GULF POWER
A SOUTHERN COMPANY

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JUL 30 2012
DIVISION OF AIR
RESOURCE MANAGEMENT

2012

Smith 4/5

RATA/PA CT mode compliance/Peak fire compliance

CERTIFICATION BY RESPONSIBLE OFFICIAL

"I, the undersigned, am the responsible official, as defined in Chapter 62-210.200, F.A.C., for the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate and complete."

Responsible Official Signature:

Michael L. Burroughs

Michael L. Burroughs
Vice-President and Senior Production Officer

July 25, 2012
Date:

GULF POWER
A SOUTHERN COMPANY

July 18, 2012

Mr. Rick Bradburn
Florida Department of Environmental Protection
Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

RE: LANSING SMITH ELECTRIC GENERATING PLANT
UNIT 4 & 5 – EMISSION TEST & RELATIVE ACCURACY TEST AUDIT REPORTS
FACILITY NO.: 0050014

Mr. Bradburn:

Enclosed please find a copies of the Annual Compliance Test Report for both Plant Smith Unit 4 and Unit 5 as required under the Title V Permitting Program. Included in these reports are the results of the nitrogen oxides Relative Accuracy Test Audits (RATA) performed concurrently with the emissions tests. Also enclosed is the signed certification statement by the Responsible Official.

The annual emissions report test results as reported by Gulf Power indicate the emissions rates shown in the table below. Additionally, the RATA results included in these reports indicate the CEM nitrogen oxides gas systems for both units are within the annual 7.5% accuracy limit.

SUMMARY OF EMISSION/RATA TEST RESULTS FOR UNITS 4 & 5

PARAMETER	MEASURED	ALLOWABLE
CO 3a CT MODE	0.55 ppm@15.0% O2	16 ppm @15% O2
CO 3b CT MODE	3.44 ppm@15.0% O2	23 ppm @15% O2
NOX 3a CT MODE	69.4 lb/hr	82.9 lb/hr
NOX 3b CT MODE	67.5 lb/hr	82.9lb/hr
VE 3ACT MODE	0%	10%
VE 3b CT MODE	0%	10%
CO 3a PA MODE	3.04 ppm@15.0% O2	23 ppm @15% O2
CO 3b PA MODE	6.72 ppm@15.0% O2	23 ppm @15% O2
NOX 3a PA MODE	60.2 lb/hr	113.3 lb/hr
NOX 3b PA MODE	77.6 lb/hr	113.3 lb/hr
VE 3APA MODE	0%	10%
VE 3b PAMODE	0%	10%
NOx lb/mmbtu 3a	RA=2.20% BAF=1.013	RA<7.5%
NOx lb/mbtu 3b	RA= 4.30% BAF=1.00	RA<7.5%

Note:
Average difference between RM and CEMS Unit 4 = 0.001 lb/mmBtu.
Average difference between RM and CEMS Unit 5 = -0.001 lb/mmBtu.

GULF POWER
A SOUTHERN COMPANY

The results of the tests demonstrate compliance with the applicable permitted limits. Should you have any questions concerning these reports or need additional information, please contact me at (850) 444-6091.

Sincerely,

John B. Rampulla
Environmental Affairs
AETB: Gulf Power Field Services
QSTI Application No.:2008-120

Enclosure

Cc: Greg Terry, Gulf Power
C. M. Largilliere, Gulf Power
Syed Arif, FDEP Tallahassee (RATA report only)

target ZERO
Every day, every job, safety.

Relative Accuracy Test Audit Report

June 19-20, 2012

Gulf Power Company
Plant Smith
Unit 4(3A) and 5(3B)
Stack ID: 4 and 5

Report by:

GULF POWER
A SOUTHERN COMPANY

Gulf Power Company
Plant Smith
Units 4(3A) and 5(3B)
Permit # 0050014-010-AV

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Permit # 0050014-001-AV

Introduction

This report documents the annual air emission testing performed at Lansing Smith Electric Generating Plant located in Southport, Florida. The combined cycle unit consists of two gas fired combustion turbines and a steam turbine. Each of the gas turbines has its own stack.

Gulf Power's Environmental Affairs Field Services group performed the required annual RATA testing on Smith Unit 4(3A) and 5(3B) on June 19-20, 2012. The EPA emission designations for these individual Combined Cycle Combustion Turbine Units are Unit 4 or (3A) and 5 or (3B).

Summary of Results

The results of the RATA testing performed on Gulf Power Plant Smith Units 4 & 5 are presented in the following table. The results are based on test data obtained from the facility during normal operation. These test results show that Plant Smith Units 4 & 5 are in compliance with the RATA limits specified in the Title V permit.

Table I. Relative Accuracy Test Audit

MONITOR Unit 4(3A)	RELATIVE ACCURACY	BIAS ADJUSTMENT	Date/Time: (bias applied)
NO_X	2.20	1.013	06-19-2012 15:01
	Mean RM	Mean CEMS	DIFFERENCE
NO_Xlb/mmbtu	0.044	0.043	0.001
MONITOR Unit 5(3B)	**RELATIVE ACCURACY**	**BIAS ADJUSTMENT**	**Date/Time: (bias applied)**
NO_X	4.30	1.000	No Change
	Mean RM	Mean CEMS	DIFFERENCE
NO_Xlb/mmbtu	0.040	0.042	-0.001

Note: *Average difference between RM and CEMS Unit 4 = 0.001 lb/mmBtu.*
Average difference between RM and CEMS Unit 5 = -0.001 lb/mmBtu.

Note:

If the continuous monitoring system fails to achieve the <=7.5 % RA then, According to 40 CFR Part 75 Appendix B 2.3.1.2(f) for units with low NO_x emission rates (average NO_x emission rate measured by the reference method during the RATA ≤ 0.200 lb/MMBtu), the RATA results are passing if the monitoring system mean value from the RATA is within ±0.015 lb/MMBtu of the reference method mean value.

A "cap" BAF of 1.111can be applied to LME units (≤ 0.200lb/MMBTU)

Source Description

Emission units -004 and -005 (collectively designated as Gulf Smith Unit 3) consist of a General Electric Model No. Pg7241 (FA), combined –cycle combustion turbnine with electrical generator set. These units will achieve a nominal 566 MW, at the average site conditions, with duct burners. These units are capable of a maximum of approximately 574 MW in combined cycle operation with power augmentation and evaporative cooling at 95 degrees F. The maximum heat input of the combustion turbines is a nominal 1927 MMBtu/hr (LHV @ 65 degrees F) each. The Maximum heat input of the duct burners is a nominal 303 MMBtu/hr (LHV @ 65 degrees F). The plant includes two (2) 121 foot stacks; a small heater for the gas pipeline and a 10 cell, mechanical draft salt water cooling tower. Emissions from Units -004 and -005 are controlled by Dry Low NO_x (DLN) combustors firing exclusively natural gas. Inherently clean fuels and good combustion practices are employed to control all pollutants.

CEMS

The continuous emission monitoring system used at Plant Smith Unit 4 is a Model 300 Dilution Monitoring System. The CEM system is manufactured and installed by Spectrum Systems, Inc., located in Pensacola, Florida. The Model 300 includes sample acquisition, sample analysis, and control and support components to provide continuous monitoring of NOx and CO_2. The NOx is detected with a chemiluminescence Thermo Environmental Model 42C Analyzer and CO_2 is measured with a non-dispersive infrared radiation (NDIR) Siemens Ultramat 6E.

The data is collected and processed using Spectraview software. This software is provided by the vendor and collects and processes all the CEMS data. The CEMS data used for calculating the relative accuracy is collected by taking a twenty-one minute average that corresponds with the same time frame that the reference method data is collected. Note that the reference method computer clock is reset and synchronized to the CEMS computer clock before each day of testing. All the reference method data gathered during the RATA is included in this report along with the CEMS data

Reference Method Equipment

The reference method testing equipment is housed in a mobile continuous emission monitoring system. The test trailer is equipped with both dilution extractive (wet basis) and fully extractive (dry basis) systems to analyze the stack emission concentrations. For this RATA test, the dilution extractive system was used.

The CO_2 is measured using a Siemens Ultramat 6 Analyzer. This monitor is a selective nondispersive infrared radiation (NDIR) gas analyzer that operates on the infrared double-beam, alternating light principle. The serial number for the CO_2 analyzer is N1-N5-672.

A Thermo Environmental Model 42i Nitrogen Oxides Gas Analyzer determines the NO_x levels in the gas stream. The monitor operates on the principle of chemiluminescence. This monitor has a converter that converts NO_2 to NO to enable it to accurately measure the NO_x in the sample stream.

Table II. Analyzer Full Scale and Span Settings

PARAMETER	SPAN
NO_x	20.1 PPM
CO_2	10.43%

Any additional information regarding instrument operation or capabilities can be obtained from the manufacturer or from Gulf Power Company by request.

The in-stack dilution probe is an EPM Environmental Model 797, and is constructed of Inconel, with a 316L stainless steel extension. The probe length is 10 feet. The probe extracts and dilutes the sample from the duct by creating an internal vacuum with respect to the flue gas. The sample is drawn through a glass critical orifice and mixed with clean dilution air that is provided by the trailer. This mixture is then delivered to the trailer to be analyzed by each instrument. The dilution ratio for this system is 100:1.

The sample system is controlled via personal computer using the Spectrum Systems SpectraTest Software to interface with a SpectraPak Ioplexer controller. This interface enables the tester to manually initiate calibration gases to the probe, blowback of the system, and start all data collection.

All calibration gases that are used in the certification process are Certified Protocol 1 Calibration Gases. All certificates are included in Appendix D.

Figure I. Sample Traverse Points and Sample Location

Unit 4(3A) and 5(3B)

Circular Duct Traverse Point Location

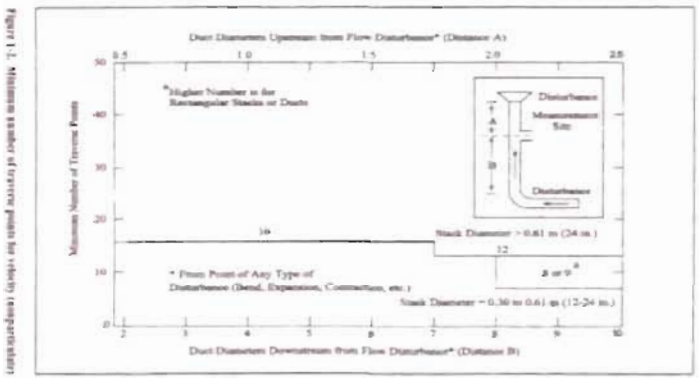
Gulf Power Company

Plant Smith CC, Panama City, Florida

Smith Unit (3A) 4 and (3B) 5

# of ports	4	
Diameter	203.50	inches
# of points/port	8	
Port Extension	9.00	inches
AREA	**225.869**	**Square Feet**

	distance from	Percent	Probe	number of points											
Traverse point #	stack wall (in.)	of diameter	Markings (in.)	2	4	6	8	10	12	14	16	18	20	22	24
1	6.51	3.2	15.51	14.6	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1
2	21.37	10.5	30.37	85.4	25	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2
3	39.48	19.4	48.48		75	29.3	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6	5.5
4	65.53	32.2	74.53		93.3	70.4	32.2	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9



Upstream

126.00 inches

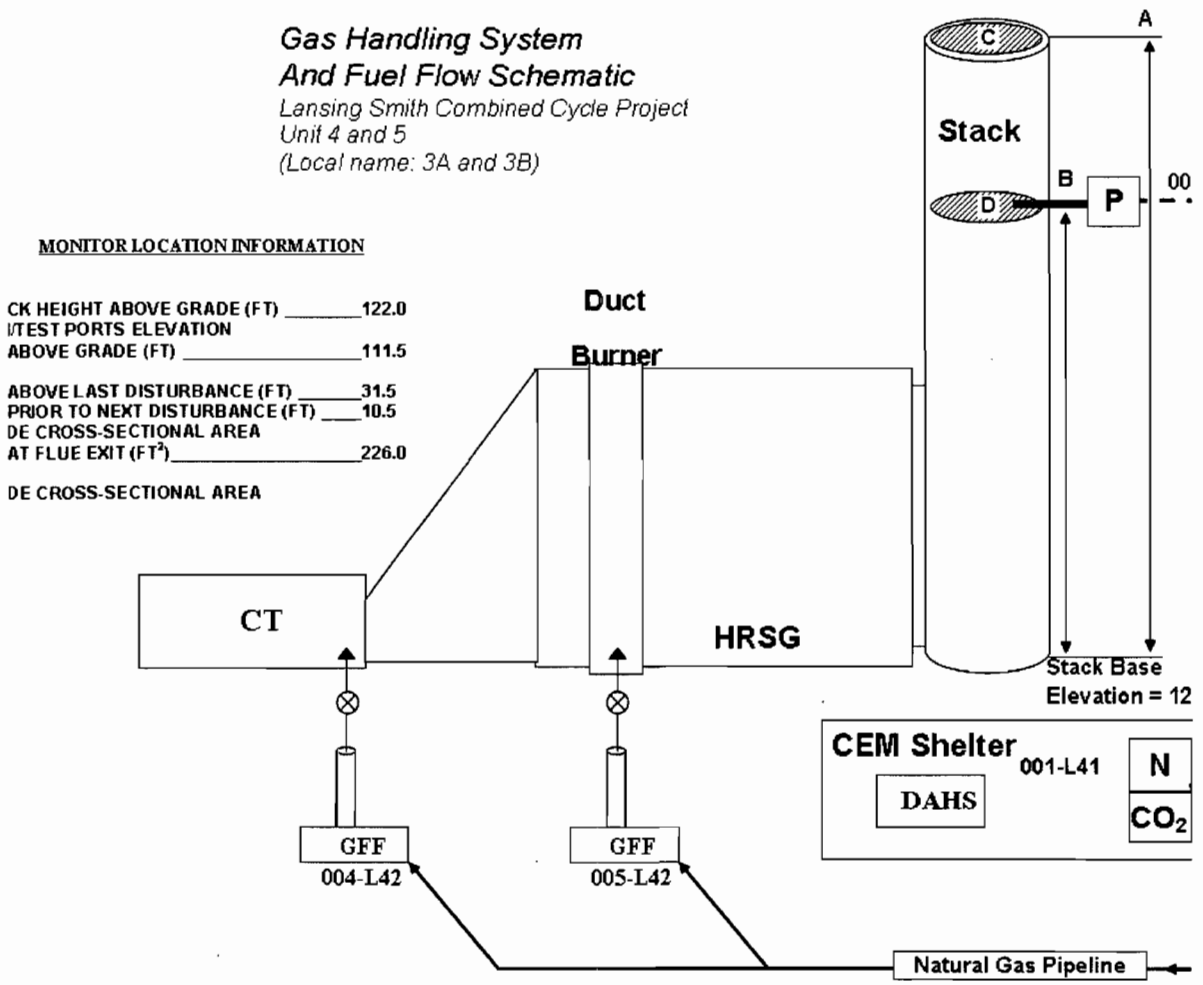
10.50 Feet

Down Stream

378.00 inches

31.50 Feet

Figure II. Unit Diagram



Attachment B-1

Test Procedures

All tests used in the certification process are performed in accordance with EPA Methods 3A and 7E. The Methods are found in 40 CFR Part 60.

These reference methods require that the tester: 1) select appropriate apparatus meeting the applicable equipment specifications of the methods; 2) conduct an interference response test prior to the testing program; and 3) conduct various measurements during the testing program to demonstrate conformance with the measurement system performance specifications. The stack gas monitoring system IS a dilution extractive system which requires separate calibrations dilution orifice. There is no direct analyzer calibration step available when using this system because the calibration gases must be diluted before being introduced to the ambient level analyzers. Therefore, the system bias check doubles as the system calibration. The system calibration error is limited to +/- 2%.

The following is a brief outline of the procedures followed during the gas testing. Initially, the measurement system was calibrated and the calibration system bias was calculated as described above. Next, a zero, mid, and high level gas was introduced to determine the system calibration error, which must be less than 2% error. After allowing approximately three times the system response time for the system to re-equilibrate to the effluent gas, 21 minutes of stack gas measurement data was collected. At the conclusion of the run data collection, a zero and upscale calibration gas for each analyzer was introduced. The upscale gas that most closely approximated the stack gas was used to perform the system bias checks and system drifts. As long as no significant drifts occurred, the calibration checks between runs served as both the post check for the previous run and the pre check for the next run. A summary of the drifts and biases are included in the appendices. The gas averages for each run were adjusted to correct for any drift that occurred. The system response time check was performed during the setup and initial calibration. The system response time was approximately 3.5 minutes.

A pretest stratification study was performed to determine the sample traverse location for the RATA testing. The Sample point locations are referenced in Figure I. Stratification results can be found in Appendix C

The CEM system was used to retrieve the CO_2, and NO_x rate data for each run. This data can be found in Appendix E, Field Notes and Miscellaneous Data.

All data used to compile this report is supplied in the applicable appendix. Each appendix should be self-explanatory as far as the raw data and the computed results are concerned. Any questions should be forwarded to Gulf Power Environmental Affairs Department.

The units for data collection are as follows: the NO_x is in parts per million (ppm) and the CO_2 is in percent (%), and NO_x rate in pound per million BTU (Lb/MMBtu). The times presented in the appendices should be interpreted as hour, minute, second format. The format is varied from appendix to appendix due to some times being collected either by the reference method data collection system or manually recorded by the testing personnel. The times for both the CEM system and the reference method tests are in Central Standard Time.

There were no problems with associated with the testing.

Mathematical Formulas

Data reduction for the reference method testing is performed as per the instructions contained in Title 40 of the Code of Federal Regulations, Parts 60 and 75. The following is a list of formulas that are used to reduce the data found in this report.

