

Indiantown Cogeneration, L.P.

Indiantown Cogeneration, L.P.
P.O. Box 1799
13303 SW Silver Fox Lane
Indiantown, FL 34956

772.597.6500
Fax: 772.597.6210

June 12, 2014

Mr. Lee Hoefert
Florida Department of Environmental Protection.
400 N Congress Ave.
Suite 200
West Palm Beach, FL 33416

VIA ELECTRONIC MAIL

**Subject: Indiantown Generating Plant Main Boilers and Various Dust Collectors
Annual Compliance testing.
Main and Inlet Reactors CEMs Relative Accuracy Test Audit.**

Dear Mr. Hoefert:

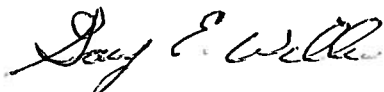
During the period of July 14 to 17, 2014, Indiantown Cogeneration, L.P.(ICLP) plans to perform the following actions:

1. Conduct a Relative Accuracy Test Audit (RATA) on the PC Boiler Stack Continuous Emissions Monitoring System (CEMS) which includes carbon dioxide, sulfur dioxide and nitrogen oxide.
2. Conduct a Relative Accuracy Test Audit (RATA) on the (2) Inlet sulfur and carbon dioxide (one on each inlet stream) Continuous Emissions Monitoring System (CEMS)
3. Conduct annual testing on the Main Boiler Stack for Nitrogen Oxide, Carbon Dioxide, Carbon Monoxide, Sulfur Dioxide and Particulate Matter.

Enclosed please find ICLP's test Protocol to that effect reflecting the various EPA test methods to be used.

Please contact Nick Laryea at 772-597-6535, with any questions or comments.

Sincerely,



Gary E. Willer
Plant Manager

cc: EPA Region #4
File # 2.5.3



245 West Ohio Ave. • Suite A • Lake Helen, FL 32744
Phone (386) 451-0169 • coastalair123@aol.com

COMPLETE EMISSIONS TESTING SERVICES • PERMITTING ASSISTANCE • CEMS CERTIFICATION • AMBIENT AIR MONITORING

EMISSIONS TEST PROTOCOL

No. 122-010

INDIANTOWN COGENERATION PLANT

COMPLIANCE TESTING
PC BOILER STACK
VARIOUS DUST COLLECTION SOURCES

RATA
PC BOILER STACK
PC BOILER SPRAY DRYER INLETS A AND B

Prepared for:

Nicholas Laryea
Indiantown Cogeneration
13303 S.W. Silver fox Lane
Indiantown, FL 34956

Prepared by:

Coastal Air Consulting, Inc.
1531 Wyngate Dr.
DeLand, FL 32724
(386) 451-0169

June 9, 2014

TABLE OF CONTENTS

TITLE PAGE

PROJECT STATISTICS

TABLE OF CONTENTS

- 1 Introduction**
- 2 Description of Process**
- 3 Description of Sampling Location**
- 4 Sampling Procedures**
- 5 Operating Conditions**
- 6 Quality Assurance**

PROJECT STATISTICS

Client: Indiantown Cogeneration, L.P.

Facility: Indiantown Cogeneration Plant

Location: 13303 Silver fox Lane
Indiantown, FL 34956

Type of Process: PC Boiler

Test Methods Performed: Traverse Points-EPA Method 1
Volumetric Flow Rate-EPA Method 2
Oxygen/Carbon Dioxide-EPA Method 3A
Moisture Content-EPA Method 4
Particulate Matter-EPA Method 5
Sulfur dioxide-EPA Method 6C
Nitrogen Oxide-EPA Method 7E
Visible Emissions-EPA 9
Carbon Monoxide-EPA Method 10
Fugitive Emissions-EPA Method 22

Testing Firm: Coastal Air Consulting, Inc.
1531 Wyngate Dr.
DeLand, FL 32724
(386) 451-0169

Test Personnel: Stephen Webb
Quin Revel
Troy Marlowe

Test Dates: Week of July 14, 2014

Client Representative: Nicholas Laryea

1.0 Introduction

Coastal Air Consulting, Inc. (Coastal) has been contracted by Indiantown Cogeneration to perform the Compliance and RATA testing at the Indiantown Cogeneration Plant located in Indiantown, Florida. The test dates will be the week of July 14, 2014.

2.0 Description of Process

The Indiantown Cogeneration Facility consists of a 330 MW pulverized coal fired boiler exporting 175,000 lb/hr of steam to a host facility located in Indiantown, Florida. The boiler is supplied by Foster Wheeler Energy Corporation (FWEC). Low-NO_x burners with overfired air and selective catalytic reduction using ammonia injection are used for NO_x reduction. Particulate and sulfur dioxide emissions from the boiler are controlled by an Asea Brown Boveri (ABB) flue gas cleaning system (FGCS) comprised of two 50 percent capacity lime injection spray dryer absorbers followed by a fabric filter (baghouse).

