

CERTIFICATION TESTING

**in accordance with the
CLEAN AIR ACT of 1990**

CITY OF TALLAHASSEE

PLANT PURDOM

UNIT 8

Prepared By:
Spectrum Systems, Inc.
Pensacola, Fl

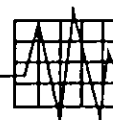
ANALYZERS CERTIFIED:	NO _x Monitor	CO ₂ Monitor
	42C-63473-339	N1-L5-0290

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I. INTRODUCTION

Spectrum Systems, Inc. was contracted by the City of Tallahassee, to perform initial certification testing on the Nitrogen Oxides Continuous Emissions Monitoring System installed on the stack of Plant Purdom Unit 8, located in St. Marks, Florida.

The tests were conducted according to the procedures outlined in the Code of Federal Regulations, Title 40, Part 75 (40CFR75). Reference methods 3A and 7E, as defined in 40CFR60, Appendix A, were utilized for the determination of Nitrogen Oxides (NO_x) and Oxygen (O₂). Spectrum Systems, Inc. (SSI) administrated the testing August 31 – September 1, 2000.

Cyrinda DeMontmollin of the City of Tallahassee coordinated the test schedules between all concerned testing parties as well as any regulatory agencies.



II. INSTALLATION DESCRIPTION

The probes are installed on the stack of Unit 8. The analyzers are housed in a shelter situated at the base of the stack. Further installation information can be obtained from the affected facility. The monitoring system will be used for compliance with the Clean Air Act of 1990 by reporting heat rate emissions of Nitrogen Oxides released into the atmosphere.

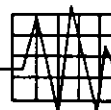
III. SUMMARY OF RESULTS

Results of the certification testing performed at Plant Purdom Unit 8, are presented in Appendix A. Appendix A contains a copy of the MDC version 3.2 certification data printout. In addition, Table One contains the RATA results for NOX corrected to 15% O2 on a dry basis required by permit. These results are based on test data obtained from the affected facility during normal operation of the boiler. The test results clearly show that the Continuous Emission Monitoring Systems installed on the General Electric Gas Fired Turbine Generator are in conformance with all requirements of 40CFR75, promulgated on January 11, 1993.

SEVEN DAY CALIBRATION ERROR TEST

Seven-day calibration error test were conducted in accordance with 40CFR75, Appendix A, paragraph 6.3 for the Carbon Dioxide and Nitrogen Oxides analyzers.

The NO_x and CO₂ analyzers calibration error was quantified for seven consecutive days at twenty-four intervals with no interruptions for unit downtime. The test was conducted by injecting Protocol One gases at the probes sample extraction point in the stack, which allows for a complete check of all system components. Both a Zero and High-level



concentration gas, as defined by 40CFR75, Appendix A, paragraph 5.2, are injected into the probe and after sufficient time for stabilization, monitor responses were taken from the data acquisition system. The calibration error is then calculated by using the following formula:

$$CE = \frac{|R - A|}{S} * 100$$

where,

CE = Calibration Error

R = Protocol One gas concentration

A = Analyzer Response

S = Span or Full scale value of the Analyzer

use $CE = |R - A|$ for CO₂ analyzers.

40CFR75 limits the calibration error to 2.5 percent of span for SO₂ and NO_x monitors and .5 percent by volume for CO₂ monitors.

Printouts from the data acquisition system are included in Appendix B of this report for the hours that occurred during the daily calibrations. Refer to the MDC report in Appendix A for a summary of results.

LINEARITY CHECKS

Linearity checks were performed on each pollutant and diluent analyzer utilizing the procedures outlined in 40CFR75, Appendix A, paragraph 6.2. Protocol One gases at the low, mid, and high concentration levels, as defined in 40CFR75, Appendix A, paragraph 5.2, are injected into the probes sample extraction point under normal operating conditions. After sufficient time has elapsed for system stabilization, the monitor's response was recorded from the data acquisition system. A total of three non-consecutive



readings are taken at each gas concentration level. The linearity error is then calculated using the following formula:

$$LE = \frac{|R - A|}{R} * 100$$

where,

LE = Linearity Error

R = Protocol One gas concentration

A = Analyzer response

40CFR75 limits linearity error to five percent of the reference value for all pollutant and diluent monitors with the following exceptions:

- 1) For SO_2 and NO_x monitors, if the average of the three analyzer responses is within 5 ppm of the reference gas value, this is acceptable.
- 2) For CO_2 monitors, if the average of the three analyzer responses is within .5% CO_2 by volume of the reference gas, this is acceptable.

Appendix C of this report contains the linearity test printout that can be generated by the DAS once a linearity test is completed. A summary of the test results can be found in the MDC report in Appendix A.

CYCLE TIME/RESPONSE TIME TEST

Cycle Time/Response Time tests were conducted on each pollutant and diluent monitor in accordance with 40CFR75, Appendix A, paragraph 6.4. A zero gas was injected into the calibration port of the probe and a stable reading on both analyzers was obtained. On the top of the minute, the gas valve was closed and the system allowed to return to effluent levels. The amount of time required for each monitor to achieve a 95% step change on return to a steady effluent reading is the upscale response time. The High



calibration gas is injected in the same manner to perform the downscale response check. 40CFR75 limits the cycle time/response time to fifteen minutes for the NO_x and CO₂ monitors.

Refer to Appendix A for the MDC report for a summary of results. Appendix D of this report contains one-minute data taken from the CEMS DAS during the response test.

RELATIVE ACCURACY TESTS

Relative accuracy tests were conducted in accordance with 40CFR75, Appendix A, paragraph 6.5 for the NO_x Continuous Emission Monitoring System.

Relative accuracy is defined in the Federal Register as "the degree of correctness with which the CEMS or pollutant analyzer yields the value of a sample relative to the value given by a defined reference method". The defined reference methods used in conducting these RATAs are as follows:

Nitrogen Oxides
Oxygen

RM 7E
RM 3A

RELATIVE ACCURACY =

$$\frac{\left(\begin{array}{l} \text{Absolute value of the mean difference} \\ \text{between the Reference Method values and} \\ \text{the CEMS values} \end{array} \right) + \left(\begin{array}{l} \text{Absolute value of the} \\ \text{confidence coefficient} \end{array} \right)}{\left(\begin{array}{l} \text{Arithmetic Mean of} \\ \text{the Reference Method Values} \end{array} \right)} \times 100$$

40CFR75 limits the relative accuracy of the NO_x CEMS to ten percent.



The NO_x relative accuracy tests were conducted at normal load of the boiler. The State of Florida was consulted for the load that the test could be run at since Unit 8 is new and recently commissioned and no historical data was available.



Table One is a summary of the NOX RATA required by the state permit for NOX corrected to 15% O2 on a dr basis. Refer to the MDC report in Appendix A for the Part 75 RATA results.

BIAS TEST

The bias test was applied to all sets of relative accuracy data in accordance with 40CFR75, appendix A, paragraph 3.4. The bias was calculated using the criteria of 40CFR75 Appendix A, paragraph 7.6. It states that if the mean difference of the reference method and monitor or system is greater than the confidence coefficient, then the monitor or system has failed the bias test.

If a monitor fails the bias test and the mean of the monitor data is greater than the mean of the reference method data, then the bias is positive and no bias factor will be applied. However, corrective action may be taken to correct the positive bias and the relative accuracy test repeated. If the mean of the monitor data is less than the reference method data, then the problem is to be corrected and the relative accuracy test repeated, or a bias adjustment factor should be applied to all subsequent data as defined below:

$$BAF = 1 + \frac{|\bar{d}|}{CEM}$$

where,

BAF = Bias Adjustment Factor

d = Arithmetic mean of the difference in the reference and the CEM data.

CEM= Mean of the data provided from the monitor or system.

$$CEM \text{ adjusted} = CEM \text{ measured} * BAF$$



where,

CEM adjusted = data adjusted for bias factor

CEM measured = measured value from the monitor.

Refere to the MDC report in Appendix A for Bias Adjustment Factors.



Relative Accuracy and Bias Determination

Performed by:
Spectrum Systems Inc.
Pensacola, Florida

Performed for:
City of Tallahassee
Purdom Generating Station

Unit 8
NOx Monitor

Run Number	Date of Run	Start Time	Stop Time	Unit Load	RM-7E Nox PPM @15%	CEM Nox PPM @15%	Difference Nox PPM	1=good run 0=Bad Run	Error By Run
1	31-Aug	17:27	17:48	154	8.283	8.681	-0.398	1	-4.80
2	31-Aug	18:10	18:31	155	8.301	8.720	-0.419	1	-5.05
3	31-Aug	18:44	19:05	156	8.279	8.724	-0.445	1	-5.38
4	31-Aug	19:15	19:36	157	8.275	8.710	-0.435	1	-5.25
5	1-Sep	09:26	09:47	158	8.372	8.529	-0.157	1	-1.88
6	1-Sep	10:00	10:21	156	8.537	8.686	-0.149	1	-1.75
7	1-Sep	10:31	10:52	155	8.226	8.581	-0.355	1	-4.32
8	1-Sep	11:14	11:35	155	8.352	8.748	-0.396	1	-4.74
9	1-Sep	11:51	12:12	155	8.402	8.576	-0.174	1	-2.07
Average:				156	8.336	8.662	-0.325		
Standard Deviation							0.127		
Confidence Coefficient:							0.097		
Relative Accuracy:							5.07		

T-Factor: 2.306

TABLE ONE

V. STATEMENT OF AUTHENTICITY

The sampling and analysis for this report was carried out under my direction and supervision. I hereby certify that the details and results contained in this report are authentic and accurate to the best of my knowledge

Date: October 11, 2000

Signature: 
James Garrett
Testing Engineer



VI. MATHEMATICAL EXPLANATION

Data reduction for the reference method testing is performed as per the instructions contained in 40CFR75. The following explains equations not already covered in the text that might be helpful in understanding the data in this report.

The reference method utilized NO_x and O₂ monitors for calculating heat rate emissions.

The following formula is used to calculate NO_x in pounds per million BTU:

$$\#/MMBtu = \text{pollutant (ppm)} * FF * K * 100 / O_2(\%)$$

where,

#/MMBtu = NO_x emission rate.

pollutant (ppm) = Reference method run average

FF = Fuel Factor of 8710 for Natural Gas

K = constant of 1.194E-7 for converting ppm NO_x to lb/scf

The formulas used in calculating the relative accuracy comparisons are directly from 40CFR75, Appendix A. and are as they appear below:

Arithmetic Mean:

$$\bar{d} = \frac{1}{n} \sum_{i=1}^n d_i$$

Where: n = Number of data points
 d = Arithmetic Mean
 di = All specific data points individually taken

Standard Deviation:

$$S_d = \sqrt{\frac{\sum_{i=1}^n d_i^2 - \left[\frac{\left(\sum_{i=1}^n d_i \right)^2}{n} \right]}{n - 1}}$$



Confidence Coefficient:

$$CC = t_{0.025} \frac{S_d}{\sqrt{n}}$$

Where $t_{0.025}$ = T value from the table below:

n-1	$t_{0.025}$	n-1	$t_{0.025}$	n-1	$t_{0.025}$
1	12.706	12	2.179	23	2.069
2	4.303	13	2.160	24	2.064
3	3.182	14	2.145	25	2.060
4	2.776	15	2.131	26	2.056
5	2.571	16	2.120	27	2.052
6	2.447	17	2.110	28	2.048
7	2.365	18	2.101	29	2.045
8	2.306	19	2.093	30	2.042
9	2.262	20	2.086	40	2.021
10	2.228	21	2.080	60	2.000
11	2.201	22	2.074	>80	1.980

Relative Accuracy:

$$RA = \frac{|\bar{d}| + |\bar{cc}|}{\bar{RM}} \times 100$$

Where: $|\bar{d}|$ = The absolute value of the mean differences

$|\bar{cc}|$ = The absolute value of the confidence coefficient

\bar{RM} = The average reference method value or applicable standard



APPENDIX A

MDC VERSION 3.2 REPORT



MONITORING DATA CHECKING SOFTWARE 3.2
QA TEST DATA EVALUATION REPORT

10/12/2000
PAGE 2

ORIS Code: 689
Facility Name: SAM O. PURDOM

State: FL
County: WAKULLA

EVALUATION OF TEST DATA FOR UNIT 8

Test Type	Sys ID	Comp ID	Test Date/Time	Test Num	Problem Number	Description
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Based on the evaluation criteria in this version, the software has not identified any errors for this unit.

