

DOCKETED

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Palmdale Energy Project-Subpart TTTT Compliance Calculations

Case/Run #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Load, %	100	100	75	50	100	100	100	75	50	100	100	100	75	50	100
NG, btu/lb (HHV Gross)	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289
Total fuel flow, lbs/hr	97636	105934	78674	60929	94584	95400	103480	75804	58765	93633	95385	103463	75068	58250	83549
mmbtu/hr	2273.84	2467.10	1832.24	1418.98	2202.77	2221.77	2409.95	1765.40	1368.58	2180.62	2221.42	2409.55	1748.26	1356.58	1945.77
Mfg's CO2, lbs/hr	272172	295148	217149	166627	263683	265996	288350	209267	160745	261056	265923	288296	207265	159305	233000
Mfg's lbs CO2/mmbtu	119.70	119.63	118.52	117.43	119.71	119.72	119.65	118.54	117.45	119.72	119.71	119.65	118.56	117.43	119.75
EPA CO2 EF, lbs CO2/mmbtu	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888
EPA calculated, CO2 lbs/hr	265785	288374	214167	165861	257477	259698	281694	206354	159970	254888	259657	281647	204350	158568	227437
Net Power, MW/hr	669.60	714.40	516.60	370.50	650.20	656.40	699.40	503.00	361.70	643.60	656.30	699.40	498.10	358.30	566.40
Gross Power, MW/hr	686.40	732.00	532.30	383.20	666.90	673.10	716.90	518.60	376.40	660.30	673.00	716.90	513.80	373.00	582.60
lbs CO2/MW Net (Mfg)	813	826	841	899	811	810	825	832	889	811	810	824	832	889	823
lbs CO2/MW Gross (Mfg)	793	806	816	870	791	790	804	807	854	791	790	804	807	854	800

Case/Run #	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Load, %	100	100	75	50	100	100	100	75	53	40	43	43	50	100
NG, btu/lb (HHV Gross)	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289	23289
Total fuel flow, lbs/hr	93180	101396	68358	53474	80056	92091	100559	65603	53277	53921	53505	53440	53343	107210
mmbtu/hr	2170.07	2361.41	1591.99	1245.36	1864.42	2144.71	2341.92	1527.83	1240.77	1255.77	1246.08	1244.56	1242.31	2496.81
Mfg's CO2, lbs/hr	259781	282556	188735	146312	223269	256744	280284	181183	145935	146955	145967	145827	145914	298701
Mfg's lbs CO2/mmbtu	119.71	119.66	118.55	117.49	119.75	119.71	119.68	118.59	117.62	117.02	117.14	117.17	117.45	119.63
EPA CO2 EF, lbs CO2/mmbtu	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888	116.888
EPA calculated, CO2 lbs/hr	253655	276021	186084	145567	217929	250691	273742	178585	145031	146784	145652	145475	145211	291848
Net Power, MW/hr	633.60	677.10	440.50	317.90	533.80	620.00	664.30	414.60	313.20	312.70	318.80	319.30	316.70	719.80
Gross Power, MW/hr	650.20	694.50	455.70	332.30	549.70	636.60	681.60	429.60	327.60	327.00	333.20	333.70	331.10	737.40
lbs CO2/MW Net (Mfg)	820	835	857	920	837	828	844	874	932	940	916	913	921	830
lbs CO2/MW Gross (Mfg)	799	814	828	881	812	807	822	843	891	899	876	874	881	810

Siemens Performance Data Sheets, Summit-Palmdale, April 17/22, 2015.

EPA CO2 EF , 40 CFR 98, Subpart C, Table C-1. 53.02 kg CO2/mmbtu = 116.888 lbs CO2/mmbtu