Solar Mars 90 T-13002S Combustion Turbine
Unit 1407 - Fuel Consumption Curve
Heat Input vs Inlet Temperature

$Y = M0 + M1*x + \ldots M8*x^8 + M9*x^9$	
M0	126.55
M1	0.04431
M2	-0.0054731
M3	2.3307e-05
R^2	0.99972

Solar Mars 90 T-13002S Combustion Turbine
Unit 1407 - Output Power Curve No. 1
Turbine Air Inlet Temperature vs Output Power

$Y = M0 + M1*x + \ldots M8*x^8 + M9*x^9$	
M0	15021
M1	-8.3492
M2	-0.5257
M3	0.001771
R^2	0.99951

Solar Mars 90 T-13002S Combustion Turbine
Unit 1407 - Output Power Curve No. 2
Inlet Duct Losses vs Output Power

This curve was used to generate Heat Input vs Air Inlet Curve and Power Output Curve No. 1.

MARS 90-T13002S TME-2S REV. 2.1
CS/MD GAS TURBINE
122F MATCH
REF: SD-27393[S] SET. 2
[DATE: 4-MAY-2001]

.NOMINAL PERFORMANCE
.ELEVATION SEA LEVEL
.RELATIVE HUMIDITY 60 PERCENT
.ZERO INLET DUCT PRESSURE LOSS
.ZERO EXHAUST DUCT PRESSURE LOSS
.NO GAS PRODUCER POWER EXTRACTION
.NO WATER INJECTION
.NO OUTPUT GEARBOX
.[LHV: 20610 BTU/LB]

NATURAL GAS FUEL

Unit 1407 Emissions Data
Table of Allowable Emissions below 59°F
FDEP EU ID No. 0390029-008

Inlet Air Temp (°F)	NO_x Emission Limit (lbs/hr)	CO Emission Limit (lbs/hr)	SO_2 Emission Limit (lbs/hr)
0	11.24	13.66	3.41
2	11.24	13.67	3.42
4	11.24	13.67	3.42
6	11.24	13.67	3.42
8	11.24	13.66	3.41
10	11.23	13.65	3.41
12	11.22	13.64	3.41
14	11.20	13.62	3.40
16	11.18	13.59	3.40
18	11.16	13.57	3.39
20	11.14	13.54	3.38
22	11.11	13.50	3.38
24	11.08	13.47	3.37
26	11.04	13.43	3.36
28	11.01	13.38	3.35
30	10.97	13.34	3.33
32	10.93	13.29	3.32
34	10.89	13.24	3.31
36	10.84	13.18	3.30
38	10.80	13.12	3.28
40	10.75	13.06	3.27
42	10.70	13.00	3.25
44	10.64	12.94	3.23
46	10.59	12.87	3.22
48	10.53	12.80	3.20
50	10.47	12.73	3.18
52	10.42	12.66	3.17
54	10.36	12.59	3.15
56	10.29	12.51	3.13
58	10.23	12.44	3.11
59	10.20	12.40	3.10
59 +	10.20	12.40	3.10

Note: These equivalent mass emission rates reflect the current permit requirement based upon the original vendor data of expected fuel and exhaust flow rates. They do not correspond precisely to the potential mass emission rates based upon actual fuel and exhaust flow conditions and the permitted concentrations of 25 ppmv NO_x @ 15% O_2, 50 ppmv CO @ 15% O_2, and 10 gr S/100 SCF in the fuel gas.

This curve was used to generate Power Output Curve No. 2 for Inlet Losses

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