

Appendix G - SUN VALLEY ENERGY PROJECT

Emission Factors¹

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Total Annual Hours of Operation = 3,468 hours

Total Hours of Commissioning = 134 hours

Total Hours During Non-Commissioning = 3,334 hours

Fuel Consumption During the Commissioning Period

Commissioning Schedule	Hours per Phase	Heat Input (MMBTU/hr)	Fuel Heating Value (BTU/scf)	Fuel Consumption (MMscf/hr)	Fuel Consumption per Phase (MMscf)	Cumulative Fuel Cons. during Comm. (MMscf)
Phase 1	20	750	1,050	0.7143	14.2857	14.2857
Phase 2	14	900	1,050	0.8571	12.0000	26.2857
Phase 3	24	2500	1,050	2.3810	57.1429	83.4286
Phase 4	12	4,503	1,050	4.2886	51.4629	134.8914
Phase 5	24	3,500	1,050	3.3333	80.0000	214.8914
Phase 6	40	4,503	1,050	4.2886	171.5429	386.4343

Commissioning Period Emission Factor

Commissioning Schedule	Fuel Consumption per Phase (MMscf)	NOx Emissions per Phase (lb)	CO Emissions per Phase (lb)	NOx EF lb/mmscf	CO EF lb/mmscf
Phase 1	14.2857	9,100	5,500		
Phase 2	12.0000	6,930	4,200		
Phase 3	57.1429	21,000	20,160		
Phase 4	51.4629	4,860	15,300		
Phase 5	80.0000	4,200	1,080		
Phase 6	171.5429	1,620	2,400		
TOTALS	386.4343	47,710	48,640	123.46	125.87

¹ The heat input values, fuel consumptions, and emissions during each phase of commissioning are for all five CTGs

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Annual fuel consumption (AFC) during non-commissioning is calculated as follows:
 $AFC = (5 \text{ CTGs})(891.7 \text{ MMBTU/hr})(1 \text{ scf}/1,050 \text{ BTU})(3,334 \text{ hr/yr}) = 14,156.7 \text{ MMscf/yr}$

Emissions During the Non-Commissioning Period

Total NOx Emissions (lb/yr)	Total CO Emissions (lb/yr)	Total SOx Emissions (lb/yr)	AFC (MMscf/yr)	NOx EF lb/mmscf	CO EF lb/mmscf
153,736	261,280	10,508	14,156.7	10.8596	18.4563

² The total NOx, CO and SOx emissions as well as the AFC are for all 5 CTGs

Emission Factor Determination for Condition A63.1 & A63.2

PM10 EF lb/MMBTU	SOx EF gr/100 scf	VOC EF lb/MMBTU	Grains/lb	Heat Content BTU/scf	PM10 lb/mmscf	SOx lb/mmscf	VOC lb/mmscf
0.0066	0.250	0.0019	7,000	1,050	6.93	0.7143	1.9950