System Calibration Bias (Part 60, Appendix A, Method 6C):

$$System\ Calibration\ Bias = \frac{System\ Cal.\ Response - Analyzer\ Cal.\ Response}{Span} \times 100$$

System Drift (Part 60, Appendix A, Method 6C):

$$Drift = \frac{Final\ System\ Cal.\ Response - Initial\ System\ Cal.\ Response}{Span} \times 100$$

Calibration Error (Part 75, Appendix A, Equation A-6):

$$Calibration\ Error = \frac{\left|Reference\ Gas\ Value - Actual\ Anaylzer\ Response\right|}{Instrumental\ Span\ Value} \times 100$$

The corrected effluent gas concentration is calculated by (Part 60, Appendix A, Method 6C, Equation 6c-1):

$$C_{gas} = \left(\overline{C} - C_o\right)\frac{C_{ma}}{C_m - C_o}$$

Where,
C_{gas} = Effluent gas concentration, ppm
$\overline{C}$ = Average gas concentration indicated by gas analyzer, ppm
C_o = Average of initial and final system calibration bias check responses for the zero gas, ppm
C_m = Average of initial and final system calibration bias check responses for the upscale calibration gas, ppm
C_{ma} = Actual concentration of the upscale calibration gas, ppm

The pollutant emission rate is calculated by (Part 60, Appendix A, Method 19 Equation 19-7):

$$E = K\,C_w\,F_C\,\frac{100}{\%CO_{2w}}$$

Where,
E = Pollutant emissions during unit operation, lb/mmBtu
K = 1.660 x 10^{-7} (lb/dscf)/ppm SO_2
C_w = Pollutant concentration, wet basis, ppm
% CO_{2w} = Concentration of carbon dioxide on a wet basis, percent
F_C = Volume of combustion component per unit of heat constant

The arithmetic mean is defined as (Part 75, Appendix A, Equation A-7):

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

Where,

$\bar{d}$ = Arithmetic Mean

n = Number of data points

d_i = All data points individually taken or the difference between a reference method value and the corresponding continuous emission monitoring system value at a given point in time i, if calculating the mean of the difference.

Standard deviation is defined as (Part 75, Appendix A, Equation A-8):

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

Where,

S_d = Standard deviation

n = Number of data points

d = Arithmetic mean

d_i = The difference between a reference method value and the corresponding continuous emission monitoring system value at a given point in time i.

The confidence coefficient is defined as (Part 75, Appendix A, Equation A-9):

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

Where,

cc = Confidence coefficient

S_d = Standard deviation

t = 2.306 for nine runs

n = Number of runs

The pollutant emission rate is calculated by (Part 60, Appendix A, Method 19 Equation 19-7):

$$E = K\,C_w\,F_C\,\frac{100}{\%\,CO_{2w}} \qquad E = KC_dF_d\,\frac{20.9}{20.9 - \%O_{2d}}$$

Where,
E = Pollutant emissions during unit operation, lb/mmBtu
K = 1.194 x 10^{-7} (lb/dscf)/ppm NO_x
7.263 x 10^{-8} (lb/scf)/ppm CO
C_w = Pollutant concentration, wet basis, ppm
C_d = Pollutant concentration, dry basis, ppm
% CO_{2w} = Concentration of carbon dioxide on a wet basis, percent
% O_{2d} = Concentration of oxygen on a dry basis, percent
F_C, F_d = Volume of combustion component per unit of heat constant

The bias adjustment factor is defined as (Part 75, Appendix A, Equation A-12):

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

Where,
BAF = Bias adjustment factor, calculated to the nearest thousandth
$|\bar{d}|$ = Arithmetic mean of the differences between the reference method and the CEM data
CEM_{avg} = Mean of the data values provided by the monitor

Sample Calculations

Sample Calculations Unit 4(3A)

SAMPLE CALCULATIONS, RUN 1
Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3A) 4 RATA
Tuesday, June 19, 2012

Corrected effluent gas concentration NO_x emissions

$$C_{gas} = (\overline{C} - C_o)\frac{C_{ma}}{C_m - C_o}$$

Cgas = effluent concentration, ppm	=	10.53
$\overline{C}$ =Avearge gas concentration indicated by gas analyzer, ppm	=	10.53
Co = Average of initial and final system calibration bias response for the zero gas, ppm	=	0.07
Cm = Average of initial and final system calibration bias check response for the upscale calibration gas, ppm	=	10.07
Cma = Actual concentration of the upscale calibration gas ,ppm	=	10.07
Mean refrence method value for NOx from run 1	C =	10.53

Corrected effluent gas concentration CO_2 emissions

$$C_{gas} = (\overline{C} - C_o)\frac{C_{ma}}{C_m - C_o}$$

Cgas = effluent concentration, %	=	3.68
$\overline{C}$ =Avearge gas concentration indicated by gas analyzer, %	=	3.75
Co = Average of initial and final system calibration bias response for the zero gas, %	=	0.12
Cm = Average of initial and final system calibration bias check response for the upscale calibration gas, %	=	5.98
Cma = Actual concentration of the upscale calibration gas ,%	=	5.94

Nitrogen Oxides Emissions Pounds Per Million Btu
(EPA Carbon Dioxide F Factor)

$$E_{CO2x} = \frac{MW_x}{385,000,000} C_{ppm_x} F_{CO2}\left(\frac{100}{\%CO_2}\right)$$

x = Compound of interest (SO2 NOx CO VOC TRS etc)	=	NOx
MWx = Molecular weight of compound (lb/lb mole)	=	46.01
Cppmx = Pollutant Concentration (parts per million, WET basis)	=	10.53
F_{CO2} = Carbon Dioxide based F factor (SDCF/mmBtu)	=	1,040
$\%CO_2$ = Number percent by volume (WET basis from gas analysis)	=	3.68
E_{CO2}	=	0.036

Sample Calculations Unit 5(3B)

SAMPLE CALCULATIONS, RUN 1
Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3B) 5 RATA
Tuesday, June 19, 2012

Corrected effluent gas concentration NO_x emissions

$$C_{gas} = (\overline{C} - C_o)\frac{C_{ma}}{C_m - C_o}$$

Cgas = effluent concentration, ppm	=	15.30
$\overline{C}$ =Avearge gas concentration indicated by gas analyzer, ppm	=	15.11
Co = Average of initial and final system calibration bias response for the zero gas, ppm	=	0.02
Cm = Average of initial and final system calibration bias check response for the upscale calibration gas, ppm	=	9.95
Cma = Actual concentration of the upscale calibration gas ,ppm	=	10.07
Mean refrence method value for NOx from run 1	C =	15.11

Corrected effluent gas concentration CO_2 emissions

$$C_{gas} = (\overline{C} - C_o)\frac{C_{ma}}{C_m - C_o}$$

Cgas = effluent concentration, %	=	4.27
$\overline{C}$ =Avearge gas concentration indicated by gas analyzer, %	=	4.28
Co = Average of initial and final system calibration bias response for the zero gas, %	=	0.18
Cm = Average of initial and final system calibration bias check response for the upscale calibration gas, %	=	5.88
Cma = Actual concentration of the upscale calibration gas ,%	=	5.94

Nitrogen Oxides Emissions Pounds Per Million Btu
(EPA Carbon Dioxide F Factor)

$$E_{CO2x} = \frac{MW_x}{385,000,000} C_{ppm_x} F_{CO2}\left(\frac{100}{\%CO_2}\right)$$

x = Compound of interest (SO2 NOx CO VOC TRS etc)	=	NOx
MWx = Molecular weight of compound (lb/lb mole)	=	46.01
Cppmx = Pollutant Concentration (parts per million, WET basis)	=	15.30
F_{CO2} = Carbon Dioxide based F factor (SDCF/mmBtu)	=	1,040
$\%CO_2$ = Number percent by volume (WET basis from gas analysis)	=	4.27
E_{CO2} =		0.044

Statement of Authenticity

All field data collection and subsequent data reduction was done by the following personnel. We certify that the details and results presented in this report are authentic and accurate to the best of our knowledge.

Date: 07-18-12 Signature:

John B. Rampulla
Environmental Affairs
QSTI: I, III Application No.2008-120
Expire: 05/27/2013
AETB: Gulf Power field Services

Digital Signature: 07-18-12

Appendix A. Relative Accuracy Test Audit

Relative Accuracy Test Audit

Relative accuracy tests were conducted in accordance with 40CFR75, Appendix A, paragraph 6.5 for the NOx monitor.

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 RATA's are as follows:

Nitrogen Oxides	RM 7E
Oxygen	RM 3A and RM 3

The relative accuracy is calculated as follows:

$$RA = \frac{(A)+(B)}{(C)} * 100$$

Where,

A= The absolute value of the mean difference between the Reference Method values and the CEM values

B= The absolute value of the confidence coefficient

C= The arithmetic mean of the Reference Method values

40CFR Part 75 limits the relative accuracy of the NOx monitors to ten percent at each required operating load. Unless, the RATA is to be done on an annual basis rather than every two successive QA operation quarters in which case the relative accuracy is limited to 7.5%.

Bias Tests

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 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:

$$BAF = 1 + \frac{d}{(CEM)}$$

Where,
BAF= Bias Adjustment Factor
d= Absolute value of the arithmetic mean of the difference between the reference method and CEM data
CEM = Mean of the data provided from the monitor or system

CEM adjusted = CEM measured * BAF
Where,
CEM adjusted = data adjusted for the bias factor
CEM measured = measured value from the monitor

The bias adjustment factors are found on the same pages as the relative accuracy

Section 1. Unit 4(3A) RATA Test Report Data

RATA Results Unit 4(3A)

Relative Accuracy and Bias Determination

Performed By: **Gulf Power Company**
Pensacola, Florida

Date Performed: 19-Jun-2012
Test Number: 1

Performed For: **Gulf Power Company**
Smith, Unit 3A
Panama City

NOx CEMS LBS/MMBTU **NOx/A DILUTION**
System ID:

Run Number	Time Started	Time Stopped	Unit Load	RM-7E lbs/mmBtu	CEMS lbs/mmBtu	Difference lbs/mmBtu
1	6/19 08:40	6/19 09:01	248	0.036	0.034	0.002
2	6/19 09:15	6/19 09:36	249	0.034	0.034	0.000
3	6/19 09:51	6/19 10:12	270	0.036	0.035	0.001
4	6/19 10:28	6/19 10:49	273	0.044	0.043	0.001
5	6/19 11:05	6/19 11:26	273	0.045	0.045	0.000
6	6/19 11:42	6/19 12:03	273	0.046	0.046	0.000
7	6/19 12:19	6/19 12:40	272	0.045	0.044	0.001
8	6/19 12:56	6/19 13:17	273	0.045	0.044	0.001
9	6/19 13:33	6/19 13:54	273	0.044	0.044	0.000
10	6/19 14:06	6/19 14:27	277	0.045	0.044	0.001
11	6/19 14:40	6/19 15:01	277	0.045	0.044	0.001
Average			271	0.044	0.043	0.001
Standard Deviation						0.001
Confidence Coefficient:						0.000
Relative Accuracy:						2.20

T-Factor: 2.306

Bias Test (pass/fail): Failed
Bias Adjustment Factor: 1.013

Calculation of Average Emissions Unit 4(3A)

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	1 8:40:00 9:01:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.07	0.07	0.07
MID	10.07 ppm	10.06	10.09	10.07
CO2				
ZERO	0.00 percent	0.07	0.17	0.12
MID	5.94 percent	5.97	5.99	5.98

Mean Reference Values:

10.53 ppm NOx/A DILUTION
3.75 percent CO2

Corrected Results:

10.53 ppm NOx/A DILUTION
3.68 percent CO2

Emission Calculations

0.036 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	2 9:15:00 9:36:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.07	0.07	0.07
MID	10.07 ppm	10.09	10.18	10.13
CO2				
ZERO	0.00 percent	0.07	0.19	0.13
MID	5.94 percent	5.99	5.92	5.96

Mean Reference Values:

10.49 ppm NOx/A DILUTION
3.82 percent CO2

Corrected Results:

10.43 ppm NOx/A DILUTION
3.76 percent CO2

Emission Calculations

0.034 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	3 9:51:00 10:12:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.07	0.05	0.06
MID	10.07 ppm	10.18	10.13	10.16
CO2				
ZERO	0.00 percent	0.09	0.14	0.12
MID	5.94 percent	5.92	5.94	5.93

Mean Reference Values:

11.98 ppm NOx/A DILUTION
4.18 percent CO2

Corrected Results:

11.88 ppm NOx/A DILUTION
4.15 percent CO2

Emission Calculations

0.036 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	4 10:28:00 10:49:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.05	0.05	0.05
MID	10.07 ppm	10.13	10.06	10.10
CO2				
ZERO	0.00 percent	0.05	0.12	0.09
MID	5.94 percent	5.94	5.84	5.89

Mean Reference Values:

15.12 ppm NOx/A DILUTION
4.30 percent CO2

Corrected Results:

15.10 ppm NOx/A DILUTION
4.31 percent CO2

Emission Calculations

0.044 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	5 11:05:00 11:26:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.05	0.15	0.10
MID	10.07 ppm	10.06	9.94	10.00
CO2				
ZERO	0.00 percent	0.20	0.21	0.21
MID	5.94 percent	5.84	5.86	5.85

Mean Reference Values:

15.65 ppm NOx/A DILUTION
4.33 percent CO2

Corrected Results:

15.82 ppm NOx/A DILUTION
4.34 percent CO2

Emission Calculations

0.045 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	6 11:42:00 12:03:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.15	0.02	0.09
MID	10.07 ppm	9.94	10.04	9.99
CO2				
ZERO	0.00 percent	0.15	0.12	0.13
MID	5.94 percent	5.86	5.89	5.88

Mean Reference Values:

15.83 ppm NOx/A DILUTION
4.35 percent CO2

Corrected Results:

16.01 ppm NOx/A DILUTION
4.36 percent CO2

Emission Calculations

0.046 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	7 12:19:00 12:40:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.02	0.05	0.04
MID	10.07 ppm	10.04	9.89	9.96
CO2				
ZERO	0.00 percent	0.07	0.22	0.15
MID	5.94 percent	5.89	5.99	5.94

Mean Reference Values:

15.37 ppm NOx/A DILUTION
4.38 percent CO2

Corrected Results:

15.56 ppm NOx/A DILUTION
4.34 percent CO2

Emission Calculations

0.045 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	8 12:56:00 13:17:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.05	-0.05	0.00
MID	10.07 ppm	9.89	9.94	9.91
CO2				
ZERO	0.00 percent	0.12	0.23	0.18
MID	5.94 percent	5.99	6.04	6.01

Mean Reference Values:

15.29 ppm NOx/A DILUTION
4.40 percent CO2

Corrected Results:

15.54 ppm NOx/A DILUTION
4.30 percent CO2

Emission Calculations

0.045 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	9 13:33:00 13:54:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	-0.05	0.05	0.00
MID	10.07 ppm	9.94	9.94	9.94
CO2				
ZERO	0.00 percent	0.11	0.21	0.16
MID	5.94 percent	6.04	5.90	5.97

Mean Reference Values:

15.20 ppm NOx/A DILUTION
4.37 percent CO2

Corrected Results:

15.40 ppm NOx/A DILUTION
4.30 percent CO2

Emission Calculations

0.044 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	10 14:06:00 14:27:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.05	0.00	0.02
MID	10.07 ppm	9.94	9.96	9.95
CO2				
ZERO	0.00 percent	0.21	0.15	0.18
MID	5.94 percent	5.90	6.01	5.96

Mean Reference Values:

15.12 ppm NOx/A DILUTION
4.33 percent CO2

Corrected Results:

15.31 ppm NOx/A DILUTION
4.26 percent CO2

Emission Calculations

0.045 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	11 14:40:00 15:01:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.00	-0.05	-0.02
MID	10.07 ppm	9.96	9.94	9.95
CO2				
ZERO	0.00 percent	0.13	0.14	0.13
MID	5.94 percent	6.01	5.94	5.98

Mean Reference Values:

15.22 ppm NOx/A DILUTION
4.34 percent CO2

Corrected Results:

15.39 ppm NOx/A DILUTION
4.27 percent CO2

Emission Calculations

0.045 lbs/mmBtu NOx/A DILUTION

Calibration Error Unit 4(3A)

Analyzer Calibration Error

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	1
	Smith, Unit 3A	Start Time:	8:40:00
	Panama City	Stop Time:	9:01:00

Nitrogen Oxides Monitor

NOx/A DILUTION

Span: 20.10

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference (ppm NOx)	Calibration Error
ZERO AIR	0.00	0.07	-0.07	-0.36%
CC340887	10.07	10.06	0.01	0.04%
CC340157	20.10	20.27	-0.17	-0.84%

Carbon Dioxide Monitor

CO2/A DILUTION

Span: 10.43

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference (% CO2)	Calibration Error
CC340887	0.00	0.07	-0.07	-0.66%
CC214767	5.94	5.97	-0.03	-0.30%
CC110594	10.43	10.45	-0.02	-0.16%

Calibration error is for runs 1-11

Sampling System Bias and Drift Unit 4(3A)