3.0 Description of Sampling Location

The emissions from the PC Boiler exhausts into the atmosphere through a steel flue, 17.17 feet (206 inches) in diameter, contained in a reinforced cement shell. There are four six-inch test ports spaced at 90-degree intervals around the flue at an elevation of approximately 250 feet above grade. Access to the test platform is by a manlift.

4.0 Sampling Procedures

EPA testing methods utilized during this test program will include the following;

EPA Method 1	Selection of Sample Site and Traverse Points
EPA Method 2	Determination of Volumetric Flow Rate from Stationary Sources
EPA Method 3A	Gas Analysis for CO ₂ , O ₂ , Excess Air and Dry Molecular Weight (Instrumental Analyzer Method)
EPA Method 4	Determination of Moisture Content in stack gases
EPA Method 5	Determination of Particulate Matter Emissions from Stationary Sources
EPA Method 6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Method)
EPA Method 7E	Determination of Nitrogen Oxide Emission from Stationary Sources (Instrumental Analyzer Method)
EPA Method 9	Determination of Visible Emissions from Stationary Sources

EPA Method 10 Determination of Carbon Monoxide Emissions From Stationary Sources (Instrumental Analyzer Method)
EPA Method 22 Fugitive Emissions From Transfer Points

PC Boiler RATA

A sample is continuously extracted and introduced into a Thermo Environmental 42C NOx analyzer set at the 0-500 ppm span range, a Thermo Environmental 48C CO analyzer set at the 0-500 ppm span range, a Western Research/Bovar Model 921A SO2 analyzer set at the 0-500 ppm range and a servomex 1400B O2/CO2 analyzer set at the 25/20% span range.

The sample is extracted through a stainless steel probe, heated teflon sample line and sample conditioner to dry the sample before it enters the analyzers. A sample flow control system is used to control the flow into the analyzers.

The analyzers are calibrated prior to starting the testing with EPA Protocol 1, calibration gases. A system bias check is performed before each run by introducing the zero and upscale gas at the back end of the sample probe. The system bias check is repeated at the end of each test run to determine the analyzer zero calibration drift.

Output from each analyzer is compiled on a microprocessor controlled data acquisition system. One-minute averages are recorded and translated to an Excel spreadsheet for further data reduction.

PC Boiler PM & VE

A series of three 2-hour EPA Method 5 test runs will be conducted to determine the Particulate PM mass emission rate. A 1-hour EPA Method 9 observation will be conducted in conjunction with particulate measurements.

PC Boiler Compliance

Three 1-hour instrumental reference method sulfur dioxide and nitrogen oxides runs will be conducted in order to demonstrate compliance. Data from the three 1-hour instrumental reference methods runs in conjunction with seven (7) additional 21-minute reference method test runs will be used to calculate the relative accuracy of the PC Boiler Stack CEMS.

Three 1-hour instrumental reference method carbon dioxide and nitrogen oxides runs will be conducted in order to demonstrate carbon dioxide compliance.

PC Boiler SDA Inlet RATA

A series of nine to twelve 21-minute instrumental reference method test runs will be conducted on each PC Boiler SDA Inlet CEMS to determine the relative accuracy of the CEMS.

EPA Method 10 Determination of Carbon Monoxide Emissions From Stationary Sources (Instrumental Analyzer Method)
EPA Method 22 Fugitive Emissions From Transfer Points

PC Boiler RATA

A sample is continuously extracted and introduced into a Thermo Environmental 42C NOx analyzer set at the 0-500 ppm span range, a Thermo Environmental 48C CO analyzer set at the 0-500 ppm span range, a Western Research/Bovar Model 921A SO2 analyzer set at the 0-500 ppm range and a servomex 1400B O2/CO2 analyzer set at the 25/20% span range.

The sample is extracted through a stainless steel probe, heated teflon sample line and sample conditioner to dry the sample before it enters the analyzers. A sample flow control system is used to control the flow into the analyzers.

The analyzers are calibrated prior to starting the testing with EPA Protocol 1, calibration gases. A system bias check is performed before each run by introducing the zero and upscale gas at the back end of the sample probe. The system bias check is repeated at the end of each test run to determine the analyzer zero calibration drift.

Output from each analyzer is compiled on a microprocessor controlled data acquisition system. One-minute averages are recorded and translated to an Excel spreadsheet for further data reduction.

PC Boiler PM & VE

A series of three 2-hour EPA Method 5 test runs will be conducted to determine the Particulate PM mass emission rate. A 1-hour EPA Method 9 observation will be conducted in conjunction with particulate measurements.

PC Boiler Compliance

Three 1-hour instrumental reference method sulfur dioxide and nitrogen oxides runs will be conducted in order to demonstrate compliance. Data from the three 1-hour instrumental reference methods runs in conjunction with seven (7) additional 21-minute reference method test runs will be used to calculate the relative accuracy of the PC Boiler Stack CEMS.

Three 1-hour instrumental reference method carbon dioxide and nitrogen oxides runs will be conducted in order to demonstrate carbon dioxide compliance.

PC Boiler SDA Inlet RATA

A series of nine to twelve 21-minute instrumental reference method test runs will be conducted on each PC Boiler SDA Inlet CEMS to determine the relative accuracy of the CEMS.