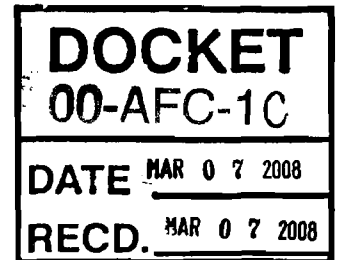


March 7, 2008

Ms. Angela Hockaday  
California Energy Commission  
Docket Unit  
1516 Ninth Street  
Sacramento, CA 95814-5512



Re: **GATEWAY GENERATING STATION'S  
RESPONSES TO DATA REQUESTS (1-10)  
DOCKET NO. (00-AFC-01C)**

Dear Ms. Hockaday:

Enclosed for filing with the California Energy Commission are one original and 12 (Twelve) copies of the **GATEWAY GENERATING STATION'S RESPONSES TO DATA REQUESTS (1-10)**, for the Gateway Generating Station Energy Project (00-AFC-1C).

Sincerely,

David L. Wiseman



**Responses to Data Requests  
Gateway Generating Station (00-AFC-01C)  
January 2008 Air Quality Amendment**

**Estimated Facility Emissions**

1. *Please explain the different start-up and shutdown hours, listed in Table A-5, for CO and NOx/POC.*

**Response:** PG&E has evaluated various potential operating scenarios for the Gateway facility to ensure that all potential operations can be accommodated under the conditions of certification. The potential operating scenarios are as follows:

Case 1: Summer peaking operation

- 330 hrs/yr of startup; 4960 hrs/yr of duct firing; 1130 hrs/yr of base load operation (6420 hrs/yr of operation)
- 6 hrs/day of startup; 18 hrs/day of duct firing

Case 2: Year-round operation, weekly startups

- 520 hrs/yr of startup; 4380 hrs/yr of duct firing; 324 hrs/yr of base load operation (5224 hrs/yr of operation)
- 6 hrs/day of startup; 6 hrs/day of base load operation; 12 hrs/day of duct firing

Case 3: Year-round peaking operation

- 365 hrs/yr of startup; 5840 hrs/yr of duct firing; 1825 hrs/yr of base load operation (8030 hrs/yr of operation)
- 1 hr/day of startup; 7 hrs/day of base load operation; 16 hrs/day of duct firing

Case 4: Year-round operation, no startups

- 0 hrs/yr of startup; 5840 hrs/yr of duct firing; 2920 hrs/yr of base load operation (8760 hrs/yr of operation)
- 0 hrs/day of startup or base load operation; 24 hrs/day of duct firing

Hourly, daily and annual emissions were evaluated for each of these potential operating scenarios, and the maximum emissions scenario was used for each pollutant and averaging period. For NOx and POC, Case 3 resulted in the highest annual emissions, while for CO, Case 2 resulted in the highest annual emissions. Case 4 resulted in the highest annual SOx and PM emissions. Case 1 resulted in the highest daily emissions for NOx, POC and CO; Case 4 resulted in the highest daily emissions of SOx and PM. Detailed calculations are shown in Attachment 1.

2. *Please provide the maximum number of start-up and shutdown events and hours on a daily and annual basis.*

**Response:** The overall maximum numbers of startup/shutdown hours are as follows: 6 hours per day; 520 hours per year. However, the maximum number of startup/shutdown hours does not necessarily correspond to the highest annual emissions. Please see the discussion in Response 1 and the detailed calculations in Attachment 1.

3. *Please explain the different base load and duct firing hours, listed in Table A-5, for CO, NOx and POC.*

**Response:** Please see Response 1.

## **Turbine Start Up and Shut Down Emissions**

4. *Please provide documentation, such as source test results, to justify the requested increase of the turbines' start-up and shutdown emissions for NOx and CO.*

**Response:** The attached source test results from cold starts at Los Medanos Energy Center and Moss Landing Power Plant demonstrate that NOx emissions during an individual startup hour can exceed 140 lb/hr, which is why PG&E is requesting a maximum one-hour NOx limit during startup of 160 lb/hr. The highest average hourly emissions observed during the Moss Landing startups were 74 lb/hr; the average hourly emissions observed during the Los Medanos startups were 120.3 lb/hr. The average of these two hourly emission rates is approximately 100 lb/hr. That 100 lb/hr average value was used with the assumption that a cold startup could require up to 6 hours to obtain the proposed limit of 600 lb of NOx per 6-hour startup period.

The CO emission limit of 900 lb/hr during startup and shutdown is consistent with proposed and permitted limits for many other, similar combined cycle gas turbine projects including the San Joaquin Valley Energy Center, Avenal, and Moss Landing.

5. *Please provide a method, including any necessary calculations, used to document the actual emissions of NOx, CO and POC during start-up and shutdown events.*

**Response:** Please see Response 4.

6. *Please explain why other measures, such as the use of the Rapid Start Process by General Electric (GE) or Benson Once-Through boiler design by Westinghouse, were not considered to shorten start-ups and shutdown duration, thus reducing the turbines' start-up and shutdown emissions.*

**Response:** The combustion gas turbines and steam turbine generator that will be used at Gateway Generating Station were ordered by the original developer of the project in October 1999, while the HRSG was ordered in October 2000. At that time, GE and Siemens-Westinghouse had not developed the rapid-start process designs. A change to the GE Rapid Start Process or the use of the Benson Once-Through Steam Generator (OTSG) would require many changes to the GGS project design that are not possible at this stage of the project. Besides requiring the purchase of new equipment, such a change would also require a complete redesign of the project because of the reduction in efficiency that would result.

## **Turbine Commissioning Emissions**

7. *Please provide documentation, such as source test results, that justifies the requested increase of the turbines' emissions during commissioning activities.*

**Response:** The requested increase in hourly CO emissions to 4,000 lb/hr is based on data obtained at the SMUD Cosumnes Power Plant (CPP) during commissioning activities there. Based on CO emission levels monitored during commissioning activities at CPP, SMUD had to seek a variance to allow CO emissions of up to 2,000 lb/hr per unit. The requested daily limit of 40,000 pounds is needed to allow up to 24 hours per day of commissioning activities for both units. The daily limit was calculated from the SMUD daily CO limit during commissioning of 7,844 lb/day for 10 hours/day of commissioning activities, as follows:

$$7,844 \text{ lb/day} * 24 \text{ hrs/day} / 10 \text{ hrs/day} * 2 \text{ units} \approx 40,000 \text{ lb/day}$$

The proposed daily limit of 1600 lb/calendar day for POC appears to be in error. We do not expect POC emissions to exceed the startup emission rate of 16 lb/hr per CTG

during commissioning, so the maximum daily POC emissions during commissioning are not expected to exceed 768 lb/day (16 lb/hr \* 24 hrs/day \* 2 CTGs).

8. *Please provide the method, including any necessary calculations, used to document the emissions of each criteria air contaminant from the turbines during the commissioning periods.*

**Response:** Please see Response 7.

### **Ammonia (NH<sub>3</sub>) Emissions and Mitigation**

9. *Please provide an analysis showing the potential PM<sub>2.5</sub> emission increases due to the proposed ammonia emissions increases.*

**Response:** The proposed increase in allowable ammonia slip limit from 5 ppmc to 10 ppmc is not expected to result in any increases in ambient PM<sub>2.5</sub>. As has been discussed before the Commission in numerous cases, ammonia reacts with other compounds (notably sulfur dioxide/sulfates and nitrogen dioxide/nitrates) to form particulate matter. However, the degree to which this reaction occurs depends on the geographic region and, in some cases, the time of year. If, for example, ammonia compounds are in surplus, the formation of particulate matter will be limited by the amount of sulfates and nitrates available to react. If the reverse is true, then the formation of particulate matter will be limited by the amount of ammonia in the air. The BAAQMD Staff has performed an analysis of the relative amounts of ammonia, sulfates, and nitrates in the Bay Area air basin for several projects. In its determination on this issue with respect to the East Altamont Energy Center, the BAAQMD Staff concluded the following:

*"The ammonia emissions resulting from the use of SCR may have another environmental impact through its potential to form secondary particulate matter such as ammonium nitrate. Because of the complex nature of the chemical reactions and dynamics involved in the formation of secondary particulates, it is difficult to estimate the amount of secondary particulate matter that will be formed from the emission of a given amount of ammonia. However, it is the opinion of the Research and Modeling section of the BAAQMD Planning Division that the formation of ammonium nitrate in the Bay Area air basin is limited by the formation of nitric acid and not driven by the amount of ammonia in the atmosphere.*

*Therefore, ammonia emissions from the proposed SCR system are not expected to contribute significantly to the formation of secondary particulate matter within the BAAQMD." Final Determination of Compliance, East Altamont Energy Center. Bay Area Air Quality Management District. July 10, 2002. (emphasis added)*

The applicant is not aware of any information to suggest that the BAAQMD's opinion has changed since that time.

10. *Please provide option contracts and/or evidence of acquisition of PM<sub>2.5</sub> emission reduction credits to mitigate the project new PM<sub>2.5</sub> emissions caused by potential ammonia increases.*

**Response:** As discussed in Response 9, the change in the ammonia slip limit is not expected to result in any increases in ambient PM<sub>2.5</sub>. Therefore, no additional mitigation is necessary.

**Attachment 1**  
**Detailed Calculations for Maximum Daily and Annual NO<sub>x</sub>, CO and POC**  
**from the CTGs**

Detailed Calculations for Maximum Daily, and Annual NOx, CO and POC Emissions from the CTGs

**Emission Rate by Operating Mode**

	NOx (lbs/hr)	CO (lbs/hr)	VOC (lbs/hr)
Gas Turbine 1, base	13.40	16.31	4.67
Gas Turbine 2, base	13.40	16.31	4.67
Gas Turbine 1, peak	15.18	18.49	5.29
Gas Turbine 2, peak	15.18	18.49	5.29
Gas Turbine 1, startups/shutdowns	100.00	900.00	16.00
Gas Turbine 2, startups/shutdowns	100.00	900.00	16.00

**Case 1: Summer Peaking Operation (Maximum Daily NOx, CO and VOC Emissions)**

**Assumptions for Daily and Annual Ops:**

1 cold start/day  
 1 hot start/day, 18 hrs DF/day for 4 mos  
 1 cold start/wk, 16 hrs DF/day for 8 mos  
 (shut down on weekends)

hot start hrs	cold start hrs	duct fire hrs	base load hrs	
6	0	18	0	per day
120	210	4960	1130	per year

Equipment	Operating Hours		NOx Emissions		CO Emissions		VOC Emissions	
	hrs/day	hrs/yr	Max lb/day	Total tpy	Max lb/day	Total tpy	Max lb/day	Total tpy
Gas Turbine 1, base	0	1130	0.0	7.6	0.0	9.2	0.0	2.6
Gas Turbine 2, base	0	1130	0.0	7.6	0.0	9.2	0.0	2.6
Gas Turbine 1, peak	18	4960	273.3	37.7	332.8	45.9	95.3	13.1
Gas Turbine 2, peak	18	4960	273.3	37.7	332.8	45.9	95.3	13.1
Gas Turbine 1, startups/shutdowns	6	330	600.0	16.5	5,400.0	148.5	96.0	2.6
Gas Turbine 2, startups/shutdowns	6	330	600.0	16.5	5,400.0	148.5	96.0	2.6
<b>Total, Turbines only</b>			<b>1,746.6 lb/day</b>	<b>123.4 tpy</b>	<b>11,465.6 lb/day</b>	<b>407.1 tpy</b>	<b>382.6 lb/day</b>	<b>36.8 tpy</b>

**Case 2: Year-Round Operation, Weekly Startups (Maximum Annual CO Emissions)**

**Assumptions for Daily and Annual Ops:**

1 6-hr cold start per week  
 4 1-hr starts per week  
 12 hrs duct firing per day  
 remaining hrs base load

hot start hrs	cold start hrs	duct fire hrs	base load hrs	
0	6	12	6	per day
208	312	4380	324	per year

Equipment	Operating Hours		NOx Emissions		CO Emissions		VOC Emissions	
	hrs/day	hrs/yr	Max lb/day	Total tpy	Max lb/day	Total tpy	Max lb/day	Total tpy
Gas Turbine 1, base	6	324	80.4	2.2	97.9	2.6	28.0	0.8
Gas Turbine 2, base	6	324	80.4	2.2	97.9	2.6	28.0	0.8
Gas Turbine 1, peak	12	4380	182.2	33.3	221.9	40.5	63.5	11.6
Gas Turbine 2, peak	12	4380	182.2	33.3	221.9	40.5	63.5	11.6
Gas Turbine 1, startups/shutdowns	6	520	600.0	26.0	5,400.0	234.0	96.0	4.2
Gas Turbine 2, startups/shutdowns	6	520	600.0	26.0	5,400.0	234.0	96.0	4.2
<b>Total, Turbines only</b>			<b>1,725.2 lb/day</b>	<b>122.8 tpy</b>	<b>11,439.5 lb/day</b>	<b>554.3 tpy</b>	<b>375.1 lb/day</b>	<b>33.0 tpy</b>

Detailed Calculations for Maximum Daily, and Annual NOx, CO and POC Emissions from the CTGs

**Case 3: Year-Round Peaking Operation (Maximum Annual NOx and VOC Emissions)**

**Assumptions for Daily and Annual Ops:**

1 1-hr hot start per day  
16 hrs/day of duct firing

hot start hrs	cold start hrs	duct fire hrs	base load hrs	
1	0	16	7	per day
365	0	5840	1825	per year

Equipment	Operating Hours		NOx Emissions		CO Emissions		VOC Emissions	
	hrs/day	hrs/yr	Max lb/day	Total tpy	Max lb/day	Total tpy	Max lb/day	Total tpy
Gas Turbine 1, base	7	1825	93.8	12.2	114.2	14.9	32.7	4.3
Gas Turbine 2, base	7	1825	93.8	12.2	114.2	14.9	32.7	4.3
Gas Turbine 1, peak	16	5840	242.9	44.3	295.8	54.0	84.7	15.5
Gas Turbine 2, peak	16	5840	242.9	44.3	295.8	54.0	84.7	15.5
Gas Turbine 1, startups/shutdowns	1	365	160.0	18.3	900.0	164.3	16.0	2.9
Gas Turbine 2, startups/shutdowns	1	365	160.0	18.3	900.0	164.3	16.0	2.9
<b>Total, Turbines only</b>			993.4 lb/day	149.6 tpy	2,620.1 lb/day	466.2 tpy	266.8 lb/day	45.3 tpy

**Case 4: Year-Round Operation, no startups**

**Assumptions for Daily and Annual Ops:**

no startups  
22.5 hrs/day of duct firing

hot start hrs	cold start hrs	duct fire hrs	base load hrs	
0	0	22.5	1.5	per day
0	0	5100	3660	per year

Equipment	Operating Hours		NOx Emissions		CO Emissions		VOC Emissions	
	hrs/day	hrs/yr	Max lb/day	Total tpy	Max lb/day	Total tpy	Max lb/day	Total tpy
Gas Turbine 1, base	1.5	3660	20.1	24.5	24.5	29.9	7.0	8.6
Gas Turbine 2, base	1.5	3660	20.1	24.5	24.5	29.9	7.0	8.6
Gas Turbine 1, peak	22.5	5100	341.6	38.7	416.0	47.1	119.1	13.5
Gas Turbine 2, peak	22.5	5100	341.6	38.7	416.0	47.1	119.1	13.5
Gas Turbine 1, startups/shutdowns	0	0	0.0	0.0	0.0	0.0	0.0	0.0
Gas Turbine 2, startups/shutdowns	0	0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total, Turbines only</b>			723.5 lb/day	126.5 tpy	880.9 lb/day	154.0 tpy	252.3 lb/day	44.1 tpy

