ SO_{2} \end{array}$	0.86 10.85 2.34 0.77 0.72	0.01 0.14 0.03 0.01 0.01
AMM-PMP186	West Diesel Fire Pump Engir	ne VOC NO_x CO PM_{10} SO $_2$	0.86 10.85 2.34 0.77 0.72	0.01 0.14 0.03 0.01 0.01
AMM/TF407A	Sulfuric Acid Tank No. 1	H ₂ SO ₄	0.08	0.01
AMM/TF407B	Sulfuric Acid Tank No. 2	H ₂ SO ₄	0.08	0.01
MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) EMISSIONS				
AMM-CBFLR32	Ammonia Storage Flare (MSS Activities)	NO _x NH₃	6.12 11.11	0.22 0.40
ACH-CBFLR	ACH Process Flare (5) (MSS Activities)	NO _x CO Acetone	0.03 0.29 0.86	0.01 0.01 0.01
MMA-PFL	MMA Flare (6) (MSS Activities)	NO _x CO SO ₂ VOC Acetone	1.90 38.85 166.67 25.35 8.35	0.05 1.01 1.66 0.57 0.15
EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES				

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Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY **
ABBLAST	Abrasive Blasting	PM PM ₁₀ PM _{2.5}	5.72 0.68 0.07	0.80 0.10 0.01
ACH-ACEBS	Acetone Tank Roof Landing	Acetone	55.42	0.16
ACHTKBP	ACH Tank Bypass	VOC Acetone	0.08 0.56	0.03 0.04
AMMRV	Ammonia Relief Valves	NH_3	0.02	0.01
ANAGAS	Analyzer Gas	NO_x CO SO_2	0.01 0.01 0.02	0.01 0.01 0.01
CATHNDL	Catalyst Handling	PM PM ₁₀ PM _{2.5}	0.51 0.12 0.06	0.02 0.01 0.01
DEPOLYTKVT	Depolying Tank Vent	VOC	16.22	0.26
EQCLR	Equipment Clearing	VOC NH₃	4.27 0.05	0.05 0.01
LUBES	Lube Oil	VOC	0.01	0.01
MISC	Miscellaneous Maintenance	VOC	1.73	0.76
MMATKBP	MMA Tanks Bypass	VOC	1.00	0.43
MMATKBP2	MMA Tanks Bypass	VOC	37.60	0.74
MMTKCLN	1 MM-gallon Tank Cleaning	VOC	0.01	0.01
SAMPLE	Sampling	VOC	0.11	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY **
SARMISC	SAR Plant Miscellaneous Maintenance	NO _x SO ₂	0.54 2.16	0.01 0.01
SETCLN	Settler Cleaning	VOC	0.01	0.01
SPENTTKMNT	SAR Plant Spent Acid Tank Maintenance	VOC Acetone	7.14 3.78	3.25 1.59
SWASTE	Solid Material Transfer	PM PM ₁₀ PM _{2.5}	0.28 0.10 0.06	0.01 0.01 0.01
TEMPTK	Temporary Tankage	VOC Acetone	0.81 0.05	0.04 0.01
TKMNT	Miscellaneous Tanks Maintenance	VOC Acetone SO_2 H_2SO_4	15.19 2.70 1.00 1.00	1.14 0.20 0.08 0.08
VACTRK	Vacuum Trucks	VOC	0.25	0.06
WASTEVOC	VOC Containing Waste Handling Activities	VOC	2.50	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
 - CO carbon dioxide
 - SO₂ sulfur dioxide
 - SO₃ sulfur trioxide
 - PM particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}.
 - PM_{10} particulate matter (PM) 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.
 - PM_{2.5} particulate matter (PM) equal to or less than 2.5 microns in diameter.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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 NH_3 - ammonia H_2SO_4 - sulfuric acid

- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) ACH Process Flare is authorized under Permit Number 19004.
- (6) MMA Flare is authorized under Permit Number 19003.
- * Emission rates are based on and the facilities are limited by the following maximum operating schedule: 8,760 hrs/year.
- ** Compliance with the annual emission limits is based on a rolling 12-month period.

Dated:

August 31, 2011