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	1
	Smith, Unit 3A	Start Time:	8:40:00
	Panama City	Stop Time:	9:01:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.07	0.00	0.07	0.00	0.00%
MID	10.06	10.06	0.00	10.09	0.00	-0.12%
CO2/A DILUTION						
ZERO	0.07	0.07	0.00	0.17	0.01	-0.98%
MID	5.97	5.97	0.00	5.99	0.00	-0.19%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	2
	Smith, Unit 3A	Start Time:	9:15:00
	Panama City	Stop Time:	9:36:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.07	0.00	0.07	0.00	0.00%
MID	10.06	10.09	0.00	10.18	0.01	-0.49%
CO2/A DILUTION						
ZERO	0.07	0.07	0.00	0.19	0.01	-1.17%
MID	5.97	5.99	0.00	5.92	0.00	0.61%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	3
	Smith, Unit 3A	Start Time:	9:51:00
	Panama City	Stop Time:	10:12:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.07	0.00	0.05	0.00	0.12%
MID	10.06	10.18	0.01	10.13	0.00	0.24%
CO2/A DILUTION						
ZERO	0.07	0.09	0.00	0.14	0.01	-0.47%
MID	5.97	5.92	0.00	5.94	0.00	-0.14%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	4
	Smith, Unit 3A	Start Time:	10:28:00
	Panama City	Stop Time:	10:49:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.05	0.00	0.05	0.00	0.00%
MID	10.06	10.13	0.00	10.06	0.00	0.36%
CO2/A DILUTION						
ZERO	0.07	0.05	0.00	0.12	0.01	-0.70%
MID	5.97	5.94	0.00	5.84	-0.01	0.94%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	5
	Smith, Unit 3A	Start Time:	11:05:00
	Panama City	Stop Time:	11:26:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.05	0.00	0.15	0.00	-0.49%
MID	10.06	10.06	0.00	9.94	-0.01	0.61%
CO2/A DILUTION						
ZERO	0.07	0.20	0.01	0.21	0.01	-0.14%
MID	5.97	5.84	-0.01	5.86	-0.01	-0.14%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	6
	Smith, Unit 3A	Start Time:	11:42:00
	Panama City	Stop Time:	12:03:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.15	0.00	0.02	0.00	0.61%
MID	10.06	9.94	-0.01	10.04	0.00	-0.49%
CO2/A DILUTION						
ZERO	0.07	0.15	0.01	0.12	0.01	0.23%
MID	5.97	5.86	-0.01	5.89	-0.01	-0.37%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	7 12:19:00 12:40:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.02	0.00	0.05	0.00	-0.12%
MID	10.06	10.04	0.00	9.89	-0.01	0.73%
CO2/A DILUTION						
ZERO	0.07	0.07	0.00	0.22	0.01	-1.45%
MID	5.97	5.89	-0.01	5.99	0.00	-0.89%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	8 12:56:00 13:17:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.05	0.00	-0.05	-0.01	0.49%
MID	10.06	9.89	-0.01	9.94	-0.01	-0.24%
CO2/A DILUTION						
ZERO	0.07	0.12	0.00	0.23	0.02	-1.12%
MID	5.97	5.99	0.00	6.04	0.01	-0.52%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	9
	Smith, Unit 3A	Start Time:	13:33:00
	Panama City	Stop Time:	13:54:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	-0.05	-0.01	0.05	0.00	-0.49%
MID	10.06	9.94	-0.01	9.94	-0.01	0.00%
CO2/A DILUTION						
ZERO	0.07	0.11	0.00	0.21	0.01	-0.94%
MID	5.97	6.04	0.01	5.90	-0.01	1.31%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	10
	Smith, Unit 3A	Start Time:	14:06:00
	Panama City	Stop Time:	14:27:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.05	0.00	0.00	0.00	0.24%
MID	10.06	9.94	-0.01	9.96	0.00	-0.12%
CO2/A DILUTION						
ZERO	0.07	0.21	0.01	0.15	0.01	0.61%
MID	5.97	5.90	-0.01	6.01	0.00	-0.98%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3A Panama City	Run Number: Start Time: Stop Time:	11 14:40:00 15:01:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.00	0.00	-0.05	-0.01	0.24%
MID	10.06	9.96	0.00	9.94	-0.01	0.12%
CO2/A DILUTION						
ZERO	0.07	0.13	0.01	0.14	0.01	-0.14%
MID	5.97	6.01	0.00	5.94	0.00	0.61%

One Minute Averages Unit 4(3A)

Run #1

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 8:40	3.712	10.72
2	6/19/2012 8:41	3.688	10.72
3	6/19/2012 8:42	3.723	10.65
4	6/19/2012 8:43	3.742	10.63
5	6/19/2012 8:44	3.735	10.63
6	6/19/2012 8:45	3.767	10.65
7	6/19/2012 8:46	3.751	10.62
8	6/19/2012 8:47	3.745	10.59
9	6/19/2012 8:48	3.741	10.57
10	6/19/2012 8:49	3.786	10.50
11	6/19/2012 8:50	3.741	10.46
12	6/19/2012 8:51	3.757	10.49
13	6/19/2012 8:52	3.767	10.48
14	6/19/2012 8:53	3.766	10.52
15	6/19/2012 8:54	3.747	10.44
16	6/19/2012 8:55	3.763	10.46
17	6/19/2012 8:56	3.761	10.49
18	6/19/2012 8:57	3.770	10.47
19	6/19/2012 8:58	3.762	10.40
20	6/19/2012 8:59	3.757	10.29
21	6/19/2012 9:00	3.759	10.31
Average		**3.750**	**10.53**

Run #2

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 9:15	3.709	10.28
2	6/19/2012 9:16	3.748	10.40
3	6/19/2012 9:17	3.770	10.42
4	6/19/2012 9:18	3.796	10.49
5	6/19/2012 9:19	3.832	10.70
6	6/19/2012 9:20	3.886	10.86
7	6/19/2012 9:21	3.941	11.02
8	6/19/2012 9:22	3.989	11.12
9	6/19/2012 9:23	3.953	10.60
10	6/19/2012 9:24	3.804	10.24
11	6/19/2012 9:25	3.769	10.21
12	6/19/2012 9:26	3.760	10.24
13	6/19/2012 9:27	3.743	10.31
14	6/19/2012 9:28	3.759	10.26
15	6/19/2012 9:29	3.753	10.26
16	6/19/2012 9:30	3.779	10.38
17	6/19/2012 9:31	3.810	10.31
18	6/19/2012 9:32	3.812	10.45
19	6/19/2012 9:33	3.821	10.53
20	6/19/2012 9:34	3.854	10.66
21	6/19/2012 9:35	3.863	10.58
Average		**3.817**	**10.49**

Run #3

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 9:51	4.015	11.32
2	6/19/2012 9:52	4.041	11.50
3	6/19/2012 9:53	4.050	11.59
4	6/19/2012 9:54	4.102	11.73
5	6/19/2012 9:55	4.133	11.92
6	6/19/2012 9:56	4.171	12.00
7	6/19/2012 9:57	4.196	12.12
8	6/19/2012 9:58	4.234	12.26
9	6/19/2012 9:59	4.194	12.32
10	6/19/2012 10:00	4.266	12.27
11	6/19/2012 10:01	4.240	12.16
12	6/19/2012 10:02	4.204	12.11
13	6/19/2012 10:03	4.210	12.01
14	6/19/2012 10:04	4.206	12.04
15	6/19/2012 10:05	4.211	12.04
16	6/19/2012 10:06	4.212	12.03
17	6/19/2012 10:07	4.214	12.07
18	6/19/2012 10:08	4.250	11.98
19	6/19/2012 10:09	4.242	12.03
20	6/19/2012 10:10	4.234	12.01
21	6/19/2012 10:11	4.235	12.10
Average		**4.184**	**11.98**

Run #4

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 10:28	4.174	12.13
2	6/19/2012 10:29	4.199	12.10
3	6/19/2012 10:30	4.217	14.52
4	6/19/2012 10:31	4.270	15.24
5	6/19/2012 10:32	4.284	15.19
6	6/19/2012 10:33	4.294	15.32
7	6/19/2012 10:34	4.310	15.54
8	6/19/2012 10:35	4.316	15.51
9	6/19/2012 10:36	4.333	15.43
10	6/19/2012 10:37	4.304	15.40
11	6/19/2012 10:38	4.317	15.34
12	6/19/2012 10:39	4.319	15.54
13	6/19/2012 10:40	4.330	15.64
14	6/19/2012 10:41	4.349	15.64
15	6/19/2012 10:42	4.333	15.65
16	6/19/2012 10:43	4.326	15.61
17	6/19/2012 10:44	4.329	15.56
18	6/19/2012 10:45	4.331	15.43
19	6/19/2012 10:46	4.350	15.53
20	6/19/2012 10:47	4.324	15.59
21	6/19/2012 10:48	4.350	15.63
Average		**4.303**	**15.12**

Run #5

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 11:05	4.294	15.61
2	6/19/2012 11:06	4.281	15.78
3	6/19/2012 11:07	4.309	15.69
4	6/19/2012 11:08	4.306	15.74
5	6/19/2012 11:09	4.348	15.71
6	6/19/2012 11:10	4.317	15.69
7	6/19/2012 11:11	4.313	15.67
8	6/19/2012 11:12	4.339	15.58
9	6/19/2012 11:13	4.308	15.59
10	6/19/2012 11:14	4.385	15.56
11	6/19/2012 11:15	4.320	15.49
12	6/19/2012 11:16	4.324	15.58
13	6/19/2012 11:17	4.386	15.51
14	6/19/2012 11:18	4.317	15.49
15	6/19/2012 11:19	4.350	15.66
16	6/19/2012 11:20	4.338	15.72
17	6/19/2012 11:21	4.359	15.73
18	6/19/2012 11:22	4.345	15.72
19	6/19/2012 11:23	4.350	15.71
20	6/19/2012 11:24	4.365	15.72
21	6/19/2012 11:25	4.338	15.75
Average		**4.333**	**15.65**

Run #6

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 11:42	4.280	15.90
2	6/19/2012 11:43	4.311	15.93
3	6/19/2012 11:44	4.307	15.87
4	6/19/2012 11:45	4.344	15.98
5	6/19/2012 11:46	4.331	16.03
6	6/19/2012 11:47	4.359	16.03
7	6/19/2012 11:48	4.361	16.00
8	6/19/2012 11:49	4.343	15.98
9	6/19/2012 11:50	4.406	16.14
10	6/19/2012 11:51	4.358	16.09
11	6/19/2012 11:52	4.372	16.05
12	6/19/2012 11:53	4.348	15.80
13	6/19/2012 11:54	4.355	15.80
14	6/19/2012 11:55	4.354	15.70
15	6/19/2012 11:56	4.396	15.76
16	6/19/2012 11:57	4.358	15.76
17	6/19/2012 11:58	4.406	15.83
18	6/19/2012 11:59	4.366	15.83
19	6/19/2012 12:00	4.391	15.85
20	6/19/2012 12:01	4.365	15.93
21	6/19/2012 12:02	4.245	14.18
Average		**4.350**	**15.83**

Run #7

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 12:19	4.209	15.10
2	6/19/2012 12:20	4.301	14.98
3	6/19/2012 12:21	4.325	15.03
4	6/19/2012 12:22	4.350	15.20
5	6/19/2012 12:23	4.375	15.25
6	6/19/2012 12:24	4.379	15.32
7	6/19/2012 12:25	4.389	15.41
8	6/19/2012 12:26	4.375	15.33
9	6/19/2012 12:27	4.400	15.63
10	6/19/2012 12:28	4.412	15.68
11	6/19/2012 12:29	4.361	15.65
12	6/19/2012 12:30	4.359	15.58
13	6/19/2012 12:31	4.414	15.65
14	6/19/2012 12:32	4.405	15.49
15	6/19/2012 12:33	4.408	15.53
16	6/19/2012 12:34	4.409	15.63
17	6/19/2012 12:35	4.413	15.58
18	6/19/2012 12:36	4.437	15.25
19	6/19/2012 12:37	4.410	14.99
20	6/19/2012 12:38	4.431	15.03
21	6/19/2012 12:39	4.441	15.38
Average		**4.381**	**15.37**

Run #8

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 12:56	4.293	14.81
2	6/19/2012 12:57	4.371	14.92
3	6/19/2012 12:58	4.318	14.85
4	6/19/2012 12:59	4.300	14.96
5	6/19/2012 13:00	4.307	15.01
6	6/19/2012 13:01	4.420	15.23
7	6/19/2012 13:02	4.352	15.32
8	6/19/2012 13:03	4.389	15.54
9	6/19/2012 13:04	4.398	15.43
10	6/19/2012 13:05	4.428	15.50
11	6/19/2012 13:06	4.442	15.46
12	6/19/2012 13:07	4.427	15.47
13	6/19/2012 13:08	4.421	15.44
14	6/19/2012 13:09	4.407	15.40
15	6/19/2012 13:10	4.429	15.54
16	6/19/2012 13:11	4.431	15.69
17	6/19/2012 13:12	4.424	15.37
18	6/19/2012 13:13	4.418	15.26
19	6/19/2012 13:14	4.433	15.23
20	6/19/2012 13:15	4.457	15.30
21	6/19/2012 13:16	4.446	15.31
Average		**4.396**	**15.29**

Run #9

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 13:33	4.363	15.27
2	6/19/2012 13:34	4.382	15.18
3	6/19/2012 13:35	4.397	15.21
4	6/19/2012 13:36	4.434	15.24
5	6/19/2012 13:37	4.413	15.16
6	6/19/2012 13:38	4.404	15.17
7	6/19/2012 13:39	4.364	14.99
8	6/19/2012 13:40	4.350	15.01
9	6/19/2012 13:41	4.340	15.09
10	6/19/2012 13:42	4.323	15.09
11	6/19/2012 13:43	4.330	15.09
12	6/19/2012 13:44	4.328	15.01
13	6/19/2012 13:45	4.339	15.18
14	6/19/2012 13:46	4.336	15.18
15	6/19/2012 13:47	4.342	15.22
16	6/19/2012 13:48	4.372	15.37
17	6/19/2012 13:49	4.399	15.44
18	6/19/2012 13:50	4.422	15.39
19	6/19/2012 13:51	4.423	15.36
20	6/19/2012 13:52	4.409	15.36
21	6/19/2012 13:53	4.402	15.30
Average		**4.375**	**15.20**

Run #10

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 14:06	3.938	14.73
2	6/19/2012 14:07	4.235	14.97
3	6/19/2012 14:08	4.281	14.99
4	6/19/2012 14:09	4.291	15.10
5	6/19/2012 14:10	4.313	15.19
6	6/19/2012 14:11	4.327	15.25
7	6/19/2012 14:12	4.357	15.23
8	6/19/2012 14:13	4.350	15.27
9	6/19/2012 14:14	4.372	15.23
10	6/19/2012 14:15	4.365	15.01
11	6/19/2012 14:16	4.366	15.04
12	6/19/2012 14:17	4.369	15.01
13	6/19/2012 14:18	4.359	14.98
14	6/19/2012 14:19	4.384	15.09
15	6/19/2012 14:20	4.380	15.08
16	6/19/2012 14:21	4.381	15.07
17	6/19/2012 14:22	4.370	15.19
18	6/19/2012 14:23	4.375	15.20
19	6/19/2012 14:24	4.395	15.24
20	6/19/2012 14:25	4.400	15.32
21	6/19/2012 14:26	4.389	15.32
Average		**4.333**	**15.12**

Run #11

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 14:40	4.219	14.82
2	6/19/2012 14:41	4.262	14.81
3	6/19/2012 14:42	4.283	14.95
4	6/19/2012 14:43	4.317	15.11
5	6/19/2012 14:44	4.327	15.31
6	6/19/2012 14:45	4.355	15.26
7	6/19/2012 14:46	4.344	15.43
8	6/19/2012 14:47	4.361	15.45
9	6/19/2012 14:48	4.365	15.43
10	6/19/2012 14:49	4.370	15.49
11	6/19/2012 14:50	4.367	15.38
12	6/19/2012 14:51	4.348	15.29
13	6/19/2012 14:52	4.362	15.34
14	6/19/2012 14:53	4.365	15.21
15	6/19/2012 14:54	4.356	15.31
16	6/19/2012 14:55	4.379	15.20
17	6/19/2012 14:56	4.379	15.19
18	6/19/2012 14:57	4.370	15.20
19	6/19/2012 14:58	4.368	15.16
20	6/19/2012 14:59	4.365	15.21
21	6/19/2012 15:00	4.347	15.15
Average		**4.343**	**15.22**

Section 2. Unit 5(3B) RATA Test Report Data

RATA Results Unit 5(3B)

Relative Accuracy and Bias Determination

Performed By: **Gulf Power Company**
Pensacola, Florida

Date Performed: 19-Jun-2012
Test Number: 1

Performed For: **Gulf Power Company**
Smith, Unit 3B
Panama City

NOx CEMS LBS/MMBTU **NOx/A DILUTION**
System ID:

Run Number	Time Started	Time Stopped	Unit Load	RM-7E lbs/mmBtu	CEMS lbs/mmBtu	Difference lbs/mmBtu
1	6/19 15:31	6/19 15:52	284	0.044	0.045	-0.001
2	6/19 16:06	6/19 16:27	284	0.044	0.045	-0.001
3	6/19 16:48	6/19 17:09	285	0.044	0.045	-0.001
4	6/19 17:23	6/19 17:44	285	0.044	0.045	-0.001
5	6/20 09:39	6/20 10:00	282	0.038	0.038	0.000
6	6/20 10:14	6/20 10:35	282	0.038	0.039	-0.001
7	6/20 10:49	6/20 11:10	281	0.037	0.039	-0.002
8	6/20 11:26	6/20 11:47	281	0.037	0.039	-0.002
9	6/20 12:01	6/20 12:22	280	0.037	0.039	-0.002
Average			283	0.040	0.042	-0.001
Standard Deviation						0.001
Confidence Coefficient:						0.001
Relative Accuracy:						4.30

T-Factor: 2.306

Bias Test (pass/fail): Passed
Bias Adjustment Factor: 1.000

Calculation of Average Emissions Unit 5(3B)

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	1 15:31:00 15:52:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.07	-0.02	0.02
MID	10.07 ppm	9.96	9.94	9.95
CO2				
ZERO	0.00 percent	0.17	0.19	0.18
MID	5.94 percent	5.94	5.81	5.88

Mean Reference Values:

15.11 ppm NOx/A DILUTION
4.28 percent CO2

Corrected Results:

15.30 ppm NOx/A DILUTION
4.27 percent CO2

Emission Calculations

0.044 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** *Smith, Unit 3B* Panama City	Run Number: *Start Time:* Stop Time:	2 16:06:00 16:27:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	-0.02	-0.05	-0.04
MID	10.07 ppm	9.94	10.04	9.99
CO2				
ZERO	0.00 percent	0.10	0.19	0.14
MID	5.94 percent	5.81	5.84	5.82

Mean Reference Values:

15.25 ppm NOx/A DILUTION
4.27 percent CO2

Corrected Results:

15.35 ppm NOx/A DILUTION
4.32 percent CO2

Emission Calculations

0.044 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	3 16:48:00 17:09:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	-0.05	-0.02	-0.04
MID	10.07 ppm	10.04	10.04	10.04
CO2				
ZERO	0.00 percent	0.12	0.21	0.17
MID	5.94 percent	5.84	5.79	5.81

Mean Reference Values:

15.25 ppm NOx/A DILUTION
4.26 percent CO2

Corrected Results:

15.27 ppm NOx/A DILUTION
4.31 percent CO2

Emission Calculations

0.044 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	4 17:23:00 17:44:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	-0.02	0.02	0.00
MID	10.07 ppm	10.04	10.09	10.06
CO2				
ZERO	0.00 percent	0.10	0.14	0.12
MID	5.94 percent	5.79	5.84	5.81

Mean Reference Values:

15.17 ppm NOx/A DILUTION
4.23 percent CO2

Corrected Results:

15.19 ppm NOx/A DILUTION
4.29 percent CO2

Emission Calculations

0.044 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	20-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	5 9:39:00 10:00:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.07	0.02	0.05
MID	10.07 ppm	10.04	9.96	10.00
CO2				
ZERO	0.00 percent	0.11	0.23	0.17
MID	5.94 percent	5.92	6.00	5.96

Mean Reference Values:

12.93 ppm NOx/A DILUTION
4.35 percent CO2

Corrected Results:

13.04 ppm NOx/A DILUTION
4.29 percent CO2

Emission Calculations

0.038 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	20-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	6 10:14:00 10:35:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.02	0.00	0.01
MID	10.07 ppm	9.96	9.96	9.96
CO2				
ZERO	0.00 percent	0.11	0.27	0.19
MID	5.94 percent	6.00	5.96	5.98

Mean Reference Values:

12.67 ppm NOx/A DILUTION
4.29 percent CO2

Corrected Results:

12.81 ppm NOx/A DILUTION
4.20 percent CO2

Emission Calculations

0.038 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	20-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	7 10:49:00 11:10:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.00	0.02	0.01
MID	10.07 ppm	9.96	9.91	9.94
CO2				
ZERO	0.00 percent	0.11	0.14	0.12
MID	5.94 percent	5.96	5.94	5.95

Mean Reference Values:

12.75 ppm NOx/A DILUTION
4.33 percent CO2

Corrected Results:

12.92 ppm NOx/A DILUTION
4.29 percent CO2

Emission Calculations

0.037 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	20-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	8 11:26:00 11:47:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	0.02	-0.05	-0.01
MID	10.07 ppm	9.91	9.96	9.94
CO2				
ZERO	0.00 percent	0.18	0.14	0.16
MID	5.94 percent	5.94	5.96	5.95

Mean Reference Values:

12.81 ppm NOx/A DILUTION
4.35 percent CO2

Corrected Results:

12.97 ppm NOx/A DILUTION
4.30 percent CO2

Emission Calculations

0.037 lbs/mmBtu NOx/A DILUTION

Calculation of Average Emissions

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	20-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	9 12:01:00 12:22:00

Calibration Gas Value		Initial Calibration	Final Calibration	Average
NOx/A DILUTION				
ZERO	0.00 ppm	-0.05	0.02	-0.01
MID	10.07 ppm	9.96	9.91	9.94
CO2				
ZERO	0.00 percent	0.14	0.13	0.13
MID	5.94 percent	5.96	5.94	5.95

Mean Reference Values:

12.69 ppm NOx/A DILUTION
4.33 percent CO2

Corrected Results:

12.85 ppm NOx/A DILUTION
4.28 percent CO2

Emission Calculations

0.037 lbs/mmBtu NOx/A DILUTION

Calibration Error Unit 5(3B)

Analyzer Calibration Error

Performed By:	**Gulf Power Company** Pensacola, Florida	Date Performed: Test Number:	19-Jun-2012 1
Performed For:	**Gulf Power Company** Smith, Unit 3B Panama City	Run Number: Start Time: Stop Time:	1 15:31:00 15:52:00

Nitrogen Oxides Monitor

NOx/A DILUTION

Span: 20.10

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference (ppm NOx)	Calibration Error
ZERO AIR	0.00	0.07	-0.07	-0.36%
CC340887	10.07	9.96	0.11	0.53%
CC340157	20.10	20.27	-0.17	-0.84%

Carbon Dioxide Monitor

CO2/A DILUTION

Span: 10.43

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference (% CO2)	Calibration Error
ZERO AIR	0.00	0.17	-0.17	-1.59%
CC214767	5.94	5.94	0.00	-0.02%
CC110594	10.43	10.45	-0.02	-0.16%

Calibration error is for runs 1-9

Sampling System Bias and Drift Unit 5(3B)

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	1
	Smith, Unit 3B	Start Time:	15:31:00
	Panama City	Stop Time:	15:52:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.07	0.00	-0.02	0.00	0.49%
MID	9.96	9.96	0.00	9.94	0.00	0.12%
CO2/A DILUTION						
ZERO	0.17	0.17	0.00	0.19	0.00	-0.19%
MID	5.94	5.94	0.00	5.81	-0.01	1.22%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	2
	Smith, Unit 3B	Start Time:	16:06:00
	Panama City	Stop Time:	16:27:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	-0.02	0.00	-0.05	-0.01	0.12%
MID	9.96	9.94	0.00	10.04	0.00	-0.49%
CO2/A DILUTION						
ZERO	0.17	0.10	-0.01	0.19	0.00	-0.89%
MID	5.94	5.81	-0.01	5.84	-0.01	-0.23%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	3
	Smith, Unit 3B	Start Time:	16:48:00
	Panama City	Stop Time:	17:09:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	-0.05	-0.01	-0.02	0.00	-0.12%
MID	9.96	10.04	0.00	10.04	0.00	0.00%
CO2/A DILUTION						
ZERO	0.17	0.12	0.00	0.21	0.00	-0.84%
MID	5.94	5.84	-0.01	5.79	-0.01	0.42%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	19-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	4
	Smith, Unit 3B	Start Time:	17:23:00
	Panama City	Stop Time:	17:44:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	-0.02	0.00	0.02	0.00	-0.24%
MID	9.96	10.04	0.00	10.09	0.01	-0.24%
CO2/A DILUTION						
ZERO	0.17	0.10	-0.01	0.14	0.00	-0.37%
MID	5.94	5.79	-0.01	5.84	-0.01	-0.42%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	20-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	5
	Smith, Unit 3B	Start Time:	9:39:00
	Panama City	Stop Time:	10:00:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.07	0.00	0.02	0.00	0.24%
MID	10.04	10.04	0.00	9.96	0.00	0.36%
CO2/A DILUTION						
ZERO	0.11	0.11	0.00	0.23	0.01	-1.17%
MID	5.92	5.92	0.00	6.00	0.01	-0.75%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	20-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	6
	Smith, Unit 3B	Start Time:	10:14:00
	Panama City	Stop Time:	10:35:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.02	0.00	0.00	0.00	0.12%
MID	10.04	9.96	0.00	9.96	0.00	0.00%
CO2/A DILUTION						
ZERO	0.11	0.11	0.00	0.27	0.02	-1.55%
MID	5.92	6.00	0.01	5.96	0.00	0.42%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	20-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	7
	Smith, Unit 3B	Start Time:	10:49:00
	Panama City	Stop Time:	11:10:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.00	0.00	0.02	0.00	-0.12%
MID	10.04	9.96	0.00	9.91	-0.01	0.24%
CO2/A DILUTION						
ZERO	0.11	0.11	0.00	0.14	0.00	-0.23%
MID	5.92	5.96	0.00	5.94	0.00	0.14%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	20-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	8
	Smith, Unit 3B	Start Time:	11:26:00
	Panama City	Stop Time:	11:47:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	0.02	0.00	-0.05	-0.01	0.36%
MID	10.04	9.91	-0.01	9.96	0.00	-0.24%
CO2/A DILUTION						
ZERO	0.11	0.18	0.01	0.14	0.00	0.37%
MID	5.92	5.94	0.00	5.96	0.00	-0.19%

Sampling System Bias and Drift

Performed By:	**Gulf Power Company**	Date Performed:	20-Jun-2012
	Pensacola, Florida	Test Number:	1
Performed For:	**Gulf Power Company**	Run Number:	9
	Smith, Unit 3B	Start Time:	12:01:00
	Panama City	Stop Time:	12:22:00

Monitor Type	Analyzer Cal Response	Initial Cal Value	Calculated Bias	Final Cal Value	Calculated Bias	Calculated Drift
NOx/A DILUTION						
ZERO	0.07	-0.05	-0.01	0.02	0.00	-0.36%
MID	10.04	9.96	0.00	9.91	-0.01	0.24%
CO2/A DILUTION						
ZERO	0.11	0.14	0.00	0.13	0.00	0.09%
MID	5.92	5.96	0.00	5.94	0.00	0.23%

One Minute Averages Unit 5(3B)

Run #1

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 15:31	4.088	14.64
2	6/19/2012 15:32	4.156	14.86
3	6/19/2012 15:33	4.207	15.00
4	6/19/2012 15:34	4.230	15.07
5	6/19/2012 15:35	4.247	15.06
6	6/19/2012 15:36	4.273	15.16
7	6/19/2012 15:37	4.277	15.22
8	6/19/2012 15:38	4.295	15.21
9	6/19/2012 15:39	4.314	15.15
10	6/19/2012 15:40	4.305	15.10
11	6/19/2012 15:41	4.326	15.08
12	6/19/2012 15:42	4.332	15.16
13	6/19/2012 15:43	4.322	15.10
14	6/19/2012 15:44	4.315	15.08
15	6/19/2012 15:45	4.326	15.10
16	6/19/2012 15:46	4.353	15.16
17	6/19/2012 15:47	4.320	15.15
18	6/19/2012 15:48	4.325	15.27
19	6/19/2012 15:49	4.320	15.22
20	6/19/2012 15:50	4.323	15.25
21	6/19/2012 15:51	4.304	15.23
Average		**4.284**	**15.11**

Run #2

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 16:06	4.134	14.87
2	6/19/2012 16:07	4.176	14.98
3	6/19/2012 16:08	4.199	15.02
4	6/19/2012 16:09	4.221	15.10
5	6/19/2012 16:10	4.242	15.21
6	6/19/2012 16:11	4.248	15.32
7	6/19/2012 16:12	4.272	15.32
8	6/19/2012 16:13	4.280	15.30
9	6/19/2012 16:14	4.279	15.26
10	6/19/2012 16:15	4.282	15.30
11	6/19/2012 16:16	4.306	15.25
12	6/19/2012 16:17	4.304	15.30
13	6/19/2012 16:18	4.294	15.27
14	6/19/2012 16:19	4.310	15.27
15	6/19/2012 16:20	4.302	15.36
16	6/19/2012 16:21	4.296	15.33
17	6/19/2012 16:22	4.312	15.39
18	6/19/2012 16:23	4.310	15.37
19	6/19/2012 16:24	4.307	15.35
20	6/19/2012 16:25	4.316	15.30
21	6/19/2012 16:26	4.305	15.38
Average		**4.271**	**15.25**

Run #3

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 16:48	4.112	14.84
2	6/19/2012 16:49	4.158	15.03
3	6/19/2012 16:50	4.211	15.16
4	6/19/2012 16:51	4.217	15.19
5	6/19/2012 16:52	4.217	15.12
6	6/19/2012 16:53	4.248	15.31
7	6/19/2012 16:54	4.266	15.21
8	6/19/2012 16:55	4.252	15.24
9	6/19/2012 16:56	4.263	15.22
10	6/19/2012 16:57	4.304	15.20
11	6/19/2012 16:58	4.279	15.22
12	6/19/2012 16:59	4.276	15.23
13	6/19/2012 17:00	4.306	15.28
14	6/19/2012 17:01	4.298	15.32
15	6/19/2012 17:02	4.296	15.33
16	6/19/2012 17:03	4.274	15.38
17	6/19/2012 17:04	4.300	15.42
18	6/19/2012 17:05	4.303	15.42
19	6/19/2012 17:06	4.293	15.35
20	6/19/2012 17:07	4.288	15.40
21	6/19/2012 17:08	4.300	15.41
Average		**4.260**	**15.25**

Run #4

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/19/2012 17:23	4.118	14.77
2	6/19/2012 17:24	4.138	15.00
3	6/19/2012 17:25	4.158	14.97
4	6/19/2012 17:26	4.227	15.18
5	6/19/2012 17:27	4.197	15.16
6	6/19/2012 17:28	4.222	15.14
7	6/19/2012 17:29	4.224	15.11
8	6/19/2012 17:30	4.236	15.16
9	6/19/2012 17:31	4.234	15.24
10	6/19/2012 17:32	4.243	15.25
11	6/19/2012 17:33	4.214	15.15
12	6/19/2012 17:34	4.264	15.14
13	6/19/2012 17:35	4.242	15.17
14	6/19/2012 17:36	4.247	15.19
15	6/19/2012 17:37	4.258	15.27
16	6/19/2012 17:38	4.257	15.26
17	6/19/2012 17:39	4.240	15.27
18	6/19/2012 17:40	4.268	15.23
19	6/19/2012 17:41	4.267	15.24
20	6/19/2012 17:42	4.264	15.30
21	6/19/2012 17:43	4.250	15.35
Average		**4.227**	**15.17**

Run #5

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/20/2012 9:39	4.309	12.97
2	6/20/2012 9:40	4.348	13.00
3	6/20/2012 9:41	4.333	13.03
4	6/20/2012 9:42	4.332	12.96
5	6/20/2012 9:43	4.335	13.00
6	6/20/2012 9:44	4.336	13.00
7	6/20/2012 9:45	4.344	12.97
8	6/20/2012 9:46	4.355	12.94
9	6/20/2012 9:47	4.338	12.93
10	6/20/2012 9:48	4.344	12.95
11	6/20/2012 9:49	4.347	12.98
12	6/20/2012 9:50	4.369	12.94
13	6/20/2012 9:51	4.340	12.88
14	6/20/2012 9:52	4.330	12.91
15	6/20/2012 9:53	4.339	12.90
16	6/20/2012 9:54	4.348	12.92
17	6/20/2012 9:55	4.353	12.81
18	6/20/2012 9:56	4.360	12.89
19	6/20/2012 9:57	4.359	12.89
20	6/20/2012 9:58	4.359	12.87
21	6/20/2012 9:59	4.368	12.81
Average		**4.345**	**12.93**

Run #6

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/20/2012 10:14	4.194	12.59
2	6/20/2012 10:15	4.221	12.68
3	6/20/2012 10:16	4.243	12.67
4	6/20/2012 10:17	4.287	12.77
5	6/20/2012 10:18	4.288	12.82
6	6/20/2012 10:19	4.305	12.82
7	6/20/2012 10:20	4.317	12.79
8	6/20/2012 10:21	4.326	12.77
9	6/20/2012 10:22	4.333	12.82
10	6/20/2012 10:23	4.335	12.78
11	6/20/2012 10:24	4.290	12.83
12	6/20/2012 10:25	4.344	12.84
13	6/20/2012 10:26	4.348	12.90
14	6/20/2012 10:27	4.348	12.81
15	6/20/2012 10:28	4.360	12.80
16	6/20/2012 10:29	4.362	12.89
17	6/20/2012 10:30	4.367	12.85
18	6/20/2012 10:31	4.349	12.80
19	6/20/2012 10:32	4.357	12.79
20	6/20/2012 10:33	4.360	12.71
21	6/20/2012 10:34	3.835	10.38
Average		**4.294**	**12.67**

Run #7

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/20/2012 10:49	4.148	12.45
2	6/20/2012 10:50	4.227	12.54
3	6/20/2012 10:51	4.252	12.67
4	6/20/2012 10:52	4.278	12.68
5	6/20/2012 10:53	4.306	12.69
6	6/20/2012 10:54	4.300	12.71
7	6/20/2012 10:55	4.320	12.71
8	6/20/2012 10:56	4.392	12.73
9	6/20/2012 10:57	4.414	12.76
10	6/20/2012 10:58	4.371	12.76
11	6/20/2012 10:59	4.317	12.72
12	6/20/2012 11:00	4.369	12.82
13	6/20/2012 11:01	4.343	12.89
14	6/20/2012 11:02	4.384	12.86
15	6/20/2012 11:03	4.351	12.80
16	6/20/2012 11:04	4.346	12.83
17	6/20/2012 11:05	4.369	12.75
18	6/20/2012 11:06	4.357	12.80
19	6/20/2012 11:07	4.355	12.79
20	6/20/2012 11:08	4.367	12.86
21	6/20/2012 11:09	4.369	12.87
Average		**4.330**	**12.75**