**Attachment 2**  
**Cold Start NOx Emissions Data**



**Summary of Cold Start NOx Emissions**

Facility	Gas Turbine	Date of Cold Start	NOx Emissions First Hour (lbs/hr)	NOx Emissions Second Hour (lbs/hr)	NOx Emissions Third Hour (lbs/hr)
Moss Landing	GT4	5/12/2003	87.10	64.23	70.41
Moss Landing	GT1	4/21/2003	79.01	43.26	59.18
Moss Landing	GT1	3/31/2003	70.95	48.32	65.09
Moss Landing	GT4	5/14/2003	78.55	39.56	49.01
Los Medanos	GT2	2/28/2003	82.31	135.61	143.12

Calpine Los Medanos Energy  
Turbine 2 – Cold Start  
February 28, 2003

Period Start	GT2 HEATING MMBTU	O2 %vol	NOx ppm uncorrected	NOx ppm @ 15% O2	NOXLBH lb/hr	NOx Hourly Average lb/hr	Comments
2/28/2003 8:50	0	20.90	0.00	0.00	0.00		
2/28/2003 8:51	48.6	20.90	0.00	0.00	0.00		Begin Startup
2/28/2003 8:52	78.2	20.90	0.00	0.00	0.00		
2/28/2003 8:53	135.9	20.80	0.00	0.00	0.00		
2/28/2003 8:54	203.9	18.40	1.60	3.80	2.90		
2/28/2003 8:55	503.4	17.40	7.80	13.10	24.20		
2/28/2003 8:56	652.3	17.50	18.00	31.20	75.00		
2/28/2003 8:57	487.6	17.60	19.70	35.20	63.40		
2/28/2003 8:58	487.6	17.60	20.50	36.70	65.80		
2/28/2003 8:59	487.6	17.70	21.60	39.80	71.70		
2/28/2003 9:00	483.5	17.70	23.00	42.40	75.40		
2/28/2003 9:01	475.4	17.70	24.00	44.30	77.50		
2/28/2003 9:02	468.8	17.70	24.60	45.40	78.30		
2/28/2003 9:03	468.8	17.70	25.20	46.50	80.20		
2/28/2003 9:04	464.8	17.70	26.00	47.90	82.30		
2/28/2003 9:05	464.8	17.70	27.40	50.50	86.50		
2/28/2003 9:06	467.8	17.70	29.40	54.20	93.60		
2/28/2003 9:07	462.8	17.70	31.30	57.70	98.60		
2/28/2003 9:08	462.4	17.70	32.00	59.00	100.30		
2/28/2003 9:09	462.3	17.80	31.80	60.50	103.10		
2/28/2003 9:10	462.3	17.80	31.20	59.40	101.20		
2/28/2003 9:11	462.4	17.80	30.50	58.00	99.00		
2/28/2003 9:12	456.2	17.80	29.80	56.70	95.30		
2/28/2003 9:13	456.2	17.80	29.30	55.80	93.50		
2/28/2003 9:14	455.7	17.80	29.00	55.20	92.50		
2/28/2003 9:15	455.7	17.80	28.50	54.20	91.10		
2/28/2003 9:16	455.9	17.80	27.90	53.10	89.40		
2/28/2003 9:17	455.7	17.80	27.40	52.10	87.50		
2/28/2003 9:18	455.7	17.80	26.70	50.80	85.20		
2/28/2003 9:19	456.6	17.80	25.90	49.30	83.10		
2/28/2003 9:20	457.5	17.70	25.20	46.50	78.20		
2/28/2003 9:21	457.7	17.80	24.40	46.40	78.30		
2/28/2003 9:22	451.5	17.80	23.50	44.70	74.50		
2/28/2003 9:23	451.4	17.80	22.60	43.00	71.30		
2/28/2003 9:24	454.5	17.80	21.90	41.70	70.00		
2/28/2003 9:25	454.2	17.80	21.10	40.20	67.20		
2/28/2003 9:26	449.2	17.80	20.50	39.00	64.70		
2/28/2003 9:27	449.2	17.80	20.10	38.30	63.30		
2/28/2003 9:28	449.2	17.80	19.60	37.30	61.50		
2/28/2003 9:29	452.3	17.80	19.40	36.90	61.50		
2/28/2003 9:30	561.7	17.10	23.80	37.00	76.40		
2/28/2003 9:31	583.5	17.30	29.90	49.00	105.60		
2/28/2003 9:32	577.9	17.90	23.80	46.80	99.40		
2/28/2003 9:33	565.8	17.90	22.50	44.20	92.20		
2/28/2003 9:34	559.7	17.90	22.80	44.80	92.40		
2/28/2003 9:35	548.5	17.90	22.70	44.60	90.00		
2/28/2003 9:36	549.6	17.90	23.10	45.40	91.80		
2/28/2003 9:37	548	17.90	23.30	45.80	92.60		
2/28/2003 9:38	546	17.90	23.70	46.60	93.90		
2/28/2003 9:39	546	17.90	24.20	47.60	95.60		
2/28/2003 9:40	548.1	17.90	24.80	48.80	98.70		
2/28/2003 9:41	548.1	17.90	25.20	49.60	100.30		
2/28/2003 9:42	548	17.90	25.70	50.50	101.90		
2/28/2003 9:43	547.5	17.90	26.40	51.90	104.60		
2/28/2003 9:44	546.5	17.90	27.00	53.10	107.10		
2/28/2003 9:45	546	17.90	27.50	54.10	108.70		

Period Start	GT2_HEATING MMBTU	O2 %vol	NOx ppm uncorrected	NOx ppm @ 15% O2	NOXLBH lb/hr	NOx Hourly Average lb/hr	Comments
2/28/2003 9:46	544.9	17.90	28.10	55.30	111.20		
2/28/2003 9:47	542.9	17.90	28.40	55.90	111.80		
2/28/2003 9:48	537.9	17.90	28.80	56.60	112.40		
2/28/2003 9:49	535.3	17.90	29.20	57.40	113.50		
2/28/2003 9:50	535.8	17.90	29.80	58.60	115.70		
2/28/2003 9:51	542	17.90	30.10	59.20	118.20	82.31	
2/28/2003 9:52	545.1	17.90	30.40	59.80	119.90		
2/28/2003 9:53	543.9	17.90	30.60	60.20	120.70		
2/28/2003 9:54	535.9	17.90	31.00	61.00	120.60		
2/28/2003 9:55	535.8	17.90	31.50	61.90	122.20		
2/28/2003 9:56	536.3	17.90	31.70	62.30	123.30		
2/28/2003 9:57	543.5	17.90	32.10	63.10	126.60		
2/28/2003 9:58	546.6	17.90	32.40	63.70	128.50		
2/28/2003 9:59	542.4	17.90	32.40	63.70	127.50		
2/28/2003 10:00	542.5	17.90	32.50	63.90	127.50		
2/28/2003 10:01	541.4	17.90	32.50	63.90	127.20		
2/28/2003 10:02	544	17.90	32.70	64.30	128.90		
2/28/2003 10:03	546.9	17.90	32.90	64.70	130.20		
2/28/2003 10:04	546.5	17.90	32.90	64.70	130.10		
2/28/2003 10:05	547	17.90	32.90	64.70	130.20		
2/28/2003 10:06	541.5	17.90	32.90	64.70	128.90		
2/28/2003 10:07	536.8	17.90	32.90	64.70	127.80		
2/28/2003 10:08	538.9	17.90	32.90	64.70	128.30		
2/28/2003 10:09	542.5	17.90	32.90	64.70	129.10		
2/28/2003 10:10	542.4	17.90	33.40	65.70	131.30		
2/28/2003 10:11	560.2	17.90	33.70	66.30	136.70		
2/28/2003 10:12	560.7	17.90	33.60	66.10	136.30		
2/28/2003 10:13	563.2	17.50	37.80	65.60	136.30		
2/28/2003 10:14	566.3	17.40	42.60	71.80	150.10		
2/28/2003 10:15	566.4	17.40	42.00	70.80	147.80		
2/28/2003 10:16	566.3	17.40	41.90	70.60	147.20		
2/28/2003 10:17	566.3	17.40	41.50	70.00	146.10		
2/28/2003 10:18	565.8	17.40	41.30	69.60	144.80		
2/28/2003 10:19	566.3	17.40	41.10	69.30	144.40		
2/28/2003 10:20	565.7	17.40	40.90	68.90	143.70		
2/28/2003 10:21	565.2	17.40	40.70	68.60	143.00		
2/28/2003 10:22	559.7	17.40	40.60	68.40	141.00		
2/28/2003 10:23	559.6	17.40	40.60	68.40	141.00		
2/28/2003 10:24	559.2	17.40	40.30	67.90	139.80		
2/28/2003 10:25	560.2	17.40	40.10	67.60	139.50		
2/28/2003 10:26	560.3	17.40	40.10	67.60	139.50		
2/28/2003 10:27	566.8	17.40	39.90	67.30	140.60		
2/28/2003 10:28	561.8	17.40	40.00	67.40	139.30		
2/28/2003 10:29	560.7	17.40	40.00	67.40	139.10		
2/28/2003 10:30	562.8	17.40	39.80	67.10	139.00		
2/28/2003 10:31	566.9	17.40	39.50	66.60	138.90		
2/28/2003 10:32	561.8	17.40	39.40	66.40	137.60		
2/28/2003 10:33	562.5	17.40	39.40	66.40	137.80		
2/28/2003 10:34	561.9	17.40	39.40	66.40	137.70		
2/28/2003 10:35	561.8	17.40	39.30	66.20	137.10		
2/28/2003 10:36	561.8	17.40	39.20	66.10	136.50		
2/28/2003 10:37	560.8	17.40	39.20	66.10	136.30		
2/28/2003 10:38	559.6	17.40	39.10	65.90	136.00		
2/28/2003 10:39	553.5	17.40	38.60	65.10	132.80		
2/28/2003 10:40	550.5	17.40	38.50	64.90	131.60		
2/28/2003 10:41	553.6	17.40	38.50	64.90	132.30		
2/28/2003 10:42	553.5	17.40	38.50	64.90	132.30		
2/28/2003 10:43	554.2	17.20	40.00	63.80	130.20		
2/28/2003 10:44	554.2	17.10	43.10	66.90	136.90		
2/28/2003 10:45	554.6	17.20	42.80	68.20	139.20		
2/28/2003 10:46	554.1	17.20	42.50	67.80	138.50		

Period Start	GT2_HEATING MMBTU	O2 %vol	NOx ppm uncorrected	NOx ppm @ 15% O2	NOXLBH lb/hr	NOx Hourly Average lb/hr	Comments
2/28/2003 10:47	554.7	17.20	42.50	67.80	138.70		
2/28/2003 10:48	554.1	17.10	42.50	66.00	134.60		
2/28/2003 10:49	574.4	16.80	48.10	69.20	146.50		
2/28/2003 10:50	580.5	16.80	48.70	70.10	149.80		
2/28/2003 10:51	573.4	16.90	48.50	71.50	151.40	135.61	
2/28/2003 10:52	578.6	16.80	48.20	69.40	148.10		
2/28/2003 10:53	578.6	16.80	49.00	70.50	150.40		
2/28/2003 10:54	578.4	16.80	49.10	70.70	150.40		
2/28/2003 10:55	572.5	16.90	48.90	72.10	152.30		
2/28/2003 10:56	566.4	16.90	47.20	69.60	145.00		
2/28/2003 10:57	566.3	16.90	48.20	71.10	148.40		
2/28/2003 10:58	560.2	16.90	47.90	70.70	145.70		
2/28/2003 10:59	560.2	16.90	47.60	70.20	145.10		
2/28/2003 11:00	565.3	16.90	48.30	71.20	148.10		
2/28/2003 11:01	571.9	16.80	47.60	68.50	144.10		
2/28/2003 11:02	567.7	16.80	48.50	69.80	145.90		
2/28/2003 11:03	571.9	16.90	48.50	71.50	151.00		
2/28/2003 11:04	566.8	16.90	47.10	69.50	145.10		
2/28/2003 11:05	577.9	16.80	48.30	69.50	147.90		
2/28/2003 11:06	584.1	16.80	50.60	72.80	156.50		
2/28/2003 11:07	663.1	16.30	48.70	62.50	152.50		
2/28/2003 11:08	663.8	16.30	38.50	49.40	120.80		
2/28/2003 11:09	663.8	16.20	39.60	49.70	121.50		
2/28/2003 11:10	665.8	16.20	40.20	50.50	123.80		
2/28/2003 11:11	668.9	16.20	40.60	51.00	125.80		
2/28/2003 11:12	663.8	16.30	40.50	51.90	126.80		
2/28/2003 11:13	663.1	16.40	39.80	52.20	127.30		
2/28/2003 11:14	654.9	16.30	39.50	50.70	122.50		
2/28/2003 11:15	653.9	16.30	40.20	51.60	124.20		
2/28/2003 11:16	658	16.30	40.40	51.80	125.70		
2/28/2003 11:17	663.1	16.30	40.90	52.50	128.00		
2/28/2003 11:18	663.2	16.30	41.20	52.80	129.30		
2/28/2003 11:19	663.2	16.30	40.90	52.50	128.00		
2/28/2003 11:20	745.7	15.50	48.30	52.80	144.70		
2/28/2003 11:21	795.4	15.30	60.70	64.00	187.70		
2/28/2003 11:22	841.2	14.90	62.20	61.20	189.30		
2/28/2003 11:23	841.2	14.70	56.40	53.70	166.60		
2/28/2003 11:24	857.4	14.70	50.20	47.80	150.90		
2/28/2003 11:25	866.7	14.70	49.90	47.50	151.70		
2/28/2003 11:26	872	14.60	51.10	47.90	153.50		
2/28/2003 11:27	882.1	14.60	49.00	45.90	149.10		
2/28/2003 11:28	882.1	14.60	39.90	37.40	121.70		
2/28/2003 11:29	874.1	14.60	34.80	32.60	104.90		
2/28/2003 11:30	966.3	14.30	39.00	34.90	123.70		
2/28/2003 11:31	1008.9	13.90	61.30	51.70	191.70		
2/28/2003 11:32	1116.6	13.80	69.90	58.10	239.00		
2/28/2003 11:33	1129.6	13.80	69.90	58.10	241.70		
2/28/2003 11:34	1170.1	13.80	66.30	55.10	237.50		
2/28/2003 11:35	1164.7	13.80	53.80	44.70	192.20		
2/28/2003 11:36	1114.8	13.90	49.50	41.70	171.70		
2/28/2003 11:37	1174.6	13.90	48.10	40.50	175.00		
2/28/2003 11:38	1125.2	13.90	48.00	40.50	167.70		
2/28/2003 11:39	1110.1	13.80	50.60	42.00	172.10		
2/28/2003 11:40	1239.9	13.70	61.50	50.40	230.60		
2/28/2003 11:41	1250.4	13.70	69.60	57.00	262.60		
2/28/2003 11:42	1257.3	13.70	69.90	57.30	265.30		
2/28/2003 11:43	1281.1	13.70	69.90	57.30	270.30		
2/28/2003 11:44	1311.8	13.70	40.80	33.40	161.40		
2/28/2003 11:45	1301.7	13.70	3.30	2.70	13.00		
2/28/2003 11:46	1299.6	13.70	4.10	3.40	15.60		
2/28/2003 11:47	1299.6	13.70	5.30	4.30	20.80		