MONITORING DATA CHECKING SOFTWARE 3.2
 RATA REPORT (RT 610/611)

10/12/2000
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ORIS Code:	689	Facility:	SAM O. PURDOM	State:	FL
Unit/Stack ID:	8	System ID:	801	Parameter:	NOX
Test End Date/Time:	09/01/2000 1212	Test No.:	1 # of Loads: 1	Units of Measure:	LB/MMBTU
Reason for Test:	C				
Performance Spec:	<= 10.0%			Next RATA:	Four Op Qtrs
Recalc. Results:	Pass	% RA:	5.66 Mean Diff:	-0.001	BAF: 1.000
Reported Results:	Pass	% RA:	5.66 Mean Diff:	-0.001	BAF: 1.000

Operating Level: H

Run	Start Date	Start Time	End Date	End Time	Run Status	Reference Method	Monitoring Value	Gross Load
1	08/31/2000	1727	08/31/2000	1748	1	0.031	0.032	154
2	08/31/2000	1810	08/31/2000	1831	1	0.031	0.032	155
3	08/31/2000	1844	08/31/2000	1905	1	0.030	0.032	156
4	08/31/2000	1915	08/31/2000	1936	1	0.030	0.032	157
5	09/01/2000	0926	09/01/2000	0947	1	0.031	0.031	158
6	09/01/2000	1000	09/01/2000	1021	1	0.031	0.032	156
7	09/01/2000	1031	09/01/2000	1052	1	0.030	0.032	155
8	09/01/2000	1114	09/01/2000	1135	1	0.031	0.032	155
9	09/01/2000	1151	09/01/2000	1212	1	0.031	0.032	155

Summary Statistics

	Reported	Recalculated
Mean of Monitoring System	0.032	0.032
Mean of Reference Method Values	0.031	0.031
Mean of Difference	-0.001	-0.001
Standard Deviation of Difference	0.001	0.001
Confidence Coefficient	0.001	0.001
T-Value	2.306	2.306
Relative Accuracy:	5.66	5.66
Bias Adjustment Factor	1.000	1.000
APS Flag	0	0
Indicator of Normal Load	N	N
Gross Unit Load	156	156
Reference Method Used	7E,3A	

MONITORING DATA CHECKING SOFTWARE 3.2
CYCLE TIME TESTS (RT 621)

10/12/2000
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ORIS Code:	689	Facility:	SAM O. PURDOM	State:	FL
Unit/Stack ID:	8	System ID:	801	Parameter:	NOX
Test End Date/Time:	09/06/2000 1602	Test No.:	1	Reason for Test:	C
Calculated Result:	Pass	System Time:	3		
Reported Result:	Pass	System Time:	3		

Date	Start Time	End Time	Component ID	Component Type	Gas Level	Calibration Gas Value	Reported Cycle Time	Calculated Cycle Time	Stable Starting Monitor Value	Stable Ending Monitor Value
000906	1538	1539	001	NOXA	Z	0.000	1	1	0.000	10.300
000906	1538	1539	002	CO2	Z	0.000	1	1	0.000	3.800
000906	1553	1554	002	CO2	H	8.200	1	1	8.200	3.800
000906	1559	1602	001	NOXA	H	25.340	3	3	25.450	10.300

MONITORING DATA CHECKING SOFTWARE 3.2
CYCLE TIME TESTS (RT 621)

10/12/2000
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ORIS Code: 689 Facility: SAM O. PURDOM State: FL
 Unit/Stack ID: 8 System ID: 801 Parameter: NOX
 Test End Date/Time: 09/06/2000 1555 Test No.: 2 Reason for Test: C
 Calculated Result: Pass System Time: 3
 Reported Result: Pass System Time: 3

Date	Start Time	End Time	Component ID	Component Type	Gas Level	Calibration Gas Value	Reported Cycle Time	Calculated Cycle Time	Stable Starting Monitor Value	Stable Ending Monitor Value
000906	1538	1539	002	CO2	Z	0.000	1	1	0.000	3.800
000906	1538	1540	001	NOXA	Z	0.000	2	2	0.000	10.400
000906	1544	1547	001	NOXA	H	85.530	3	3	84.400	10.500
000906	1553	1555	002	CO2	H	8.200	2	2	8.200	3.800

MONITORING DATA CHECKING SOFTWARE 3.2
7-DAY CALIBRATION ERROR TESTS (RT 600)

10/12/2000
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ORIS Code:	689	Facility:	SAM O. PURDOM	State:	FL
Unit/Stack ID:	8	Comp/Sys ID:	001/801	Parameter:	NOX
Test End Date/Hour:	09/14/2000 06	Test No.:	1	Component Type:	NOXA
Calculated Results:	Pass-APS	Span Scale:	Low	Reason for Test:	C
Reported Results:	Pass-APS				
Performance Spec:	CE <= 2.5% of span or R-A <= 5 ppm				

Date	Hour	Gas Level	Span Value	Reference Value	Measured Value	Ref. Value as % of Span	Reported		Recalculated	
							Result	APS	Result	APS
000908	06	H	30.000	25.300	26.200	84.3%	1.0	1	1.0	1
000908	06	Z	30.000	0.000	0.000	0.0%	0.0	0	0.0	0
000909	06	H	30.000	25.300	26.000	84.3%	2.3	0	2.3	0
000909	06	Z	30.000	0.000	0.000	0.0%	0.0	0	0.0	0
000910	06	H	30.000	25.300	25.500	84.3%	0.7	0	0.7	0
000910	06	Z	30.000	0.000	0.000	0.0%	0.0	0	0.0	0
000911	06	H	30.000	25.325	25.400	84.4%	0.3	0	0.3	0
000911	06	Z	30.000	0.000	0.000	0.0%	0.0	0	0.0	0
000912	06	H	30.000	25.300	25.500	84.3%	0.7	0	0.7	0
000912	06	Z	30.000	0.000	0.000	0.0%	0.0	0	0.0	0
000913	06	H	30.000	25.300	25.400	84.3%	0.3	0	0.3	0
000913	06	Z	30.000	0.000	0.000	0.0%	0.0	0	0.0	0
000914	06	H	30.000	25.300	25.300	84.3%	0.0	0	0.0	0
000914	06	Z	30.000	0.000	0.000	0.0%	0.0	0	0.0	0

MONITORING DATA CHECKING SOFTWARE 3.2
 7-DAY CALIBRATION ERROR TESTS (RT 600)

10/12/2000
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ORIS Code: 689 Facility: SAM O. PURDOM State: FL
 Unit/Stack ID: 8 Comp/Sys ID: 001/801 Parameter: NOX
 Test End Date/Hour: 09/14/2000 06 Test No.: 2 Component Type: NOXA
 Calculated Results: Pass Span Scale: High Reason for Test: C
 Reported Results: Pass
 Performance Spec: CE <= 2.5% of span or |R-A| <= 5 ppm

Date	Hour	Gas Level	Span Value	Reference Value	Measured Value	Ref. Value as % of Span	Reported Result	APS	Recalculated Result	APS
000908	06	M	100.000	53.400	54.900	53.4%	1.5	0	1.5	0
000908	06	Z	100.000	0.000	0.000	0.0%	0.0	0	0.0	0
000909	06	M	100.000	53.400	55.100	53.4%	1.7	0	1.7	0
000909	06	Z	100.000	0.000	0.000	0.0%	0.0	0	0.0	0
000910	06	M	100.000	53.400	54.900	53.4%	1.5	0	1.5	0
000910	06	Z	100.000	0.000	0.000	0.0%	0.0	0	0.0	0
000911	06	M	100.000	53.400	55.000	53.4%	1.6	0	1.6	0
000911	06	Z	100.000	0.000	0.000	0.0%	0.0	0	0.0	0
000912	06	M	100.000	53.400	54.900	53.4%	1.5	0	1.5	0
000912	06	Z	100.000	0.000	0.000	0.0%	0.0	0	0.0	0
000913	06	M	100.000	53.400	55.000	53.4%	1.6	0	1.6	0
000913	06	Z	100.000	0.000	0.000	0.0%	0.0	0	0.0	0
000914	06	M	100.000	53.400	54.800	53.4%	1.4	0	1.4	0
000914	06	Z	100.000	0.000	0.000	0.0%	0.0	0	0.0	0

MONITORING DATA CHECKING SOFTWARE 3.2
LINEARITY REPORT (RT 601/602)

10/12/2000
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ORIS Code:	689	Facility:	SAM O. PURDOM	State:	FL
Unit/Stack ID:	8	Comp/Sys ID:	001/801	Parameter:	NOX
Test End Date/Time:	09/06/2000 1518	Test No.:	1	Component Type:	NOXA
Performance Spec:	LE <= 5.0% or R - A <= 5.0 ppm				
Recalc.:	Pass-APS	Highest R-A :	3.3	Scale:	High
Reported Results:	Pass-APS	Highest R-A :	3.3	Reason for Test:	C

Date	Time	Gas Level	Span Value	Reference Value	Measured Value	Indicator of Aborted Test	Ref. Value as % of Span
000906	1413	L	100.000	25.340	15.400		25.3%
000906	1430	M	100.000	53.370	54.500		53.4%
000906	1433	H	100.000	85.530	84.600		85.5%
000906	1440	L	100.000	25.340	25.400		25.3%
000906	1448	M	100.000	53.370	54.400		53.4%
000906	1454	H	100.000	85.530	84.700		85.5%
000906	1501	L	100.000	25.340	25.400		25.3%
000906	1508	M	100.000	53.370	54.400		53.4%
000906	1518	H	100.000	85.530	84.500		85.5%

Summary Statistics	Reported	Recalculated
High - Reference Value:	85.530	85.530
High - Mean CEM Value:	84.600	84.600
High - Alt. Perf. Flag:	0	0
High - Results:	1.1	1.1
Low - Reference Value:	25.340	25.340
Low - Mean CEM Value:	22.067	22.067
Low - Alt. Perf. Flag:	1	1
Low - Results:	3.3	3.3
Mid - Reference Value:	53.370	53.370
Mid - Mean CEM Value:	54.433	54.433
Mid - Alt. Perf. Flag:	0	0
Mid - Results:	2.0	2.0

MONITORING DATA CHECKING SOFTWARE 3.2
 7-DAY CALIBRATION ERROR TESTS (RT 600)

10/12/2000
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ORIS Code: 689 Facility: SAM O. PURDOM State: FL
 Unit/Stack ID: 8 Comp/Sys ID: 002/801 Parameter: NOX
 Test End Date/Hour: 09/14/2000 06 Test No.: 1 Component Type: CO2
 Calculated Results: Pass Span Scale: High Reason for Test: C
 Reported Results: Pass
 Performance Spec: CE <= 2.5% of span or |R-A| <= 5 ppm

Date	Hour	Gas Level	Span Value	Reference Value	Measured Value	Ref. Value as % of Span	Reported Result	APS	Recalculated Result	APS
000908	06	H	10.000	8.200	8.200	82.0%	0.0	0	0.0	0
000908	06	Z	10.000	0.000	0.000	0.0%	0.0	0	0.0	0
000909	06	H	10.000	8.200	8.000	82.0%	0.2	0	0.2	0
000909	06	Z	10.000	0.000	0.000	0.0%	0.0	0	0.0	0
000910	06	H	10.000	8.200	8.300	82.0%	0.1	0	0.1	0
000910	06	Z	10.000	0.000	0.000	0.0%	0.0	0	0.0	0
000911	06	H	10.000	8.200	8.100	82.0%	0.1	0	0.1	0
000911	06	Z	10.000	0.000	0.000	0.0%	0.0	0	0.0	0
000912	06	H	10.000	8.200	8.300	82.0%	0.1	0	0.1	0
000912	06	Z	10.000	0.000	0.000	0.0%	0.0	0	0.0	0
000913	06	H	10.000	8.200	8.100	82.0%	0.1	0	0.1	0
000913	06	Z	10.000	0.000	0.000	0.0%	0.0	0	0.0	0
000914	06	H	10.000	8.200	8.300	82.0%	0.1	0	0.1	0
000914	06	Z	10.000	0.000	0.000	0.0%	0.0	0	0.0	0

MONITORING DATA CHECKING SOFTWARE 3.2
LINEARITY REPORT (RT 601/602)

10/12/2000
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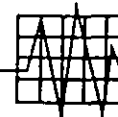
ORIS Code:	689	Facility:	SAM O. PURDOM	State:	FL
Unit/Stack ID:	8	Comp/Sys ID:	002/801	Parameter:	NOX
Test End Date/Time:	09/06/2000 1523	Test No.:	1	Component Type:	CO2
Performance Spec:	LE <= 5.0% or R - A <= 5.0 ppm	Highest Linearity Error:	0.2	Scale:	High
Recalc.:	Pass	Highest Linearity Error:	0.2	Reason for Test:	C
Reported Results:	Pass				

Date	Time	Gas Level	Span Value	Reference Value	Measured Value	Indicator of Aborted Test	Ref. Value as % of Span
000906	1418	L	10.000	2.500	2.500		25.0%
000906	1424	M	10.000	5.110	5.100		51.1%
000906	1437	H	10.000	8.200	8.200		82.0%
000906	1443	L	10.000	2.500	2.500		25.0%
000906	1450	M	10.000	5.110	5.100		51.1%
000906	1458	H	10.000	8.200	8.200		82.0%
000906	1504	L	10.000	2.500	2.500		25.0%
000906	1512	M	10.000	5.110	5.100		51.1%
000906	1523	H	10.000	8.200	8.200		82.0%

Summary Statistics	Reported	Recalculated
High - Reference Value:	8.200	8.200
High - Mean CEM Value:	8.200	8.200
High - Alt. Perf. Flag:	0	0
High - Results:	0.0	0.0
Low - Reference Value:	2.500	2.500
Low - Mean CEM Value:	2.500	2.500
Low - Alt. Perf. Flag:	0	0
Low - Results:	0.0	0.0
Mid - Reference Value:	5.110	5.110
Mid - Mean CEM Value:	5.100	5.100
Mid - Alt. Perf. Flag:	0	0
Mid - Results:	0.2	0.2

APPENDIX B

SEVEN DAY CALIBRATION ERROR DATA



DT	TM	UNITID	MEASURE	EXPECTED	E_LIMIT	D_LIMIT	EU	FSCALE	PASSED	WARNING	ONLINE
9/8/00	63550	NOX1	0.0	0.0	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/9/00	63550	NOX1	0.0	0.0	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/10/00	63550	NOX1	0.0	0.0	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/11/00	63550	NOX1	0.0	0.0	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/12/00	63550	NOX1	0.0	0.0	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/13/00	63550	NOX1	0.0	0.0	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/14/00	63550	NOX1	0.0	0.0	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	

DT	TM	UNITID	MEASURE	EXPECTED	E_LIMIT	D_LIMIT	EU	FSCALE	PASSED	WARNING	ONLINE
9/8/00	64150	NOX1	26.2	25.3	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/9/00	64150	NOX1	26.0	25.3	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/10/00	64150	NOX1	25.5	25.3	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/11/00	64150	NOX1	25.4	25.3	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/12/00	64150	NOX1	25.5	25.3	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/13/00	64150	NOX1	25.4	25.3	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	
9/14/00	64150	NOX1	25.3	25.3	5.0	0.0 ppm	30.0	TRUE	FALSE	TRUE	

