Appendix C - Emission Offsets Calculations

Data:

1. Gas Turbine Fuel Flow at Full Load = 0.4935 mmscf/hour (winter operating conditon 100)
2. Maximum Monthly Hours of Operation = 670 hours/month (based on 90% capacity factor)

Assumptions:

1. emissions during shutdown = emissions during normal operation
2. PM10 and SOx emissions during startup = emissions during normal operation

Worst Case Month - Low Ambient Temperature (Operating Conditon 100)

Gas Turbine Operating Condition	Hours per Month	CO (lbs/hr)	NOx (lbs/hr)	PM10 (lbs/hr)	VOC (lbs/hr)	SOx (lbs/hr)	CO (lbs/month)	NOX (lbs/month)	PM10 (lbs/month)	VOC (lbs/month)	SOx (lbs/month)
Gas Turbine #1 Startup	31	8.83	14.74	3.30	0.35	0.71	274	457	102	11	22
Gas Turbine #1 Shutdown	31	7.00	9.50	3.30	0.30	0.71	217	295	102	9	22
Gas Turbine #1 Normal Operation	608	7.00	9.50	3.30	0.30	0.71	4,256	5,776	2,006	182	432
Gas Turbine #2 Startup	31	8.83	14.74	3.30	0.35	0.71	274	457	102	11	22
Gas Turbine #2 Shutdown	31	7.00	9.50	3.30	0.30	0.71	217	295	102	9	22
Gas Turbine #2 Normal Operation	608	7.00	9.50	3.30	0.30	0.71	4,256	5,776	2,006	182	432
Gas Turbine #3 Startup	31	8.83	14.74	3.30	0.35	0.71	274	457	102	11	22
Gas Turbine #3 Shutdown	31	7.00	9.50	3.30	0.30	0.71	217	295	102	9	22
Gas Turbine #3 Normal Operation	608	7.00	9.50	3.30	0.30	0.71	4,256	5,776	2,006	182	432
							lbs/month	**lbs/month**	**lbs/month**	**lbs/month**	**lbs/month**
Total Monthly Emissions (lbs/month)							14,240	19,582	6,633	608	1,427
							lbs/day	**lbs/day**	**lbs/day**	**lbs/day**	**lbs/day**
30-Day Average Emissions (lbs/day)							475	653	221	20	48
Offset Ratio							N/A	1.2	1.2	1.2	1.2
Emission Offsets Required (lbs/day)							**N/A**	**783**	**265**	**0**	**57**

10/25/00