Period Start	GT2_HEATING MMBTU	O2 %vol	NOx ppm uncorrected	NOx ppm @ 15% O2	NOXLBH lb/hr	NOx Hourly Average lb/hr	Comments
2/28/2003 11:48	1300.6	13.70	3.90	3.20	15.60		
2/28/2003 11:49	1303.7	13.70	2.10	1.70	7.80		
2/28/2003 11:50	1295.7	13.70	1.60	1.30	6.50		
2/28/2003 11:51	1291	13.70	1.40	1.10	5.20	143.12	
2/28/2003 11:52	1292	13.70	1.30	1.10	5.20		
2/28/2003 11:53	1296.1	13.70	1.30	1.10	5.20		
2/28/2003 11:54	1291	13.70	1.30	1.10	5.20		
2/28/2003 11:55	1291	13.70	1.40	1.10	5.20		
2/28/2003 11:56	1291.1	13.70	1.40	1.10	5.20		
2/28/2003 11:57	1299.2	13.70	1.50	1.20	6.50		
2/28/2003 11:58	1309.2	13.70	1.50	1.20	6.50		
2/28/2003 11:59	1297.1	13.70	1.60	1.30	6.50		

Moss Landing Power Plant  
Turbine 4 – Cold Start  
May 12, 2001

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/12/03 01:00:48	0.00	0.0	0	-0.07	20.90		0.00		
05/12/03 01:01:47	0.00	0.0	0	-0.07	20.88		0.00		
05/12/03 01:02:47	0.00	0.0	0	-0.06	20.78		0.00		
05/12/03 01:03:45	0.00	0.0	0	-0.06	20.72		0.00		
05/12/03 01:04:49	0.00	0.0	0	-0.05	20.69		0.00		
05/12/03 01:05:48	0.00	0.0	0	-0.06	20.76		0.00		
05/12/03 01:06:47	0.00	0.0	0	-0.05	20.82		0.00		
05/12/03 01:07:48	0.00	0.0	0	-0.05	20.84		0.00		
05/12/03 01:08:47	0.00	0.0	0	-0.05	20.86		0.00		
05/12/03 01:09:48	0.00	0.0	0	-0.05	20.86		0.00		
05/12/03 01:10:47	0.00	0.0	0	-0.06	20.88		0.00		
05/12/03 01:11:47	0.00	0.0	0	-0.05	20.88		0.00		
05/12/03 01:12:47	0.00	0.0	0	-0.05	20.88		0.00		
05/12/03 01:13:47	0.00	0.0	0	-0.04	20.88		0.00		
05/12/03 01:14:48	0.00	0.0	0	-0.05	20.88		0.00		
05/12/03 01:15:47	0.00	0.0	0	-0.05	20.88		0.00		
05/12/03 01:16:48	0.00	0.0	0	-0.05	20.88		0.00		
05/12/03 01:17:48	0.00	0.0	0	-0.05	20.89		0.00		
05/12/03 01:18:47	0.00	0.0	0	-0.05	20.89		0.00		
05/12/03 01:19:48	0.00	0.0	0	-0.05	20.89		0.00		
05/12/03 01:20:47	0.00	0.0	0	-0.05	20.89		0.00		
05/12/03 01:21:48	0.00	0.0	0	-0.06	20.89		0.00		
05/12/03 01:22:47	0.00	0.0	0	-0.05	20.90		0.00		
05/12/03 01:23:48	0.00	0.0	0	-0.04	20.90		0.00		
05/12/03 01:24:48	0.00	0.0	0	-0.04	20.90		0.00		
05/12/03 01:25:48	0.00	0.0	0	-0.04	20.90		0.00		
05/12/03 01:26:48	0.00	0.0	0	-0.03	20.83		0.00		
05/12/03 01:27:48	0.00	0.0	0	-0.03	20.75		0.00		
05/12/03 01:28:46	0.00	0.0	0	-0.04	20.70		0.00		
05/12/03 01:29:48	0.00	0.0	0	-0.04	20.71		0.00		
05/12/03 01:30:48	0.00	0.0	0	-0.04	20.80		0.00		
05/12/03 01:31:48	0.00	0.0	0	-0.03	20.83		0.00		
05/12/03 01:32:48	0.00	0.0	0	-0.03	20.85		0.00		
05/12/03 01:33:49	0.00	0.0	0	-0.03	20.86		0.00		
05/12/03 01:34:49	0.00	0.0	0	-0.02	20.87		0.00		
05/12/03 01:35:49	0.00	0.0	0	-0.03	20.87		0.00		
05/12/03 01:36:49	0.00	0.0	0	-0.01	20.84		0.00		
05/12/03 01:37:47	0.00	0.0	0	0.09	20.55		0.00		
05/12/03 01:38:48	7.03	161.2	0	1.42	18.39	3.34	2.02		Begin Startup
05/12/03 01:39:47	9.62	220.6	0	3.91	17.09	6.05	5.06		
05/12/03 01:40:49	15.47	354.8	0	5.79	16.80	8.33	11.46		
05/12/03 01:41:48	23.23	532.8	0	10.23	16.58	13.97	28.32		
05/12/03 01:42:47	21.70	497.7	0	19.12	17.32	31.51	60.16		
05/12/03 01:43:48	21.38	490.4	0	20.53	17.48	35.42	66.43		
05/12/03 01:44:47	21.15	485.1	0	23.52	17.52	41.06	76.33		
05/12/03 01:45:47	20.97	481.0	0	26.98	17.54	47.38	87.71		
05/12/03 01:46:48	20.83	477.8	0	31.30	17.57	55.46	101.57		
05/12/03 01:47:47	20.70	474.8	0	35.54	17.58	63.16	115.27		
05/12/03 01:48:48	20.67	474.1	0	38.46	17.58	68.35	124.49		
05/12/03 01:49:47	20.58	472.0	0	38.96	17.58	69.24	125.41		
05/12/03 01:50:48	20.50	470.2	0	36.84	17.50	63.93	115.62		
05/12/03 01:51:47	20.40	467.9	0	33.63	17.45	57.51	103.37		
05/12/03 01:52:48	20.40	467.9	0	30.31	17.44	51.68	92.64		
05/12/03 01:53:48	20.40	467.9	0	27.25	17.49	47.15	84.84		
05/12/03 01:54:52	20.40	467.9	0	24.69	17.55	43.48	78.02		
05/12/03 01:55:48	20.32	466.1	0	22.55	17.57	39.95	71.40		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/12/03 01:56:48	20.30	465.6	0	20.80	17.58	36.96	65.99		
05/12/03 01:57:48	20.27	464.9	0	19.61	17.59	34.95	62.49		
05/12/03 01:58:48	20.23	464.0	0	18.91	17.60	33.81	60.44		
05/12/03 01:59:48	20.20	463.3	0	18.67	17.61	33.48	59.38		
05/12/03 02:00:48	20.20	463.3	0	19.12	17.62	34.39	61.32		
05/12/03 02:01:48	20.20	463.3	0	20.22	17.62	36.37	64.70		
05/12/03 02:02:48	20.20	463.3	0	21.82	17.62	39.25	70.01		
05/12/03 02:03:48	20.20	463.3	0	23.75	17.63	42.85	76.28		
05/12/03 02:04:48	20.20	463.3	0	25.72	17.63	46.41	82.56		
05/12/03 02:05:51	20.20	463.3	0	27.42	17.63	49.47	87.87		
05/12/03 02:06:48	20.20	463.3	0	28.75	17.64	52.03	92.70		
05/12/03 02:07:48	20.20	463.3	0	29.90	17.64	54.11	96.08		
05/12/03 02:08:46	20.20	463.3	0	30.81	17.64	55.76	98.97		
05/12/03 02:09:48	20.20	463.3	0	31.48	17.65	57.15	101.87		
05/12/03 02:10:49	20.20	463.3	0	31.92	17.65	57.95	102.84		
05/12/03 02:11:48	20.18	462.9	0	32.24	17.65	58.53	104.18		
05/12/03 02:12:48	20.20	463.3	2	32.58	17.65	59.15	105.25		
05/12/03 02:13:48	22.03	505.3	9	32.81	17.61	58.84	114.25		
05/12/03 02:14:49	25.62	587.6	18	40.47	17.14	63.50	143.28		
05/12/03 02:15:48	25.73	590.2	18	56.05	16.58	76.55	173.43		
05/12/03 02:16:49	25.78	591.3	18	55.99	16.68	78.28	177.44		
05/12/03 02:17:48	25.87	593.4	19	53.05	16.84	77.09	175.60		
05/12/03 02:18:48	25.90	594.0	19	49.74	17.05	76.22	173.91		
05/12/03 02:19:49	25.88	593.6	19	46.67	17.26	75.65	172.56		
05/12/03 02:20:48	25.80	591.8	20	31.52	17.43	53.59	121.49		
05/12/03 02:21:48	25.75	590.6	20	23.63	17.59	42.12	95.39		
05/12/03 02:22:46	25.68	589.0	20	20.52	17.75	38.43	87.15		
05/12/03 02:23:48	25.50	584.9	19	18.47	17.86	35.85	80.45		
05/12/03 02:24:49	25.40	582.6	19	17.65	17.87	34.37	77.10		
05/12/03 02:25:48	25.37	581.9	19	17.25	17.87	33.59	75.18		
05/12/03 02:26:49	25.30	580.3	19	17.04	17.87	33.18	73.77		
05/12/03 02:27:48	25.30	580.3	19	16.63	17.89	32.60	72.56		
05/12/03 02:28:48	25.30	580.3	19	16.48	17.89	32.30	71.96		
05/12/03 02:29:48	25.30	580.3	19	16.36	17.89	32.07	71.35		
05/12/03 02:30:48	25.30	580.3	19	16.26	17.89	31.87	70.75		
05/12/03 02:31:48	25.30	580.3	19	16.20	17.89	31.75	70.75		
05/12/03 02:32:47	25.30	580.3	19	16.11	17.89	31.58	70.15		
05/12/03 02:33:49	25.30	580.3	19	16.01	17.90	31.49	70.15		
05/12/03 02:34:48	25.22	578.5	19	15.95	17.90	31.37	69.92		
05/12/03 02:35:48	25.12	576.2	18	15.83	17.83	30.42	67.24		
05/12/03 02:36:49	25.13	576.4	18	15.75	17.77	29.69	65.47		
05/12/03 02:37:49	25.13	576.4	18	15.61	17.74	29.15	64.26		
05/12/03 02:38:49	25.10	575.7	18	15.54	17.76	29.20	64.79	87.10	
05/12/03 02:39:49	25.15	576.8	18	15.50	17.83	29.79	66.11		
05/12/03 02:40:49	25.10	575.7	18	15.35	17.86	29.79	65.99		
05/12/03 02:41:49	25.15	576.8	18	15.32	17.87	29.83	66.11		
05/12/03 02:42:52	25.20	578.0	18	15.17	17.88	29.64	65.65		
05/12/03 02:43:49	25.03	574.1	19	15.00	17.89	29.40	64.61		
05/12/03 02:44:49	25.17	577.3	18	15.07	17.89	29.54	65.56		
05/12/03 02:45:47	25.15	576.8	18	14.83	17.90	29.17	64.31		
05/12/03 02:46:47	25.10	575.7	19	14.85	17.90	29.21	64.79		
05/12/03 02:47:47	25.18	577.5	18	14.86	17.90	29.22	64.99		
05/12/03 02:48:48	25.15	576.8	18	14.78	17.91	29.16	64.31		
05/12/03 02:49:47	25.10	575.7	19	14.81	17.90	29.13	64.19		
05/12/03 02:50:48	25.20	578.0	18	14.84	17.91	29.28	65.05		
05/12/03 02:51:47	25.12	576.2	19	14.76	17.92	29.22	64.84		
05/12/03 02:52:48	25.10	575.7	19	14.88	17.91	29.36	64.79		
05/12/03 02:53:47	25.18	577.5	18	14.72	17.91	29.05	64.39		
05/12/03 02:54:47	25.05	574.6	18	14.62	17.92	28.95	64.06		
05/12/03 02:55:51	25.05	574.6	18	14.76	17.91	29.13	64.06		
05/12/03 02:56:48	25.13	576.4	18	14.71	17.92	29.12	64.26		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/12/03 02:57:49	25.00	573.4	19	14.64	17.91	28.89	63.34		
05/12/03 02:58:48	25.03	574.1	18	14.76	17.82	28.27	62.21		
05/12/03 02:59:49	25.05	574.6	18	14.60	17.78	27.61	61.07		
05/12/03 03:00:48	25.00	573.4	18	14.59	17.75	27.33	60.35		
05/12/03 03:01:48	25.07	575.0	18	14.74	17.79	27.96	61.72		
05/12/03 03:02:48	25.07	575.0	18	14.77	17.85	28.57	62.92		
05/12/03 03:03:49	25.00	573.4	19	14.69	17.87	28.60	62.74		
05/12/03 03:04:48	25.15	576.8	18	14.82	17.88	28.95	64.31		
05/12/03 03:05:48	25.08	575.2	19	14.82	17.89	29.05	64.14		
05/12/03 03:06:48	25.07	575.0	19	14.93	17.89	29.26	64.71		
05/12/03 03:07:48	25.18	577.5	18	15.02	17.90	29.54	65.60		
05/12/03 03:08:48	25.03	574.1	19	15.00	17.91	29.60	65.20		
05/12/03 03:09:48	25.10	575.7	19	15.09	17.90	29.68	65.39		
05/12/03 03:10:48	25.17	577.3	19	15.05	17.91	29.70	65.56		
05/12/03 03:11:47	25.02	573.9	19	14.93	17.91	29.46	65.18		
05/12/03 03:12:48	25.00	573.4	18	14.96	17.91	29.52	65.13		
05/12/03 03:13:49	25.02	573.9	18	14.65	17.92	29.01	63.99		
05/12/03 03:14:49	24.90	571.1	18	14.62	17.92	28.95	63.68		
05/12/03 03:15:48	25.00	573.4	18	14.62	17.91	28.85	63.34		
05/12/03 03:16:49	24.93	571.8	18	14.49	17.92	28.69	63.15		
05/12/03 03:17:49	24.90	571.1	18	14.50	17.91	28.61	62.49		
05/12/03 03:18:49	25.00	573.4	18	14.56	17.92	28.83	63.34		
05/12/03 03:19:49	24.93	571.8	18	14.42	17.92	28.55	62.56		
05/12/03 03:20:49	24.93	571.8	18	14.58	17.90	28.67	63.15		
05/12/03 03:21:49	25.07	575.0	18	14.71	17.83	28.27	62.32		
05/12/03 03:22:50	25.00	573.4	18	14.76	17.78	27.91	61.54		
05/12/03 03:23:50	25.02	573.9	18	14.88	17.76	27.96	61.59		
05/12/03 03:24:50	25.07	575.0	18	14.83	17.79	28.13	62.32		
05/12/03 03:25:48	25.00	573.4	18	14.78	17.85	28.59	62.74		
05/12/03 03:26:49	25.03	574.1	18	15.02	17.87	29.25	64.61		
05/12/03 03:27:48	25.03	574.1	18	14.85	17.89	29.11	64.01		
05/12/03 03:28:49	24.92	571.6	18	14.95	17.89	29.30	64.32		
05/12/03 03:29:50	25.05	574.6	18	15.02	17.89	29.44	64.66		
05/12/03 03:30:50	24.98	572.9	18	14.91	17.90	29.32	64.48		
05/12/03 03:31:49	24.90	571.1	18	14.95	17.91	29.50	64.87		
05/12/03 03:32:48	25.13	576.4	19	14.97	17.90	29.44	64.86		
05/12/03 03:33:49	25.10	575.7	19	15.12	17.91	29.84	65.99		
05/12/03 03:34:48	25.10	575.7	19	15.22	17.90	29.93	65.99		
05/12/03 03:35:49	25.20	578.0	19	15.21	17.91	30.01	66.86		
05/12/03 03:36:48	25.13	576.4	19	15.09	17.91	29.78	66.07		
05/12/03 03:37:49	25.10	575.7	19	15.25	17.91	30.09	66.59		
05/12/03 03:38:44	25.17	577.3	18	15.24	17.91	30.07	66.77	64.23	
05/12/03 03:39:50	25.10	575.7	19	15.14	17.91	29.87	65.99		
05/12/03 03:40:51	25.15	576.8	19	15.22	17.91	30.03	66.71		
05/12/03 03:41:51	25.15	576.8	18	15.15	17.84	29.21	64.91		
05/12/03 03:42:49	25.10	575.7	19	16.09	17.62	28.94	64.19		
05/12/03 03:43:49	25.18	577.5	19	16.21	17.68	29.70	65.60		
05/12/03 03:44:49	25.25	579.1	18	17.38	17.47	29.90	66.37		
05/12/03 03:45:49	25.53	585.6	18	22.05	17.13	34.51	77.50		
05/12/03 03:46:49	25.65	588.3	18	29.50	16.69	41.34	93.18		
05/12/03 03:47:49	25.60	587.2	19	30.62	16.68	42.81	96.68		
05/12/03 03:48:44	26.47	607.1	18	31.60	16.64	43.77	101.85		
05/12/03 03:49:51	27.23	624.6	18	17.13	16.70	24.06	57.92		
05/12/03 03:50:51	27.08	621.1	18	11.06	16.69	15.50	36.86		
05/12/03 03:51:51	26.85	615.8	18	9.85	16.69	13.80	32.69		
05/12/03 03:52:51	26.75	613.5	18	9.20	16.69	12.89	30.02		
05/12/03 03:53:45	26.67	611.7	18	8.88	16.69	12.44	29.29		
05/12/03 03:54:51	26.23	601.6	17	8.59	16.71	12.10	28.18		
05/12/03 03:55:51	26.07	597.9	17	8.01	16.79	11.50	26.14		
05/12/03 03:56:51	26.00	596.3	17	7.42	16.79	10.65	24.21		
05/12/03 03:57:45	26.00	596.3	17	7.06	16.78	10.11	22.97		



Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/12/03 03:58:49	26.00	596.3	17	7.01	16.77	10.01	22.97		
05/12/03 03:59:49	26.08	598.2	17	8.02	16.76	11.43	26.15		
05/12/03 04:00:49	26.20	600.9	18	9.30	16.74	13.19	30.65		
05/12/03 04:01:44	26.20	600.9	18	9.41	16.73	13.31	30.65		
05/12/03 04:02:49	26.18	600.5	18	8.76	16.69	12.28	28.13		
05/12/03 04:03:44	26.20	600.9	18	7.16	16.62	9.87	22.52		
05/12/03 04:04:49	26.20	600.9	18	7.18	16.58	9.81	22.52		
05/12/03 04:05:44	26.13	599.3	18	7.21	16.58	9.85	22.46		
05/12/03 04:06:49	26.05	597.5	17	7.14	16.67	9.96	23.01		
05/12/03 04:07:49	26.83	615.4	20	6.94	16.71	9.77	23.06		
05/12/03 04:08:49	27.10	621.6	21	7.70	16.52	10.37	24.59		
05/12/03 04:09:45	26.78	614.2	20	8.48	16.56	11.53	26.85		
05/12/03 04:10:50	26.88	616.5	20	8.65	16.61	11.90	28.24		
05/12/03 04:11:44	27.37	627.8	21	8.96	16.61	12.32	29.41		
05/12/03 04:12:45	28.92	663.3	26	10.28	16.41	13.51	34.53		
05/12/03 04:13:47	29.82	684.0	29	13.78	16.21	17.34	45.57		
05/12/03 04:14:46	30.67	703.5	31	18.37	15.97	21.98	59.32		
05/12/03 04:15:46	30.63	702.5	31	21.80	15.91	25.78	69.47		
05/12/03 04:16:46	30.60	701.8	31	22.83	15.91	26.99	72.33		
05/12/03 04:17:46	30.62	702.3	31	23.47	15.91	27.75	74.57		
05/12/03 04:18:46	32.25	739.7	35	24.43	15.87	28.66	81.62		
05/12/03 04:19:46	32.60	747.7	36	31.58	15.58	35.02	100.41		
05/12/03 04:20:46	32.60	747.7	36	34.29	15.57	37.96	108.86		
05/12/03 04:21:47	32.57	747.0	36	34.87	15.57	38.60	110.32		
05/12/03 04:22:46	32.52	745.9	36	35.02	15.57	38.77	110.93		
05/12/03 04:23:46	32.50	745.4	36	34.83	15.58	38.63	110.08		
05/12/03 04:24:46	32.50	745.4	36	34.20	15.55	37.72	107.75		
05/12/03 04:25:46	32.40	743.1	36	33.85	15.48	36.85	105.10		
05/12/03 04:26:46	33.08	758.7	38	34.26	15.43	36.95	107.30		
05/12/03 04:27:46	36.33	833.3	45	36.37	15.14	37.25	118.72		
05/12/03 04:28:46	36.33	833.3	46	37.81	14.84	36.81	117.86		
05/12/03 04:29:46	36.30	832.6	46	39.30	14.88	38.52	122.96		
05/12/03 04:30:44	36.37	834.2	46	39.06	14.89	38.35	122.33		
05/12/03 04:31:46	36.38	834.4	46	39.23	14.87	38.38	122.36		
05/12/03 04:32:46	36.22	830.8	45	39.51	14.90	38.85	123.80		
05/12/03 04:33:46	36.03	826.4	45	39.32	14.93	38.86	123.14		
05/12/03 04:34:46	35.90	823.4	45	38.71	14.98	38.58	121.84		
05/12/03 04:35:47	36.40	834.9	46	38.54	14.95	38.22	122.67		
05/12/03 04:36:45	36.45	836.0	46	38.77	14.89	38.06	121.95		
05/12/03 04:37:47	36.15	829.1	45	39.04	14.91	38.45	122.67		
05/12/03 04:38:47	36.23	831.0	45	38.60	14.97	38.40	122.20		
05/12/03 04:39:47	36.30	832.6	45	38.37	14.94	37.98	121.58	70.41	
05/12/03 04:40:47	38.03	872.3	50	38.80	14.90	38.15	128.28		
05/12/03 04:41:47	38.28	878.0	51	35.74	14.58	33.36	112.64		
05/12/03 04:42:47	38.03	872.3	50	37.82	14.60	35.42	118.27		
05/12/03 04:43:47	38.33	879.1	51	40.07	14.63	37.71	127.45		
05/12/03 04:44:47	41.93	961.7	61	39.89	14.50	36.77	135.54		
05/12/03 04:45:47	46.12	1057.8	73	43.79	14.14	38.22	155.71		
05/12/03 04:46:47	46.93	1076.4	76	61.35	14.00	52.46	216.89		
05/12/03 04:47:50	46.67	1070.4	75	71.11	13.98	60.63	249.20		
05/12/03 04:48:47	46.75	1072.3	75	75.13	14.02	64.43	265.32		
05/12/03 04:49:47	46.95	1076.9	76	78.62	14.07	67.91	281.08		
05/12/03 04:50:47	47.03	1078.7	76	81.05	14.09	70.22	291.69		
05/12/03 04:51:47	50.03	1147.5	87	84.16	14.07	72.70	321.06		
05/12/03 04:52:45	53.78	1233.5	99	96.65	13.98	82.40	391.49		
05/12/03 04:53:47	56.20	1289.0	105	104.40	13.91	88.12	437.35		
05/12/03 04:54:45	53.28	1222.0	96	17.23	13.92	14.56	68.89		
05/12/03 04:55:47	52.10	1195.0	92	4.27	13.98	3.64	16.22		
05/12/03 04:56:45	51.28	1176.2	90	3.26	14.00	2.79	12.28		
05/12/03 04:57:46	51.08	1171.6	90	2.76	14.03	2.37	11.01		
05/12/03 04:58:44	51.15	1173.2	90	2.46	14.04	2.12	9.80		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/12/03 04:59:48	51.23	1175.0	90	2.30	14.04	1.98	8.59		