DT	TM	UNITID	MEASURE	EXPECTED	E_LIMIT	D_LIMIT	EU	FSCALE	PASSED	WARNING	ONLINE
9/8/00	63550	NOXH1	0.0	0.0	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/9/00	63550	NOXH1	0.0	0.0	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/10/00	63550	NOXH1	0.0	0.0	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/11/00	63550	NOXH1	0.0	0.0	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/12/00	63550	NOXH1	0.0	0.0	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/13/00	63550	NOXH1	0.0	0.0	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/14/00	63550	NOXH1	0.0	0.0	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	

DT	TM	UNITID	MEASURE	EXPECTED	E_LIMIT	D_LIMIT	EU	FSCALE	PASSED	WARNING	ONLINE
9/8/00	64750	NOXH1	54.9	53.4	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/9/00	64750	NOXH1	55.1	53.4	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/10/00	64750	NOXH1	54.9	53.4	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/11/00	64750	NOXH1	55.0	53.4	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/12/00	64750	NOXH1	54.9	53.4	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/13/00	64750	NOXH1	55.0	53.4	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	
9/14/00	64750	NOXH1	54.8	53.4	2.5	0.0 ppm	100.0	TRUE	FALSE	TRUE	

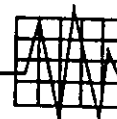
DT	TM	UNITID	MEASURE	EXPECTED	E_LIMIT	D_LIMIT	EU	FSCALE	PASSED	WARNING	ONLINE
9/8/00	64750	CO21	0.0	0.0	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/9/00	64750	CO21	0.0	0.0	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/10/00	64750	CO21	0.0	0.0	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/11/00	64750	CO21	0.0	0.0	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/12/00	64750	CO21	0.0	0.0	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/13/00	64750	CO21	0.0	0.0	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/14/00	64750	CO21	0.0	0.0	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	

DT	TM	UNITID	MEASURE	EXPECTED	E_LIMIT	D_LIMIT	EU	FSCALE	PASSED	WARNING	ONLINE
9/8/00	63550	CO21	8.2	8.2	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/9/00	63550	CO21	8.0	8.2	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/10/00	63550	CO21	8.3	8.2	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/11/00	63550	CO21	8.1	8.2	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/12/00	63550	CO21	8.3	8.2	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/13/00	63550	CO21	8.1	8.2	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	
9/14/00	63550	CO21	8.3	8.2	1.0	0.0 %	10.0	TRUE	FALSE	TRUE	

APPENDIX C

LINEARITY TEST DATA

RESPONSE TIME TEST DATA



Purdom 8

Purdom 8

Start Time: 1410

Date: 9-6-2000

End Time: 1523

Date: 9-6-2000

Analyzer NOX

	LOW	MID	HIGH
REF GAS VALUE	25.34	53.37	85.53
DATE	09/06/2000	09/06/2000	09/06/2000
TIME	14:13	14:30	14:33
RUN 1	25.40	54.50	84.60
DATE	09/06/2000	09/06/2000	09/06/2000
TIME	14:40	14:48	14:54
RUN 2	25.40	54.40	84.70
DATE	09/06/2000	09/06/2000	09/06/2000
TIME	15:01	15:08	15:18
RUN 3	25.40	54.40	84.50
AVERAGE=SUM/3	25.40	54.43	84.60
% ACCURACY	0.06	1.06	1.09
OUT OF CONTROL	NO	NO	NO
SERIAL NUMBER	aal8674	alm031479	alm039970
EXPIRATION DATE	05/10/2002	07/19/2001	07/20/2001

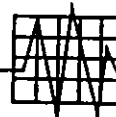
Analyzer CO2

	LOW	MID	HIGH
REF GAS VALUE	2.50	5.11	8.20
DATE	09/06/2000	09/06/2000	09/06/2000
TIME	14:18	14:24	14:37
RUN 1	2.50	5.10	8.20
DATE	09/06/2000	09/06/2000	09/06/2000
TIME	14:43	14:50	14:58
RUN 2	2.50	5.10	8.20
DATE	09/06/2000	09/06/2000	09/06/2000
TIME	15:04	15:12	15:23
RUN 3	2.50	5.10	8.20
AVERAGE=SUM/3	2.50	5.10	8.20
% ACCURACY	0.00	0.20	0.00
OUT OF CONTROL	NO	NO	NO
SERIAL NUMBER	alm019968	alm064373	alm056141
EXPIRATION DATE	10/07/2001	12/14/2001	08/08/2003

Signature: _____

APPENDIX D

RESPONSE TIME TEST DATA



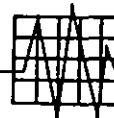
DATE	TIME	CO21	NOXH1	NOX1
09/06/2000	153600	0.000	0.000	0.000
09/06/2000	153700	0.000	0.000	0.000
09/06/2000	153800	0.000	0.000	0.000
09/06/2000	153900	3.600	2.600	2.700
09/06/2000	154000	3.800	10.300	10.300
09/06/2000	154100	3.800	10.400	10.300
09/06/2000	154300	10.300	84.400	30.000
09/06/2000	154400	10.300	84.400	30.000
09/06/2000	154500	10.300	84.400	30.000
09/06/2000	154600	5.200	72.900	30.000
09/06/2000	154700	3.800	10.500	10.600
09/06/2000	154800	3.800	10.500	10.600
09/06/2000	155100	8.200	0.500	0.300
09/06/2000	155200	8.200	0.100	0.000
09/06/2000	155300	8.200	0.100	0.000
09/06/2000	155400	4.200	2.500	2.400
09/06/2000	155500	3.800	10.200	10.300
09/06/2000	155600	3.800	10.200	10.200
09/06/2000	155700	3.800	10.200	10.200
09/06/2000	155800	0.000	25.500	25.400
09/06/2000	155900	0.000	25.500	25.400
09/06/2000	160000	3.500	25.500	25.400
09/06/2000	160100	3.800	15.600	15.400
09/06/2000	160200	3.800	10.300	10.300
09/06/2000	160300	3.800	10.300	10.300

APPENDIX E

REFERENCE METHOD

RELATIVE ACCURACY TEST DATA

**** NO_x, O₂***



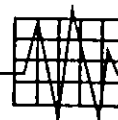
Date/Time	Cylinder	Analyzer	Gas	Class	Type	Value	Expected	Status
8/31/00 16:46	ALM044222	NOx/B	NOx	BOTH	ZERO	-0.07	0.00	PASS
8/31/00 16:46	AMBIENT AIR	O2/B	O2	BOTH	HIGH	21.12	20.90	PASS
8/31/00 16:48	ALM056281	NOx/B	NOx	BOTH	MID	12.14	12.42	PASS
8/31/00 16:48	ALM019968	O2/B	O2	BOTH	ZERO	0.10	0.00	PASS
8/31/00 16:50	AMBIENT AIR	O2/B	O2	BOTH	MID	12.88	12.79	PASS
8/31/00 17:06	ALM044222	NOx/B	NOx	BOTH	HIGH	25.56	25.40	PASS
8/31/00 17:09	AMBIENT AIR	NOx/B	NOx	NALYZER ERRO	ZERO	0.37	0.00	PASS
8/31/00 17:09	AMBIENT AIR	O2/B	O2	NALYZER ERRO	HIGH	21.06	20.90	PASS
8/31/00 17:12	ALM019968	NOx/B	NOx	NALYZER ERRO	MID	12.17	12.42	PASS
8/31/00 17:12	ALM019968	O2/B	O2	NALYZER ERRO	ZERO	0.16	0.00	PASS
8/31/00 17:52	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.34	12.42	PASS
8/31/00 17:52	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.15	0.00	PASS
8/31/00 18:00	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	0.01	0.00	PASS
8/31/00 18:00	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	21.00	20.90	PASS
8/31/00 18:34	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.29	12.42	PASS
8/31/00 18:34	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.18	0.00	PASS
8/31/00 18:37	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	0.10	0.00	PASS
8/31/00 18:37	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	20.99	20.90	PASS
8/31/00 19:08	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.39	12.42	PASS
8/31/00 19:08	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.18	0.00	PASS
8/31/00 19:10	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	0.09	0.00	PASS
8/31/00 19:10	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	21.02	20.90	PASS
8/31/00 19:39	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.45	12.42	PASS
8/31/00 19:39	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.12	0.00	PASS
8/31/00 19:41	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	0.11	0.00	PASS
8/31/00 19:41	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	21.04	20.90	PASS
9/1/00 8:47	AMBIENT AIR	NOx/B	NOx	BOTH	ZERO	-0.04	0.00	PASS
9/1/00 8:47	AMBIENT AIR	O2/B	O2	BOTH	HIGH	21.03	20.90	PASS
9/1/00 8:52	ALM019968	NOx/B	NOx	BOTH	MID	12.44	12.42	PASS
9/1/00 8:52	ALM019968	O2/B	O2	BOTH	ZERO	0.02	0.00	PASS
9/1/00 8:54	ALM056281	O2/B	O2	BOTH	MID	12.78	12.79	PASS
9/1/00 8:57	ALM044222	NOx/B	NOx	BOTH	HIGH	25.44	25.40	PASS
9/1/00 9:04	AMBIENT AIR	NOx/B	NOx	NALYZER ERRO	ZERO	0.15	0.00	PASS
9/1/00 9:04	AMBIENT AIR	O2/B	O2	NALYZER ERRO	HIGH	20.92	20.90	PASS
9/1/00 9:08	ALM019968	NOx/B	NOx	NALYZER ERRO	MID	12.48	12.42	PASS
9/1/00 9:08	ALM019968	O2/B	O2	NALYZER ERRO	ZERO	0.12	0.00	PASS

Reference Method
Calibration Data
Purdum Generating Station, Unit 8

Date/Time	Cylinder	Analyzer	Gas	Class	Type	Value	Expected	Status
9/1/00 9:50	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.36	12.42	PASS
9/1/00 9:50	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.10	0.00	PASS
9/1/00 9:52	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	0.36	0.00	PASS
9/1/00 9:52	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	20.68	20.90	PASS
9/1/00 10:24	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.18	12.42	PASS
9/1/00 10:24	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.26	0.00	PASS
9/1/00 10:27	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	0.00	0.00	PASS
9/1/00 10:27	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	21.07	20.90	PASS
9/1/00 10:55	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.19	12.42	PASS
9/1/00 10:55	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.29	0.00	PASS
9/1/00 11:01	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	0.02	0.00	PASS
9/1/00 11:01	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	21.07	20.90	PASS
9/1/00 11:38	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.21	12.42	PASS
9/1/00 11:38	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.26	0.00	PASS
9/1/00 11:41	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	-0.06	0.00	PASS
9/1/00 11:41	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	20.97	20.90	PASS
9/1/00 12:15	ALM019968	NOx/B	NOx	BIAS AND DRIFT	MID	12.18	12.42	PASS
9/1/00 12:15	ALM019968	O2/B	O2	BIAS AND DRIFT	ZERO	0.32	0.00	PASS
9/1/00 12:18	AMBIENT AIR	NOx/B	NOx	BIAS AND DRIFT	ZERO	-0.06	0.00	PASS
9/1/00 12:18	AMBIENT AIR	O2/B	O2	BIAS AND DRIFT	HIGH	21.06	20.90	PASS

Reference Method
Calibration Data
Purdum Generating Station, Unit 8

NO_x, O₂



Run #1

#	Date/Time	NOx/B	O2/B
1	8/31/00 17:27	10.03	13.73
2	8/31/00 17:28	10.03	13.74
3	8/31/00 17:29	10.07	13.74
4	8/31/00 17:30	10.14	13.71
5	8/31/00 17:31	10.19	13.73
6	8/31/00 17:32	10.20	13.73
7	8/31/00 17:33	10.14	13.75
8	8/31/00 17:34	10.14	13.74
9	8/31/00 17:35	10.14	13.76
10	8/31/00 17:36	10.16	13.75
11	8/31/00 17:37	10.14	13.74
12	8/31/00 17:38	10.15	13.74
13	8/31/00 17:39	10.14	13.73
14	8/31/00 17:40	10.16	13.75
15	8/31/00 17:41	10.14	13.76
16	8/31/00 17:42	10.17	13.73
17	8/31/00 17:43	10.19	13.73
18	8/31/00 17:44	10.28	13.74
19	8/31/00 17:45	10.23	13.75
20	8/31/00 17:46	10.22	13.75
21	8/31/00 17:47	10.18	13.73
Average		10.15	13.74

Reference Method
One Minute Averages
Purdom Generating Station, Unit 8

Run #2

#	Date/Time	NOx/B	O2/B
1	8/31/00 18:10	10.18	13.66
2	8/31/00 18:11	10.20	13.66
3	8/31/00 18:12	10.23	13.69
4	8/31/00 18:13	10.22	13.69
5	8/31/00 18:14	10.22	13.68
6	8/31/00 18:15	10.22	13.69
7	8/31/00 18:16	10.22	13.68
8	8/31/00 18:17	10.27	13.68
9	8/31/00 18:18	10.30	13.68
10	8/31/00 18:19	10.21	13.69
11	8/31/00 18:20	10.26	13.67
12	8/31/00 18:21	10.34	13.69
13	8/31/00 18:22	10.31	13.68
14	8/31/00 18:23	10.32	13.68
15	8/31/00 18:24	10.29	13.69
16	8/31/00 18:25	10.33	13.68
17	8/31/00 18:26	10.32	13.69
18	8/31/00 18:27	10.25	13.68
19	8/31/00 18:28	10.23	13.68
20	8/31/00 18:29	10.23	13.69
21	8/31/00 18:30	10.21	13.67
Average		10.26	13.68

Reference Method
One Minute Averages
Purdom Generating Station, Unit 8

Run #3

#	Date/Time	NOx/B	O2/B
1	8/31/00 18:44	10.22	13.69
2	8/31/00 18:45	10.23	13.69
3	8/31/00 18:46	10.23	13.67
4	8/31/00 18:47	10.22	13.68
5	8/31/00 18:48	10.21	13.69
6	8/31/00 18:49	10.25	13.68
7	8/31/00 18:50	10.24	13.69
8	8/31/00 18:51	10.23	13.67
9	8/31/00 18:52	10.26	13.67
10	8/31/00 18:53	10.26	13.68
11	8/31/00 18:54	10.30	13.69
12	8/31/00 18:55	10.29	13.67
13	8/31/00 18:56	10.30	13.68
14	8/31/00 18:57	10.31	13.70
15	8/31/00 18:58	10.30	13.67
16	8/31/00 18:59	10.32	13.67
17	8/31/00 19:00	10.30	13.69
18	8/31/00 19:01	10.31	13.65
19	8/31/00 19:02	10.34	13.68
20	8/31/00 19:03	10.32	13.68
21	8/31/00 19:04	10.33	13.66
Average		10.27	13.68