Run #8

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/20/2012 11:26	4.247	12.60
2	6/20/2012 11:27	4.281	12.65
3	6/20/2012 11:28	4.288	12.66
4	6/20/2012 11:29	4.316	12.76
5	6/20/2012 11:30	4.333	12.74
6	6/20/2012 11:31	4.367	12.72
7	6/20/2012 11:32	4.353	12.71
8	6/20/2012 11:33	4.314	12.78
9	6/20/2012 11:34	4.387	12.79
10	6/20/2012 11:35	4.358	12.87
11	6/20/2012 11:36	4.370	12.92
12	6/20/2012 11:37	4.369	12.90
13	6/20/2012 11:38	4.373	13.00
14	6/20/2012 11:39	4.369	12.92
15	6/20/2012 11:40	4.365	12.84
16	6/20/2012 11:41	4.357	12.87
17	6/20/2012 11:42	4.362	12.83
18	6/20/2012 11:43	4.380	12.83
19	6/20/2012 11:44	4.391	12.86
20	6/20/2012 11:45	4.370	12.85
21	6/20/2012 11:46	4.392	12.89
Average		**4.350**	**12.81**

Run #9

#	Date/Time	CO2/A DILUTION	NOx/A DILUTION
1	6/20/2012 12:01	4.162	12.39
2	6/20/2012 12:02	4.223	12.55
3	6/20/2012 12:03	4.262	12.59
4	6/20/2012 12:04	4.277	12.68
5	6/20/2012 12:05	4.300	12.75
6	6/20/2012 12:06	4.326	12.69
7	6/20/2012 12:07	4.335	12.68
8	6/20/2012 12:08	4.322	12.67
9	6/20/2012 12:09	4.348	12.72
10	6/20/2012 12:10	4.354	12.71
11	6/20/2012 12:11	4.360	12.67
12	6/20/2012 12:12	4.383	12.70
13	6/20/2012 12:13	4.344	12.69
14	6/20/2012 12:14	4.355	12.70
15	6/20/2012 12:15	4.361	12.72
16	6/20/2012 12:16	4.364	12.69
17	6/20/2012 12:17	4.374	12.78
18	6/20/2012 12:18	4.377	12.70
19	6/20/2012 12:19	4.371	12.78
20	6/20/2012 12:20	4.375	12.79
21	6/20/2012 12:21	4.388	12.79
Average		**4.331**	**12.69**

Appendix B. CEMS Data

Unit 4(3A) CEMS Data

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 7:40	3.68	247.9	159.17	10.11	0.034
6/19/2012 7:41	3.68	248	159.16	10.1	0.034
6/19/2012 7:42	3.68	248.2	159.41	10.13	0.034
6/19/2012 7:43	3.67	248.2	159.17	10.09	0.034
6/19/2012 7:44	3.68	248.5	159.33	10.09	0.034
6/19/2012 7:45	3.68	248.5	159.13	10.14	0.034
6/19/2012 7:46	3.68	248.1	158.92	10.14	0.034
6/19/2012 7:47	3.68	248.1	159.07	10.1	0.034
6/19/2012 7:48	3.68	247.9	159.05	10.09	0.034
6/19/2012 7:49	3.68	248.1	159.26	10.12	0.034
6/19/2012 7:50	3.68	247.9	158.98	10.1	0.034
6/19/2012 7:51	3.68	248	158.9	10.07	0.034
6/19/2012 7:52	3.68	248.2	158.82	10.1	0.034
6/19/2012 7:53	3.68	248	158.78	10.12	0.034
6/19/2012 7:54	3.68	247.8	158.75	10.1	0.034
6/19/2012 7:55	3.68	247.6	158.83	10.1	0.034
6/19/2012 7:56	3.68	247.7	158.89	10.1	0.034
6/19/2012 7:57	3.67	247.6	158.82	10.09	0.034
6/19/2012 7:58	3.68	247.8	158.71	10.08	0.034
6/19/2012 7:59	3.68	247.8	158.54	10	0.034
6/19/2012 8:00	3.67	247.5	158.54	9.93	0.034
6/19/2012 8:01	3.67	247.5	158.65	9.96	0.034
	3.68	247.95	158.95	10.08	0.034

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 8:15	3.73	249.4	158.75	10.21	0.034
6/19/2012 8:16	3.74	249.2	158.26	10.2	0.034
6/19/2012 8:17	3.75	249.8	158.43	10.24	0.034
6/19/2012 8:18	3.76	250.1	158.43	10.3	0.034
6/19/2012 8:19	3.78	250.3	158.54	10.39	0.034
6/19/2012 8:20	3.83	250.8	158.41	10.49	0.034
6/19/2012 8:21	3.88	252.1	158.57	10.66	0.034
6/19/2012 8:22	3.9	253.4	158.46	10.78	0.034
6/19/2012 8:23	3.91	254.3	158.41	10.84	0.034
6/19/2012 8:24	3.68	250.7	158.2	10.04	0.034
6/19/2012 8:25	3.67	247.8	157.93	9.94	0.034
6/19/2012 8:26	3.67	246.4	157.94	9.96	0.034
6/19/2012 8:27	3.67	245.4	157.81	9.97	0.034
6/19/2012 8:28	3.67	244.9	157.74	9.96	0.034
6/19/2012 8:29	3.67	244.7	157.79	10.01	0.034
6/19/2012 8:30	3.69	244.8	157.77	10.06	0.034
6/19/2012 8:31	3.73	245.7	157.88	10.15	0.034
6/19/2012 8:32	3.73	246.7	158.34	10.15	0.034
6/19/2012 8:33	3.75	247	158.21	10.21	0.034
6/19/2012 8:34	3.76	247.9	158.35	10.29	0.034
6/19/2012 8:35	3.78	248.8	158.36	10.35	0.034
6/19/2012 8:36	3.78	249.6	158.16	10.38	0.034
	3.75	248.63	158.22	10.25	0.034

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 8:51	4.03	265.4	157.61	11.24	0.035
6/19/2012 8:52	4.03	265.5	157.68	11.23	0.035
6/19/2012 8:53	4.04	265.7	157.71	11.28	0.035
6/19/2012 8:54	4.06	265.7	157.63	11.44	0.035
6/19/2012 8:55	4.1	266.3	157.56	11.57	0.035
6/19/2012 8:56	4.13	267.1	157.64	11.71	0.035
6/19/2012 8:57	4.16	267.7	157.4	11.79	0.035
6/19/2012 8:58	4.18	268.8	157.6	11.88	0.035
6/19/2012 8:59	4.19	269.9	157.6	12	0.036
6/19/2012 9:00	4.2	271.2	157.67	12.07	0.036
6/19/2012 9:01	4.18	272	157.39	11.94	0.035
6/19/2012 9:02	4.16	272.8	157.64	11.83	0.035
6/19/2012 9:03	4.14	273.4	157.66	11.78	0.035
6/19/2012 9:04	4.14	273.4	157.64	11.79	0.035
6/19/2012 9:05	4.14	273.1	157.59	11.74	0.035
6/19/2012 9:06	4.14	272.8	157.54	11.73	0.035
6/19/2012 9:07	4.15	272.1	157.08	11.76	0.035
6/19/2012 9:08	4.16	272.1	156.96	11.76	0.035
6/19/2012 9:09	4.16	272.2	157.07	11.7	0.035
6/19/2012 9:10	4.17	272	156.9	11.7	0.035
6/19/2012 9:11	4.18	272	156.89	11.74	0.035
6/19/2012 9:12	4.17	272.4	157.23	11.81	0.035
	4.14	270.16	157.44	11.70	0.035

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 9:28	4.18	269.4	157.15	11.94	0.035
6/19/2012 9:29	4.17	268.8	157.08	11.93	0.036
6/19/2012 9:30	4.18	271	159.75	11.9	0.035
6/19/2012 9:31	4.26	272.1	160.98	15.02	0.043
6/19/2012 9:32	4.26	272.1	160.98	15.02	0.044
6/19/2012 9:33	4.26	272.7	161.47	15.04	0.044
6/19/2012 9:34	4.26	273	161.61	15.08	0.044
6/19/2012 9:35	4.26	273.3	161.6	15.2	0.044
6/19/2012 9:36	4.26	273.3	161.47	15.19	0.044
6/19/2012 9:37	4.26	273.4	161.34	15.17	0.044
6/19/2012 9:38	4.26	273	160.92	15.1	0.044
6/19/2012 9:39	4.26	273.4	161.4	15.04	0.044
6/19/2012 9:40	4.26	273.9	161.88	15.17	0.044
6/19/2012 9:41	4.26	273.9	161.79	15.29	0.045
6/19/2012 9:42	4.26	273.9	161.86	15.22	0.044
6/19/2012 9:43	4.26	273.8	161.71	15.29	0.045
6/19/2012 9:44	4.26	273.1	160.99	15.26	0.044
6/19/2012 9:45	4.26	272.7	160.67	15.2	0.044
6/19/2012 9:46	4.26	273	160.91	15.09	0.044
6/19/2012 9:47	4.26	273.4	161.57	15.13	0.044
6/19/2012 9:48	4.26	273.3	161.73	15.28	0.045
6/19/2012 9:49	4.26	273.3	161.49	15.27	0.044
	4.25	272.72	160.93	14.72	0.043

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 10:05	4.26	274.6	161.35	15.36	0.045
6/19/2012 10:06	4.26	275	161.87	15.48	0.045
6/19/2012 10:07	4.26	274.6	161.79	15.42	0.045
6/19/2012 10:08	4.26	274.1	161.75	15.43	0.045
6/19/2012 10:09	4.26	273.8	161.67	15.43	0.045
6/19/2012 10:10	4.26	273.5	161.43	15.46	0.045
6/19/2012 10:11	4.26	273.6	161.47	15.36	0.045
6/19/2012 10:12	4.26	273.6	161.65	15.29	0.045
6/19/2012 10:13	4.26	273.4	161.7	15.25	0.044
6/19/2012 10:14	4.26	272.9	161.38	15.31	0.045
6/19/2012 10:15	4.26	272.6	161.08	15.17	0.044
6/19/2012 10:16	4.26	272.3	160.86	15.14	0.044
6/19/2012 10:17	4.26	272.2	160.76	15.19	0.044
6/19/2012 10:18	4.26	272.1	160.81	15.21	0.044
6/19/2012 10:19	4.26	272.5	161.09	15.25	0.045
6/19/2012 10:20	4.26	272.7	161.26	15.32	0.045
6/19/2012 10:21	4.26	272.7	161.12	15.41	0.045
6/19/2012 10:22	4.26	272.4	160.79	15.37	0.045
6/19/2012 10:23	4.26	272.3	160.73	15.39	0.045
6/19/2012 10:24	4.26	272.2	160.69	15.35	0.045
6/19/2012 10:25	4.26	272.6	160.97	15.35	0.045
6/19/2012 10:26	4.26	273.1	161.37	15.47	0.045
	4.26	273.13	161.25	15.34	0.045

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 10:42	4.26	272.9	161.48	15.69	0.046
6/19/2012 10:43	4.26	273.3	161.85	15.74	0.046
6/19/2012 10:44	4.27	273.2	161.75	15.72	0.046
6/19/2012 10:45	4.26	273.4	161.82	15.68	0.046
6/19/2012 10:46	4.27	273.6	161.85	15.73	0.046
6/19/2012 10:47	4.26	273.8	161.82	15.76	0.046
6/19/2012 10:48	4.26	273.7	161.75	15.7	0.046
6/19/2012 10:49	4.26	273.4	161.47	15.7	0.046
6/19/2012 10:50	4.27	273.8	161.83	15.75	0.046
6/19/2012 10:51	4.26	273.8	161.88	15.76	0.046
6/19/2012 10:52	4.26	273.5	161.59	15.81	0.046
6/19/2012 10:53	4.26	272.9	160.97	15.69	0.046
6/19/2012 10:54	4.26	273	161.04	15.57	0.045
6/19/2012 10:55	4.26	272.9	160.88	15.52	0.045
6/19/2012 10:56	4.26	273.1	161.17	15.47	0.045
6/19/2012 10:57	4.26	273.7	161.69	15.43	0.045
6/19/2012 10:58	4.26	273.6	161.57	15.52	0.045
6/19/2012 10:59	4.26	273.6	161.62	15.52	0.045
6/19/2012 11:00	4.26	273.1	161.09	15.55	0.045
6/19/2012 11:01	4.26	273.2	161.27	15.56	0.045
6/19/2012 11:02	4.26	272.9	160.98	15.67	0.046
6/19/2012 11:03	4.26	273.7	161.74	15.74	0.046
	4.26	273.37	161.51	15.65	0.046

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 11:19	4.27	272	160	15.52	0.045
6/19/2012 11:20	4.27	271.6	159.7	15.27	0.044
6/19/2012 11:21	4.27	271.5	159.73	15.05	0.044
6/19/2012 11:22	4.26	271.8	160.04	15.06	0.044
6/19/2012 11:23	4.27	271.6	159.87	15.07	0.044
6/19/2012 11:24	4.26	271.5	159.86	15.13	0.044
6/19/2012 11:25	4.26	271.7	160.06	15.19	0.044
6/19/2012 11:26	4.27	271.3	159.73	15.22	0.044
6/19/2012 11:27	4.27	272.2	160.68	15.15	0.044
6/19/2012 11:28	4.26	273.3	161.8	15.45	0.045
6/19/2012 11:29	4.27	272.6	161.04	15.57	0.045
6/19/2012 11:30	4.27	272.6	161.08	15.42	0.045
6/19/2012 11:31	4.27	272.9	161.34	15.42	0.045
6/19/2012 11:32	4.27	272	160.35	15.44	0.045
6/19/2012 11:33	4.27	271.3	159.81	15.27	0.044
6/19/2012 11:34	4.26	271.7	160.42	15.26	0.044
6/19/2012 11:35	4.26	271.7	160.31	15.44	0.045
6/19/2012 11:36	4.27	271.2	159.78	15.33	0.045
6/19/2012 11:37	4.27	270.6	159.27	14.99	0.043
6/19/2012 11:38	4.26	270.8	159.53	14.77	0.043
6/19/2012 11:39	4.26	271.9	160.66	14.84	0.043
6/19/2012 11:40	4.27	271.9	160.65	15.14	0.044
	4.27	271.80	160.26	15.23	0.044

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 11:56	4.27	271.8	160.12	14.86	0.043
6/19/2012 11:57	4.26	272.8	161.15	14.9	0.043
6/19/2012 11:58	4.26	272.5	160.84	15.08	0.044
6/19/2012 11:59	4.26	272.8	161.17	14.95	0.044
6/19/2012 12:00	4.26	272.5	161.01	14.98	0.044
6/19/2012 12:01	4.27	272.9	161.41	15.03	0.044
6/19/2012 12:02	4.26	273.4	161.85	15.11	0.044
6/19/2012 12:03	4.27	273.4	161.83	15.23	0.044
6/19/2012 12:04	4.27	273.4	161.85	15.22	0.044
6/19/2012 12:05	4.27	273.4	161.92	15.27	0.044
6/19/2012 12:06	4.27	273.1	161.84	15.26	0.044
6/19/2012 12:07	4.27	272.9	161.6	15.3	0.045
6/19/2012 12:08	4.26	273.3	161.91	15.26	0.045
6/19/2012 12:09	4.27	273.1	161.6	15.35	0.045
6/19/2012 12:10	4.27	273.1	161.65	15.26	0.044
6/19/2012 12:11	4.27	273.4	161.87	15.35	0.045
6/19/2012 12:12	4.27	272.9	161.39	15.4	0.045
6/19/2012 12:13	4.27	272.3	160.86	15.18	0.044
6/19/2012 12:14	4.27	272.2	160.85	15.12	0.044
6/19/2012 12:15	4.27	272.3	160.92	15.07	0.044
6/19/2012 12:16	4.27	272.4	161	14.98	0.043
6/19/2012 12:17	4.26	272.2	160.86	15.06	0.044
	4.27	272.82	161.34	15.15	0.044

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 12:33	4.27	272.9	161.55	15.25	0.044
6/19/2012 12:34	4.27	272.6	161.29	15.17	0.044
6/19/2012 12:35	4.26	272.5	161.28	15.15	0.044
6/19/2012 12:36	4.27	272.6	161.35	15.1	0.044
6/19/2012 12:37	4.26	272.7	161.48	15.07	0.044
6/19/2012 12:38	4.27	272.6	161.12	15.1	0.044
6/19/2012 12:39	4.21	272	160.82	15.05	0.045
6/19/2012 12:40	4.18	271.9	161.04	14.8	0.044
6/19/2012 12:41	4.18	271.9	161.22	14.85	0.044
6/19/2012 12:42	4.18	273.2	161.57	14.92	0.044
6/19/2012 12:43	4.18	273.5	161.57	14.93	0.044
6/19/2012 12:44	4.19	273.2	161.49	14.97	0.044
6/19/2012 12:45	4.18	273.3	161.6	14.94	0.044
6/19/2012 12:46	4.18	273.3	161.71	14.96	0.044
6/19/2012 12:47	4.19	273.3	161.65	15	0.044
6/19/2012 12:48	4.21	273.2	161.48	15.14	0.045
6/19/2012 12:49	4.25	273.5	161.46	15.16	0.044
6/19/2012 12:50	4.27	274.1	161.38	15.28	0.044
6/19/2012 12:51	4.26	274.9	161.34	15.21	0.044
6/19/2012 12:52	4.23	275.5	161.17	15.1	0.044
6/19/2012 12:53	4.21	276.2	161.35	15.03	0.044
6/19/2012 12:54	4.2	276.2	161.09	15	0.044
	4.22	273.41	161.36	15.05	0.044