Moss Landing Power Plant  
Turbine 1 – Cold Start  
April 21, 2003

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
04/21/03 01:00:48	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:01:48	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:02:49	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:03:48	0.00	0.0	0	-0.07	21.05		0.00		
04/21/03 01:04:48	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:05:48	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:06:48	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:07:46	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:08:48	0.00	0.0	0	-0.07	21.06		0.00		
04/21/03 01:09:49	0.00	0.0	0	-0.07	21.03		0.00		
04/21/03 01:10:48	3.32	76.1	0	0.38	20.11	2.84	0.79		Begin Startup
04/21/03 01:11:49	8.27	189.7	0	2.41	17.78	4.56	3.33		
04/21/03 01:12:48	11.18	256.4	0	5.12	16.94	7.63	7.42		
04/21/03 01:13:49	18.43	422.7	0	8.81	16.67	12.29	19.65		
04/21/03 01:14:48	23.05	528.7	0	17.38	16.66	24.18	48.60		
04/21/03 01:15:49	21.72	498.2	0	22.76	17.50	39.50	74.62		
04/21/03 01:16:48	21.37	490.1	0	24.87	17.57	44.06	82.02		
04/21/03 01:17:49	21.10	484.0	0	28.24	17.62	50.80	93.50		
04/21/03 01:18:49	20.95	480.5	0	32.19	17.65	58.44	106.73		
04/21/03 01:19:47	20.85	478.2	0	36.07	17.67	65.89	120.04		
04/21/03 01:20:49	20.80	477.1	0	38.75	17.69	71.22	129.11		
04/21/03 01:21:49	20.80	477.1	0	39.53	17.70	72.88	132.56		
04/21/03 01:22:49	20.68	474.3	0	38.11	17.70	70.27	126.91		
04/21/03 01:23:49	20.60	472.5	0	35.81	17.71	66.23	119.10		
04/21/03 01:24:47	20.58	472.0	0	34.21	17.71	63.27	113.61		
04/21/03 01:25:49	20.52	470.7	0	33.08	17.72	61.37	109.88		
04/21/03 01:26:47	20.50	470.2	0	32.31	17.73	60.14	107.83		
04/21/03 01:27:49	20.50	470.2	0	31.74	17.74	59.26	105.88		
04/21/03 01:28:49	20.50	470.2	0	31.17	17.74	58.20	103.94		
04/21/03 01:29:49	20.48	469.7	0	30.81	17.74	57.53	102.86		
04/21/03 01:30:49	20.40	467.9	0	30.46	17.75	57.05	101.49		
04/21/03 01:31:49	20.40	467.9	0	30.36	17.76	57.05	101.49		
04/21/03 01:32:47	20.40	467.9	0	30.36	17.75	56.86	101.01		
04/21/03 01:33:48	20.40	467.9	0	30.59	17.76	57.48	102.46		
04/21/03 01:34:47	20.32	466.1	0	30.89	17.76	58.04	103.04		
04/21/03 01:35:48	20.30	465.6	0	31.27	17.76	58.76	103.90		
04/21/03 01:36:49	20.30	465.6	0	31.51	17.74	58.83	104.38		
04/21/03 01:37:48	20.30	465.6	0	31.74	17.66	57.80	102.45		
04/21/03 01:38:46	20.30	465.6	0	31.96	17.61	57.31	101.49		
04/21/03 01:39:48	20.30	465.6	0	32.06	17.59	57.15	101.49		
04/21/03 01:40:48	20.27	464.9	0	32.07	17.61	57.51	101.80		
04/21/03 01:41:48	20.30	465.6	0	32.14	17.67	58.71	103.90		
04/21/03 01:42:48	20.30	465.6	0	32.27	17.71	59.68	105.82		
04/21/03 01:43:48	20.30	465.6	0	32.35	17.73	60.21	106.78		
04/21/03 01:44:48	20.30	465.6	0	32.32	17.74	60.34	106.78		
04/21/03 01:45:48	20.30	465.6	0	32.41	17.75	60.70	107.74		
04/21/03 01:46:48	20.30	465.6	0	32.42	17.75	60.72	107.74		
04/21/03 01:47:48	20.30	465.6	0	32.48	17.76	61.03	108.23		
04/21/03 01:48:48	20.30	465.6	0	32.47	17.76	61.01	108.23		
04/21/03 01:49:48	20.30	465.6	0	32.49	17.77	61.24	108.71		
04/21/03 01:50:49	20.30	465.6	0	32.49	17.77	61.24	108.71		
04/21/03 01:51:48	20.30	465.6	0	32.49	17.78	61.44	108.71		
04/21/03 01:52:48	20.30	465.6	0	32.49	17.77	61.24	108.71		
04/21/03 01:53:48	20.30	465.6	0	31.37	17.78	59.32	105.34		
04/21/03 01:54:48	20.30	465.6	0	16.30	17.78	30.82	54.83		
04/21/03 01:55:48	20.30	465.6	0	11.93	17.78	22.56	39.92		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
04/21/03 01:56:49	20.30	465.6	0	10.48	17.79	19.88	35.11		
04/21/03 01:57:49	20.27	464.9	0	9.61	17.78	18.17	32.17		
04/21/03 01:58:49	20.23	464.0	0	9.07	17.78	17.15	30.20		
04/21/03 01:59:49	20.23	464.0	0	8.63	17.78	16.32	28.76		
04/21/03 02:00:47	20.23	464.0	0	8.45	17.70	15.58	27.32		
04/21/03 02:01:49	20.25	464.5	0	8.38	17.63	15.12	26.87		
04/21/03 02:02:47	20.25	464.5	0	8.29	17.61	14.87	26.39		
04/21/03 02:03:49	20.35	466.8	1	8.28	17.65	15.03	26.52		
04/21/03 02:04:49	22.17	508.5	8	8.34	17.68	15.28	29.42		
04/21/03 02:05:49	25.55	586.0	16	9.61	17.21	15.37	34.50		
04/21/03 02:06:49	25.70	589.5	18	10.12	17.09	15.67	35.32		
04/21/03 02:07:49	25.88	593.6	18	10.21	17.27	16.59	37.41		
04/21/03 02:08:49	26.00	596.3	19	10.50	17.43	17.85	40.66		
04/21/03 02:09:49	25.93	594.7	19	10.59	17.59	18.88	43.00		
04/21/03 02:10:49	25.67	588.8	19	10.13	17.77	19.09	42.57	79.01	
04/21/03 02:11:49	25.57	586.5	19	9.48	17.91	18.71	41.81		
04/21/03 02:12:47	25.50	584.9	19	8.99	18.03	18.48	41.09		
04/21/03 02:13:49	25.52	585.3	19	8.93	18.04	18.42	41.11		
04/21/03 02:14:49	25.60	587.2	18	9.00	18.05	18.63	41.86		
04/21/03 02:15:49	25.62	587.6	17	9.03	18.06	18.76	41.88		
04/21/03 02:16:49	25.58	586.7	17	8.78	18.08	18.37	41.21		
04/21/03 02:17:49	25.47	584.2	18	9.11	18.08	19.06	42.25		
04/21/03 02:18:49	25.30	580.3	19	9.78	18.07	20.39	44.96		
04/21/03 02:19:49	25.30	580.3	19	10.22	18.07	21.31	46.75		
04/21/03 02:20:49	25.30	580.3	19	10.47	18.07	21.83	47.95		
04/21/03 02:21:48	25.30	580.3	19	10.65	18.07	22.20	49.15		
04/21/03 02:22:48	25.32	580.7	19	10.66	18.06	22.15	49.19		
04/21/03 02:23:48	25.42	583.0	19	10.79	18.05	22.34	49.38		
04/21/03 02:24:48	25.43	583.3	19	10.70	17.97	21.55	47.60		
04/21/03 02:25:49	25.40	582.6	19	10.83	17.92	21.44	47.54		
04/21/03 02:26:48	25.47	584.2	19	10.86	17.89	21.29	47.07		
04/21/03 02:27:49	25.37	581.9	19	10.85	17.94	21.63	48.09		
04/21/03 02:28:48	25.30	580.3	19	10.89	17.99	22.08	48.55		
04/21/03 02:29:49	25.38	582.1	19	11.03	18.02	22.60	49.91		
04/21/03 02:30:48	25.35	581.4	19	10.90	18.03	22.41	49.85		
04/21/03 02:31:48	25.28	579.8	19	10.95	18.03	22.51	49.71		
04/21/03 02:32:49	25.38	582.1	19	11.03	18.03	22.67	50.51		
04/21/03 02:33:48	25.55	586.0	19	10.98	18.04	22.65	50.24		
04/21/03 02:34:51	25.50	584.9	20	11.15	18.04	23.00	51.36		
04/21/03 02:35:49	25.58	586.7	19	11.35	18.03	23.33	52.12		
04/21/03 02:36:48	25.75	590.6	20	11.52	18.04	23.77	53.69		
04/21/03 02:37:49	25.65	588.3	20	12.09	18.03	24.85	55.91		
04/21/03 02:38:48	25.75	590.6	20	12.42	18.03	25.53	57.35		
04/21/03 02:39:48	25.73	590.2	20	12.41	18.04	25.60	57.31		
04/21/03 02:40:50	25.67	588.8	20	12.41	18.04	25.60	57.17		
04/21/03 02:41:48	25.77	591.1	20	12.68	17.97	25.53	57.40		
04/21/03 02:42:49	25.85	592.9	19	15.39	17.53	26.94	60.64		
04/21/03 02:43:48	25.70	589.5	19	21.51	16.95	32.13	71.86		
04/21/03 02:44:49	25.47	584.2	18	24.41	16.82	35.30	78.46		
04/21/03 02:45:49	24.63	564.9	16	23.17	16.94	34.52	74.10		
04/21/03 02:46:49	26.80	614.7	18	21.37	16.88	31.36	73.66		
04/21/03 02:47:49	28.18	646.3	20	14.92	16.67	20.81	51.41		
04/21/03 02:48:49	28.07	643.8	21	11.79	16.48	15.74	38.57		
04/21/03 02:49:49	27.78	637.2	21	10.78	16.53	14.55	35.54		
04/21/03 02:50:49	27.57	632.4	21	10.14	16.60	13.91	33.32		
04/21/03 02:51:49	27.50	630.7	20	9.56	16.65	13.27	31.92		
04/21/03 02:52:49	27.40	628.5	21	9.11	16.67	12.71	30.51		
04/21/03 02:53:49	27.40	628.5	20	8.69	16.68	12.15	29.21		
04/21/03 02:54:49	27.40	628.5	21	8.29	16.69	11.62	27.92		
04/21/03 02:55:49	28.05	643.4	23	8.25	16.65	11.45	27.91		
04/21/03 02:56:47	28.42	651.8	24	9.43	16.50	12.64	31.65		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
04/21/03 02:57:49	28.25	647.9	24	10.06	16.48	13.43	32.80		
04/21/03 02:58:47	28.18	646.3	24	9.59	16.50	12.86	31.38		
04/21/03 02:59:49	27.95	641.1	23	9.10	16.53	12.29	29.80		
04/21/03 03:00:49	27.80	637.6	23	8.46	16.56	11.50	27.66		
04/21/03 03:01:51	28.08	644.1	23	7.82	16.57	10.66	25.95		
04/21/03 03:02:44	28.20	646.8	24	8.03	16.51	10.79	26.72		
04/21/03 03:03:49	28.23	647.5	24	7.81	16.50	10.47	26.09		
04/21/03 03:04:44	28.18	646.3	24	7.58	16.50	10.16	24.70		
04/21/03 03:05:49	27.90	639.9	23	7.09	16.52	9.55	23.14		
04/21/03 03:06:44	27.77	636.9	23	7.93	16.57	10.81	26.32		
04/21/03 03:07:50	28.08	644.1	23	8.38	16.54	11.34	27.95		
04/21/03 03:08:49	28.22	647.3	24	8.84	16.40	11.59	28.75		
04/21/03 03:09:45	28.22	647.3	24	9.05	16.35	11.74	28.75		
04/21/03 03:10:46	28.02	642.7	23	9.24	16.35	11.98	29.21	43.26	
04/21/03 03:11:44	27.97	641.5	23	7.31	16.44	9.67	23.86		
04/21/03 03:12:49	27.90	639.9	23	7.07	16.48	9.44	23.14		
04/21/03 03:13:47	27.93	640.6	23	7.12	16.51	9.57	23.16		
04/21/03 03:14:48	28.00	642.2	23	7.28	16.51	9.78	23.88		
04/21/03 03:15:49	27.98	641.8	23	7.34	16.52	9.89	23.87		
04/21/03 03:16:49	27.97	641.5	23	7.41	16.53	10.00	24.52		
04/21/03 03:17:49	28.08	644.1	23	7.52	16.53	10.15	24.62		
04/21/03 03:18:49	28.20	646.8	24	7.63	16.50	10.23	25.39		
04/21/03 03:19:49	28.20	646.8	24	7.91	16.48	10.56	26.04		
04/21/03 03:20:49	28.22	647.3	24	7.92	16.48	10.57	26.05		
04/21/03 03:21:49	28.07	643.8	23	7.90	16.48	10.55	25.91		
04/21/03 03:22:49	27.92	640.4	23	7.52	16.53	10.15	24.45		
04/21/03 03:23:49	28.00	642.2	23	7.14	16.57	9.73	23.86		
04/21/03 03:24:49	28.93	663.5	26	7.55	16.49	10.10	25.33		
04/21/03 03:25:49	29.00	665.2	26	9.57	16.37	12.46	31.58		
04/21/03 03:26:49	28.90	662.9	26	10.14	16.36	13.18	33.52		
04/21/03 03:27:47	28.87	662.2	26	10.01	16.38	13.07	32.80		
04/21/03 03:28:49	28.70	658.3	25	9.68	16.41	12.72	31.93		
04/21/03 03:29:49	28.70	658.3	25	9.07	16.43	11.97	29.89		
04/21/03 03:30:49	28.68	657.8	25	8.98	16.35	11.64	29.19		
04/21/03 03:31:49	28.88	662.4	25	9.17	16.31	11.79	29.38		
04/21/03 03:32:49	30.12	690.8	29	10.15	16.18	12.69	33.47		
04/21/03 03:33:49	30.78	706.0	31	14.30	15.99	17.18	45.86		
04/21/03 03:34:48	30.80	706.4	31	17.76	15.96	21.21	56.81		
04/21/03 03:35:49	30.97	710.3	31	19.13	15.99	22.99	62.25		
04/21/03 03:36:49	32.57	747.0	36	20.99	15.88	24.67	70.09		
04/21/03 03:37:49	32.60	747.7	36	28.65	15.67	32.32	91.61		
04/21/03 03:38:49	32.68	749.6	36	30.91	15.68	34.94	99.41		
04/21/03 03:39:49	32.58	747.3	36	31.44	15.70	35.67	100.63		
04/21/03 03:40:48	32.50	745.4	35	31.12	15.72	35.45	100.39		
04/21/03 03:41:48	32.37	742.4	35	30.24	15.73	34.51	96.93		
04/21/03 03:42:48	32.40	743.1	35	28.98	15.77	33.33	93.96		
04/21/03 03:43:48	32.53	746.1	35	28.12	15.78	32.40	91.01		
04/21/03 03:44:48	32.80	752.3	36	28.23	15.73	32.22	91.50		
04/21/03 03:45:49	32.65	748.9	35	29.20	15.72	33.26	94.14		
04/21/03 03:46:48	32.50	745.4	35	28.50	15.74	32.59	91.42		
04/21/03 03:47:49	32.43	743.8	35	26.91	15.76	30.89	86.66		
04/21/03 03:48:48	32.63	748.4	35	25.43	15.76	29.19	82.61		
04/21/03 03:49:48	32.82	752.8	36	24.84	15.69	28.13	79.89		
04/21/03 03:50:48	32.62	748.2	35	24.09	15.59	26.77	75.48		
04/21/03 03:51:48	32.38	742.7	35	21.99	15.61	24.53	68.11		
04/21/03 03:52:48	32.50	745.4	35	19.49	15.64	21.86	61.53		
04/21/03 03:53:49	32.78	751.9	36	18.72	15.64	21.00	59.00		
04/21/03 03:54:48	32.77	751.6	36	18.21	15.66	20.50	58.21		
04/21/03 03:55:49	32.70	750.0	36	17.37	15.68	19.63	54.97		
04/21/03 03:56:48	32.78	751.9	36	16.70	15.68	18.88	53.53		
04/21/03 03:57:49	32.72	750.5	36	16.61	15.69	18.81	52.67		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
04/21/03 03:58:49	32.70	750.0	36	16.97	15.69	19.22	54.16		
04/21/03 03:59:49	32.50	745.4	35	17.68	15.72	20.14	56.10		
04/21/03 04:00:49	32.50	745.4	35	18.66	15.73	21.29	59.13		
04/21/03 04:01:49	32.52	745.9	36	20.18	15.72	22.98	64.52		
04/21/03 04:02:50	32.55	746.6	35	21.60	15.73	24.65	69.16		
04/21/03 04:03:49	32.50	745.4	35	22.76	15.74	26.02	72.84		
04/21/03 04:04:47	32.50	745.4	35	23.98	15.73	27.37	76.64		
04/21/03 04:05:49	34.73	796.6	40	25.22	15.71	28.67	85.96		
04/21/03 04:06:49	36.83	844.7	46	28.09	15.19	29.02	92.01		
04/21/03 04:07:49	36.72	842.2	46	30.75	15.00	30.75	96.89		
04/21/03 04:08:50	39.42	904.1	51	32.51	14.96	32.29	109.53		
04/21/03 04:09:50	42.60	977.1	61	26.83	14.47	24.62	90.52		
04/21/03 04:10:49	43.10	988.6	63	32.49	14.39	29.45	108.69	59.18	
04/21/03 04:11:48	43.10	988.6	63	41.74	14.35	37.60	139.89		
04/21/03 04:12:50	43.47	997.0	64	47.82	14.30	42.75	159.34		
04/21/03 04:13:50	43.75	1003.5	65	52.84	14.25	46.88	176.74		
04/21/03 04:14:44	44.52	1021.1	67	56.85	14.24	50.36	193.35		
04/21/03 04:15:49	48.27	1107.1	78	63.26	14.23	55.96	232.16		
04/21/03 04:16:48	52.30	1199.6	92	78.38	14.14	68.41	307.74		
04/21/03 04:17:49	56.65	####	106	89.88	14.05	77.41	376.97		
04/21/03 04:18:48	56.10	1286.7	108	15.38	14.03	13.21	64.19		
04/21/03 04:19:49	52.55	1205.3	95	3.48	14.03	2.99	13.50		
04/21/03 04:20:48	51.10	1172.0	90	2.61	14.11	2.27	9.55		
04/21/03 04:21:49	51.07	1171.4	90	2.20	14.16	1.93	8.36		
04/21/03 04:22:44	51.00	1169.7	90	1.99	14.16		7.15		
04/21/03 04:23:49	51.02	1170.2	90	1.89	14.16		7.15		
04/21/03 04:24:49	51.00	1169.7	90	1.84	14.16		7.15		
04/21/03 04:25:49	51.08	1171.6	90	1.78	14.16		7.17		
04/21/03 04:26:49	51.08	1171.6	90	1.75	14.17		7.17		
04/21/03 04:27:49	51.08	1171.6	90	1.70	14.17		5.98		
04/21/03 04:28:49	51.02	1170.2	90	1.68	14.17		5.97		
04/21/03 04:29:49	51.07	1171.4	90	1.65	14.17		5.97		
04/21/03 04:30:44	51.08	1171.6	90	1.64	14.17		5.98		
04/21/03 04:31:49	51.07	1171.4	90	1.62	14.18		6.01		
04/21/03 04:32:44	51.05	1170.9	90	1.61	14.18		6.04		
04/21/03 04:33:49	51.08	1171.6	90	1.63	14.13		6.05		
04/21/03 04:34:44	51.03	1170.4	90	1.59	14.07		6.04		
04/21/03 04:35:45	51.00	1169.7	90	1.60	14.05		6.04		
04/21/03 04:36:51	51.33	1177.3	91	1.59	14.05		6.08		
04/21/03 04:37:51	51.32	1177.1	91	1.61	14.10		6.09		
04/21/03 04:38:51	51.32	1177.1	91	1.61	14.13		6.10		
04/21/03 04:39:51	51.30	1176.6	91	1.61	14.14		6.10		
04/21/03 04:40:45	51.35	1177.8	91	1.62	14.15		6.10		
04/21/03 04:41:45	51.40	1178.9	91	1.64	14.16		6.11		
04/21/03 04:42:45	51.40	1178.9	91	1.66	14.16		6.11		
04/21/03 04:43:45	51.38	1178.5	91	1.66	14.17		6.10		
04/21/03 04:44:44	51.35	1177.8	91	1.66	14.17		6.10		
04/21/03 04:45:45	51.35	1177.8	91	1.67	14.17		6.10		
04/21/03 04:46:46	51.33	1177.3	91	1.66	14.17		6.10		
04/21/03 04:47:46	51.35	1177.8	91	1.67	14.17		6.10		
04/21/03 04:48:46	51.30	1176.6	91	1.67	14.17		6.10		
04/21/03 04:49:46	51.25	1175.5	90	1.70	14.18		6.09		
04/21/03 04:50:46	51.20	1174.3	90	1.67	14.18		6.08		
04/21/03 04:51:49	51.17	1173.6	90	1.66	14.18		6.08		
04/21/03 04:52:46	51.10	1172.0	90	1.64	14.18		6.07		
04/21/03 04:53:46	51.10	1172.0	90	1.62	14.18		6.07		
04/21/03 04:54:46	51.03	1170.4	90	1.61	14.11		6.06		
04/21/03 04:55:46	51.23	1175.0	90	1.58	14.06		6.09		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
04/21/03 04:56:44	51.57	1182.8	91	1.55	14.04		6.13		
04/21/03 04:57:46	52.38	1201.4	92	1.60	14.07		6.22		
04/21/03 04:58:44	55.92	1282.6	104	1.71	14.07		6.64		
04/21/03 04:59:46	57.08	1309.2	109	1.86	14.03		8.14		