Reference Method
One Minute Averages
Purdum Generating Station, Unit 8

Run #4

#	Date/Time	NOx/B	O2/B
1	8/31/00 19:15	10.34	13.68
2	8/31/00 19:16	10.34	13.68
3	8/31/00 19:17	10.33	13.68
4	8/31/00 19:18	10.28	13.68
5	8/31/00 19:19	10.31	13.65
6	8/31/00 19:20	10.33	13.68
7	8/31/00 19:21	10.30	13.68
8	8/31/00 19:22	10.32	13.68
9	8/31/00 19:23	10.31	13.67
10	8/31/00 19:24	10.33	13.67
11	8/31/00 19:25	10.33	13.68
12	8/31/00 19:26	10.37	13.67
13	8/31/00 19:27	10.37	13.66
14	8/31/00 19:28	10.37	13.66
15	8/31/00 19:29	10.37	13.65
16	8/31/00 19:30	10.37	13.67
17	8/31/00 19:31	10.38	13.66
18	8/31/00 19:32	10.37	13.66
19	8/31/00 19:33	10.35	13.66
20	8/31/00 19:34	10.40	13.67
21	8/31/00 19:35	10.43	13.66
Average		10.35	13.67

Reference Method
One Minute Averages
Purdum Generating Station, Unit 8

Run #5

#	Date/Time	NOx/B	O2/B
1	9/1/00 9:26	10.38	13.54
2	9/1/00 9:27	10.34	13.55
3	9/1/00 9:28	10.35	13.55
4	9/1/00 9:29	10.35	13.54
5	9/1/00 9:30	10.38	13.56
6	9/1/00 9:31	10.37	13.56
7	9/1/00 9:32	10.39	13.54
8	9/1/00 9:33	10.41	13.56
9	9/1/00 9:34	10.41	13.56
10	9/1/00 9:35	10.41	13.56
11	9/1/00 9:36	10.47	13.55
12	9/1/00 9:37	10.40	13.56
13	9/1/00 9:38	10.37	13.56
14	9/1/00 9:39	10.42	13.57
15	9/1/00 9:40	10.49	13.56
16	9/1/00 9:41	10.48	13.56
17	9/1/00 9:42	10.47	13.57
18	9/1/00 9:43	10.49	13.58
19	9/1/00 9:44	10.50	13.58
20	9/1/00 9:45	10.52	13.59
21	9/1/00 9:46	10.53	13.58
Average		10.42	13.56

Reference Method
 One Minute Averages
 Purdom Generating Station, Unit 8

Run #6

#	Date/Time	NOx/B	O2/B
1	9/1/00 10:00	10.51	13.62
2	9/1/00 10:01	10.53	13.61
3	9/1/00 10:02	10.51	13.61
4	9/1/00 10:03	10.56	13.62
5	9/1/00 10:04	10.53	13.63
6	9/1/00 10:05	10.52	13.63
7	9/1/00 10:06	10.58	13.62
8	9/1/00 10:07	10.57	13.63
9	9/1/00 10:08	10.58	13.63
10	9/1/00 10:09	10.50	13.62
11	9/1/00 10:10	10.49	13.64
12	9/1/00 10:11	10.48	13.63
13	9/1/00 10:12	10.58	13.63
14	9/1/00 10:13	10.51	13.64
15	9/1/00 10:14	10.50	13.63
16	9/1/00 10:15	10.51	13.64
17	9/1/00 10:16	10.48	13.66
18	9/1/00 10:17	10.42	13.65
19	9/1/00 10:18	10.32	13.66
20	9/1/00 10:19	10.30	13.66
21	9/1/00 10:20	10.33	13.65
Average		10.49	13.63

Reference Method
One Minute Averages
Purdom Generating Station, Unit 8

Run #7

#	Date/Time	NOx/B	O2/B
1	9/1/00 10:31	10.26	13.68
2	9/1/00 10:32	10.17	13.69
3	9/1/00 10:33	10.21	13.67
4	9/1/00 10:34	10.29	13.67
5	9/1/00 10:35	10.35	13.70
6	9/1/00 10:36	10.22	13.69
7	9/1/00 10:37	10.20	13.68
8	9/1/00 10:38	10.15	13.71
9	9/1/00 10:39	10.13	13.70
10	9/1/00 10:40	10.13	13.72
11	9/1/00 10:41	10.11	13.71
12	9/1/00 10:42	10.13	13.70
13	9/1/00 10:43	10.12	13.72
14	9/1/00 10:44	10.14	13.71
15	9/1/00 10:45	10.12	13.71
16	9/1/00 10:46	10.05	13.72
17	9/1/00 10:47	10.07	13.73
18	9/1/00 10:48	10.01	13.71
19	9/1/00 10:49	10.03	13.72
20	9/1/00 10:50	10.05	13.71
21	9/1/00 10:51	10.02	13.72
Average		10.14	13.70

Reference Method
One Minute Averages
Purdum Generating Station, Unit 8

Run #8

#	Date/Time	NOx/B	O2/B
1	9/1/00 11:14	10.23	13.63
2	9/1/00 11:15	10.22	13.64
3	9/1/00 11:16	10.24	13.62
4	9/1/00 11:17	10.29	13.64
5	9/1/00 11:18	10.28	13.64
6	9/1/00 11:19	10.29	13.65
7	9/1/00 11:20	10.26	13.66
8	9/1/00 11:21	10.21	13.64
9	9/1/00 11:22	10.22	13.65
10	9/1/00 11:23	10.22	13.65
11	9/1/00 11:24	10.22	13.65
12	9/1/00 11:25	10.22	13.66
13	9/1/00 11:26	10.29	13.66
14	9/1/00 11:27	10.38	13.65
15	9/1/00 11:28	10.39	13.68
16	9/1/00 11:29	10.40	13.68
17	9/1/00 11:30	10.46	13.68
18	9/1/00 11:31	10.49	13.68
19	9/1/00 11:32	10.44	13.68
20	9/1/00 11:33	10.43	13.69
21	9/1/00 11:34	10.39	13.69
Average		10.31	13.66

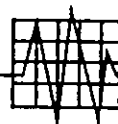
Reference Method
One Minute Averages
Purdom Generating Station, Unit 8

Run #9

#	Date/Time	NOx/B	O2/B
1	9/1/00 11:51	10.18	13.69
2	9/1/00 11:52	10.17	13.70
3	9/1/00 11:53	10.17	13.71
4	9/1/00 11:54	10.22	13.71
5	9/1/00 11:55	10.26	13.71
6	9/1/00 11:56	10.30	13.70
7	9/1/00 11:57	10.27	13.70
8	9/1/00 11:58	10.24	13.72
9	9/1/00 11:59	10.20	13.71
10	9/1/00 12:00	10.30	13.69
11	9/1/00 12:01	10.42	13.70
12	9/1/00 12:02	10.39	13.71
13	9/1/00 12:03	10.36	13.71
14	9/1/00 12:04	10.38	13.71
15	9/1/00 12:05	10.29	13.72
16	9/1/00 12:06	10.35	13.72
17	9/1/00 12:07	10.38	13.73
18	9/1/00 12:08	10.36	13.71
19	9/1/00 12:09	10.38	13.72
20	9/1/00 12:10	10.39	13.70
21	9/1/00 12:11	10.29	13.72
Average		10.30	13.71

Reference Method
One Minute Averages
Purdom Generating Station, Unit 8

Stratification Test Data



STRATIFICATION TEST FOR UNIT 8 STACK

PORT	POINT	Nox	Error	O2	Error
A	1	10.46	-0.71%	13.83	0.31%
	2	10.36	0.26%	13.89	-0.12%
	3	10.40	-0.13%	13.86	0.10%
	4	10.37	0.16%	13.88	-0.05%
B	5	10.32	0.64%	13.89	-0.12%
	6	10.38	0.06%	13.87	0.02%
	7	10.56	-1.67%	13.85	0.17%
C	8	10.40	-0.13%	13.89	-0.12%
	9	10.42	-0.32%	13.88	-0.05%
	10	10.24	1.41%	13.88	-0.05%
D	11	10.31	0.74%	13.87	0.02%
	12	10.42	-0.32%	13.89	-0.12%
Average		10.39		13.87	

RAW DATA

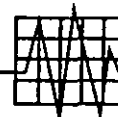
		Nox	O2
8/31/00	15:59:00	10.46	13.83
8/31/00	16:01:00	10.36	13.89
8/31/00	16:03:00	10.40	13.86
8/31/00	16:10:00	10.37	13.88
8/31/00	16:12:00	10.32	13.89
8/31/00	16:14:00	10.38	13.87
8/31/00	16:21:00	10.56	13.85
8/31/00	16:23:00	10.40	13.89
8/31/00	16:25:00	10.42	13.88
8/31/00	16:31:00	10.24	13.88
8/31/00	16:33:00	10.31	13.87
8/31/00	16:35:00	10.42	13.89

STRATIFICATION TEST
UNIT 8 STACK
PURDOM GENERATING STATION

APPENDIX F

REFERENCE METHOD 3A and 7E

Sampling System Bias Checks



Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: One

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.07	0.37	1.47	0.01	0.27	-1.20
NOx	12.14	12.17	0.10	12.34	0.67	0.57
O2	0.10	0.16	0.24	0.15	0.20	-0.04
O2	21.11	21.06	-0.20	21.00	-0.44	-0.24

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Two

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.07	0.01	0.27	0.10	0.57	0.30
NOx	12.14	12.34	0.67	12.29	0.50	-0.17
O2	0.10	0.15	0.20	0.18	0.32	0.12
O2	21.11	21.00	-0.44	20.99	-0.48	-0.04

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Three

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.07	0.10	0.57	0.09	0.53	-0.03
NOx	12.14	12.29	0.50	12.39	0.83	0.33
O2	0.10	0.18	0.32	0.18	0.32	0.00
O2	21.11	20.99	-0.48	21.02	-0.36	0.12

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Four

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.07	0.09	0.53	0.11	0.60	0.07
NOx	12.14	12.39	0.83	12.45	1.03	0.20
O2	0.10	0.18	0.32	0.12	0.08	-0.24
O2	21.11	21.02	-0.36	21.04	-0.28	0.08

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Five

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.04	0.15	0.63	0.36	1.33	0.70
NOx	12.44	12.48	0.13	12.36	-0.27	-0.40
O2	0.02	0.12	0.40	0.10	0.32	-0.08
O2	21.03	20.92	-0.44	20.68	-1.40	-0.96

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Six

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.04	0.36	1.33	0.00	0.13	-1.20
NOx	12.44	12.36	-0.27	12.18	-0.87	-0.60
O2	0.02	0.10	0.32	0.26	0.96	0.64
O2	21.03	20.68	-1.40	21.07	0.16	1.56

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Seven

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.04	0.00	0.13	0.02	0.20	0.07
NOx	12.44	12.18	-0.87	12.19	-0.83	0.03
O2	0.02	0.26	0.96	0.29	1.08	0.12
O2	21.03	21.07	0.16	21.07	0.16	0.00

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Eight

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.04	0.02	0.20	-0.06	-0.07	-0.27
NOx	12.44	12.19	-0.83	12.21	-0.77	0.07
O2	0.02	0.29	1.08	0.26	0.96	-0.12
O2	21.03	21.07	0.16	20.97	-0.24	-0.40

Sampling System Bias and Drift

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run #: Nine

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias (%)	Final Cal Value	Calculated Bias (%)	Calculated Drift (%)
NOx	-0.04	-0.06	-0.07	-0.06	-0.07	0.00
NOx	12.44	12.21	-0.77	12.18	-0.87	-0.10
O2	0.02	0.26	0.96	0.32	1.20	0.24
O2	21.03	20.97	-0.24	21.06	0.12	0.36

APPENDIX G

REFERENCE METHOD 3A and 7E

Calculation of Average Emissions



Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: One

Start Time: 5:27 PM

Stop Time: 5:48 PM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
AMBIENT AIR ppm NOx	0.37	0.01	0.19
12.42 ppm NOx	12.17	12.34	12.26
0.00 percent O2	0.16	0.15	0.16
20.90 percent O2	21.06	21.00	21.03

Mean Reference Values:

10.15 ppm NOx
13.74 percent O2

Corrected Results:

10.25 ppm NOx
13.60 percent O2

Emission Calculations:

0.031 #/MMBtu NOx
8.28 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Two

Start Time: 6:10 PM

Stop Time: 6:31 PM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	0.01	0.10	0.06
12.42 ppm NOx	12.34	12.29	12.32
0.00 percent O2	0.15	0.18	0.17
20.90 percent O2	21.00	20.99	21.00

Mean Reference Values:

10.26 ppm NOx
13.68 percent O2

Corrected Results:

10.33 ppm NOx
13.56 percent O2

Emission Calculations:

0.031 #/MMBtu NOx
8.30 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Three

Start Time: 6:44 PM

Stop Time: 7:05 PM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	0.10	0.09	0.10
12.42 ppm NOx	12.29	12.39	12.34
0.00 percent O2	0.18	0.18	0.18
20.90 percent O2	20.99	21.02	21.01

Mean Reference Values:

10.27 ppm NOx
13.68 percent O2

Corrected Results:

10.32 ppm NOx
13.55 percent O2

Emission Calculations:

0.030 #/MMBtu NOx
8.28 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Four

Start Time: 7:15 PM

Stop Time: 7:36 PM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	0.09	0.11	0.10
12.42 ppm NOx	12.39	12.45	12.42
0.00 percent O2	0.18	0.12	0.15
20.90 percent O2	21.02	21.04	21.03

