

# Emission Sources - Certified Emission Rates

Registration Number 94431

This table lists the certified emission rates and all sources of air contaminants on the applicant's property covered by this registration. The emission rates shown are those derived from information submitted as part of the registration for PBR.

## Air Contaminants Data

CERTIFIED EMISSIONS															
EPN / Emission Source	Specific VOC or Other Pollutants	VOC*		NOx		CO		PM <sub>10</sub> /PM <sub>2.5</sub>		SO <sub>2</sub>		H <sub>2</sub> S		CH <sub>2</sub> O	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
C1 / 420 hp Cummins KTA19GC420 flash gas compressor engine (Serial Number: 304475/37231824)		0.46	2.03	1.48	6.49	1.30	5.68	0.03	0.15	<0.01	0.01			0.18	0.78
E1 / 167.63 hp Aggreko diesel generator engine (Serial Number: 2167944)		0.02	0.07	1.43	6.26	0.10	0.42	0.09	0.37	0.41	1.81			<0.01	0.01
H1 / 1.00 MMBtu/hr glycol reboiler		<0.01	0.02	0.07	0.31	0.06	0.26	0.01	0.02	<0.01	<0.01				
FL1 / Process flare (controls glycol dehydrator still vent (V1) and well gas, tanks, and flash (V2))		0.51	2.23	0.10	0.44	0.20	0.88	<0.01	<0.01	<0.01	0.01	<0.01	<0.01		
FL2 / Emergency flare (pilot only)		0.04	0.18	0.02	0.08	0.04	0.16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
L1, V1 / Controlled loading vent		0.31	0.75												
L1, L1 / Uncollected loading losses		0.99	2.40												
L2, V2 / Controlled loading vent		0.31	0.75												
L2, L2 / Uncollected loading losses		0.99	2.40												
F1 / Equipment fugitives		1.06	4.63												
MF1 / VRU maintenance while producing to FL1 (1% offline time, 87.6 hr/yr)		39.91	1.75	6.98	0.31	13.94	0.61	<0.01	<0.01	0.04	<0.01	<0.01	<0.01		
MF1 / VRU maintenance, tanks to FL1 (5% offline time, 438 hr/yr)		0.90	0.20	0.12	0.03	0.25	0.05	<0.01	<0.01	0.01	<0.01	<0.01	<0.01		
MF2 / Flash gas compressor maintenance to FL2 (1% offline time, 87.6 hr/yr)		7.62	0.33	1.90	0.08	3.80	0.17	<0.01	<0.01	0.01	<0.01	<0.01	<0.01		
520 gallon lube oil tank		<0.01	<0.01												
<b>TOTAL EMISSIONS (lbs/hr):</b>		<b>53.12</b>		<b>12.10</b>		<b>19.69</b>		<b>0.13</b>		<b>0.47</b>		<b>&lt;0.01</b>		<b>0.18</b>	
<b>TOTAL EMISSIONS (TPY):</b>			<b>17.74</b>		<b>14.00</b>		<b>8.23</b>		<b>0.54</b>		<b>1.83</b>		<b>&lt;0.01</b>		<b>0.79</b>
<b>MAXIMUM OPERATING SCHEDULE:</b>		<b>Hours/Day</b>		<b>Days/Week</b>		<b>Weeks/Year</b>		<b>Hours/Year</b>		<b>Days/Year</b>		<b>Hours/Year</b>		<b>Days/Year</b>	
		24		7		52		8,760							

\* Formaldehyde emissions are included in the total VOC emissions.

\*\* Planned MSS emissions are associated with downtime of the electric vapor recovery unit (VRU) or the flash gas compressor engine (EPNs MF1 and MF2). VRU downtime for planned maintenance is expected to be no more than 1% of annual operation while producing (87.6 hours based on 8,760 hours per year) (EPN MF1). Vapors during VRU downtime will be routed to the flare (FL1) for 5% of annual operation (438 hours based on 8,760 hours per year) (EPN MF1). Flash gas from the high pressure separator flashing is routed to the emergency flare (FL2) during planned gas compressor maintenance that will not exceed 1% annual operation (87.6 hours based on 8,760 hours per year) (EPN FL2). Plant emergencies or other upset conditions will be blowdown to the process flare (EPN FL2). The company used a 98% control efficiency for the flares. No other planned MSS emissions have been represented or reviewed.

### Emission Sources - Certified Emission Rates

- (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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
  - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
  - CH<sub>2</sub>O - formaldehyde
  - NO<sub>x</sub> - total oxides of nitrogen
  - CO - carbon monoxide
  - PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
  - PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
  - SO<sub>2</sub> - sulfur dioxide
  - H<sub>2</sub>S - hydrogen sulfide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations. Emission values should be used for federal applicability.

Effective  
Date:

June 24, 2011

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