Moss Landing Power Plant  
Turbine 1 – Cold Start  
March 31, 2003

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
03/31/03 02:00:47	0.00	0.0	0	-0.05	20.69		0.00		
03/31/03 02:01:47	0.00	0.0	0	-0.05	20.75		0.00		
03/31/03 02:02:48	0.00	0.0	0	-0.05	20.82		0.00		
03/31/03 02:03:48	0.00	0.0	0	-0.05	20.84		0.00		
03/31/03 02:04:48	0.00	0.0	0	-0.06	20.86		0.00		
03/31/03 02:05:46	0.00	0.0	0	-0.06	20.87		0.00		
03/31/03 02:06:48	0.00	0.0	0	-0.05	20.87		0.00		
03/31/03 02:07:46	0.00	0.0	0	-0.06	20.85		0.00		
03/31/03 02:08:48	0.00	0.0	0	-0.03	20.77		0.00		
03/31/03 02:09:46	5.78	132.6	0	1.06	18.93	3.17	1.62		Begin Startup
03/31/03 02:10:48	8.80	201.8	0	3.52	17.28	5.74	4.32		
03/31/03 02:11:46	12.25	281.0	0	6.58	16.90	9.71	10.32		
03/31/03 02:12:46	21.70	497.7	0	10.35	16.64	14.33	26.91		
03/31/03 02:13:47	22.20	509.2	0	20.85	16.94	31.06	59.21		
03/31/03 02:14:46	21.85	501.2	0	24.36	17.46	41.78	78.72		
03/31/03 02:15:47	21.62	495.9	0	28.18	17.50	48.90	91.04		
03/31/03 02:16:46	21.45	492.0	0	32.43	17.53	56.78	104.88		
03/31/03 02:17:46	21.23	486.9	0	35.82	17.55	63.09	115.21		
03/31/03 02:18:47	21.17	485.6	0	37.48	17.56	66.21	120.85		
03/31/03 02:19:46	21.10	484.0	0	37.20	17.57	65.91	119.97		
03/31/03 02:20:47	21.00	481.7	0	35.41	17.57	62.74	113.49		
03/31/03 02:21:46	20.92	479.8	0	33.35	17.58	59.27	106.69		
03/31/03 02:22:47	20.90	479.4	0	31.22	17.58	55.48	99.76		
03/31/03 02:23:47	20.80	477.1	0	29.32	17.59	52.26	93.91		
03/31/03 02:24:51	20.80	477.1	0	27.37	17.59	48.79	87.59		
03/31/03 02:25:47	20.77	476.4	0	25.34	17.55	44.63	79.69		
03/31/03 02:26:48	20.70	474.8	0	23.61	17.47	40.61	72.65		
03/31/03 02:27:47	20.72	475.2	0	22.22	17.43	37.78	67.37		
03/31/03 02:28:48	20.70	474.8	0	21.42	17.46	36.74	65.38		
03/31/03 02:29:47	20.68	474.3	0	21.29	17.53	37.27	66.28		
03/31/03 02:30:47	20.62	472.9	0	21.81	17.56	38.53	68.50		
03/31/03 02:31:47	20.60	472.5	0	23.05	17.58	40.96	72.78		
03/31/03 02:32:47	20.60	472.5	0	24.85	17.59	44.29	78.57		
03/31/03 02:33:45	20.60	472.5	0	26.73	17.60	47.79	84.83		
03/31/03 02:34:47	20.60	472.5	0	28.53	17.61	51.16	90.62		
03/31/03 02:35:47	20.60	472.5	0	29.92	17.62	53.82	95.44		
03/31/03 02:36:47	20.55	471.3	0	30.84	17.62	55.47	98.06		
03/31/03 02:37:47	20.57	471.8	0	31.63	17.63	57.07	101.05		
03/31/03 02:38:45	20.50	470.2	0	32.25	17.63	58.19	102.63		
03/31/03 02:39:47	20.45	469.0	0	32.67	17.63	58.95	103.81		
03/31/03 02:40:48	20.40	467.9	0	32.96	17.63	59.47	104.53		
03/31/03 02:41:47	20.40	467.9	0	33.07	17.64	59.85	105.01		
03/31/03 02:42:48	20.30	465.6	0	33.23	17.64	60.14	105.43		
03/31/03 02:43:47	20.30	465.6	0	33.26	17.64	60.19	105.43		
03/31/03 02:44:47	20.38	467.4	0	33.24	17.64	60.16	105.83		
03/31/03 02:45:46	20.40	467.9	0	33.23	17.65	60.33	105.96		
03/31/03 02:46:48	20.40	467.9	0	29.27	17.65	53.14	93.55		
03/31/03 02:47:48	20.40	467.9	0	16.64	17.64	30.12	52.98		
03/31/03 02:48:48	20.40	467.9	0	13.38	17.56	23.64	41.53		
03/31/03 02:49:48	20.38	467.4	0	12.23	17.48	21.10	37.18		
03/31/03 02:50:48	21.00	481.7	5	11.61	17.46	19.91	35.86		
03/31/03 02:51:49	24.68	566.1	15	11.88	17.28	19.36	41.00		
03/31/03 02:52:48	25.72	589.9	17	13.05	16.87	19.11	42.12		
03/31/03 02:53:48	25.75	590.6	18	13.84	17.05	21.21	46.99		
03/31/03 02:54:48	26.00	596.3	18	14.57	17.22	23.36	52.31		
03/31/03 02:55:46	25.98	595.9	19	14.69	17.38	24.62	55.31		



Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
03/31/03 02:56:48	26.00	596.3	19	14.12	17.53	24.72	55.35		
03/31/03 02:57:48	25.82	592.2	19	13.37	17.69	24.57	54.96		
03/31/03 02:58:48	25.65	588.3	19	12.36	17.84	23.83	52.81		
03/31/03 02:59:48	25.62	587.6	19	11.69	17.88	22.84	50.35		
03/31/03 03:00:48	25.60	587.2	19	11.63	17.88	22.72	50.31		
03/31/03 03:01:48	25.65	588.3	19	11.70	17.88	22.86	50.41		
03/31/03 03:02:48	25.65	588.3	19	11.66	17.88	22.78	50.41		
03/31/03 03:03:48	25.62	587.6	19	11.59	17.89	22.72	50.35		
03/31/03 03:04:49	25.70	589.5	19	11.63	17.89	22.80	50.51		
03/31/03 03:05:48	25.52	585.3	19	11.67	17.89	22.87	50.15		
03/31/03 03:06:47	25.43	583.3	19	11.61	17.90	22.83	49.98		
03/31/03 03:07:48	25.50	584.9	18	11.46	17.91	22.61	49.52		
03/31/03 03:08:47	25.40	582.6	19	11.41	17.90	22.44	49.33		
03/31/03 03:09:48	25.55	586.0	19	11.54	17.90	22.70	50.21	70.95	
03/31/03 03:10:49	25.55	586.0	18	11.55	17.91	22.79	50.21		
03/31/03 03:11:48	25.42	583.0	19	11.43	17.91	22.55	49.36		
03/31/03 03:12:49	25.50	584.9	19	11.40	17.87	22.20	48.92		
03/31/03 03:13:49	25.50	584.9	19	11.27	17.78	21.31	47.13		
03/31/03 03:14:49	25.40	582.6	19	11.19	17.73	20.83	45.76		
03/31/03 03:15:44	25.50	584.9	19	11.26	17.74	21.02	45.94		
03/31/03 03:16:44	25.57	586.5	19	11.06	17.82	21.19	46.66		
03/31/03 03:17:48	25.50	584.9	19	11.02	17.85	21.32	47.13		
03/31/03 03:18:44	25.62	587.6	19	11.08	17.86	21.50	47.35		
03/31/03 03:19:48	25.67	588.8	19	11.07	17.87	21.56	47.45		
03/31/03 03:20:44	25.60	587.2	19	11.10	17.87	21.61	47.91		
03/31/03 03:21:50	25.68	589.0	19	11.27	17.87	21.94	48.66		
03/31/03 03:22:50	25.70	589.5	19	11.22	17.88	21.92	48.71		
03/31/03 03:23:51	25.60	587.2	19	11.17	17.88	21.82	47.91		
03/31/03 03:24:51	25.68	589.0	19	11.17	17.88	21.82	48.06		
03/31/03 03:25:51	25.68	589.0	19	11.04	17.88	21.57	47.46		
03/31/03 03:26:45	25.60	587.2	19	11.05	17.88	21.59	47.91		
03/31/03 03:27:51	25.68	589.0	19	11.17	17.88	21.82	48.06		
03/31/03 03:28:45	25.67	588.8	19	10.98	17.90	21.59	48.05		
03/31/03 03:29:49	25.55	586.0	19	11.00	17.90	21.63	47.82		
03/31/03 03:30:45	25.57	586.5	19	10.99	17.90	21.61	47.86		
03/31/03 03:31:46	25.57	586.5	19	10.85	17.91	21.41	47.26		
03/31/03 03:32:45	25.50	584.9	19	10.87	17.90	21.38	47.13		
03/31/03 03:33:45	25.55	586.0	19	10.96	17.91	21.63	47.82		
03/31/03 03:34:49	25.48	584.4	19	10.78	17.85	20.85	45.90		
03/31/03 03:35:45	25.40	582.6	19	10.80	17.77	20.36	44.57		
03/31/03 03:36:49	25.57	586.5	19	10.87	17.74	20.30	44.87		
03/31/03 03:37:49	25.48	584.4	19	10.80	17.77	20.36	44.71		
03/31/03 03:38:45	25.43	583.3	19	10.91	17.83	20.97	45.82		
03/31/03 03:39:49	25.55	586.0	18	11.08	17.86	21.50	47.22		
03/31/03 03:40:45	25.42	583.0	19	10.95	17.88	21.39	46.98		
03/31/03 03:41:51	25.42	583.0	19	11.11	17.89	21.78	47.58		
03/31/03 03:42:45	25.53	585.6	18	11.29	17.90	22.20	48.98		
03/31/03 03:43:46	25.40	582.6	19	11.22	17.91	22.14	48.73		
03/31/03 03:44:44	25.48	584.4	19	11.37	17.90	22.36	48.88		
03/31/03 03:45:45	25.53	585.6	19	11.35	17.91	22.40	49.58		
03/31/03 03:46:51	25.40	582.6	19	11.30	17.92	22.37	48.73		
03/31/03 03:47:45	25.43	583.3	19	11.41	17.92	22.59	49.39		
03/31/03 03:48:46	25.57	586.5	19	11.46	17.92	22.69	50.25		
03/31/03 03:49:46	25.37	581.9	19	11.36	17.92	22.49	49.26		
03/31/03 03:50:46	25.43	583.3	19	11.52	17.92	22.81	49.98		
03/31/03 03:51:48	25.57	586.5	19	11.39	17.93	22.63	49.65		
03/31/03 03:52:44	25.42	583.0	19	11.39	17.92	22.55	49.36		
03/31/03 03:53:46	25.50	584.9	19	11.53	17.92	22.83	50.11		
03/31/03 03:54:46	25.50	584.9	19	11.47	17.92	22.71	50.11		
03/31/03 03:55:46	25.40	582.6	19	11.42	17.82	21.88	48.14		
03/31/03 03:56:46	25.50	584.9	19	11.48	17.76	21.57	47.13		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
03/31/03 03:57:46	25.58	586.7	19	11.44	17.76	21.50	47.27		
03/31/03 03:58:46	25.50	584.9	19	11.52	17.82	22.07	48.32		
03/31/03 03:59:46	25.57	586.5	19	11.59	17.86	22.49	49.65		
03/31/03 04:00:46	25.60	587.2	19	11.52	17.88	22.51	49.71		
03/31/03 04:01:46	25.43	583.3	19	11.44	17.89	22.42	49.39		
03/31/03 04:02:46	25.58	586.7	19	11.54	17.90	22.70	50.27		
03/31/03 04:03:46	25.55	586.0	19	11.48	17.91	22.65	49.61		
03/31/03 04:04:51	25.40	582.6	19	11.45	17.91	22.59	49.33		
03/31/03 04:05:44	25.57	586.5	19	11.65	17.91	22.99	50.85		
03/31/03 04:06:45	25.60	587.2	19	11.56	17.93	22.96	50.91		
03/31/03 04:07:46	25.50	584.9	19	11.56	17.92	22.89	50.11		
03/31/03 04:08:45	25.63	587.9	19	11.70	17.92	23.16	50.97		
03/31/03 04:09:46	25.50	584.9	19	11.54	17.93	22.92	50.11	48.32	
03/31/03 04:10:44	25.40	582.6	19	11.48	17.93	22.81	49.92		
03/31/03 04:11:45	25.52	585.3	19	11.44	17.93	22.73	50.15		
03/31/03 04:12:45	25.37	581.9	19	11.28	17.93	22.41	49.26		
03/31/03 04:13:45	25.30	580.3	19	11.28	17.93	22.41	49.13		
03/31/03 04:14:46	25.45	583.7	18	11.36	17.94	22.64	49.42		
03/31/03 04:15:45	25.32	580.7	19	11.28	17.94	22.48	49.16		
03/31/03 04:16:48	25.32	580.7	19	11.33	17.90	22.28	48.57		
03/31/03 04:17:45	25.47	584.2	19	11.35	17.81	21.67	47.67		
03/31/03 04:18:45	25.42	583.0	19	11.27	17.78	21.31	46.98		
03/31/03 04:19:46	25.47	584.2	19	11.30	17.77	21.30	46.48		
03/31/03 04:20:45	25.90	594.0	20	11.37	17.82	21.78	48.47		
03/31/03 04:21:46	25.80	591.8	20	11.51	17.85	22.27	49.50		
03/31/03 04:22:45	25.75	590.6	20	11.61	17.86	22.53	50.00		
03/31/03 04:23:49	25.90	594.0	20	11.63	17.88	22.72	50.90		
03/31/03 04:24:45	25.83	592.4	20	11.50	17.88	22.47	50.15		
03/31/03 04:25:45	25.83	592.4	20	11.70	17.88	22.86	50.75		
03/31/03 04:26:45	25.93	594.7	20	11.67	17.89	22.87	50.95		
03/31/03 04:27:50	25.47	584.2	19	11.54	17.90	22.70	50.06		
03/31/03 04:28:46	25.53	585.6	19	11.30	17.91	22.30	48.98		
03/31/03 04:29:45	25.52	585.3	19	11.18	17.91	22.06	48.36		
03/31/03 04:30:49	25.32	580.7	19	11.06	17.91	21.82	47.38		
03/31/03 04:31:45	25.43	583.3	18	11.77	17.67	21.50	47.01		
03/31/03 04:32:46	25.73	590.2	18	15.76	17.12	24.60	54.78		
03/31/03 04:33:45	23.12	530.3	12	20.57	16.79	29.53	58.96		
03/31/03 04:34:46	22.23	509.9	10	15.66	17.20	24.97	47.85		
03/31/03 04:35:47	22.60	518.4	10	12.58	17.18	19.95	39.13		
03/31/03 04:36:45	22.57	517.7	11	12.49	17.09	19.34	37.50		
03/31/03 04:37:46	22.63	519.0	11	12.61	17.04	19.27	37.59		
03/31/03 04:38:45	22.68	520.2	10	12.52	17.12	19.54	38.20		
03/31/03 04:39:45	22.98	527.1	12	12.59	17.16	19.86	39.24		
03/31/03 04:40:49	24.72	567.0	16	13.35	17.03	20.35	43.37		
03/31/03 04:41:46	25.02	573.9	16	16.57	16.82	23.96	51.52		
03/31/03 04:42:47	24.52	562.4	15	18.10	16.83	26.24	55.64		
03/31/03 04:43:46	26.78	614.2	20	18.51	16.84	26.90	62.02		
03/31/03 04:44:46	29.33	672.7	24	14.94	16.53	20.17	50.78		
03/31/03 04:45:46	31.92	732.1	31	12.32	16.19	15.43	42.56		
03/31/03 04:46:47	31.62	725.2	31	20.16	15.87	23.65	64.35		
03/31/03 04:47:46	31.20	715.6	30	23.23	15.88	27.30	73.72		
03/31/03 04:48:46	31.07	712.6	30	23.19	15.92	27.47	73.42		
03/31/03 04:49:46	30.80	706.4	30	22.81	15.95	27.19	72.05		
03/31/03 04:50:46	30.72	704.6	30	22.02	15.97	26.35	69.71		
03/31/03 04:51:47	30.67	703.5	30	22.05	15.98	26.44	69.61		
03/31/03 04:52:46	30.60	701.8	30	21.97	15.98	26.35	69.43		
03/31/03 04:53:49	30.60	701.8	30	22.07	15.97	26.41	69.43		
03/31/03 04:54:47	30.65	703.0	30	22.39	15.98	26.85	70.99		
03/31/03 04:55:46	31.02	711.5	31	22.82	15.95	27.20	72.57		
03/31/03 04:56:47	32.67	749.3	35	24.97	15.82	29.00	81.78		
03/31/03 04:57:46	32.93	755.3	36	31.66	15.45	34.27	97.07		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
03/31/03 04:58:47	32.62	748.2	35	34.32	15.44	37.09	104.56		
03/31/03 04:59:46	32.53	746.1	35	33.91	15.50	37.05	103.50		
03/31/03 05:00:46	32.72	750.5	35	33.50	15.57	37.08	104.87		
03/31/03 05:01:47	32.97	756.2	36	34.24	15.53	37.62	107.21		
03/31/03 05:02:46	32.87	753.9	36	35.02	15.52	38.40	108.43		
03/31/03 05:03:46	32.73	750.7	35	35.06	15.54	38.59	108.73		
03/31/03 05:04:46	32.43	743.8	35	34.79	15.58	38.58	107.74		
03/31/03 05:05:46	32.65	748.9	36	33.92	15.62	37.90	106.95		
03/31/03 05:06:46	32.77	751.6	36	34.37	15.57	38.05	107.32		
03/31/03 05:07:47	32.70	750.0	36	34.62	15.57	38.32	107.87		
03/31/03 05:08:46	32.70	750.0	36	34.56	15.57	38.26	107.87		
03/31/03 05:09:47	32.70	750.0	36	34.48	15.57	38.17	107.87	65.09	
03/31/03 05:10:46	32.70	750.0	35	34.34	15.58	38.08	107.10		
03/31/03 05:11:46	32.60	747.7	35	34.09	15.58	37.81	106.02		
03/31/03 05:12:47	32.60	747.7	35	34.01	15.59	37.79	106.02		
03/31/03 05:13:46	32.60	747.7	35	33.70	15.59	37.44	105.25		
03/31/03 05:14:47	32.63	748.4	36	33.25	15.59	36.94	103.82		
03/31/03 05:15:46	32.65	748.9	36	32.88	15.58	36.46	102.36		
03/31/03 05:16:47	32.70	750.0	36	32.59	15.58	36.14	101.75		
03/31/03 05:17:46	32.70	750.0	36	32.42	15.58	35.95	100.98		
03/31/03 05:18:46	32.67	749.3	35	32.07	15.57	35.50	100.12		
03/31/03 05:19:50	33.25	762.6	37	31.77	15.49	34.65	99.57		
03/31/03 05:20:47	37.73	865.4	48	31.58	15.19	32.63	105.92		
03/31/03 05:21:47	42.97	985.6	62	27.88	14.43	25.42	94.50		
03/31/03 05:22:47	47.48	1089.0	75	21.61	14.07	18.67	76.65		
03/31/03 05:23:47	51.78	1187.6	88	31.70	14.00	27.11	121.14		
03/31/03 05:24:47	56.08	1286.3	102	46.66	13.94	39.55	191.55		
03/31/03 05:25:47	57.97	1329.6	110	32.51	13.89	27.36	136.98		
03/31/03 05:26:45	57.72	1323.9	110	3.80	13.90	3.20	16.20		
03/31/03 05:27:47	55.55	1274.1	103	3.05	13.91	2.57	11.70		
03/31/03 05:28:47	54.93	1259.9	100	2.74	13.95	2.33	11.57		
03/31/03 05:29:47	54.82	1257.4	100	2.64	13.98	2.25	10.26		
03/31/03 05:30:48	54.87	1258.5	100	2.62	13.99	2.24	10.27		
03/31/03 05:31:48	54.87	1258.5	100	2.58	13.99	2.20	10.27		
03/31/03 05:32:52	54.87	1258.5	100	2.56	13.98	2.18	10.27		
03/31/03 05:33:47	54.95	1260.3	101	2.55	13.99	2.18	10.28		
03/31/03 05:34:47	54.92	1259.7	101	2.50	13.99	2.13	10.28		
03/31/03 05:35:48	54.93	1259.9	101	2.40	13.99	2.05	10.28		
03/31/03 05:36:47	54.92	1259.7	100	2.30	14.00	1.97	8.99		
03/31/03 05:37:47	54.92	1259.7	101	2.24	13.99	1.91	8.99		
03/31/03 05:38:47	54.85	1258.1	101	2.18	13.99	1.86	8.98		
03/31/03 05:39:47	54.85	1258.1	101	2.09	13.92	1.77	8.98		
03/31/03 05:40:46	54.92	1259.7	101	2.05	13.87	1.72	7.71		
03/31/03 05:41:47	54.92	1259.7	101	1.97	13.86	1.65	7.71		
03/31/03 05:42:46	54.98	1261.0	101	1.92	13.90	1.62	7.72		
03/31/03 05:43:48	54.93	1259.9	101	1.92	13.95	1.63	7.71		
03/31/03 05:44:47	54.70	1254.6	100	1.94	13.96	1.65	7.68		
03/31/03 05:45:51	54.72	1255.1	100	1.90	13.97	1.62	7.68		
03/31/03 05:46:47	54.78	1256.4	100	1.86	13.98	1.59	7.69		
03/31/03 05:47:46	54.88	1258.7	101	1.84	13.99	1.57	7.70		
03/31/03 05:48:46	54.90	1259.2	101	1.81	13.99	1.55	7.71		
03/31/03 05:49:46	54.90	1259.2	101	1.80	13.99	1.54	7.71		
03/31/03 05:50:47	54.93	1259.9	100	1.77	14.00	1.51	7.71		
03/31/03 05:51:46	54.75	1255.8	100	1.76	13.99	1.50	7.69		
03/31/03 05:52:46	54.70	1254.6	100	1.76	14.00	1.50	7.68		
03/31/03 05:53:46	54.98	1261.0	101	1.72	14.00	1.47	6.43		
03/31/03 05:54:47	55.00	1261.5	101	1.70	14.00	1.45	6.43		
03/31/03 05:55:46	54.92	1259.7	101	1.69	14.00	1.45	6.42		
03/31/03 05:56:46	54.73	1255.3	100	1.68	14.00	1.44	6.40		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
03/31/03 05:57:49	54.78	1256.4	100	1.64	14.00	1.40	6.41		
03/31/03 05:58:46	54.70	1254.6	100	1.64	14.00	1.40	6.40		
03/31/03 05:59:47	54.73	1255.3	100	1.65	14.01	1.41	6.40		