Mean Reference Values:

10.35 ppm NOx
13.67 percent O2

Corrected Results:

10.33 ppm NOx
13.53 percent O2

Emission Calculations:

0.030 #/MMBtu NOx
8.28 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Five

Start Time: 9:26 AM

Stop Time: 9:47 AM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	0.15	0.36	0.26
12.42 ppm NOx	12.48	12.36	12.42
0.00 percent O2	0.12	0.10	0.11
20.90 percent O2	20.92	20.68	20.80

Mean Reference Values:

10.42 ppm NOx

13.56 percent O2

Corrected Results:

10.38 ppm NOx

13.59 percent O2

Emission Calculations:

0.031 #/MMBtu NOx

8.37 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Six

Start Time: 10:00 AM

Stop Time: 10:21 AM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	0.36	0.00	0.18
12.42 ppm NOx	12.36	12.18	12.27
0.00 percent O2	0.10	0.26	0.18
20.90 percent O2	20.68	21.07	20.88

Mean Reference Values:

10.49 ppm NOx
13.63 percent O2

Corrected Results:

10.59 ppm NOx
13.58 percent O2

Emission Calculations:

0.031 #/MMBtu NOx
8.54 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Seven

Start Time: 10:31 AM

Stop Time: 10:52 AM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	0.00	0.02	0.01
12.42 ppm NOx	12.18	12.19	12.19
0.00 percent O2	0.26	0.29	0.28
20.90 percent O2	21.07	21.07	21.07

Mean Reference Values:

10.14 ppm NOx
13.70 percent O2

Corrected Results:

10.33 ppm NOx
13.49 percent O2

Emission Calculations:

0.030 #/MMBtu NOx
8.23 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Eight

Start Time: 11:14 AM

Stop Time: 11:35 AM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	0.02	-0.06	-0.02
12.42 ppm NOx	12.19	12.21	12.20
0.00 percent O2	0.29	0.26	0.28
20.90 percent O2	21.07	20.97	21.02

Mean Reference Values:

10.31 ppm NOx
13.66 percent O2

Corrected Results:

10.50 ppm NOx
13.48 percent O2

Emission Calculations:

0.031 #/MMBtu NOx
8.35 ppm(dry) Nox@15%

Calculation of Average Emissions

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Nine

Start Time: 11:51 AM

Stop Time: 12:12 PM

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 ppm NOx	-0.06	-0.06	-0.06
12.42 ppm NOx	12.21	12.18	12.20
0.00 percent O2	0.26	0.32	0.29
20.90 percent O2	20.97	21.06	21.02

Mean Reference Values:

10.30 ppm NOx
13.71 percent O2

Corrected Results:

10.50 ppm NOx
13.53 percent O2

Emission Calculations:

0.031 #/MMBtu NOx
8.40 ppm(dry) Nox@15%

APPENDIX H

CEMS

DATA ACQUISITION SYSTEM



DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
8/31/00	172800	9.700	3.800	154.600	8.600	0.140	0.032
8/31/00	172900	9.700	3.800	154.800	8.600	0.140	0.032
8/31/00	173000	9.700	3.800	154.400	8.700	0.140	0.032
8/31/00	173100	9.700	3.800	154.400	8.700	0.150	0.032
8/31/00	173200	9.800	3.800	154.100	8.700	0.160	0.032
8/31/00	173300	9.700	3.700	154.100	8.800	0.170	0.033
8/31/00	173400	9.700	3.800	154.300	8.600	0.150	0.032
8/31/00	173500	9.800	3.800	154.400	8.700	0.160	0.032
8/31/00	173600	9.800	3.800	154.100	8.700	0.140	0.032
8/31/00	173700	9.700	3.800	154.100	8.600	0.140	0.032
8/31/00	173800	9.800	3.800	154.000	8.700	0.140	0.032
8/31/00	173900	9.700	3.800	154.300	8.600	0.150	0.032
8/31/00	174000	9.700	3.800	154.300	8.600	0.140	0.032
8/31/00	174100	9.700	3.800	154.400	8.700	0.160	0.032
8/31/00	174200	9.700	3.800	154.700	8.700	0.150	0.032
8/31/00	174300	9.700	3.800	154.600	8.700	0.150	0.032
8/31/00	174400	9.800	3.800	154.700	8.700	0.160	0.032
8/31/00	174500	9.900	3.800	154.800	8.800	0.130	0.032
8/31/00	174600	9.800	3.800	154.600	8.700	0.150	0.032
8/31/00	174700	9.800	3.800	154.800	8.700	0.150	0.032
8/31/00	174800	9.700	3.800	154.800	8.700	0.150	0.032
	AVG	9.743	3.795	154	8.681	0.149	0.032

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
8/31/00	181100	9.700	3.800	155.000	8.700	0.140	0.032
8/31/00	181200	9.800	3.800	155.100	8.700	0.170	0.032
8/31/00	181300	9.800	3.800	154.900	8.700	0.130	0.032
8/31/00	181400	9.800	3.800	154.900	8.700	0.140	0.032
8/31/00	181500	9.800	3.800	154.900	8.700	0.160	0.032
8/31/00	181600	9.800	3.800	154.800	8.700	0.140	0.032
8/31/00	181700	9.800	3.800	155.000	8.800	0.150	0.032
8/31/00	181800	9.800	3.800	154.900	8.700	0.170	0.032
8/31/00	181900	9.800	3.800	154.900	8.700	0.140	0.032
8/31/00	182000	9.800	3.800	154.900	8.700	0.160	0.032
8/31/00	182100	9.800	3.800	154.800	8.700	0.140	0.032
8/31/00	182200	9.900	3.800	154.800	8.800	0.140	0.032
8/31/00	182300	9.800	3.800	154.900	8.700	0.160	0.032
8/31/00	182400	9.900	3.800	155.000	8.800	0.150	0.032
8/31/00	182500	9.800	3.800	154.900	8.700	0.140	0.032
8/31/00	182600	9.800	3.800	155.100	8.700	0.160	0.032
8/31/00	182700	9.800	3.800	154.900	8.800	0.150	0.032
8/31/00	182800	9.800	3.800	154.900	8.700	0.140	0.032
8/31/00	182900	9.800	3.800	155.100	8.700	0.140	0.032
8/31/00	183000	9.700	3.800	155.200	8.700	0.140	0.032
	AVG	9.800	3.800	155	8.720	0.148	0.032

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
8/31/00	184500	9.800	3.800	156.000	8.700	0.150	0.032
8/31/00	184600	9.800	3.800	156.100	8.700	0.150	0.032
8/31/00	184700	9.800	3.800	155.800	8.700	0.150	0.032
8/31/00	184800	9.800	3.700	156.100	8.800	0.150	0.032
8/31/00	184900	9.800	3.800	156.200	8.800	0.130	0.032
8/31/00	185000	9.800	3.800	156.100	8.700	0.170	0.032
8/31/00	185100	9.800	3.800	156.000	8.700	0.160	0.032
8/31/00	185200	9.800	3.800	156.000	8.700	0.140	0.032
8/31/00	185300	9.800	3.800	155.800	8.700	0.170	0.032
8/31/00	185400	9.800	3.800	156.000	8.700	0.180	0.032
8/31/00	185500	9.800	3.800	156.100	8.800	0.150	0.032
8/31/00	185600	9.800	3.800	156.100	8.700	0.170	0.032
8/31/00	185700	9.800	3.800	156.100	8.700	0.160	0.032
8/31/00	185800	9.800	3.800	155.800	8.800	0.130	0.032
8/31/00	185900	9.800	3.800	155.900	8.800	0.150	0.032
8/31/00	190000	9.800	3.800	156.200	8.700	0.130	0.032
8/31/00	190100	9.800	3.800	156.200	8.700	0.150	0.032
8/31/00	190200	9.800	3.800	156.200	8.700	0.150	0.032
8/31/00	190300	9.800	3.800	156.000	8.700	0.150	0.032
8/31/00	190400	9.800	3.800	156.100	8.700	0.150	0.032
8/31/00	190500	9.800	3.800	156.200	8.700	0.150	0.032
	AVG	9.800	3.795	156	8.724	0.152	0.032

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
8/31/00	191600	9.800	3.800	156.100	8.700	0.150	0.032
8/31/00	191700	9.800	3.800	156.400	8.700	0.140	0.032
8/31/00	191800	9.800	3.800	156.400	8.700	0.150	0.032
8/31/00	191900	9.800	3.800	156.500	8.700	0.130	0.032
8/31/00	192000	9.800	3.800	156.800	8.700	0.150	0.032
8/31/00	192100	9.800	3.800	156.600	8.700	0.170	0.032
8/31/00	192200	9.800	3.800	156.800	8.700	0.160	0.032
8/31/00	192300	9.800	3.800	156.600	8.700	0.170	0.032
8/31/00	192400	9.800	3.800	156.400	8.700	0.170	0.032
8/31/00	192500	9.800	3.800	156.600	8.700	0.180	0.032
8/31/00	192600	9.800	3.800	156.700	8.700	0.180	0.032
8/31/00	192700	9.800	3.800	156.500	8.700	0.180	0.032
8/31/00	192800	9.800	3.800	156.700	8.700	0.180	0.032
8/31/00	192900	9.800	3.800	156.700	8.700	0.170	0.032
8/31/00	193000	9.800	3.800	156.600	8.700	0.190	0.032
8/31/00	193100	9.800	3.800	156.800	8.700	0.170	0.032
8/31/00	193200	9.800	3.800	156.600	8.700	0.190	0.032
8/31/00	193300	9.800	3.800	156.600	8.700	0.190	0.032
8/31/00	193400	9.800	3.800	157.000	8.700	0.220	0.032
8/31/00	193500	9.900	3.800	156.900	8.800	0.180	0.032
8/31/00	193600	9.900	3.800	157.200	8.800	0.200	0.032
	AVG	9.810	3.800	157	8.710	0.172	0.032

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
9/1/00	092700	9.800	3.900	158.500	8.500	0.220	0.031
9/1/00	092800	9.700	3.900	158.500	8.400	0.200	0.031
9/1/00	092900	9.700	3.900	158.600	8.400	0.190	0.031
9/1/00	093000	9.700	3.900	158.600	8.400	0.200	0.031
9/1/00	093100	9.800	3.900	158.500	8.500	0.180	0.031
9/1/00	093200	9.800	3.900	158.300	8.500	0.210	0.031
9/1/00	093300	9.800	3.900	158.500	8.500	0.220	0.031
9/1/00	093400	9.800	3.900	158.200	8.500	0.220	0.031
9/1/00	093500	9.800	3.900	158.100	8.500	0.190	0.031
9/1/00	093600	9.800	3.900	158.300	8.500	0.220	0.031
9/1/00	093700	9.900	3.900	158.100	8.600	0.190	0.032
9/1/00	093800	9.800	3.900	157.600	8.500	0.200	0.031
9/1/00	093900	9.800	3.900	157.800	8.500	0.190	0.031
9/1/00	094000	9.900	3.900	157.900	8.600	0.200	0.032
9/1/00	094100	9.900	3.900	157.800	8.600	0.210	0.032
9/1/00	094200	9.900	3.900	157.900	8.600	0.210	0.032
9/1/00	094300	9.900	3.900	157.600	8.600	0.230	0.032
9/1/00	094400	9.900	3.900	157.800	8.600	0.180	0.032
9/1/00	094500	9.900	3.900	157.800	8.600	0.190	0.032
9/1/00	094600	10.000	3.900	157.700	8.600	0.210	0.032
9/1/00	094700	10.000	3.900	157.700	8.600	0.190	0.032
	AVG	9.838	3.900	158	8.529	0.202	0.031

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
9/1/00	100100	10.100	3.900	156.800	8.700	0.240	0.032
9/1/00	100200	10.100	3.900	157.100	8.700	0.240	0.032
9/1/00	100300	10.100	3.900	157.000	8.700	0.220	0.032
9/1/00	100400	10.100	3.900	156.700	8.700	0.260	0.032
9/1/00	100500	10.000	3.900	156.900	8.600	0.220	0.032
9/1/00	100600	10.100	3.900	156.800	8.700	0.200	0.032
9/1/00	100700	10.100	3.900	157.100	8.700	0.210	0.032
9/1/00	100800	10.100	3.900	156.800	8.700	0.200	0.032
9/1/00	100900	10.100	3.900	156.300	8.700	0.240	0.032
9/1/00	101000	10.100	3.900	156.500	8.800	0.170	0.032
9/1/00	101100	10.100	3.900	156.500	8.700	0.210	0.032
9/1/00	101200	10.100	3.900	156.100	8.700	0.210	0.032
9/1/00	101300	10.200	3.900	156.200	8.800	0.200	0.032
9/1/00	101400	10.100	3.900	156.100	8.700	0.210	0.032
9/1/00	101500	10.100	3.900	156.000	8.700	0.180	0.032
9/1/00	101600	10.100	3.900	156.000	8.700	0.190	0.032
9/1/00	101700	10.100	3.900	156.000	8.700	0.200	0.032
9/1/00	101800	10.000	3.900	155.600	8.600	0.190	0.032
9/1/00	101900	9.900	3.900	155.800	8.600	0.200	0.032
9/1/00	102000	10.000	3.900	155.400	8.600	0.220	0.032
9/1/00	102100	10.000	3.900	155.400	8.600	0.220	0.032
	AVG	10.076	3.900	156	8.686	0.211	0.032