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 13:06	4.24	276.8	161.14	15.11	0.044
6/19/2012 13:07	4.24	277	161.21	15.15	0.044
6/19/2012 13:08	4.24	277.1	161.27	15.19	0.045
6/19/2012 13:09	4.23	276.8	161	15.2	0.045
6/19/2012 13:10	4.22	277.4	161.54	15.13	0.045
6/19/2012 13:11	4.22	277.6	161.7	15.21	0.045
6/19/2012 13:12	4.22	276.9	161.01	15.19	0.045
6/19/2012 13:13	4.22	276.9	161.16	15.1	0.044
6/19/2012 13:14	4.23	277	161.15	15.16	0.045
6/19/2012 13:15	4.22	276.7	161.01	15.03	0.044
6/19/2012 13:16	4.21	276.6	160.96	14.94	0.044
6/19/2012 13:17	4.21	276.7	161.03	14.94	0.044
6/19/2012 13:18	4.22	276.4	160.83	14.93	0.044
6/19/2012 13:19	4.22	276.5	160.94	14.84	0.044
6/19/2012 13:20	4.22	276.2	160.79	14.97	0.044
6/19/2012 13:21	4.23	276.1	160.75	14.99	0.044
6/19/2012 13:22	4.22	276.5	161.26	14.99	0.044
6/19/2012 13:23	4.22	276.3	160.92	15.04	0.044
6/19/2012 13:24	4.23	276.2	160.87	15.1	0.044
6/19/2012 13:25	4.23	276.4	160.91	15.04	0.044
6/19/2012 13:26	4.22	276.7	161.03	15.12	0.044
6/19/2012 13:27	4.23	276.6	160.91	15.05	0.044
	4.22	276.70	161.06	15.06	0.044

Date Time	CO23	CTLOAD	GEN3	NOX3	NOXRT3
6/19/2012 13:40	4.22	276.2	160.86	14.97	0.044
6/19/2012 13:41	4.23	275.6	160.37	14.99	0.044
6/19/2012 13:42	4.22	276	160.77	14.92	0.044
6/19/2012 13:43	4.23	276.7	161.41	14.95	0.044
6/19/2012 13:44	4.22	276.8	161.53	15.09	0.044
6/19/2012 13:45	4.23	277.2	161.8	15.24	0.045
6/19/2012 13:46	4.23	277.3	161.83	15.22	0.045
6/19/2012 13:47	4.23	277.4	161.75	15.25	0.045
6/19/2012 13:48	4.23	277.5	161.89	15.26	0.045
6/19/2012 13:49	4.22	277.6	161.83	15.28	0.045
6/19/2012 13:50	4.22	277.1	161.32	15.35	0.045
6/19/2012 13:51	4.22	276.8	161.04	15.19	0.045
6/19/2012 13:52	4.22	276.9	161.18	15.12	0.045
6/19/2012 13:53	4.22	276.5	160.92	15.13	0.045
6/19/2012 13:54	4.22	276.4	160.95	15.12	0.045
6/19/2012 13:55	4.22	276.6	161.17	15.04	0.044
6/19/2012 13:56	4.22	276.4	161.01	15.03	0.044
6/19/2012 13:57	4.21	276.9	161.39	14.99	0.044
6/19/2012 13:58	4.22	277	161.6	15.06	0.044
6/19/2012 13:59	4.22	276.6	161.07	14.99	0.044
6/19/2012 14:00	4.22	276.5	160.99	15.01	0.044
6/19/2012 14:01	4.22	276.5	160.98	15.06	0.044
	4.22	276.75	161.26	15.10	0.044

Unit 5(3B) CEMS Data

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/19/2012 14:31	4.23	166.52	284.1	15.3	0.045
6/19/2012 14:32	4.23	166.5	284.1	15.32	0.045
6/19/2012 14:33	4.23	166.31	283.8	15.35	0.045
6/19/2012 14:34	4.23	166.26	283.9	15.38	0.045
6/19/2012 14:35	4.23	166.64	284.1	15.35	0.045
6/19/2012 14:36	4.23	166.6	284.2	15.41	0.045
6/19/2012 14:37	4.23	166.45	284.1	15.4	0.045
6/19/2012 14:38	4.23	166.39	284.1	15.42	0.045
6/19/2012 14:39	4.23	165.98	283.5	15.36	0.045
6/19/2012 14:40	4.23	165.87	283.5	15.33	0.045
6/19/2012 14:41	4.24	165.78	283.4	15.29	0.045
6/19/2012 14:42	4.23	165.71	283.4	15.22	0.045
6/19/2012 14:43	4.23	165.65	283.4	15.22	0.045
6/19/2012 14:44	4.23	165.85	283.5	15.21	0.045
6/19/2012 14:45	4.23	166.02	283.9	15.22	0.045
6/19/2012 14:46	4.23	166.28	284.2	15.24	0.045
6/19/2012 14:47	4.23	166.2	284	15.26	0.045
6/19/2012 14:48	4.23	166.37	284.2	15.28	0.045
6/19/2012 14:49	4.23	166.26	284	15.26	0.045
6/19/2012 14:50	4.23	166.61	284.2	15.31	0.045
6/19/2012 14:51	4.23	166.42	284.3	15.41	0.045
6/19/2012 14:52	4.22	166.27	283.9	15.24	0.045
	4.23	166.22	283.90	15.31	0.045

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/19/2012 15:06	4.22	166.43	284.1	15.34	0.045
6/19/2012 15:07	4.23	166.29	283.9	15.26	0.045
6/19/2012 15:08	4.23	165.87	283.5	15.34	0.045
6/19/2012 15:09	4.23	165.91	283.5	15.31	0.045
6/19/2012 15:10	4.23	166.33	283.7	15.29	0.045
6/19/2012 15:11	4.23	166.62	284.2	15.4	0.045
6/19/2012 15:12	4.23	166.31	283.8	15.44	0.045
6/19/2012 15:13	4.23	166.76	284.2	15.43	0.045
6/19/2012 15:14	4.24	166.25	283.9	15.38	0.045
6/19/2012 15:15	4.23	166.6	284.1	15.33	0.045
6/19/2012 15:16	4.23	166.6	284.2	15.37	0.045
6/19/2012 15:17	4.23	166.88	284.4	15.25	0.045
6/19/2012 15:18	4.23	166.83	284.5	15.31	0.045
6/19/2012 15:19	4.23	166.84	284.4	15.35	0.045
6/19/2012 15:20	4.23	166.37	284	15.32	0.045
6/19/2012 15:21	4.24	166.3	283.9	15.32	0.045
6/19/2012 15:22	4.23	166.73	284.3	15.3	0.045
6/19/2012 15:23	4.23	166.88	284.5	15.38	0.045
6/19/2012 15:24	4.23	166.75	284.3	15.38	0.045
6/19/2012 15:25	4.23	166.79	284.3	15.28	0.045
6/19/2012 15:26	4.23	166.63	284.4	15.33	0.045
6/19/2012 15:27	4.23	166.88	284.5	15.35	0.045
	4.23	166.54	284.12	15.34	0.045

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/19/2012 15:48	4.24	166.7	284.8	15.39	0.045
6/19/2012 15:49	4.23	166.93	285.2	15.29	0.045
6/19/2012 15:50	4.23	167.01	285.1	15.36	0.045
6/19/2012 15:51	4.23	166.88	285	15.41	0.045
6/19/2012 15:52	4.23	166.9	285.1	15.35	0.045
6/19/2012 15:53	4.23	166.68	285	15.26	0.045
6/19/2012 15:54	4.25	166.62	284.9	15.57	0.045
6/19/2012 15:55	4.23	166.8	284.9	15.29	0.045
6/19/2012 15:56	4.24	166.66	284.8	15.2	0.045
6/19/2012 15:57	4.23	166.62	284.8	15.22	0.045
6/19/2012 15:58	4.23	166.83	284.8	15.26	0.045
6/19/2012 15:59	4.23	166.74	284.7	15.22	0.045
6/19/2012 16:00	4.23	166.72	284.6	15.22	0.045
6/19/2012 16:01	4.24	166.71	284.5	15.31	0.045
6/19/2012 16:02	4.23	166.87	284.7	15.3	0.045
6/19/2012 16:03	4.23	167	284.7	15.33	0.045
6/19/2012 16:04	4.23	166.98	284.8	15.38	0.045
6/19/2012 16:05	4.23	166.6	284.5	15.46	0.045
6/19/2012 16:06	4.23	166.69	284.3	15.38	0.045
6/19/2012 16:07	4.23	166.83	284.6	15.32	0.045
6/19/2012 16:08	4.23	166.89	284.6	15.38	0.045
6/19/2012 16:09	4.23	166.82	284.5	15.4	0.045
	4.23	166.79	284.77	15.33	0.045

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/19/2012 16:23	4.24	166.49	284.5	15.32	0.045
6/19/2012 16:24	4.24	166.73	284.9	15.26	0.045
6/19/2012 16:25	4.23	167.09	285.2	15.33	0.045
6/19/2012 16:26	4.23	167.15	285.2	15.31	0.045
6/19/2012 16:27	4.24	166.96	285.1	15.46	0.045
6/19/2012 16:28	4.23	166.95	284.9	15.22	0.045
6/19/2012 16:29	4.23	166.87	284.9	15.23	0.045
6/19/2012 16:30	4.23	166.89	285	15.31	0.045
6/19/2012 16:31	4.23	166.79	284.9	15.24	0.045
6/19/2012 16:32	4.23	166.9	284.9	15.21	0.045
6/19/2012 16:33	4.24	166.85	285.2	15.28	0.045
6/19/2012 16:34	4.24	166.9	285.2	15.32	0.045
6/19/2012 16:35	4.23	166.88	285.3	15.24	0.045
6/19/2012 16:36	4.23	167.01	285.4	15.26	0.045
6/19/2012 16:37	4.23	167.12	285.5	15.32	0.045
6/19/2012 16:38	4.23	167.13	285.5	15.32	0.045
6/19/2012 16:39	4.24	167.05	285.6	15.3	0.045
6/19/2012 16:40	4.23	166.82	285.4	15.3	0.045
6/19/2012 16:41	4.23	166.69	285.1	15.24	0.045
6/19/2012 16:42	4.24	166.68	285.1	15.23	0.045
6/19/2012 16:43	4.24	166.86	285.3	15.26	0.045
6/19/2012 16:44	4.23	166.85	285.3	15.37	0.045
	4.23	166.89	285.15	15.29	0.045

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/20/2012 8:39	4.18	163.81	282	12.86	0.038
6/20/2012 8:40	4.18	163.95	282	12.82	0.038
6/20/2012 8:41	4.17	164	281.9	12.93	0.038
6/20/2012 8:42	4.18	163.89	281.7	12.9	0.038
6/20/2012 8:43	4.17	163.91	282	12.86	0.038
6/20/2012 8:44	4.18	163.95	282.1	12.93	0.038
6/20/2012 8:45	4.17	164	281.9	12.89	0.038
6/20/2012 8:46	4.17	163.88	281.6	12.89	0.038
6/20/2012 8:47	4.17	163.85	281.6	12.83	0.038
6/20/2012 8:48	4.18	163.8	281.6	12.89	0.038
6/20/2012 8:49	4.18	163.84	282	12.81	0.038
6/20/2012 8:50	4.18	163.92	282.1	12.86	0.038
6/20/2012 8:51	4.17	163.84	281.9	12.87	0.038
6/20/2012 8:52	4.17	163.85	281.7	12.82	0.038
6/20/2012 8:53	4.18	163.88	281.6	12.83	0.038
6/20/2012 8:54	4.18	163.82	281.5	12.87	0.038
6/20/2012 8:55	4.18	163.78	281.9	12.88	0.038
6/20/2012 8:56	4.17	163.81	282	12.82	0.038
6/20/2012 8:57	4.18	163.77	281.9	12.87	0.038
6/20/2012 8:58	4.17	163.7	281.5	12.86	0.038
6/20/2012 8:59	4.17	163.69	281.7	12.91	0.038
6/20/2012 9:00	4.18	163.79	281.8	12.86	0.038
	4.18	163.85	281.82	12.87	0.038

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/20/2012 9:14	4.17	163.88	282	12.97	0.039
6/20/2012 9:15	4.17	163.83	282	13	0.039
6/20/2012 9:16	4.17	163.78	281.7	13.02	0.039
6/20/2012 9:17	4.17	163.79	281.5	12.97	0.039
6/20/2012 9:18	4.17	163.8	281.7	13.01	0.039
6/20/2012 9:19	4.17	163.8	281.9	13.03	0.039
6/20/2012 9:20	4.17	163.85	282.1	13.04	0.039
6/20/2012 9:21	4.17	163.83	282.2	12.95	0.039
6/20/2012 9:22	4.17	163.57	281.8	12.94	0.039
6/20/2012 9:23	4.17	163.42	281.3	12.93	0.038
6/20/2012 9:24	4.18	163.71	281.6	12.89	0.038
6/20/2012 9:25	4.17	163.84	281.9	12.96	0.038
6/20/2012 9:26	4.17	164	282.5	13.06	0.039
6/20/2012 9:27	4.17	163.83	282.2	13.03	0.039
6/20/2012 9:28	4.17	163.74	282	12.94	0.038
6/20/2012 9:29	4.17	163.74	281.8	12.98	0.039
6/20/2012 9:30	4.18	163.34	281.4	13.01	0.039
6/20/2012 9:31	4.17	163.24	281.1	12.96	0.039
6/20/2012 9:32	4.18	163.28	281.6	12.93	0.038
6/20/2012 9:33	4.17	163.62	282.2	12.95	0.039
6/20/2012 9:34	4.17	163.58	281.8	12.95	0.039
6/20/2012 9:35	4.18	163.81	282	12.97	0.039
	4.17	163.69	281.83	12.98	0.039

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/20/2012 9:49	4.17	163.23	281.4	12.92	0.038
6/20/2012 9:50	4.17	163.5	281.5	12.99	0.039
6/20/2012 9:51	4.17	163.61	281.4	13.06	0.039
6/20/2012 9:52	4.17	163.32	281.5	13.02	0.039
6/20/2012 9:53	4.18	163.41	281.6	12.95	0.039
6/20/2012 9:54	4.17	163.01	281	12.98	0.039
6/20/2012 9:55	4.17	163.18	281	12.97	0.039
6/20/2012 9:56	4.17	163.34	281.1	12.97	0.039
6/20/2012 9:57	4.18	163.49	281.5	12.93	0.038
6/20/2012 9:58	4.17	163.61	282	12.99	0.039
6/20/2012 9:59	4.17	163.44	281.7	12.95	0.039
6/20/2012 10:00	4.17	163.78	281.7	12.98	0.039
6/20/2012 10:01	4.18	163.73	281.6	13.09	0.039
6/20/2012 10:02	4.17	163.65	281.6	13.09	0.039
6/20/2012 10:03	4.18	163.25	281.3	13.07	0.039
6/20/2012 10:04	4.18	162.83	281	12.98	0.039
6/20/2012 10:05	4.18	162.86	281	13.02	0.039
6/20/2012 10:06	4.18	162.99	281	13.03	0.039
6/20/2012 10:07	4.18	162.91	281	13.06	0.039
6/20/2012 10:08	4.18	162.88	280.9	13.05	0.039
6/20/2012 10:09	4.18	163.4	281.3	13.12	0.039
6/20/2012 10:10	4.18	163.14	281.1	13.11	0.039
	4.18	163.30	281.33	13.02	0.039

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/20/2012 10:26	4.18	162.76	281.3	13.09	0.039
6/20/2012 10:27	4.18	162.77	281	13.08	0.039
6/20/2012 10:28	4.18	162.38	280.5	13.05	0.039
6/20/2012 10:29	4.18	162.76	280.7	13	0.039
6/20/2012 10:30	4.18	162.83	281.1	13.11	0.039
6/20/2012 10:31	4.17	162.76	281.3	13.06	0.039
6/20/2012 10:32	4.17	162.77	281.2	12.94	0.039
6/20/2012 10:33	4.17	162.77	280.9	13	0.039
6/20/2012 10:34	4.17	162.77	280.6	13.07	0.039
6/20/2012 10:35	4.17	162.79	280.8	13.05	0.039
6/20/2012 10:36	4.17	162.81	281	13.17	0.039
6/20/2012 10:37	4.17	162.78	281.1	13.21	0.039
6/20/2012 10:38	4.17	163.06	281.2	13.23	0.039
6/20/2012 10:39	4.18	162.82	281	13.23	0.039
6/20/2012 10:40	4.17	162.81	280.9	13.1	0.039
6/20/2012 10:41	4.18	162.77	280.8	13.12	0.039
6/20/2012 10:42	4.17	162.79	281.1	13.14	0.039
6/20/2012 10:43	4.18	162.77	281.2	13.09	0.039
6/20/2012 10:44	4.18	162.65	281	13.11	0.039
6/20/2012 10:45	4.17	162.61	281	13.11	0.039
6/20/2012 10:46	4.17	162.82	281	13.14	0.039
6/20/2012 10:47	4.17	162.75	280.8	13.11	0.039
	4.17	162.76	280.98	13.10	0.039

Date Time	CO23	GEN3	CTLOAD	NOX3	NOXRT3
6/20/2012 11:01	4.17	162.68	280.6	13.03	0.039
6/20/2012 11:02	4.17	162.72	280.7	13.07	0.039
6/20/2012 11:03	4.17	162.27	280.3	13.03	0.039
6/20/2012 11:04	4.17	162.38	280.4	13.04	0.039
6/20/2012 11:05	4.18	162.34	280.5	13.11	0.039
6/20/2012 11:06	4.18	162.04	280.2	13.12	0.039
6/20/2012 11:07	4.17	161.83	279.7	13.06	0.039
6/20/2012 11:08	4.17	161.96	280	13.04	0.039
6/20/2012 11:09	4.18	162.04	280.5	13.02	0.039
6/20/2012 11:10	4.17	162.42	280.8	13	0.039
6/20/2012 11:11	4.17	162.42	280.6	13.04	0.039
6/20/2012 11:12	4.17	162.33	280.2	13.04	0.039
6/20/2012 11:13	4.17	162.3	280.3	13.03	0.039
6/20/2012 11:14	4.17	162.18	280.4	13	0.039
6/20/2012 11:15	4.17	162.05	280.4	12.97	0.039
6/20/2012 11:16	4.18	161.95	280.2	13	0.039
6/20/2012 11:17	4.18	161.83	279.9	13.01	0.039
6/20/2012 11:18	4.18	162.02	280.2	12.99	0.039
6/20/2012 11:19	4.18	162.04	280	13.05	0.039
6/20/2012 11:20	4.18	162.31	280.3	13.05	0.039
6/20/2012 11:21	4.18	162.6	280.4	13.08	0.039
6/20/2012 11:22	4.18	162.6	280.4	13.08	0.039
	4.17	162.24	280.32	13.04	0.039

