

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 20120

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)	<u>Emission Rates*</u>	
			#/hr	TPY
HE1DU02	Heater H-2 (5.0 MMBtu/hr heat input)	CO	0.13	0.58
		NO _x	0.27	1.17
		PM ₁₀	0.01	0.05
		SO _x	<0.01	0.01
		VOC	0.01	0.05
HEC25DU02	Heater (9.1 MMBtu/hr heat input)	CO	0.43	1.72
		NO _x	0.85	3.40
		PM ₁₀	0.06	0.27
		SO _x	0.01	0.03
		VOC	0.03	0.14
HEC27DU02	Heater H-27 (38.8 MMBtu/hr heat input)	CO	1.42	6.22
		NO _x	2.28	9.98
		PM ₁₀	0.12	0.53
		SO _x	0.02	0.11
		VOC	0.11	0.50
HEC35DU02	Heater (22 MMBtu/hr heat input)	CO	0.98	4.24
		NO _x	1.32	5.26
		PM ₁₀	0.14	0.61
		SO _x	0.02	0.07
		VOC	0.08	0.34
HECRUDU02	Heater H-7 (37.8 MMBtu/hr heat input)	CO	1.39	6.07
		NO _x	2.22	9.74
		PM ₁₀	0.12	0.52
		SO _x	0.02	0.10
		VOC	0.11	0.49

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HECRUDU03	Heater H-5 (15.6 MMBtu/hr heat input)	CO	0.57	2.50
		NO _x	0.92	4.02
		PM ₁₀	0.05	0.21
		SO _x	0.01	0.04
		VOC	0.05	0.20

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			#/hr	TPY
HEHSRU02	Heater H-366001 (14.4 MMBtu/hr heat input)	CO	0.53	2.31
		NO _x	0.85	3.71
		PM ₁₀	0.05	0.20
		SO _x	0.01	0.04
		VOC	0.04	0.18
SEC09DU08	S-24 Scrubber	VOC	<0.01	<0.01
SEC21DU07	S-141 Scrubber	VOC	<0.01	0.02
SECAS25102	Scrubber S-251001	CA	0.06	0.03
SECRAS602	Scrubber S-83	CA	0.02	0.01
SEIEXU02	Scrubber S-917	CA	0.02	<0.01
SESAPOU02	Scrubber S-927	CA	0.02	<0.01
VECOOLT02	Storage Tank T-950	CA	<0.01	<0.01
VEIEXU03	Storage Tank T-908	CA	<0.01	<0.01
VEIEXU04	Storage Tank T-910	CA	<0.01	<0.01

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VEIEXU08	Storage Tank T-906	CA	<0.01	<0.01
VEIEXU09	Storage Tank T-907	CA	<0.01	<0.01
VEIEXU10	Storage Tank T-909	CA	<0.01	<0.01
VESIRU02	Storage Tank T-339-101	NaOH	<0.01	<0.01
VESIRU03	Storage Tank T-339-102	NaOH	<0.01	<0.01
FU1DU01	Process Fugitives (4)	CA	0.35	1.39
FUC25DU01	Process Fugitives (4)	CA	0.19	0.76
FUC35DU01	Process Fugitives (4)	CA	0.19	0.74
FUCAS25101	Process Fugitives (4)	CA	0.12	0.54

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			#/hr	TPY
FUTLU85B01	Loading - Truck	VOC	0.33	0.03
VEMPTU04	Storage Tank T-806	KOH	<0.01	<0.01
VEMPTU05	Storage Tank T-810	VOC	<0.01	<0.01
VEMPTU06	Storage Tank T-811	VOC	<0.01	0.03
VEMPTU07	Storage Tank T-825	H ₂ SO ₄	<0.01	<0.01
FURLU37D01	Loading - Rail	VOC	0.33	0.03
HEMPTU02	Heater H-800	PM	0.08	0.15
		SO ₂	<0.01	0.02
		NO _x	0.67	2.92
		CO	0.13	0.59

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		VOC	0.54	0.23
FETKFLR02	Flare (5)	NO _x	0.13	<0.01
		CO	0.27	0.02
		HCl	25.28	1.00
		VOC	1.60	0.06
FUHSRU01	Process Fugitives (4)	CA	0.03	0.10
		H ₂ S	<0.01	<0.01
FUPWS1801	Process Fugitives (4)	VOC	0.04	0.18
FUSIRU01	Process Fugitives (4)	CA	<0.01	0.03
		H ₂ S	<0.01	<0.01
FUMPTU01	Fugitives (4)	VOC	0.26	1.16

(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)
- CO - carbon monoxide
 - CA - cresylic acid
 - H₂S - hydrogen sulfide
 - H₂SO₄ - sulfuric acid
 - KOH - potassium hydroxide
 - NaOH - sodium hydroxide
 - NO_x - total oxides of nitrogen
 - PM₁₀ - particulate matter less than 10 microns
 - SO_x - sulfur oxides
 - VOC - volatile organic compounds as defined in General Rule 101.1

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(4) Fugitive emissions are an estimate only and should not be considered as maximum allowable emission rates.

(5) Emissions associated with BPU 1. Total flare emissions are contained in Permit 16974.

* 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

Dated_____