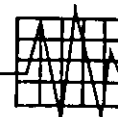
DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
9/1/00	103200	9.900	3.900	155.300	8.700	0.200	0.032
9/1/00	103300	9.800	3.800	155.200	8.600	0.200	0.031
9/1/00	103400	9.900	3.900	155.700	8.600	0.220	0.032
9/1/00	103500	10.000	3.900	155.700	8.600	0.180	0.032
9/1/00	103600	10.000	3.800	155.500	8.600	0.180	0.032
9/1/00	103700	9.900	3.900	155.200	8.600	0.210	0.032
9/1/00	103800	9.800	3.900	155.200	8.600	0.220	0.032
9/1/00	103900	9.800	3.900	155.000	8.600	0.200	0.031
9/1/00	104000	9.800	3.800	155.100	8.700	0.200	0.032
9/1/00	104100	9.800	3.900	155.000	8.500	0.200	0.031
9/1/00	104200	9.800	3.900	155.100	8.600	0.180	0.032
9/1/00	104300	9.800	3.900	155.400	8.500	0.190	0.031
9/1/00	104400	9.800	3.900	155.600	8.500	0.180	0.031
9/1/00	104500	9.800	3.900	155.100	8.600	0.190	0.032
9/1/00	104600	9.800	3.800	154.900	8.600	0.200	0.032
9/1/00	104700	9.700	3.800	155.500	8.500	0.170	0.031
9/1/00	104800	9.700	3.900	155.300	8.500	0.170	0.031
9/1/00	104900	9.700	3.800	155.100	8.600	0.210	0.032
9/1/00	105000	9.800	3.900	155.000	8.600	0.200	0.032
9/1/00	105100	9.800	3.900	155.300	8.500	0.210	0.031
9/1/00	105200	9.800	3.900	155.300	8.600	0.190	0.032
	AVG	9.819	3.871	155	8.581	0.195	0.032

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
9/1/00	111500	9.800	3.800	155.300	8.600	0.180	0.032
9/1/00	111600	9.800	3.800	155.600	8.700	0.200	0.032
9/1/00	111700	9.800	3.800	155.600	8.600	0.200	0.032
9/1/00	111800	9.900	3.900	155.700	8.700	0.200	0.032
9/1/00	111900	9.800	3.800	155.400	8.600	0.200	0.031
9/1/00	112000	9.900	3.800	155.200	8.700	0.210	0.032
9/1/00	112100	9.800	3.900	154.900	8.700	0.210	0.032
9/1/00	112200	9.800	3.800	154.900	8.700	0.180	0.032
9/1/00	112300	9.800	3.800	154.900	8.700	0.210	0.032
9/1/00	112400	9.800	3.800	154.900	8.700	0.180	0.032
9/1/00	112500	9.800	3.800	154.900	8.700	0.190	0.032
9/1/00	112600	9.800	3.800	155.200	8.600	0.190	0.032
9/1/00	112700	9.900	3.800	155.300	8.700	0.180	0.032
9/1/00	112800	10.000	3.800	155.100	8.800	0.200	0.033
9/1/00	112900	10.000	3.800	155.100	8.800	0.190	0.032
9/1/00	113000	10.000	3.800	155.000	8.900	0.190	0.033
9/1/00	113100	10.100	3.800	155.100	8.900	0.190	0.033
9/1/00	113200	10.000	3.800	154.900	8.900	0.190	0.033
9/1/00	113300	10.000	3.800	154.800	8.900	0.200	0.033
9/1/00	113400	10.000	3.800	154.900	8.900	0.170	0.033
9/1/00	113500	10.000	3.800	154.800	8.900	0.180	0.033
	AVG	9.895	3.810	155	8.748	0.192	0.032

City of Tallahassee
Purdom 8
CEMS Data

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15	NOXRT16
9/1/00	115200	9.700	3.800	154.900	8.500	0.190	0.031
9/1/00	115300	9.700	3.800	155.000	8.500	0.190	0.032
9/1/00	115400	9.800	3.800	155.000	8.600	0.210	0.032
9/1/00	115500	9.800	3.800	155.000	8.600	0.210	0.032
9/1/00	115600	9.800	3.800	155.000	8.600	0.210	0.032
9/1/00	115700	9.800	3.800	155.200	8.600	0.230	0.032
9/1/00	115800	9.800	3.900	155.300	8.600	0.190	0.031
9/1/00	115900	9.700	3.900	155.000	8.500	0.220	0.031
9/1/00	120000	9.800	3.900	154.900	8.500	0.220	0.031
9/1/00	120100	9.900	3.900	155.200	8.600	0.230	0.032
9/1/00	120200	9.900	3.900	155.100	8.600	0.210	0.032
9/1/00	120300	9.900	3.900	155.000	8.600	0.200	0.032
9/1/00	120400	9.900	3.900	154.900	8.600	0.180	0.032
9/1/00	120500	9.800	3.900	154.800	8.600	0.230	0.032
9/1/00	120600	9.900	3.900	154.800	8.600	0.200	0.032
9/1/00	120700	9.900	3.900	154.800	8.600	0.210	0.032
9/1/00	120800	9.900	3.900	154.800	8.600	0.220	0.032
9/1/00	120900	9.900	3.900	154.800	8.600	0.240	0.032
9/1/00	121000	9.900	3.900	154.600	8.600	0.260	0.032
9/1/00	121100	9.900	3.900	154.500	8.600	0.260	0.032
9/1/00	121200	9.800	3.900	154.600	8.500	0.240	0.031
	AVG	9.833	3.871	155	8.576	0.217	0.032

APPENDIX I
REFERENCE METHOD 3A AND 7E ANALYZER
PERFORMANCE RESULTS



ANALYZER CALIBRATION ERROR



Analyzer Calibration Error

Spectrum Systems Inc.

Pensacola, Florida

Date: 31-Aug-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: One

Nitrogen Oxides Monitor

Full Scale: 30

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference	Calibration Error (%)
AMBIENT AIR	0	-0.07	-0.07	-0.23
ALM019968	12.42	12.14	-0.28	-0.93
ALM044222	25.40	25.56	0.16	0.53

Oxygen Monitor

Full Scale: 25

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference	Calibration Error (%)
ALM019968	0.00	0.1	0.10	0.40
AMBIENT AIR	20.90	21.11	0.21	0.84
ALM056281	12.79	12.88	0.09	0.36

Analyzer Calibration Error

Spectrum Systems Inc.

Pensacola, Florida

Date: 1-Sep-00

Source: City of Tallahassee, Purdom Generating Station, Unit 8

Run Number: Five

Nitrogen Oxides Monitor

Full Scale: 30

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference	Calibration Error (%)
AMBIENT AIR	0.00	-0.04	-0.04	-0.13
ALM019968	12.42	12.44	0.02	0.07
ALM044222	25.40	25.44	0.04	0.13

Oxygen Monitor

Full Scale: 25

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference	Calibration Error (%)
ALM019968	0.00	0.02	0.02	0.08
AMBIENT AIR	20.90	21.03	0.13	0.52
ALM056281	12.79	12.78	-0.01	-0.04

INTERFERENCE RESPONSE TEST



NOX MONITOR INTERFERENCE CHECKS

DATE 4/14/99

Test Location: Spectrum Systems INC.

A-Side NOX MONITOR S/N: 42C-62441-335

TYPE GAS	CONTRATION OF GAS	ANALYZER RESPONSE	PERCENT OF SPAN
SO2	211.40	-0.1	-0.08
CO	521.30	-0.1	-0.09
CO2	10.87	-0.3	0.00
O2	20.90%	-0.4	0.00

Test Location: Spectrum Systems INC.

DATE 4/14/99

B-Side NOX MONITOR S/N: 42C-62474-335

TYPE GAS	CONTRATION OF GAS	ANALYZER RESPONSE	PERCENT OF SPAN
SO2	211.40	0.3	0.25
CO	521.30	0.4	0.21
CO2	10.87	0.2	0.02
O2	20.90%	0.2	0.00

NO_x CONVERTER SHEETS



Run #1

#	Date/Time	NOx/B	
1	8/31/00 13:20	2.19	
2	8/31/00 13:21	2.19	
3	8/31/00 13:22	2.19	
4	8/31/00 13:23	2.20	
5	8/31/00 13:24	2.19	
6	8/31/00 13:25	2.19	
7	8/31/00 13:26	2.20	
8	8/31/00 13:27	2.19	
9	8/31/00 13:28	2.20	
10	8/31/00 13:29	2.20	
11	8/31/00 13:30	2.19	
12	8/31/00 13:31	2.20	
13	8/31/00 13:32	2.20	
14	8/31/00 13:33	2.20	
15	8/31/00 13:34	2.20	
16	8/31/00 13:35	2.19	
17	8/31/00 13:36	2.20	
18	8/31/00 13:37	2.20	
19	8/31/00 13:38	2.20	
20	8/31/00 13:39	2.20	
21	8/31/00 13:40	2.20	
22	8/31/00 13:41	2.19	
23	8/31/00 13:42	2.19	
24	8/31/00 13:43	2.19	
25	8/31/00 13:44	2.20	
26	8/31/00 13:45	2.17	
27	8/31/00 13:46	2.16	
28	8/31/00 13:47	2.16	
29	8/31/00 13:48	2.16	
30	8/31/00 13:49	2.16	
Average		2.19	

Reference Method
One Minute Averages
Converter EFF. Test

APPENDIX J

GAS CERTIFICATES





Scott Specialty Gases

RATA CLASS

Dual-Analyzed Calibration Standard

1750 EAST CLUB BLVD, DURHAM, NC 27704

Phone: 919-220-0803

Fax: 919-220-0808

CERTIFICATE OF ACCURACY: Interference Free™ EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
1750 EAST CLUB BLVD
DURHAM, NC 27704

P.O. No.: 9910282
Project No.: 12-35115-001

Customer

SPECTRUM SYSTEMS
CHRIS IOAKIM
3410 WEST NINE MILE ROAD
PENSACOLA FL 32526

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure #G1; September, 1997.

Cylinder Number: ALM044222 Certification Date: 7/20/99 Exp. Date: 7/19/2001
Cylinder Pressure***: 2015 PSIG

COMPONENT

CERTIFIED CONCENTRATION (Moles)

ANALYTICAL ACCURACY**

TRACEABILITY

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ANALYTICAL ACCURACY**	TRACEABILITY
NITRIC OXIDE	25.14 PPM	+/- 1%	Direct NIST and NMI
NITROGEN - OXYGEN FREE	BALANCE		
TOTAL OXIDES OF NITROGEN	25.40 PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol procedure G1, September 1997.

Product certified as +/- 1% analytical accuracy is directly traceable to NIST or NMI standards.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM1683	4/03/03	ALM020566	48.90 PPM	NO/N2

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR System/8220/AAB9400252	07/15/99	Scott Enhanced FTIR

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

NITRIC OXIDE

Date: 07/12/99	Response Unit: PPM		
Z1 = 0.1222	R1 = 48.911	T1 = 24.946	
R2 = 48.792	Z2 = -0.077	T2 = 24.889	
Z3 = 0.1565	T3 = 25.131	R3 = 48.996	
Avg. Concentration:	24.89	PPM	

Date: 07/20/99	Response Unit: PPM		
Z1 = 0.1783	R1 = 48.886	T1 = 25.375	
R2 = 48.905	Z2 = -0.0415	T2 = 25.183	
Z3 = 0.1398	T3 = 25.306	R3 = 48.908	
Avg. Concentration:	25.29	PPM	

Concentration = A + Bx + Cx ² + Dx ³ + Ex ⁴	
r = 0.999990	
Constants:	A = 0.000000
	B = 1.000000
	C = 0.000000
	D = 0.000000
	E = 0.000000

APPROVED BY:

B.M. Becton

RATA CLASS



Scott Specialty Gases

Dual-Analyzed Calibration Standard

1750 EAST CLUB BLVD, DURHAM, NC 27704

Phone: 800-772-6889

Fax: 215-766-7226

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
1750 EAST CLUB BLVD
DURHAM, NC 27704

P.O. No.: 0010242F
Project No.: 12-38773-006

Customer

SPECTRUM SYSTEMS
CHRIS IOAKIM
3410 WEST NINE MILE ROAD
PENSACOLA FL 32526

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure #G1; September, 1997.

Cylinder Number: ALM056281 Certification Date: 6/21/00 Exp. Date: 6/21/2003
Cylinder Pressure***: 2000 PSIG

<u>COMPONENT</u>	<u>CERTIFIED CONCENTRATION (Moles)</u>	<u>ANALYTICAL ACCURACY**</u>	<u>TRACEABILITY</u>
OXYGEN	12.79 %	+/- 1%	Direct NIST and NMI
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol procedure G1, September 1997.

Product certified as +/- 1% analytical accuracy is directly traceable to NIST or NMI standards.

REFERENCE STANDARD

<u>TYPE/SRM NO.</u>	<u>EXPIRATION DATE</u>	<u>CYLINDER NUMBER</u>	<u>CONCENTRATION</u>	<u>COMPONENT</u>
NRM 2659	1/02/01	ALM031720	20.72 %	OXYGEN

INSTRUMENTATION

<u>INSTRUMENT/MODEL/SERIAL#</u>	<u>DATE LAST CALIBRATED</u>	<u>ANALYTICAL PRINCIPLE</u>
VARIAN/3400/16804	08/21/00	GC

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

OXYGEN

Date: 06/21/00	Response Unit: PCT	
Z1 = 0.00000	R1 = 622214.0	T1 = 322407.0
R2 = 622848.0	Z2 = 0.00000	T2 = 322752.0
Z3 = 0.00000	T3 = 322839.0	R3 = 623314.0
Avg. Concentration:	12.79	%



Concentration = A + Bx1 + Cx2 + Dx3 + Ex4	
r = .999990	2659
Constants:	A = 0.00000
B = 1.00000	C = 0.00000
D = 0.00000	E = 0.00000

APPROVED BY: _____

A.COPE



Scott Specialty Gases

6141 EASTON ROAD, BLDG 1, PLUMSTEADVILLE, PA 18949-0310

RATA CLASS

Dual-Analyzed Calibration Standard

Phone: 800-331-4953

Fax: 215-766-7226

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
6141 EASTON ROAD, BLDG 1
PLUMSTEADVILLE, PA 18949-0310

P.O. No.: WILL GIVE 8/17/00
Project No.: 01-41310-001

Customer

SPECTRUM SYSTEMS

3410 WEST NINE MILE ROAD
PENSACOLA FL 32528

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure #G1; September, 1997.