Appendix C. Protocol 1 Calibration Gas Certificates

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI93E15AC003	Reference Number:	122-124301912-1
Cylinder Number:	CC214767	Cylinder Volume:	148 Cu.Ft.
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22012	Valve Outlet:	660
		Analysis Date:	Feb 14, 2012

Expiration Date: Feb 14, 2014

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.I.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NITRIC OXIDE	50.00 PPM	51.27 PPM	G1	+/- 1% NIST Traceable
CARBON DIOXIDE	6.000 %	5.937 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			
Total oxides of nitrogen		51.27 PPM		For Reference Only

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
090606	090606	CC252081	9.921% CARBON DIOXIDE/NITROGEN	Apr 10, 2013
NTRM	100611	CC283862	49.73PPM NITRIC OXIDE/NITROGEN	Jul 23, 2016

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 CO2	FTIR	Feb 01, 2012
Nicolet 6700 AHR0801333 NO	FTIR	Feb 01, 2012

Triad Data Available Upon Request

Permanent Notes:GULF POWER 93508

Notes:GULF POWER 93508

Signature on file

Approved for Release

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15AC581	Reference Number:	122-124231595-8
Cylinder Number:	CC340157	Cylinder Volume:	144 Cu.Ft.
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22010	Valve Outlet:	660
		Analysis Date:	Sep 02, 2010

Expiration Date: Sep 02, 2012

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NOx	20.00 PPM	20.10 PPM	G1	+/- 1% NIST Traceable
NITRIC OXIDE	20.00 PPM	20.05 PPM	G1	+/- 1% NIST Traceable
CARBON MONOXIDE	30.00 PPM	30.31 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	080602	CC255854	51.26PPM CARBON MONOXIDE/NITROGEN	Jan 15, 2012
NTRM	1684b	CC281051	20.34PPM NITRIC OXIDE/NITROGEN	Feb 01, 2013
NTRM	060610	CC281051 NOX	20.34PPM NOx/NITROGEN	Feb 01, 2013
NTRM	990612	XC018171B	24.33PPM CARBON MONOXIDE/NITROGEN	Jul 01, 2011

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 #1 CO	FTIR	Aug 06, 2010
TECO 42C NOX (0.05-100ppm)	Chemiluminescence	Aug 26, 2010
TECO 42C NOX (0.05-100ppm)	Chemiluminescence	Aug 26, 2010

Triad Data Available Upon Request

Notes:Commodity # C030N02099GP

Signature on file

Approved for Release

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15AC583	Reference Number:	122-124231595-9
Cylinder Number:	CC340887	Cylinder Volume:	144 Cu.Ft.
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22010	Valve Outlet:	660
		Analysis Date:	Sep 09, 2010

Expiration Date: Sep 09, 2012

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NOx	10.00 PPM	10.07 PPM	G1	+/- 1% NIST Traceable
NITRIC OXIDE	10.00 PPM	10.07 PPM	G1	+/- 1% NIST Traceable
CARBON MONOXIDE	15.00 PPM	15.16 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	1684b	CC253515	9.90PPM NITRIC OXIDE/NITROGEN	Oct 02, 2011
NTRM	060610	CC253515 NOX	9.90PPM NOx/NITROGEN	Oct 02, 2011
NTRM	080602	XC018171B	24.33PPM CARBON MONOXIDE/NITROGEN	Jan 15, 2012
NTRM	990612	XC018208B	24.33PPM CARBON MONOXIDE/NITROGEN	Jul 01, 2011

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 #1 CO	FTIR	Aug 20, 2010
TECO 42C NOX (0.05-100ppm)	Chemiluminescence	Aug 26, 2010
TECO 42C NOX (0.05-100ppm)	Chemiluminescence	Aug 26, 2010

Triad Data Available Upon Request

Notes:Commodity#CO30NO99GP

Signature on file

Approved for Release

Page 1 of 122-124231595-9

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Airgas Specialty Gases
630 United Drive
Durham, NC 27713
(919) 544-3773 Fax (919) 544-3774
www.airgas.com

Part Number:	E02AI99E15AC3X7	Reference Number:	122-124314566-4
Cylinder Number:	CC317706	Cylinder Volume:	130 Cu.Ft.
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	1800 PSIG
PGVP Number:	B22012	Valve Outlet:	660
Gas Code:	NO2	Analysis Date:	May 02, 2012

Expiration Date: Nov 02, 2012

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NITROGEN DIOXIDE	50.00 PPM	48.09 PPM	G1	+/- 2%
Air	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
GMIS	GMIS	CC343811	61.25PPM NITROGEN DIOXIDE/NITROGEN	Dec 28, 2013

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
TECO 42CHL NOX (1-5000ppm)	Chemiluminescence	Apr 30, 2012

Triad Data Available Upon Request

Notes:

Approved for Release

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI93E15AC003	Reference Number:	122-124301912-1
Cylinder Number:	CC214767	Cylinder Volume:	148 Cu.Ft.
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22012	Valve Outlet:	660
		Analysis Date:	Feb 14, 2012

Expiration Date: Feb 14, 2014

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NITRIC OXIDE	50.00 PPM	51.27 PPM	G1	+/- 1% NIST Traceable
CARBON DIOXIDE	6.000 %	5.937 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			
Total oxides of nitrogen		51.27 PPM		For Reference Only

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
090606	090606	CC262081	9.921% CARBON DIOXIDE/NITROGEN	Apr 10, 2013
NTRM	100611	CC283862	49.73PPM NITRIC OXIDE/NITROGEN	Jul 23, 2016

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 CO2	FTIR	Feb 01, 2012
Nicolet 6700 AHR0801333 NO	FTIR	Feb 01, 2012

Triad Data Available Upon Request

Permanent Notes:GULF POWER 93506

Notes:GULF POWER 93506

Signature on file

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham NC, 27713
(919) 544-3773
http://www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI89E15AC000	Reference Number:	122-124243515-1
Cylinder Number:	CC184163	Cylinder Volume:	145 Cu.Ft
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
Analysis Date:	Nov 30, 2010	Valve Outlet:	590

Expiration Date: Nov 30, 2013

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig,i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
OXYGEN	10.90 %	11.00 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	061201	CC195749	9.898% OXYGEN/NITROGEN	Oct 02, 2012

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba MPA-510 O2 (0-25%)	Paramagnetic	Nov 10, 2010

Triad Data Available Upon Request

Permanent Notes:GULF POWER COMMODITY # 10999

Notes:COMMODITY # 10999

Approved for Release

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Airgas Specialty Gases
530 United Dr.
Durham, NC 27713
(919) 544-3773 Fax: (919) 544-3774
www.airgas.com

Part Number:	E02NI90E15AC5J4	Reference Number:	122-124285897-1
Cylinder Number:	CC110594	Cylinder Volume:	150 Cu.Ft.
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22011	Valve Outlet:	580
		Analysis Date:	Oct 11, 2011

Expiration Date: Oct 11, 2014

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
CARBON DIOXIDE	10.00 %	10.43 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
090606	090606	CC262101	9.921% CARBON DIOXIDE/NITROGEN	Apr 10, 2013

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO2	FTIR	Oct 06, 2011

Triad Data Available Upon Request

Notes:COMMODITY # CD1090GP

Approved for Release

Appendix D. Reference Method Analyzer Performance Results

Interference Response Test

INTERFERNCE RESPONSE TEST
AUDIT TRAILER INSTRUMENT BAY A
REPLACEMENT NO_X, RECHECKED SO_2 AND CO_2 ANALYZER

DATE 1/4/2006
PARAMETER NO_X
ANALYZER SER. NUMBER 525912431
ANALYST JOHN MCPHERSON

PARAMETER	CONCENTRATION	CYLINDER NUMBER	RESPONSE	% OF SPAN
CO	*504 PPM*	*ALM010287*	*0.00*	*0.00*
CO_2	*9.06%*	*ALM053933*	*0.20*	*0.05*
SO_2	*203.0 PPM*	*ALM034735*	*0.00*	*0.00*
O_2	*20.90%*	*AMBIENT*	*0.00*	*0.00*

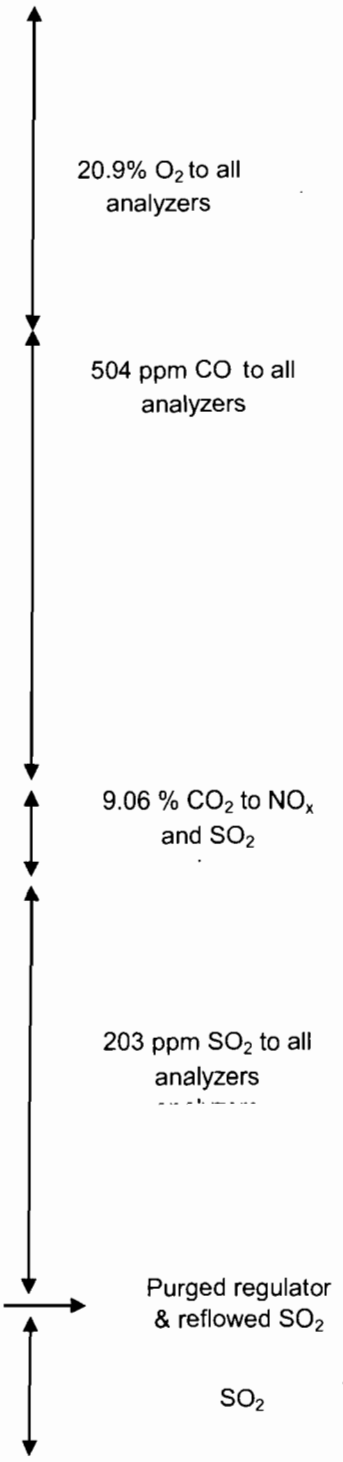
DATE 1/4/2006
PARAMETER SO_2
ANALYZER SER. NUMBER 43C-72790-372
ANALYST JOHN MCPHERSON

PARAMETER	CONCENTRATION	CYLINDER NUMBER	RESPONSE	% OF SPAN
CO	*504 PPM*	*ALM010287*	*0.00*	*0.00*
CO_2	*9.06%*	*ALM053933*	*0.00*	*0.00*
SO_2	*203.0 PPM*	*ALM034735*	*NA*	*NA*
O_2	*20.90%*	*AMBIENT*	*0.00*	*0.00*

DATE 1/4/2006
PARAMETER CO_2
ANALYZER SER. NUMBER N5-672
ANALYST JOHN MCPHERSON

PARAMETER	CONCENTRATION	CYLINDER NUMBER	RESPONSE	% OF SPAN
CO	*504 PPM*	*ALM010287*	*0.055*	*0.010*
CO_2	*9.06%*	*ALM053933*	*NA*	*NA*
SO_2	*203.0 PPM*	*ALM034735*	*0.021*	*0.030*
O_2	*20.90%*	*AMBIENT*	*NA*	*NA*

#	Date/Time	NOx/A	SO2/A	CO2/A
1	1/4/2006 9:07	0.0	0.0	0.056
2	1/4/2006 9:08	0.0	0.0	0.056
3	1/4/2006 9:09	0.0	0.0	0.056
4	1/4/2006 9:10	0.0	0.0	0.056
5	1/4/2006 9:11	0.0	0.0	0.056
6	1/4/2006 9:12	0.0	0.0	0.055
7	1/4/2006 9:13	0.0	0.0	0.055
8	1/4/2006 9:14	0.0	0.0	0.055
9	1/4/2006 9:15	0.0	0.0	0.055
10	1/4/2006 9:16	0.0	0.0	0.055
11	1/4/2006 9:17	0.0	0.0	0.053
12	1/4/2006 9:18	0.0	0.0	0.053
13	1/4/2006 9:19	0.0	0.0	0.055
14	1/4/2006 9:20	0.0	0.0	0.054
15	1/4/2006 9:21	0.0	0.0	0.055
16	1/4/2006 9:22	0.0	0.0	0.056
17	1/4/2006 9:23	0.0	0.0	0.056
18	1/4/2006 9:24	0.0	0.0	0.054
19	1/4/2006 9:25	0.0	0.0	0.054
20	1/4/2006 9:26	0.0	0.0	0.055
21	1/4/2006 9:27	0.0	0.0	0.056
22	1/4/2006 9:28	0.0	0.0	0.056
23	1/4/2006 9:29	0.0	0.0	0.072
24	1/4/2006 9:30	0.0	0.0	0.082
25	1/4/2006 9:31	0.0	0.0	0.082
26	1/4/2006 9:32	0.0	0.0	0.082
27	1/4/2006 9:33	0.2	0.2	0.081
28	1/4/2006 9:34	2.0	4.4	0.058
29	1/4/2006 9:35	0.8	4.8	0.054
30	1/4/2006 9:36	0.0	3.7	0.045
31	1/4/2006 9:37	1.2	3.5	0.011
32	1/4/2006 9:38	2.1	4.8	0.015
33	1/4/2006 9:39	2.1	4.8	0.039
34	1/4/2006 9:40	0.7	4.8	0.021
35	1/4/2006 9:41	1.9	4.8	0.015
36	1/4/2006 9:42	1.7	4.8	0.043
37	1/4/2006 9:43	0.0	4.8	0.051
38	1/4/2006 9:44	0.1	2.8	0.037
39	1/4/2006 9:45	1.4	4.0	0.017
40	1/4/2006 9:46	1.9	4.8	0.047
41	1/4/2006 9:47	0.1	4.8	0.057
42	1/4/2006 9:48	0.0	3.8	0.053
43	1/4/2006 9:49	0.0	2.6	0.029
44	1/4/2006 9:50	0.0	4.8	0.025
45	1/4/2006 9:51	0.0	4.8	0.025
46	1/4/2006 9:52	0.0	4.8	0.025
	Average	0.4	1.8	0.050



NOx Converter Efficiency

Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3A) 4 RATA
Tuesday, June 19, 2012

Nox Converter Efficiency Check

8.2.4.1 Introduce a concentration of 40 to 60 ppmv NO_2 to the analyzer in direct calibration mode and record the Nox concentration displayed by the analyzer. If a dilution probe is used, introduce the NO_2 calibration gas at a point before the dilution takes place. Calculate the converter efficiency using equation 7E-7 in section 12.7. The specification for converter efficiency in section 13.5 must be met. The NO2 must be prepared according to the EPA Traceability Protocol and have an accuracy within 2.0 percent.

13.5 NO2 to NO Conversion Efficiency Test (as applicable).
The NO2 to NO conversion efficiency, calculated according to equation 7E-7 must be greater than or equal to 90 percent

$$Eff_{NO\ 2} = \frac{C_{Dir}}{C_v} \times 100$$

Eff_{NO2} = NO2 to NO converter efficiency, percent (%) = 93.3%

C_{dir} = Measured concentration a calibration gas = 44.9
(low, mid, high) when introduced in direct calibration mode, ppmv.
In this case the measured concentration of NO2, ppmv.

C_v = Manufacturer certified concentration of a calibration gas (low, mid, high), ppmv. = 48.1
In this case the certified concentration of NO2, ppmv.

Cylinder Number = cc317706
Expiration Date = 11/2/2012

#	Date/Time	NOx/A DILUTION
1	6/19/2012 8:26	44.22
2	6/19/2012 8:26	44.44
3	6/19/2012 8:26	44.37
4	6/19/2012 8:26	44.66
5	6/19/2012 8:26	44.62
6	6/19/2012 8:26	44.59
7	6/19/2012 8:27	44.79
8	6/19/2012 8:27	44.91
9	6/19/2012 8:27	45.01
10	6/19/2012 8:27	45.01
11	6/19/2012 8:27	44.84
12	6/19/2012 8:27	45.03
13	6/19/2012 8:28	45.2
14	6/19/2012 8:28	45.15
15	6/19/2012 8:28	45.27
16	6/19/2012 8:28	45.2
17	6/19/2012 8:28	45.3
18	6/19/2012 8:28	45.3
	average	44.88
	certified no2	48.1
	nox converter eff.	93.3%

Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3B) 5 RATA
Wednesday, June 20, 2012

Nox Converter Efficiency Check

8.2.4.1 Introduce a concentration of 40 to 60 ppmv NO_2 to the analyzer in direct calibration mode and record the Nox concentration displayed by the analyzer. If a dilution probe is used, introduce the NO_2 calibration gas at a point before the dilution takes place. Calculate the converter efficiency using equation 7E-7 in section 12.7. The specification for converter efficiency in section 13.5 must be met. The NO2 must be prepared according to the EPA Traceability Protocol and have an accuracy within 2.0 percent.

13.5 NO2 to NO Conversion Efficiency Test (as applicable).
The NO2 to NO conversion efficiency, calculated according to equation 7E-7 must be greater than or equal to 90 percent

$$Eff_{NO\ 2} = \frac{C_{Dir}}{C_v} \times 100$$

Eff_{NO2} = NO2 to NO converter efficiency, percent (%) = 97.6%

C_{dir} = Measured concentration a calibration gas = 47.0
(low, mid, high) when introduced in direct calibration mode, ppmv.
In this case the measured concentration of NO2, ppmv.

C_v = Manufacturer certified concentration of a calibration gas (low, mid, high), ppmv. = 48.1
In this case the certified concentration of NO2, ppmv.

