

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 723 and PSD-TX-828M1

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 **
AP-1a	L-Area Gas Turbine (LGT)	NO _x	27.46	120.29
		CO	38.53	168.74
		VOC	0.59	2.56
		PM ₁₀	2.09	9.16
		SO ₂	0.03	0.12
AP-2	N-3 Backup Instrument Air Compressor	NO _x	6.21	2.23
		CO	1.26	0.45
		VOC	0.10	0.03
		PM	0.08	0.03
		SO ₂	0.01	0.01
CT-N5-N	N-5 Cooling Tower North	VOC	0.45	1.95
		PM	2.04	8.92
CT-N5-S	N-5 Cooling Tower South	VOC	0.62	2.72
		PM	2.84	12.44
CT-N7	N-7 Cooling Tower	VOC	1.67	7.33
		PM	7.65	33.51

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 **
N-3	N-7/8 Preheater	NO _x	0.47	2.05
		CO	0.45	1.97
		VOC	0.03	0.14
		PM ₁₀	0.04	0.19
		SO ₂	0.01	0.01
N-4	N-7/8 Absorber Feed Water Tank	HCN	0.01	0.01
		NH ₃	2.54	0.01
N-6	N-3/7 Feed and Exit Gas Flare	NO _x	130.65	7.78
		CO	699.09	136.39
		VOC (other)	0.19	0.01
		CH ₃ CN	0.03	0.09
		SO ₂	0.11	0.01
		HCN	28.36	1.77
		NH ₃	31.88	0.66
		Acetone	0.16	0.70
N-7	N-5/6 Safety Vent Stack	VOC	0.58	0.01
		NH ₃	1.46	0.13
N-8	N-3/4 Safety Vent Stack	VOC	0.58	0.01
		NH ₃	1.46	0.13
N-9	N-7/8 SVG Fan	HCN	0.07	0.24
		NH ₃	0.02	0.03
N-10	N-3/4 Alcohol Tank	VOC	0.01	0.01
N-11	N-5/6 Alcohol Tank	VOC	0.01	0.01
N-12	N-3 Preheater	NO _x	0.27	1.18
		CO	0.23	0.99
		VOC	0.02	0.07
		PM	0.02	0.09
		SO ₂	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)		<u>Emission Rates *</u>	
				lb/hr	TPY **
N-13	N-4 Preheater	NO _x		0.27	1.18
		CO	0.23	0.99	
		VOC	0.01	0.07	
		PM	0.02	0.09	
		SO ₂	0.01	0.01	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY **
N-14	N-5/6 Preheater	NO _x	1.19	5.21
		CO	1.00	4.38
		VOC	0.06	0.29
		PM	0.09	0.39
		SO ₂	0.01	0.01
N-15	N-7/8 Alcohol Tank	VOC	0.01	0.01
N-16	N-5 8-10 Alcohol Storage Tank No. 27745	VOC	0.01	0.01
N-17	N-5/6 Flare	NO _x	152.13	48.41
		CO	450.52	235.34
		VOC (other)	0.10	0.01
		CH ₃ CN	1.25	2.00
		CH ₂ CHCN	0.78	1.20
		SO ₂	0.11	0.03
		HCN	23.98	16.96
		NH ₃	171.72	49.15
		Acetone	4.12	7.11
N-18	Wastewater Collection Tank No. 91357	HCN	0.02	0.01
N-19	N-5 Acetone Day Tank	Acetone	0.56	0.95
T-96662	Acetone Dock Tank	Acetone	1.36	2.33

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

FN	Fugitives (4) (5)	HCN	2.44	10.68
		NH ₃	0.52	2.26
		ACH 1.68	7.37	
		Acetone	1.35	5.92
	Fugitives (4) (6)	HCN		0.19
			0.82	
		NH ₃	0.49	2.17
		ACH	0.22	0.98
		Acetone		0.45
			1.96	
TK-FUG	Tank N-96662 Fugitives	CH ₃ CN		0.02
			0.10	
		CH ₂ CHCN		0.02
			0.11	
		Acetone	0.04	0.18

- (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) HCN - hydrogen cyanide
 NH₃ - ammonia
 CO - carbon monoxide
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 VOC - volatile organic compounds, as defined in Title 30 Texas Administrative Code § 101.1, does not include any VOCs speciated separately for an emission point
 PM - particulate matter, suspended in the atmosphere
 PM₁₀ - 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.
- ACH - acetone cyanohydrin
 CH₃CN - acetonitrile
 CH₂CHCN - acrylonitrile

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (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 the maximum available control technology (MACT) [Title 40 Code of Federal Regulations Part 63 Subparts YY and FFFF] compliance dates.
- (6) Fugitive emissions after the MACT compliance dates.

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

Hrs/day_____ Days/week _____Weeks/year_____ or Hrs/year 8,760

** Compliance with the annual emission rates are based on 12-month rolling basis.

Dated November 22, 2005