Cylinder Number: ALM019968
Cylinder Pressure***: 2000 PSIG

Certification Date: 10/08/99
Prev Certification Date: 9/27/99

Exp. Date: 10/07/2001
Batch No: 0124754

Table with 4 columns: COMPONENT, CERTIFIED CONCENTRATION (Moles), ACCURACY**, TRACEABILITY. Rows include CARBON DIOXIDE, NITRIC OXIDE, NITROGEN - OXYGEN FREE, and TOTAL OXIDES OF NITROGEN.

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol procedure G1, September 1997.
Product certified as +/- 1% analytical accuracy is directly traceable to NIST or NMI standards.

REFERENCE STANDARD

Table with 5 columns: TYPE/SRM NO., EXPIRATION DATE, CYLINDER NUMBER, CONCENTRATION, COMPONENT. Rows include NTPM 2622 and NTPM 1653.

INSTRUMENTATION

Table with 3 columns: INSTRUMENT/MODEL/SERIAL#, DATE LAST CALIBRATED, ANALYTICAL PRINCIPLE. Rows include MTI/M200/170927 and HORIBA/CLA220/5708850810.

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

CARBON DIOXIDE

Date: 09/27/99 Response Unit: AREA
Z1=0.00000 R1=9951848 T1=12711814
R2=9956095 Z2=0.00000 T2=12785577
Z3=0.00000 T3=12771205 R3=9858084
Avg. Concentration: 2.504 %

Concentration = A + Bx + Cx^2 + Dx^3 + Ex^4
r = 0.999999 2622
Constants: A = -8.8546E-04
B = -1.9719E-07 C =
D = E =

NITRIC OXIDE

Date: 09/27/99 Response Unit: VOLTS
Z1=0.00280 R1=3.21800 T1=0.80470
R2=3.20960 Z2=0.00300 T2=0.80690
Z3=0.00450 T3=0.80810 R3=3.21770
Avg. Concentration: 12.35 PPM

Date: 10/08/99 Response Unit: VOLTS
Z1=0.00300 R1=3.16090 T1=0.80450
R2=3.15970 Z2=0.00330 T2=0.80260
Z3=0.00420 T3=0.80360 R3=3.15790
Avg. Concentration: 12.43 PPM

Concentration = A + Bx + Cx^2 + Dx^3 + Ex^4
r = 0.99999 1683
Constants: A = 4.7104E-02
B = -1.8734E+01 C =
D = E =

APPROVED BY:

GOLD MCGARTHY



CITY HALL
300 S. ADAMS ST.
TALLAHASSEE, FL
32301-1731
850/891-0010
TDD 1-800/955-8771

SCOTT MADDOX
Mayor
JOHN PAUL BAILEY
Mayor Pro Tem

CHARLES E. BILLINGS
Commissioner
DEBBIE LIGHTSEY
Commissioner
STEVE MEISBURG
Commissioner

ANITA R. FAVORS
City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
RICARDO FERNANDEZ
City Auditor

October 13, 2000

CERTIFIED MAIL

Mr. Clair H. Fancy, Chief
Bureau of Air Regulation (BAR)
Florida Department of Environmental Protection (FDEP)
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Mail Station 5505

RECEIVED

OCT 16 2000

BUREAU OF AIR REGULATION

**Re: Notification of Performance Testing Schedule
Unit 8 Combined Cycle Combustion Turbine
Permit No. PSD-FL-239
Sam O. Purdom Generating Station**

Dear Mr. Fancy:

This letter is submitted in accordance with Chapter 40 of the Code of Federal Regulations, Part 60.8(d), as adopted by reference in Rule 62-204.800, Florida Administrative Code (FAC) and Rule 62-297.310(7)(a)9, FAC, notifying you of performance testing tentatively scheduled to begin at 9:00 AM on November 16, 2000. The City of Tallahassee has scheduled the performance testing for visible emissions (Method 9), carbon monoxide (Method 10), and oxides of nitrogen (Method 20), while firing No. 2 fuel oil, of the above-referenced emission unit (a nominal 160 MW GE Series MS7FA combustion turbine attached to a non-fired heat recovery steam generator with a nominal 90 MW steam turbine) at the Sam O. Purdom Generating Station located at 667 Port Leon Drive, St. Marks, Wakulla County, Florida.

If you have any questions regarding this performance testing notification, please feel free to contact either myself at (850) 891-5534 or Ms. Jennette Curtis at (850) 891-8850.

Yours Truly,


Robert McGarrah, Superintendent
Electric Production Division

cc: Winston A. Smith, EPA Region IV
B. Cowart, COT
G. King, COT
J. Curtis, COT

Florida Department of
Environmental Protection

Memorandum

TO: M. D. Harley
FROM: Julio A. Tardaguila *JAT*
DATE: September 18, 2000
SUBJECT: Compliance Testing at Purdom's Unit 8

On September 16, 2000 Julio A. Tardaguila of the Emission's Monitoring Section witnessed the compliance testing conducted at Unit 8 of the City of Tallahassee Purdom facility. The test consisted of EPA's Methods 3A, 10 and 20. The tests were conducted by Air Consulting Engineering. The loads used for the testing were 70% (167.4 MW), 80% (185.6 MW), 90% (208.8 MW) and 100% (232 MW). Based on the observations, the tests were conducted in accordance with the part 60 of the Code of Federal Regulations.

Enclosures

CGT ONLY

Record#	DATE	TIME	NOX11	CO212	GEN13	
1	09/15/2000	065400	10.200	2.500	99.600	LOAD 1 - NO _x
2	09/15/2000	070000	8.500	3.600	100.300	
3	09/15/2000	070600	8.500	3.600	100.100	
4	09/15/2000	071200	8.500	3.600	100.500	
5	09/15/2000	071800	8.500	3.600	100.700	
6	09/15/2000	072400	8.500	3.600	100.700	
7	09/15/2000	073000	8.400	3.600	100.900	
8	09/15/2000	073600	8.400	3.600	101.000	
9	09/15/2000	074200	8.400	3.600	100.800	
10	09/15/2000	074800	8.300	3.600	100.800	
11	09/15/2000	075400	8.200	3.600	100.800	
12	09/15/2000	080000	8.100	3.600	100.800	
13	09/15/2000	080600	8.100	3.600	100.900	
14	09/15/2000	081200	8.100	3.500	101.200	
15	09/15/2000	081800	8.100	3.500	100.300	
16	09/15/2000	082400	8.000	3.500	100.000	
17	09/15/2000	083000	8.000	3.500	100.300	
18	09/15/2000	083600	8.000	3.500	100.300	
19	09/15/2000	084200	7.900	3.500	100.000	
20	09/15/2000	084800	8.100	3.500	100.500	
21	09/15/2000	085400	8.000	3.500	100.700	
22	09/15/2000	090000	7.800	3.500	100.800	
23	09/15/2000	090600	7.800	3.500	103.200	
24	09/15/2000	091200	7.300	3.500	112.300	
25	09/15/2000	091800	7.200	3.500	120.300	
26	09/15/2000	092400	7.100	3.500	119.400	
27	09/15/2000	093000	7.300	3.500	118.200	
28	09/15/2000	093600	7.100	3.500	118.300	
29	09/15/2000	094200	7.200	3.500	118.500	
30	09/15/2000	094800	7.100	3.500	118.800	
31	09/15/2000	095400	7.100	3.500	118.500	
32	09/15/2000	100000	7.100	3.500	118.500	
33	09/15/2000	100600	7.100	3.500	118.600	
34	09/15/2000	101200	7.000	3.500	118.200	
35	09/15/2000	101800	7.000	3.500	118.900	
36	09/15/2000	102400	7.100	3.500	118.400	
37	09/15/2000	103000	7.100	3.500	118.700	
38	09/15/2000	103600	7.200	3.500	121.000	
39	09/15/2000	104200	7.700	3.500	131.900	
40	09/15/2000	104800	7.900	3.500	136.800	
41	09/15/2000	105400	7.800	3.500	135.600	
42	09/15/2000	110000	7.900	3.500	136.000	
43	09/15/2000	110600	7.800	3.500	135.900	
44	09/15/2000	111200	7.900	3.500	135.700	
45	09/15/2000	111800	7.900	3.500	136.200	
46	09/15/2000	112400	7.900	3.500	135.900	
47	09/15/2000	113000	7.900	3.500	135.900	
48	09/15/2000	113600	7.900	3.500	135.600	
49	09/15/2000	114200	7.900	3.500	136.000	
50	09/15/2000	114800	7.900	3.500	136.400	
51	09/15/2000	115400	7.800	3.500	136.600	
52	09/15/2000	120000	8.100	3.500	146.700	
53	09/15/2000	120600	11.400	3.600	154.600	
54	09/15/2000	121200	11.400	3.600	154.100	
55	09/15/2000	121800	10.100	3.600	151.300	
56	09/15/2000	122400	9.700	3.600	151.300	
57	09/15/2000	123000	10.500	3.600	152.300	
58	09/15/2000	123600	7.900	2.800	152.400	

LOAD 1 - NO_xLOAD 2 - NO_xLOAD 3 - NO_xLOAD 4 -
NO_x + VE+

59	09/15/2000	124200	10.000	3.600	152.400
60	09/15/2000	124800	10.200	3.600	152.700
61	09/15/2000	125400	9.900	3.600	152.600
62	09/15/2000	130000	9.900	3.600	152.600
63	09/15/2000	130600	9.600	3.500	152.600
64	09/15/2000	131200	9.700	3.500	152.500
65	09/15/2000	131800	9.700	3.500	152.500
66	09/15/2000	132400	10.100	3.600	152.800
67	09/15/2000	133000	10.400	3.600	153.100
68	09/15/2000	133600	10.200	3.600	152.600
69	09/15/2000	134200	10.100	3.600	152.500
70	09/15/2000	134800	10.200	3.600	152.500
71	09/15/2000	135400	10.200	3.600	152.600
72	09/15/2000	140000	10.100	3.600	152.500
73	09/15/2000	140600	10.000	3.500	152.400
74	09/15/2000	141200	9.900	3.600	152.400
75	09/15/2000	141800	9.800	3.500	152.500
76	09/15/2000	142400	9.900	3.500	152.800
77	09/15/2000	143000	9.800	3.500	152.800
78	09/15/2000	143600	9.400	3.500	152.400
79	09/15/2000	144200	9.200	3.500	152.400
80	09/15/2000	144800	9.400	3.500	152.500
81	09/15/2000	145400	9.500	3.500	152.400
82	09/15/2000	150000	9.700	3.500	152.500
83	/ /				
84	/ /	AVE	8.605	3.515	129.032

LOAD 4-
NO_x+VE+

[TESTING
FROM
12:03
THRU 15



FACSIMILE COVER SHEET
CITY OF TALLAHASSEE
UTILITY BUSINESS AND CUSTOMER SERVICES
ENVIRONMENTAL MANAGEMENT

DATE: September 8, 2000

To: Martin Costello, PE

Phone No.: (850) 921-6979

Fax No.: (850) 922-6979

From: Karl Bauer, PE

Phone No.: (850) 891-8851

Fax No.: (850) 891-8277

RECEIVED
 SEP 8 2000
 Bureau of Air Monitoring
 & Mobile Sources

Message: Attached is a worksheet detailing how the City corrects wet NOx measurements to NOx ppmvd @ 15%O2. I used Eq. F-14b as the starting point based on the discussion we had yesterday.

Please call if you have any questions.

Thanks.

Number of Pages Including This Cover Sheet: 2

For Questions Regarding This Fax Call: Utility Support, (850) 891-

CORRECTING TO NO_x ppmvd @ 15% O₂ FROM EQ F-14/6

$$\%CO_{2,w} = \frac{100}{20.9} \frac{F_c}{F} \left[20.9 \left(\frac{100 - \%H_2O}{100} \right) - \%O_{2,w} \right] \quad (F-14) \quad 14b$$

$$\%CO_{2,w} = \frac{100}{20.9} \frac{F_c}{F} \left[20.9 \left(\frac{100 - \%H_2O}{100} \right) - \left(\frac{100 - \%H_2O}{100} \right) \%O_{2,d} \right]$$

$$\%CO_{2,w} = \left(\frac{100 - \%H_2O}{100} \right) \frac{100}{20.9} \frac{F_c}{F} \left[20.9 - \%O_{2,d} \right]$$

$$NO_{x,ppmv} = \left(\frac{100 - \%H_2O}{100} \right) NO_{x,ppmv}$$

$$1 = \left(\frac{100}{100 - \%H_2O} \right) \frac{NO_{x,ppmv}}{NO_{x,ppmv}}$$

$$\%CO_{2,w} = \frac{NO_{x,ppmv}}{NO_{x,ppmv}} \left(\frac{100}{100 - \%H_2O} \right) \left(\frac{100 - \%H_2O}{100} \right) \frac{100}{20.9} \frac{F_c}{F} \left[20.9 - \%O_{2,d} \right]$$

$$\%CO_{2,w} = \frac{NO_{x,ppmv}}{NO_{x,ppmv}} \frac{F_c}{F} \frac{100}{20.9} \left[20.9 - \%O_{2,d} \right]$$

$$NO_{x,ppmv} = \frac{F_c}{F} \frac{NO_{x,ppmv}}{\%CO_{2,w}} \frac{100}{20.9} \left[20.9 - \%O_{2,d} \right]$$

TO CORRECT TO %O_{2,d} = 15

$$NO_{x,ppmv @ 15\% O_2} = \frac{F_c}{F} \frac{NO_{x,ppmv}}{\%CO_{2,w}} \frac{100}{20.9} \left[20.9 - 15 \right]$$

$$NO_{x,ppmv @ 15\% O_2} = \left(\frac{F_c}{F} \right) \frac{NO_{x,ppmv}}{\%CO_{2,w}} (28.23)$$

$$NO_{x,ppmv @ 15\% O_2} = \frac{NO_{x,ppmv}}{\%CO_{2,w}} (3.3707)$$

TABLE 1-F (cont.)
F_c = 10140
F = 8710

EQ USED BY CITY TO CORRECT NO_x (WET BASIS) TO NO_x ppmvd @ 15% O₂



CITY HALL
300 S. ADAMS ST.
TALLAHASSEE, FL
32301-1731
850/891-0010
TDD 1-800/955-8771

SCOTT MADDOX
Mayor
JOHN PAUL BAILEY
Mayor Pro Tem

CHARLES E. BILLINGS
Commissioner
DEBBIE LIGHTSEY
Commissioner
STEVE MEISBURG
Commissioner

ANITA R. FAVORS
City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
RICARDO FERNANDEZ
City Auditor

AC

August 29, 2000

via FACSIMILE & CERTIFIED MAIL

Mr. Clair H. Fancy, Chief
Bureau of Air Regulation (BAR)
Florida Department of Environmental Protection (FDEP)
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Mail Station 5505

RECEIVED

SEP 01 2000

BUREAU OF AIR REGULATION

**Re: Notification of Performance Testing Schedule
Unit 8 Combined Cycle Combustion Turbine
Permit No. PSD-FL-239
Sam O. Purdom Generating Station**

Dear Mr. Fancy:

The City of Tallahassee submits this letter notifying you of the revised schedule for completion of performance testing required under Specific Condition D.1 of the above-referenced permit. Originally scheduled for August 4, 2000, the City of Tallahassee has tentatively re-scheduled the performance testing to begin at 10:00 AM on September 15, 2000, for visible emissions (Method 9), carbon monoxide (Method 10), and oxides of nitrogen (Method 20) on the above-referenced emission unit (a nominal 160 MW GE Series MS7FA combustion turbine attached to a non-fired heat recovery steam generator with a nominal 90 MW steam turbine) at the Sam O. Purdom Generating Station located at 667 Port Leon Drive, St. Marks, Wakulla County, Florida.