Cylinder Number = cc317706
Expiration Date = 11/2/2012

#	Date/Time	NOx/A DILUTION
1	6/20/2012 9:08	45.47
2	6/20/2012 9:08	46.06
3	6/20/2012 9:08	46.54
4	6/20/2012 9:08	46.89
5	6/20/2012 9:08	46.98
6	6/20/2012 9:08	47.11
7	6/20/2012 9:09	47.13
8	6/20/2012 9:09	46.98
9	6/20/2012 9:09	47.08
10	6/20/2012 9:09	47.28
11	6/20/2012 9:09	47.3
12	6/20/2012 9:09	47.33
13	6/20/2012 9:10	47.3
14	6/20/2012 9:10	47.28
15	6/20/2012 9:10	47.13
16	6/20/2012 9:10	47.18
17	6/20/2012 9:10	47.11
18	6/20/2012 9:10	47.08
	average	46.96
	certified no2	48.1
	nox converter eff.	97.6%

Response Time Test

Unit 4(3A)

Analyzer Response Time
Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3A) 4 RATA
Tuesday, June 19, 2012

Monitor : NO_x
Serial Number : 525912431
Span Gas Concentration : 20.1
Monitor Span : 20.1

	Upscale Response Time Seconds		Downscale Response Time Seconds
RUN 1	120	RUN 1	120
RUN 2	120	RUN 2	120
RUN 3	120	RUN 3	120
Average	120.0	**Average**	120

System Reponse Time 120.00 seconds
2.00 minutes

Monitor : CO_2
Serial Number : N1-N5-0672
Span Gas Concentration : 10.43%
Monitor Span : 10.43%

	Upscale Response Time Seconds		Downscale Response Time Seconds
RUN 1	120	RUN 1	120
RUN 2	120	RUN 2	120
RUN 3	120	RUN 3	120
Average	120	**Average**	120

System Reponse Time 120.00 seconds
Slower Response Time 2.00 minutes

Unit 5(3B)

Analyzer Response Time
Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3B) 5 RATA
Tuesday, June 19, 2012

Monitor : NO_x
Serial Number : 525912431
Span Gas Concentration : 20.1
Monitor Span : 20.1

	Upscale Response Time Seconds		Downscale Response Time Seconds
RUN 1	120	RUN 1	120
RUN 2	120	RUN 2	120
RUN 3	120	RUN 3	120
Average	120.0	**Average**	120

System Reponse Time 120.00 seconds
2.00 minutes

Monitor : CO_2
Serial Number : N1-N5-0672
Span Gas Concentration : 10.43%
Monitor Span : 10.43%

	Upscale Response Time Seconds		Downscale Response Time Seconds
RUN 1	120	RUN 1	120
RUN 2	120	RUN 2	120
RUN 3	120	RUN 3	120
Average	120	**Average**	120

System Reponse Time 120.00 seconds
Slower Response Time 2.00 minutes

Stratification Study

Unit 4(3A)

40 CFR Part 75 Stratification Test Results

Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3A) 4 RATA
Thursday, September 23, 2010

start time	stop time	point	diluent O_2/CO_2 %	% dif allowed +/10% mean		UNIT MW	% dif from mean allowed +/- 3%	
2:37 PM	2:38 PM	1	4.20	7.7%	PASS	167	0%	PASS
2:39 PM	2:40 PM	2	4.26	2.1%	PASS	167	0%	PASS
2:41 PM	2:42 PM	3	4.27	0.5%	PASS	167	0%	PASS
2:43 PM	2:44 PM	4	4.29	-1.0%	PASS	167	0%	PASS
2:49 PM	2:50 PM	5	4.28	-0.5%	PASS	167	0%	PASS
2:51 PM	2:52 PM	6	4.29	-0.9%	PASS	167	0%	PASS
2:53 PM	2:54 PM	7	4.30	-2.5%	PASS	167	0%	PASS
2:55 PM	2:56 PM	8	4.30	-2.2%	PASS	167	0%	PASS
3:01 PM	3:02 PM	9	4.28	-0.3%	PASS	167	0%	PASS
3:03 PM	3:04 PM	10	4.24	3.3%	PASS	167	0%	PASS
3:05 PM	3:06 PM	11	4.35	-7.0%	PASS	167	0%	PASS
3:07 PM	3:08 PM	12	4.29	-1.6%	PASS	167	0%	PASS
3:12 PM	3:13 PM	13	4.25	2.5%	PASS	167	0%	PASS
3:14 PM	3:15 PM	14	4.28	0.0%	PASS	167	0%	PASS
3:16 PM	3:17 PM	15	4.27	0.4%	PASS	167	0%	PASS
3:18 PM	3:19 PM	16	4.28	-0.1%	PASS	167	0%	PASS
		average	4.28			167		
		-10%	3.85					
		+10%	4.71					

start time	stop time	point	pollutant NO_x ppm	ppm dif. allowed +/- 5ppm		UNIT MW	% dif from mean allowed +/- 3%	
2:37 PM	2:38 PM	1	15.68	-0.3	PASS	167	0%	PASS
2:39 PM	2:40 PM	2	15.89	-0.5	PASS	167	0%	PASS
2:41 PM	2:42 PM	3	15.87	-0.4	PASS	167	0%	PASS
2:43 PM	2:44 PM	4	15.81	-0.4	PASS	167	0%	PASS
2:49 PM	2:50 PM	5	15.53	-0.1	PASS	167	0%	PASS
2:51 PM	2:52 PM	6	15.50	-0.1	PASS	167	0%	PASS
2:53 PM	2:54 PM	7	15.45	0.0	PASS	167	0%	PASS
2:55 PM	2:56 PM	8	15.41	0.0	PASS	167	0%	PASS
3:01 PM	3:02 PM	9	15.22	0.2	PASS	167	0%	PASS
3:03 PM	3:04 PM	10	15.01	0.4	PASS	167	0%	PASS
3:05 PM	3:06 PM	11	15.44	0.0	PASS	167	0%	PASS
3:07 PM	3:08 PM	12	15.29	0.1	PASS	167	0%	PASS
3:12 PM	3:13 PM	13	15.23	0.2	PASS	167	0%	PASS
3:14 PM	3:15 PM	14	15.21	0.2	PASS	167	0%	PASS
3:16 PM	3:17 PM	15	15.09	0.3	PASS	167	0%	PASS
3:18 PM	3:19 PM	16	15.19	0.2	PASS	167	0%	PASS
		average	15.42			167		

Unit 5(3B)

40 CFR Part 75 Stratification Test Results

Gulf Power Company
Plant Smith CC, Panama City, Florida
Smith Unit (3B) 5 RATA
Monday, June 18, 2012

start time	stop time	point	diluent O_2/CO_2 %	% dif allowed +/10% mean		UNIT MW	% dif from mean allowed +/- 3%	
3:35 PM	3:36 PM	1	4.21	-5.3%	PASS	165	0%	PASS
3:37 PM	3:38 PM	2	4.19	-3.8%	PASS	165	0%	PASS
3:39 PM	3:40 PM	3	4.17	-1.5%	PASS	165	0%	PASS
3:41 PM	3:42 PM	4	4.17	-1.0%	PASS	165	0%	PASS
3:49 PM	3:50 PM	5	4.15	0.5%	PASS	165	0%	PASS
3:51 PM	3:52 PM	6	4.16	-0.5%	PASS	165	0%	PASS
3:53 PM	3:54 PM	7	4.16	-0.5%	PASS	165	0%	PASS
3:55 PM	3:56 PM	8	4.16	0.1%	PASS	165	0%	PASS
4:01 PM	4:02 PM	9	4.13	2.8%	PASS	165	0%	PASS
4:03 PM	4:04 PM	10	4.15	0.5%	PASS	165	0%	PASS
4:05 PM	4:06 PM	11	4.16	-0.2%	PASS	165	0%	PASS
4:07 PM	4:08 PM	12	4.15	0.8%	PASS	165	0%	PASS
4:13 PM	4:14 PM	13	4.14	1.9%	PASS	165	0%	PASS
4:15 PM	4:16 PM	14	4.15	1.1%	PASS	165	0%	PASS
4:17 PM	4:18 PM	15	4.13	2.2%	PASS	165	0%	PASS
4:19 PM	4:20 PM	16	4.13	3.0%	PASS	165	0%	PASS
		average	4.16			165		
		-10%	3.74					
		+10%	4.57					

start time	stop time	point	pollutant NO_x ppm	ppm dif. allowed +/- 5ppm		UNIT MW	% dif from mean allowed +/- 3%	
3:35 PM	3:36 PM	1	15.18	0.1	PASS	165	0%	PASS
3:37 PM	3:38 PM	2	15.11	0.1	PASS	165	0%	PASS
3:39 PM	3:40 PM	3	14.96	0.3	PASS	165	0%	PASS
3:41 PM	3:42 PM	4	14.92	0.3	PASS	165	0%	PASS
3:49 PM	3:50 PM	5	15.35	-0.1	PASS	165	0%	PASS
3:51 PM	3:52 PM	6	15.32	-0.1	PASS	165	0%	PASS
3:53 PM	3:54 PM	7	15.31	-0.1	PASS	165	0%	PASS
3:55 PM	3:56 PM	8	15.29	-0.1	PASS	165	0%	PASS
4:01 PM	4:02 PM	9	15.16	0.1	PASS	165	0%	PASS
4:03 PM	4:04 PM	10	15.12	0.1	PASS	165	0%	PASS
4:05 PM	4:06 PM	11	15.19	0.1	PASS	165	0%	PASS
4:07 PM	4:08 PM	12	15.29	0.0	PASS	165	0%	PASS
4:13 PM	4:14 PM	13	15.44	-0.2	PASS	165	0%	PASS
4:15 PM	4:16 PM	14	15.43	-0.2	PASS	165	0%	PASS
4:17 PM	4:18 PM	15	15.36	-0.1	PASS	165	0%	PASS
4:19 PM	4:20 PM	16	15.42	-0.2	PASS	165	0%	PASS
		average	15.24			165		

Appendix E. Field Notes and Miscellaneous Information

Date/Time	Cylinder	Analyzer	Gas	Class	Type	Value	Expected	Status
6/19/2012 7:57	ZERO AIR	CO2/A DILUTION	CO2	BOTH	ZERO	0.103	0.000	PASS
6/19/2012 7:57	ZERO AIR	NOx/A DILUTION	NOx	BOTH	ZERO	0.07	0.00	PASS
6/19/2012 8:03	CC340887	CO2/A DILUTION	CO2	BOTH	ZERO	0.068	0.000	PASS
6/19/2012 8:03	CC340887	NOx/A DILUTION	NOx	BOTH	MID	10.06	10.07	PASS
6/19/2012 8:08	CC340157	NOx/A DILUTION	NOx	BOTH	HIGH	20.27	20.10	PASS
6/19/2012 8:15	CC214767	CO2/A DILUTION	CO2	BOTH	MID	5.968	5.937	PASS
6/19/2012 8:20	CC110594	CO2/A DILUTION	CO2	BOTH	HIGH	10.447	10.430	PASS
6/19/2012 9:04	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.171	0.000	PASS
6/19/2012 9:04	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.09	10.07	PASS
6/19/2012 9:07	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.988	5.937	PASS
6/19/2012 9:11	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.068	0.000	PASS
6/19/2012 9:11	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.07	0.00	PASS
6/19/2012 9:39	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.190	0.000	PASS
6/19/2012 9:39	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.18	10.07	PASS
6/19/2012 9:42	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.924	5.937	PASS
6/19/2012 9:46	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.093	0.000	PASS
6/19/2012 9:46	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.07	0.00	PASS
6/19/2012 10:15	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.142	0.000	PASS
6/19/2012 10:15	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.13	10.07	PASS
6/19/2012 10:18	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.939	5.937	PASS
6/19/2012 10:22	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.049	0.000	PASS
6/19/2012 10:22	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.05	0.00	PASS
6/19/2012 10:52	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.122	0.000	PASS
6/19/2012 10:52	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.06	10.07	PASS
6/19/2012 10:55	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.841	5.937	PASS
6/19/2012 10:58	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.200	0.000	PASS
6/19/2012 10:58	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.05	0.00	PASS
6/19/2012 11:29	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.215	0.000	PASS
6/19/2012 11:29	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.94	10.07	PASS
6/19/2012 11:32	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.856	5.937	PASS
6/19/2012 11:36	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.147	0.000	PASS
6/19/2012 11:36	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.15	0.00	PASS
6/19/2012 12:06	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.122	0.000	PASS
6/19/2012 12:06	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.04	10.07	PASS
6/19/2012 12:09	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.895	5.937	PASS
6/19/2012 12:13	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.073	0.000	PASS
6/19/2012 12:13	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.02	0.00	PASS
6/19/2012 12:43	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.225	0.000	PASS
6/19/2012 12:43	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.89	10.07	PASS
6/19/2012 12:46	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.988	5.937	PASS
6/19/2012 12:50	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.117	0.000	PASS
6/19/2012 12:50	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.05	0.00	PASS
6/19/2012 13:20	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.234	0.000	PASS
6/19/2012 13:20	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.94	10.07	PASS
6/19/2012 13:23	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	6.042	5.937	PASS
6/19/2012 13:27	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.112	0.000	PASS
6/19/2012 13:27	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	-0.05	0.00	PASS
6/19/2012 13:57	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.210	0.000	PASS
6/19/2012 13:57	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.94	10.07	PASS
6/19/2012 14:00	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.905	5.937	PASS
6/19/2012 14:04	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.210	0.000	PASS
6/19/2012 14:04	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.05	0.00	PASS
6/19/2012 14:30	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.147	0.000	PASS
6/19/2012 14:30	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.96	10.07	PASS
6/19/2012 14:33	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	6.007	5.937	PASS
6/19/2012 14:36	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.127	0.000	PASS
6/19/2012 14:36	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.00	0.00	PASS
6/19/2012 15:04	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.142	0.000	PASS
6/19/2012 15:04	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.94	10.07	PASS
6/19/2012 15:07	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.944	5.937	PASS
6/19/2012 15:11	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.186	0.000	PASS
6/19/2012 15:11	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	-0.05	0.00	PASS

6/19/2012 15:55	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.186	0.000	PASS
6/19/2012 15:55	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.94	10.07	PASS
6/19/2012 15:58	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.812	5.937	PASS
6/19/2012 16:01	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.098	0.000	PASS
6/19/2012 16:01	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	-0.02	0.00	PASS
6/19/2012 16:36	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.190	0.000	PASS
6/19/2012 16:36	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.04	10.07	PASS
6/19/2012 16:40	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.836	5.937	PASS
6/19/2012 16:44	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.122	0.000	PASS
6/19/2012 16:44	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	-0.05	0.00	PASS
6/19/2012 17:12	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.210	0.000	PASS
6/19/2012 17:12	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.04	10.07	PASS
6/19/2012 17:15	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.792	5.937	PASS
6/19/2012 17:19	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.098	0.000	PASS
6/19/2012 17:19	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	-0.02	0.00	PASS
6/19/2012 17:51	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.137	0.000	PASS
6/19/2012 17:51	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	10.09	10.07	PASS
6/19/2012 17:54	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.836	5.937	PASS
6/19/2012 17:59	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.156	0.000	PASS
6/19/2012 17:59	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.02	0.00	PASS
6/20/2012 8:45	ZERO AIR	CO2/A DILUTION	CO2	BOTH	ZERO	0.068	0.000	PASS
6/20/2012 8:45	ZERO AIR	NOx/A DILUTION	NOx	BOTH	ZERO	0.07	0.00	PASS
6/20/2012 8:50	CC340887	CO2/A DILUTION	CO2	BOTH	ZERO	0.112	0.000	PASS
6/20/2012 8:50	CC340887	NOx/A DILUTION	NOx	BOTH	MID	10.04	10.07	PASS
6/20/2012 8:54	CC340157	NOx/A DILUTION	NOx	BOTH	HIGH	20.17	20.10	PASS
6/20/2012 8:59	CC214767	CO2/A DILUTION	CO2	BOTH	MID	5.924	5.937	PASS
6/20/2012 9:03	CC110594	CO2/A DILUTION	CO2	BOTH	HIGH	10.535	10.430	PASS
6/20/2012 10:03	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.234	0.000	PASS
6/20/2012 10:03	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.96	10.07	PASS
6/20/2012 10:06	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	6.002	5.937	PASS
6/20/2012 10:10	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.112	0.000	PASS
6/20/2012 10:10	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.02	0.00	PASS
6/20/2012 10:38	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.274	0.000	PASS
6/20/2012 10:38	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.96	10.07	PASS
6/20/2012 10:41	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.958	5.937	PASS
6/20/2012 10:44	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.112	0.000	PASS
6/20/2012 10:44	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.00	0.00	PASS
6/20/2012 11:13	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.137	0.000	PASS
6/20/2012 11:13	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.91	10.07	PASS
6/20/2012 11:16	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.944	5.937	PASS
6/20/2012 11:20	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.181	0.000	PASS
6/20/2012 11:20	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.02	0.00	PASS
6/20/2012 11:50	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.142	0.000	PASS
6/20/2012 11:50	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.96	10.07	PASS
6/20/2012 11:53	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.963	5.937	PASS
6/20/2012 11:57	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.137	0.000	PASS
6/20/2012 11:57	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	-0.05	0.00	PASS
6/20/2012 12:27	CC340887	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.127	0.000	PASS
6/20/2012 12:27	CC340887	NOx/A DILUTION	NOx	BIAS AND DRIFT	MID	9.91	10.07	PASS
6/20/2012 12:31	CC214767	CO2/A DILUTION	CO2	BIAS AND DRIFT	MID	5.939	5.937	PASS
6/20/2012 12:34	ZERO AIR	CO2/A DILUTION	CO2	BIAS AND DRIFT	ZERO	0.190	0.000	PASS
6/20/2012 12:34	ZERO AIR	NOx/A DILUTION	NOx	BIAS AND DRIFT	ZERO	0.02	0.00	PASS