

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 3158

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 a 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
1	Acid Gas Flare (5)		-	-
2	Spare Regeneration Heater (6)	NO _x	0.19	0.58
		CO	0.04	0.12
		VOC	0.01	0.03
		SO ₂	0.03	0.08
3	Hot Oil Heater	NO _x	1.07	3.34
		CO	0.21	0.67
		VOC	0.06	0.18
		SO ₂	0.15	0.48
4	Old Plant Emergency Flare (5) -		-	-
6	Acid Gas Incinerator (7)	NO _x	0.74	2.33
		CO	5.42 23.74	
		VOC	0.04	0.12
		SO ₂	148.71	651.35
7	New Plant Emergency Flare (5)		-	-
37	Steam Boiler	NO _x	0.17	0.52
		CO	0.03	0.10
		VOC	0.01	0.03
		SO ₂	0.02	0.07
41/42	600 HP Clark RA-6	NO _x	26.43	115.76
		CO	1.85	8.10
		VOC	1.32	5.78
		SO ₂	0.08	0.35

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lbs/hr	TPY
43/44	600 HP Clark RA-6 (8)	NO _x	26.43	115.76
		CO	1.85	8.10
		VOC	1.32	5.78
		SO ₂	0.08	0.35
45/46	600 HP Clark RA-6	NO _x	26.43	115.76
		CO	1.85	8.10
		VOC	1.32	5.78
		SO ₂	0.08	0.35
47/48	600 HP Clark RA-6 (9), (10)	NO _x	26.43	38.32
		CO	1.85	2.68
		VOC	1.32	1.91
		SO ₂	0.08	0.12
50/51	600 HP Clark RA-6 (9), (10)	NO _x	26.43	38.32
		CO	1.85	2.68
		VOC	1.32	1.91
		SO ₂	0.08	0.12
52	660 HP Worthington 58-2 SLHC	NO _x	26.17	114.62
		CO	2.91	12.75
		VOC	2.91	12.75
		SO ₂	0.09	0.39
53	660 HP Worthington 58-2 SLHC	NO _x	26.17	114.62
		CO	2.91	12.75
		VOC	2.91	12.75
		SO ₂	0.09	0.39
54	660 HP Worthington 58-2 SLHC (8)	NO _x	26.17	37.95
		CO	2.91	4.22
		VOC	2.91	4.22
		SO ₂	0.09	0.13
56	1100 HP White Superior 12G825	NO _x	6.47	28.34
		CO	3.88	16.99
		VOC	0.78	3.42
		SO ₂	0.15	0.66
61	2000 HP White Superior	NO _x	8.81	38.59
		12SGTA	CO	7.05
	30.88			

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lbs/hr	TPY
		VOC	1.41	6.18
		SO ₂	0.27	1.18
62	2000 HP White Superior 12SGTA	NO _x	8.81	38.59
		CO	7.05	30.88
		VOC	1.41	6.18
		SO ₂	0.27	1.18
63	2000 HP White Superior 12SGTA	NO _x	8.81	38.59
		CO	7.05	30.88
		VOC	1.41	6.18
		SO ₂	0.27	1.18
69	Old Regeneration Heater	NO _x	0.19	0.58
		CO	0.04	0.12
		VOC	0.01	0.03
		SO ₂	0.03	0.08
77	4.5 MMBtu Amine Reboiler	NO _x	0.60	1.88
		CO	0.12	0.38
		VOC	0.03	0.10
		SO ₂	0.09	0.27
78	4.5 MMBtu Amine Reboiler	NO _x	0.60	1.88
		CO	0.12	0.38
		VOC	0.03	0.10
		SO ₂	0.09	0.27
80	New Glycol Unit	NO _x	0.40	0.63
		CO	0.08	0.13
		VOC	0.02	0.03
		SO ₂	0.06	0.09
100	Processs Fugitives	VOC	7.41	32.44

(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 General Rule 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

CO - carbon monoxide

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

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- (5) The acid gas flare, the new plant emergency flare and the old plant emergency flare shall be used only for emergency (start-up, shutdown, upset and maintenance) conditions.
- (6) Annual emissions from EPN's 2, 5 and 69 in any combination shall not exceed the annual emissions allowable of EPN's 5 and 69 together.
- (7) Acid gas incinerator emissions are based on an input to the SRU of a maximum of 1,900 lbs/hr of sulfur.
- (8) This engine shall be permanently removed from service on or before the date on which the new engines or turbines permitted by the March 15, 1991 amendment achieve normal operation.
- (9) These engines shall be operated no more than 2,900 hours per year once the new engines or turbines permitted by the March 15, 1991 amendment achieve normal operation.
- (10) Until such time as the new engines or turbines achieve normal operation, the annual emissions allowable for these engines shall be the same as those for the other 600 HP Clark RA-6 engines.

* 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 _____