Moss Landing Power Plant  
Turbine 4 – Cold Start  
May 14, 2003

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/14/03 02:00:47	0.00	0.0	0	0.00	20.86		0.00		
05/14/03 02:01:47	0.00	0.0	0	0.01	20.86		0.00		
05/14/03 02:02:47	0.00	0.0	0	0.00	20.86		0.00		
05/14/03 02:03:47	0.00	0.0	0	0.00	20.86		0.00		
05/14/03 02:04:48	0.00	0.0	0	0.00	20.86		0.00		
05/14/03 02:05:47	0.00	0.0	0	0.00	20.86		0.00		
05/14/03 02:06:48	0.00	0.0	0	0.01	20.86		0.00		
05/14/03 02:07:47	0.00	0.0	0	0.01	20.86		0.00		
05/14/03 02:08:47	0.00	0.0	0	0.00	20.85		0.00		
05/14/03 02:09:49	2.08	47.7	0	0.01	20.67	0.26	0.05		Begin Startup
05/14/03 02:10:50	7.62	174.8	0	0.66	18.86	1.91	1.24		
05/14/03 02:11:48	9.52	218.4	0	2.84	17.35	4.72	3.77		
05/14/03 02:12:47	13.25	303.9	0	6.15	16.98	9.26	10.49		
05/14/03 02:13:47	21.38	490.4	0	12.42	16.69	17.41	31.86		
05/14/03 02:14:48	21.85	501.2	1	26.08	17.19	41.47	77.83		
05/14/03 02:15:48	21.55	494.3	1	21.95	17.41	37.11	68.73		
05/14/03 02:16:48	21.38	490.4	1	19.94	17.45	34.10	62.72		
05/14/03 02:17:48	21.22	486.7	1	19.92	17.47	34.26	62.24		
05/14/03 02:18:48	21.07	483.3	1	20.61	17.49	35.66	64.26		
05/14/03 02:19:48	20.92	479.8	0	21.57	17.50	37.43	67.21		
05/14/03 02:20:48	20.93	480.1	0	22.55	17.51	39.25	70.66		
05/14/03 02:21:49	20.80	477.1	0	23.84	17.52	41.61	74.10		
05/14/03 02:22:48	20.72	475.2	0	25.73	17.53	45.05	80.06		
05/14/03 02:23:48	20.72	475.2	0	27.84	17.54	48.89	86.81		
05/14/03 02:24:48	20.65	473.6	0	28.91	17.54	50.76	89.89		
05/14/03 02:25:48	20.62	472.9	0	28.40	17.54	49.87	88.32		
05/14/03 02:26:48	20.65	473.6	0	26.89	17.55	47.36	83.64		
05/14/03 02:27:47	20.55	471.3	0	24.86	17.55	43.78	77.02		
05/14/03 02:28:48	20.52	470.7	0	23.63	17.56	41.74	73.58		
05/14/03 02:29:48	20.32	466.1	2	22.15	17.56	39.13	68.13		
05/14/03 02:30:48	22.23	509.9	9	20.89	17.54	36.68	69.86		
05/14/03 02:31:49	23.20	532.1	11	23.44	17.14	36.78	72.91		
05/14/03 02:32:48	23.08	529.4	11	24.84	17.08	38.37	75.76		
05/14/03 02:33:48	22.92	525.7	11	25.39	17.09	39.32	77.37		
05/14/03 02:34:47	22.83	523.6	11	26.71	17.10	41.47	81.32		
05/14/03 02:35:49	22.88	524.8	11	28.77	17.11	44.79	87.90		
05/14/03 02:36:49	22.83	523.6	11	31.79	17.11	49.49	96.73		
05/14/03 02:37:49	22.83	523.6	11	35.00	17.12	54.63	106.83		
05/14/03 02:38:49	22.77	522.3	11	37.86	17.12	59.09	115.56		
05/14/03 02:39:49	22.73	521.3	10	40.24	17.13	62.98	122.75		
05/14/03 02:40:49	22.72	521.1	10	41.91	17.15	65.94	128.52		
05/14/03 02:41:49	22.70	520.7	10	43.06	17.15	67.75	132.13		
05/14/03 02:42:47	22.70	520.7	10	43.90	17.14	68.89	134.24		
05/14/03 02:43:47	23.70	543.6	13	44.63	17.15	70.22	142.92		
05/14/03 02:44:49	26.20	600.9	19	52.05	16.81	75.08	168.94		
05/14/03 02:45:47	26.07	597.9	19	60.80	16.62	83.81	187.53		
05/14/03 02:46:48	23.30	534.4	12	61.01	16.65	84.70	169.23		
05/14/03 02:47:47	23.77	545.2	13	48.43	17.14	75.99	154.95		
05/14/03 02:48:48	25.92	594.5	18	53.58	16.81	77.29	171.97		
05/14/03 02:49:47	25.93	594.7	18	60.82	16.68	85.03	188.93		
05/14/03 02:50:50	25.83	592.4	18	55.40	16.85	80.71	178.59		
05/14/03 02:51:48	25.85	592.9	19	27.27	17.02	41.47	92.08		
05/14/03 02:52:48	25.83	592.4	19	18.72	17.18	29.69	65.54		
05/14/03 02:53:48	25.83	592.4	19	15.75	17.33	26.03	57.72		
05/14/03 02:54:49	25.68	589.0	19	13.50	17.48	23.29	51.41		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/14/03 02:55:48	25.48	584.4	19	11.61	17.64	21.01	45.68		
05/14/03 02:56:49	25.47	584.2	19	10.38	17.79	19.69	43.29		
05/14/03 02:57:48	25.48	584.4	19	9.96	17.87	19.39	42.12		
05/14/03 02:58:48	25.53	585.6	19	9.24	17.87	17.99	39.23		
05/14/03 02:59:48	25.53	585.6	19	9.12	17.86	17.70	38.64		
05/14/03 03:00:47	25.45	583.7	19	9.23	17.86	17.91	39.11		
05/14/03 03:01:48	25.45	583.7	19	9.39	17.86	18.22	39.70		
05/14/03 03:02:48	25.45	583.7	19	9.45	17.86	18.34	40.29		
05/14/03 03:03:46	25.48	584.4	19	9.50	17.86	18.44	40.34		
05/14/03 03:04:47	25.47	584.2	19	9.67	17.86	18.77	40.92		
05/14/03 03:05:48	25.43	583.3	19	9.78	17.86	18.98	41.44		
05/14/03 03:06:47	25.45	583.7	19	9.89	17.87	19.26	42.07		
05/14/03 03:07:48	25.40	582.6	19	9.94	17.86	19.29	41.98		
05/14/03 03:08:47	25.35	581.4	19	9.81	17.86	19.04	41.31		
05/14/03 03:09:47	25.33	581.0	19	9.74	17.86	18.90	41.28	78.55	
05/14/03 03:10:48	25.17	577.3	18	9.53	17.86	18.50	39.85		
05/14/03 03:11:47	25.12	576.2	18	9.20	17.87	17.91	38.60		
05/14/03 03:12:47	25.18	577.5	18	9.05	17.87	17.62	38.10		
05/14/03 03:13:48	25.15	576.8	18	8.87	17.87	17.27	37.47		
05/14/03 03:14:48	25.15	576.8	18	8.86	17.88	17.31	37.47		
05/14/03 03:15:49	25.15	576.8	18	6.41	17.88	12.52	26.93		
05/14/03 03:16:48	25.18	577.5	18	6.38	17.88	12.46	26.97		
05/14/03 03:17:49	25.10	575.7	18	6.35	17.88	12.41	26.88		
05/14/03 03:18:48	25.17	577.3	18	6.33	17.88	12.37	26.96		
05/14/03 03:19:49	25.15	576.8	18	6.29	17.88	12.29	26.35		
05/14/03 03:20:49	25.08	575.2	18	6.26	17.88	12.23	26.27		
05/14/03 03:21:49	25.03	574.1	18	6.21	17.89	12.17	26.22		
05/14/03 03:22:47	25.60	587.2	17	6.16	17.89	12.07	26.22		
05/14/03 03:23:49	25.48	584.4	17	5.87	17.92	11.62	25.51		
05/14/03 03:24:47	25.17	577.3	18	6.03	17.91	11.90	25.78		
05/14/03 03:25:49	25.32	580.7	18	6.37	17.89	12.49	27.11		
05/14/03 03:26:49	25.25	579.1	19	6.71	17.89	13.15	28.21		
05/14/03 03:27:49	25.18	577.5	19	6.95	17.89	13.62	29.31		
05/14/03 03:28:49	25.25	579.1	19	7.09	17.88	13.85	29.98		
05/14/03 03:29:47	25.18	577.5	19	7.17	17.88	14.01	30.48		
05/14/03 03:30:49	25.18	577.5	19	7.15	17.88	13.97	29.90		
05/14/03 03:31:49	25.28	579.8	19	7.15	17.88	13.97	30.01		
05/14/03 03:32:49	25.25	579.1	19	7.18	17.88	14.03	30.57		
05/14/03 03:33:49	25.32	580.7	19	7.11	17.88	13.89	30.06		
05/14/03 03:34:47	25.23	578.7	19	7.06	17.88	13.79	29.96		
05/14/03 03:35:49	25.18	577.5	20	7.05	17.87	13.73	29.90		
05/14/03 03:36:49	25.33	581.0	20	7.14	17.86	13.86	30.07		
05/14/03 03:37:49	25.38	582.1	20	7.13	17.86	13.84	30.13		
05/14/03 03:38:49	25.45	583.7	20	7.08	17.86	13.74	30.22		
05/14/03 03:39:49	25.40	582.6	20	7.01	17.86	13.60	29.57		
05/14/03 03:40:49	25.45	583.7	20	6.88	17.87	13.40	29.03		
05/14/03 03:41:49	25.42	583.0	20	6.78	17.86	13.16	28.40		
05/14/03 03:42:49	25.55	586.0	20	6.75	17.86	13.10	28.55		
05/14/03 03:43:49	25.27	579.6	19	6.70	17.86	13.00	28.24		
05/14/03 03:44:48	25.17	577.3	19	6.52	17.88	12.74	27.54		
05/14/03 03:45:48	25.22	578.5	19	6.37	17.85	12.32	26.42		
05/14/03 03:46:48	25.20	578.0	19	6.37	17.81	12.16	26.40		
05/14/03 03:47:48	25.28	579.8	19	6.37	17.81	12.16	26.48		
05/14/03 03:48:48	25.22	578.5	19	6.37	17.81	12.16	26.42		
05/14/03 03:49:48	25.15	576.8	19	3.23	19.37	12.46	26.93		
05/14/03 03:50:48	25.22	578.5	19	0.09	20.92	-26.55	0.00		missing data
05/14/03 03:51:49	25.30	580.3	19	0.68	-0.14	0.19	0.59		missing data
05/14/03 03:52:49	25.25	579.1	19	0.09	-0.63	0.02	0.00		missing data
05/14/03 03:53:49	25.18	577.5	19	0.11	-0.65	0.03	0.00		missing data
05/14/03 03:54:48	25.30	580.3	19	0.08	-0.69	0.02	0.00		missing data