As noted in the original notification (dated June 19, 2000), the actual performance test date continues to be subject to change as a result of schedule impacts during completion of adjustments to the unit. The City of Tallahassee will re-notify your office of any schedule changes that occur.

If you have any questions regarding this performance testing notification, please feel free to contact either myself at (850) 891-5534 or Ms. Jennette Curtis at (850) 891-8850.

Yours Truly,

Robert McGarrah, Superintendent
Electric Production Division

cc: Winston A. Smith, EPA Region IV
B. Cowart, COT
G. King, COT
J. Curtis, COT

Relative Accuracy and Bias Determination

Performed by:
Spectrum Systems Inc.
Pensacola, Florida

Performed for:
City of Tallahassee
Purdom Generating Station

Unit 8
NOx Monitor

Run Number	Date of Run	Start Time	Stop Time	Unit Load	RM-7E Nox PPM @15%	CEM Nox PPM @15%	Difference Nox PPM	
1	8/31 {	30-Aug	17:27	154	8.283	8.681	-0.398	
2		30-Aug	18:10	155	8.301	8.720	-0.419	
3		30-Aug	18:44	156	8.279	8.724	-0.445	
4		30-Aug	19:15	19:36	157	8.275	8.710	-0.435
5	9/1/02 {	31-Aug	09:26	09:47	158	8.372	8.529	-0.157
6		31-Aug	10:00	10:21	156	8.537	8.686	-0.149
7		31-Aug	10:31	10:52	155	8.226	8.581	-0.355
8		31-Aug	11:14	11:35	155	8.352	8.748	-0.396
9		31-Aug	11:51	12:12	155	8.402	8.576	-0.174

Average:	156	8.336	8.662	-0.325
Standard Deviation	<i>simple cycle</i>			0.127
Confidence Coefficient:				0.097
Relative Accuracy:				5.07

T-Factor: 2.306

*~ 83 MW steam
No fuggers*

Uncorrected NO_x: ~10.2 ppm

O₂: ~13.8 %

Run 1

DATE	TIME	NOX11	CO212	GEN13	NOXD14	WATER15
08/31/2000	172800	9.700	3.800	154.600	8.600	0.140
08/31/2000	172900	9.700	3.800	154.800	8.600	0.140
08/31/2000	173000	9.700	3.800	154.400	8.700	0.140
08/31/2000	173100	9.700	3.800	154.400	8.700	0.150
08/31/2000	173200	9.800	3.800	154.100	8.700	0.160
08/31/2000	173300	9.700	3.700	154.100	8.800	0.170
08/31/2000	173400	9.700	3.800	154.300	8.600	0.150
08/31/2000	173500	9.800	3.800	154.400	8.700	0.160
08/31/2000	173600	9.800	3.800	154.100	8.700	0.140
08/31/2000	173700	9.700	3.800	154.100	8.600	0.140
08/31/2000	173800	9.800	3.800	154.000	8.700	0.140
08/31/2000	173900	9.700	3.800	154.300	8.600	0.150
08/31/2000	174000	9.700	3.800	154.300	8.600	0.140
08/31/2000	174100	9.700	3.800	154.400	8.700	0.160
08/31/2000	174200	9.700	3.800	154.700	8.700	0.150
08/31/2000	174300	9.700	3.800	154.600	8.700	0.150
08/31/2000	174400	9.800	3.800	154.700	8.700	0.160
08/31/2000	174500	9.900	3.800	154.800	8.800	0.130
08/31/2000	174600	9.800	3.800	154.600	8.700	0.150
08/31/2000	174700	9.800	3.800	154.800	8.700	0.150
08/31/2000	174800	9.700	3.800	154.800	8.700	0.150
	AVG	9.743	3.795	154 MW	8.681 corrected NOx	0.149

NOXRT16

0.032

0.032

0.032

0.032

0.032

0.033

0.032

0.032

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0.032

0.032

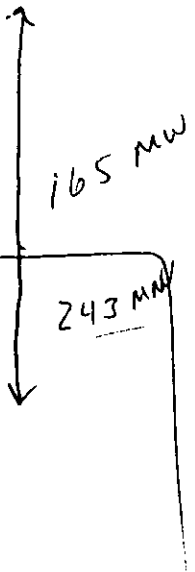
0.032

0.032

lb/MMBtu

Unit 8 GT Gas Usage

Date:	9/1/00	GT End	GT ^{Lbs}	MCF/h
TIME		Intergrator	Total	Usage
12:00 MN		4255620	0	0.00
1:00 AM		4261380	57600	1260.39
2:00 AM		4267080	57000	1247.26
3:00 AM		4271820	47400	1037.20
4:00 AM		4277040	52200	1142.23
5:00 AM		4282560	55200	1207.88
6:00 AM		4287660	51000	1115.97
7:00 AM		4292880	52200	1142.23
8:00 AM		4299770	68900	1507.66
9:00 AM		4306132	63620	1392.12
10:00 AM		4313520	73880	1616.63
11:00 AM		4320600	70800	1549.23
12:00 PM			0	0.00
1:00 PM			0	0.00
2:00 PM			0	0.00
3:00 PM			0	0.00
4:00 PM			0	0.00
5:00 PM			0	0.00
6:00 PM			0	0.00
7:00 PM			0	0.00
8:00 PM			0	0.00
9:00 PM			0	0.00
10:00 PM			0	0.00
11:00 PM			0	0.00
12:00 AM			0	0.00
			MCF	14218.82



- NO CVAP cooler

Design MAX: 88 ST
 MW output 180 GT



ELECTRIC OPERATIONS
2602 JACKSON BLUFF RD.
TALLAHASSEE, FL 32304
850/891-5001 OFFICE
850/891-5033 FAX

SCOTT MADDOX
Mayor
CHARLES E. BILLINGS
Mayor Pro Tem

JOHN PAUL BAILEY
Commissioner
DEBBIE LIGHTSEY
Commissioner
STEVE MEISBURG
Commissioner

ANITA R. FAVORS
City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
SAM M. McCALL
City Auditor

August 23, 2000

CERTIFIED MAIL

Mr. Clair H. Fancy, Chief
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Mail Station 5505

RECEIVED

AUG 25 2000

BUREAU OF AIR REGULATION

**Re: Revised Schedule of Continuous Monitoring System Performance Demonstration
Unit 8 Combined Cycle Combustion Turbine
Permit No. PSD-FL-239
Sam O. Purdom Generating Station**

Dear Mr. Fancy:

The City of Tallahassee has deemed it necessary to revise the schedule for completing demonstration of the continuous monitoring system (CMS) performance in accordance with Chapter 40 of the Code of Federal Regulations (CFR) Part 60.7(a)(5), as adopted by reference in 62-204.800, Florida Administrative Code. The demonstration is tentatively scheduled to take place on August 30, 2000. In compliance with Specific Condition F.1. of Permit No. PSD-FL-239, the CMS performance demonstration will be represented by completing the certification tests required under 40 CFR 75 on the above-referenced emission unit (a nominal 160 MW GE Series MS7FA combustion turbine attached to a non-fired heat recovery steam generator with a nominal 90 MW steam turbine) at the Sam O. Purdom Generating Station located at 667 Port Leon Drive, St. Marks, Wakulla County, Florida.

As noted in the original notification (dated July 18, 2000), the actual performance test date continues to be subject to change as a result of schedule impacts during completion of adjustments to the unit. The City of Tallahassee will re-notify your office of any schedule changes that occur.

If you have any questions regarding this CMS performance demonstration notification, please feel free to contact either myself at (850) 891-5534 or Ms. Jennette Curtis at (850) 891-8850.

Yours Truly,

Robert McGarrah, Superintendent
Electric Production Division

cc: Winston A. Smith, EPA Region IV
B. Cowart, COT
G. King, COT
J. Curtis, COT

PSD-FL-239
Main File



ELECTRIC OPERATIONS
2602 JACKSON BLUFF RD.
TALLAHASSEE, FL 32304
850/891-5001 OFFICE
850/891-5033 FAX

SCOTT MADDOX
Mayor
CHARLES E. BILLINGS
Mayor Pro Tem

JOHN PAUL BAILEY
Commissioner
DEBBIE LIGHTSEY
Commissioner
STEVE MEISBURG
Commissioner

ANITA R. FAVORS
City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
SAM M. McCALL
City Auditor

July 24, 2000

CERTIFIED MAIL

Mr. Clair H. Fancy, Chief
Bureau of Air Regulation (BAR)
Florida Department of Environmental Protection (FDEP)
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Mail Station 5505

RECEIVED

JUL 25 2000

BUREAU OF AIR REGULATION

**Re: Notification of Continuous Monitoring System Performance Demonstration
Unit 8 Combined Cycle Combustion Turbine
Permit No. PSD-FL-239
Sam O. Purdom Generating Station**

Dear Mr. Fancy:

The City of Tallahassee, in accordance with Chapter 40 of the Code of Federal Regulations (CFR) Part 60.7(a)(5), as adopted by reference in 62-204.800, Florida Administrative Code (FAC), submits this letter as notification that demonstration of the continuous monitoring system (CMS) performance is scheduled to commence on August 22, 2000. In compliance with Specific Condition F.1. of Permit No. PSD-FL-239, the CMS performance demonstration will be represented by completing the certification tests required under 40 CFR 75 on the above-referenced emission unit (a nominal 160 MW GE Series MS7FA combustion turbine attached to a non-fired heat recovery steam generator with a nominal 90 MW steam turbine) at the Sam O. Purdom Generating Station located at 667 Port Leon Drive, St. Marks, Wakulla County, Florida.

It should be noted that this unit is still being adjusted for proper operation. Thus, the actual performance test date is subject to change as a result of schedule impacts during completion of adjustments to the unit. As such, it should be understood that the CMS performance demonstration date may fluctuate. The City of Tallahassee will re-notify your office of any schedule changes that occur.

If you have any questions regarding this CMS performance demonstration notification, please feel free to contact either myself at (850) 891-5534 or Ms. Jennette Curtis at (850) 891-8850.

Yours Truly,

Robert McGarrah, Superintendent
Electric Production Division

cc: Winston A. Smith, EPA Region IV
B. Cowart, COT
G. King, COT
J. Curtis, COT

milt071400.doc

An All-America City



ELECTRIC OPERATIONS
2602 JACKSON BLUFF RD.
TALLAHASSEE, FL 32304
850/891-5001 OFFICE
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SCOTT MADDOX
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STEVE MEISBURG
Commissioner

ANITA R. FAVORS
City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
SAM M. McCALL
City Auditor

June 19, 2000

CERTIFIED MAIL

Mr. Clair H. Fancy, Chief
Bureau of Air Regulation (BAR)
Florida Department of Environmental Protection (FDEP)
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Mail Station 5505

RECEIVED

JUN 20 2000

BUREAU OF AIR REGULATION

**Re: Notification of Performance Testing Schedule
Unit 8 Combined Cycle Combustion Turbine
Permit No. PSD-FL-239
Sam O. Purdom Generating Station**

Dear Mr. Fancy:

This letter is submitted in accordance with Chapter 40 of the Code of Federal Regulations, Part 60.8(d), as adopted by reference in Rule 62-204.800, Florida Administrative Code (FAC) and Rule 62-297.310(7)(a)9, FAC, notifying you of performance testing tentatively scheduled for 10:00 AM on August 4, 2000. The City of Tallahassee has scheduled the performance testing for visible emissions (Method 9), carbon monoxide (Method 10), and oxides of nitrogen (Method 20) of the above-referenced emission unit (a nominal 160 MW GE Series MS7FA combustion turbine attached to a non-fired heat recovery steam generator with a nominal 90 MW steam turbine) at the Sam O. Purdom Generating Station located at 667 Port Leon Drive, St. Marks, Wakulla County, Florida.

It should be noted that this unit has just recently undergone initial startup and is still being adjusted for proper operation. Thus, the actual performance test date is subject to change as a result of schedule impacts during the completion of adjustments to the unit. The City of Tallahassee will provide notice to the proper authorities, in accordance with the same regulations listed above, of any schedule changes that occur.

If you have any questions regarding this performance testing notification, please feel free to contact either myself at (850) 891-5534 or Ms. Jennette Curtis at (850) 891-8850.

Yours Truly,

Robert McGarrah, Superintendent
Electric Production Division

cc: Winston A. Smith, EPA Region IV
B. Cowart, COT
G. King, COT
J. Curtis, COT

M. Hurley