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/14/03 03:55:48	25.27	579.6	19	0.19	-0.58	0.05	0.00		missing data
05/14/03 03:56:49	25.17	577.3	18	0.08	-0.67	0.02	0.00		missing data
05/14/03 03:57:48	25.18	577.5	18	0.08	-0.67	0.02	0.00		missing data
05/14/03 03:58:49	25.15	576.8	18	6.96	-0.66	1.90	4.10		missing data
05/14/03 03:59:48	25.17	577.3	18	9.18	-0.69	2.51	5.27		missing data
05/14/03 04:00:48	25.33	581.0	18	9.19	-0.68	2.51	5.31		missing data
05/14/03 04:01:48	25.28	579.8	18	9.22	-0.68	2.52	5.30		missing data
05/14/03 04:02:49	25.20	578.0	18	111.90	-0.67	30.61	66.30		missing data
05/14/03 04:03:48	25.22	578.5	18	184.47	-0.68	50.43	109.22		missing data
05/14/03 04:04:48	25.27	579.6	18	184.13	-0.68	50.34	108.84		missing data
05/14/03 04:05:49	25.30	580.3	18	184.10	-0.68	50.33	108.97		missing data
05/14/03 04:06:48	25.37	581.9	18	57.41	16.08	70.27	152.97		
05/14/03 04:07:49	25.32	580.7	18	30.35	17.32	50.02	108.45		
05/14/03 04:08:49	25.48	584.4	19	0.42	20.88	123.90	270.50		
05/14/03 04:09:49	25.42	583.0	18	8.64	17.53	15.13	33.14	39.56	does not include missing data
05/14/03 04:10:49	25.37	581.9	18	12.92	17.14	20.27	44.30		
05/14/03 04:11:49	25.42	583.0	18	12.96	17.10	20.12	43.79		
05/14/03 04:12:49	25.40	582.6	18	12.93	17.03	19.71	43.16		
05/14/03 04:13:49	25.35	581.4	18	12.93	17.03	19.71	43.08		
05/14/03 04:14:49	25.30	580.3	18	12.93	17.03	19.71	43.00		
05/14/03 04:15:49	25.30	580.3	18	9.43	18.33	21.65	47.12		
05/14/03 04:16:49	25.30	580.3	18	0.09	20.92	-26.55	0.00		missing data
05/14/03 04:17:49	25.35	581.4	18	0.71	4.26	0.25	0.59		missing data
05/14/03 04:18:52	25.37	581.9	18	0.12	-0.62	0.03	0.00		missing data
05/14/03 04:19:49	25.28	579.8	18	0.10	-0.64	0.03	0.00		missing data
05/14/03 04:20:49	25.32	580.7	18	0.10	-0.67	0.03	0.00		missing data
05/14/03 04:21:50	25.32	580.7	18	0.15	-0.64	0.04	0.00		missing data
05/14/03 04:22:49	25.30	580.3	18	0.09	-0.67	0.02	0.00		missing data
05/14/03 04:23:49	25.33	581.0	18	0.10	-0.67	0.03	0.00		missing data
05/14/03 04:24:49	25.42	583.0	18	5.36	-0.67	1.47	2.96		missing data
05/14/03 04:25:47	25.37	581.9	18	9.19	-0.68	2.51	5.32		missing data
05/14/03 04:26:49	25.30	580.3	18	9.22	-0.68	2.52	5.30		missing data
05/14/03 04:27:49	25.35	581.4	18	9.20	-0.68	2.52	5.31		missing data
05/14/03 04:28:49	25.35	581.4	18	91.23	-0.68	24.94	54.29		missing data
05/14/03 04:29:49	25.45	583.7	19	183.62	-0.68	50.20	109.61		missing data
05/14/03 04:30:49	25.52	585.3	19	183.64	-0.69	50.18	109.91		missing data
05/14/03 04:31:48	25.52	585.3	18	183.76	-0.69	50.22	109.91		missing data
05/14/03 04:32:49	25.50	584.9	19	95.15	10.89	56.08	122.90		
05/14/03 04:33:48	25.67	588.8	19	32.84	16.67	45.81	100.99		
05/14/03 04:34:50	25.67	588.8	19	1.14	20.87	224.20	493.62		
05/14/03 04:35:50	25.58	586.7	19	6.48	18.36	15.05	32.75		
05/14/03 04:36:50	25.60	587.2	19	14.36	17.00	21.72	47.68		
05/14/03 04:37:48	25.67	588.8	19	14.56	17.00	22.03	48.41		
05/14/03 04:38:49	25.67	588.8	18	15.02	16.87	21.99	48.41		
05/14/03 04:39:48	25.65	588.3	18	15.48	16.87	22.66	49.56		
05/14/03 04:40:48	25.35	581.4	18	15.60	16.88	22.90	49.57		
05/14/03 04:41:50	25.23	578.7	18	15.32	16.82	22.15	48.17		
05/14/03 04:42:48	25.33	581.0	18	15.69	16.76	22.36	48.36		
05/14/03 04:43:49	25.63	587.9	18	15.58	16.77	22.26	48.93		
05/14/03 04:44:48	26.70	612.4	19	15.32	16.65	21.27	48.48		
05/14/03 04:45:48	26.18	600.5	17	10.20	16.65	14.16	31.69		
05/14/03 04:46:49	26.18	600.5	17	7.16	16.71	10.08	22.55		
05/14/03 04:47:48	26.50	607.8	18	4.59	16.73	6.49	14.81		
05/14/03 04:48:49	27.37	627.8	21	3.66	16.59	5.01	11.47		
05/14/03 04:49:48	27.33	626.8	21	3.03	16.45	4.02	9.54		
05/14/03 04:50:49	27.27	625.5	21	3.05	16.46	4.05	9.52		
05/14/03 04:51:44	27.40	628.5	21	3.08	16.46	4.09	9.57		
05/14/03 04:52:49	27.30	626.2	21	3.08	16.46	4.09	9.53		
05/14/03 04:53:49	27.18	623.4	20	3.06	16.47	4.08	9.49		

Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/14/03 04:54:49	27.13	622.3	20	3.02	16.49	4.04	9.47		
05/14/03 04:55:49	27.20	623.9	21	3.00	16.50	4.02	9.50		
05/14/03 04:56:49	28.92	663.3	25	2.95	16.38	3.85	9.42		
05/14/03 04:57:50	29.03	665.8	26	2.91	16.12	3.59	8.79		
05/14/03 04:58:49	29.00	665.2	26	3.15	16.14	3.90	9.45		
05/14/03 04:59:44	28.95	664.0	26	3.47	16.15	4.31	10.78		
05/14/03 05:00:49	30.25	693.8	29	3.73	16.13	4.61	11.97		
05/14/03 05:01:49	31.38	719.7	32	5.97	15.83	6.95	18.99		
05/14/03 05:02:49	34.33	787.4	40	11.53	15.53	12.67	37.56		
05/14/03 05:03:44	34.62	794.1	41	25.56	15.13	26.14	77.38		
05/14/03 05:04:51	34.45	790.2	41	33.91	15.16	34.86	102.67		
05/14/03 05:05:45	33.55	769.5	38	36.64	15.15	37.60	108.56		
05/14/03 05:06:51	30.32	695.4	29	19.56	15.63	21.90	57.17		
05/14/03 05:07:44	30.40	697.3	28	6.98	16.04	8.47	21.94		
05/14/03 05:08:44	34.47	790.6	36	5.36	15.93	6.36	18.46		
05/14/03 05:09:51	35.65	817.7	41	19.99	15.26	20.91	63.91	49.01	does not include missing data
05/14/03 05:10:43	38.18	875.7	49	32.34	15.03	32.51	106.66		
05/14/03 05:11:45	38.38	880.3	51	23.41	14.58	21.85	72.37		
05/14/03 05:12:51	39.57	907.6	54	21.62	14.52	19.99	68.17		
05/14/03 05:13:45	41.80	958.7	61	19.63	14.31	17.57	63.25		
05/14/03 05:14:44	41.70	956.4	60	23.45	14.30	20.96	74.74		
05/14/03 05:15:44	41.53	952.5	60	27.68	14.31	24.78	87.98		
05/14/03 05:16:45	41.52	952.3	60	30.59	14.33	27.47	97.63		
05/14/03 05:17:44	41.35	948.4	60	33.55	14.33	30.13	106.85		
05/14/03 05:18:45	41.58	953.7	60	35.82	14.34	32.22	115.19		
05/14/03 05:19:44	41.60	954.1	61	38.67	14.32	34.67	123.96		
05/14/03 05:20:44	41.62	954.6	61	40.53	14.33	36.40	129.83		
05/14/03 05:21:45	41.48	951.4	61	41.97	14.33	37.69	134.23		
05/14/03 05:22:49	41.47	951.2	60	42.89	14.33	38.52	137.10		
05/14/03 05:23:44	42.88	983.5	65	43.79	14.33	39.32	144.75		
05/14/03 05:24:44	46.88	1075.3	77	52.15	14.18	45.79	184.45		
05/14/03 05:25:44	50.73	1163.6	90	66.14	14.06	57.05	248.03		
05/14/03 05:26:45	54.90	1259.2	104	82.37	13.97	70.13	329.75		
05/14/03 05:27:44	58.72	1346.8	118	43.21	13.91	36.47	183.18		
05/14/03 05:28:45	62.63	1436.5	131	2.09	13.94	1.77	10.21		
05/14/03 05:29:44	66.73	1530.5	144	0.90	13.90		4.66		
05/14/03 05:30:44	71.30	1635.4	157	0.91	13.87		4.98		
05/14/03 05:31:43	75.62	1734.4	169	0.98	13.86		5.28		
05/14/03 05:32:44	75.98	1742.7	170	1.18	13.75		7.08		
05/14/03 05:33:49	76.03	1743.8	170	1.23	13.77		7.08		
05/14/03 05:34:44	75.90	1740.9	170	1.32	13.78		7.07		
05/14/03 05:35:47	75.85	1739.7	170	1.39	13.78		7.06		
05/14/03 05:36:45	75.88	1740.4	170	1.49	13.78		8.83		
05/14/03 05:37:45	75.88	1740.4	170	1.55	13.78		8.83		
05/14/03 05:38:45	75.85	1739.7	170	1.62	13.78		8.83		
05/14/03 05:39:45	75.90	1740.9	170	1.69	13.78		8.84		
05/14/03 05:40:45	75.77	1737.9	170	1.75	13.78		8.82		
05/14/03 05:41:49	75.72	1736.7	170	1.78	13.79		8.81		
05/14/03 05:42:45	75.72	1736.7	170	1.81	13.79		10.58		
05/14/03 05:43:46	75.73	1737.0	170	1.81	13.79		10.58		
05/14/03 05:44:45	75.70	1736.3	170	1.83	13.79		10.57		
05/14/03 05:45:45	75.70	1736.3	170	1.85	13.79		10.57		
05/14/03 05:46:45	75.68	1735.8	170	1.92	13.79		10.57		
05/14/03 05:47:51	75.58	1733.5	170	2.00	13.79		10.56		
05/14/03 05:48:51	75.60	1734.0	170	1.98	13.79		10.56		
05/14/03 05:49:47	75.72	1736.7	170	1.95	13.79		10.58		



Date Time	Gas Flow, klb/hr	Gas Flow, kscfh	Load, Mw	NOx raw, ppm	O2, %	NOx ppm, @ 15% O2	NOx, lb/hr	NOx Hourly Average, lb/hr	Comments
05/14/03 05:50:46	75.65	1735.1	170	1.92	13.79		10.57		
05/14/03 05:51:44	75.68	1735.8	170	1.92	13.79		10.57		
05/14/03 05:52:46	75.73	1737.0	170	1.92	13.79		10.58		
05/14/03 05:53:46	75.72	1736.7	170	1.88	13.79		10.58		
05/14/03 05:54:46	75.75	1737.4	170	1.83	13.78		10.58		
05/14/03 05:55:46	75.70	1736.3	170	1.79	13.79		8.81		
05/14/03 05:56:44	74.03	1698.0	165	1.77	13.81		8.62		
05/14/03 05:57:45	69.52	1594.5	152	1.41	13.94		6.47		
05/14/03 05:58:44	64.83	1487.0	138	1.45	13.86		6.04		
05/14/03 05:59:45	60.57	1389.2	125	1.32	13.89		5.64		