Progress Energy

Larry E. Hatcher
Plant Manager
Crystal River Fossil Plant & Fuel Operations

September 22, 2009

Mr. Jeffrey F. Koerner, Administrator
New Source Review Section
Air Quality Division
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5000
Tallahassee, Florida 32399-2400

Re: **Deferral of Operation of Acid Mist Mitigation System - Additional Information**
Progress Energy Florida, Crystal River Power Plant
Project No. 01700004-022-AC (PSD-FL-383B)
0170004-023-AC (PSD-FL-383C)

Dear Mr. Koerner:

In response to your email and conversations with Mr. Ben Borsch, this letter provides follow up information regarding the anticipated testing schedules and protocols for tests to be performed on the alkali injection (acid mist mitigation) system as required by the clean air project construction permit.

The permit requires that two tests be performed after completion of construction of the pollution control device (in this case the alkali injection system), a preliminary performance test (Section 3, Condition 16) and a compliance test (Section 3, Condition 19). The permit contemplates that the units may not initially be combusting the highest allowed sulfur coal and provides requirements for additional testing as coal sulfur content increases (See Condition 19.c and recognizes that tests will be conducted utilizing the fuels representative of "actual operating ranges intended for Units 4 and 5" (Condition 16.b). As discussed in our letter of August 24, Units 4 and 5 are currently continuing to burn compliance coal (< 0.68% S). As a result, there is not sufficient mass of SO_3 in the flue gas stream to allow for start up of the ammonia supply system for alkali injection without a significant emission of unreacted ammonia. Progress Energy has requested to be allowed to perform these tests after the installation of the FGD on Unit 5 and the conversion to a higher sulfur coal.

We have not created a specific "Performance and Compliance Test Protocol and Preliminary Schedule" document as test protocols for the preliminary performance test and SAM compliance test have been submitted to Mr. Errin Pichard at the department. Copies of the protocols submitted are attached to this letter for your reference.

Progress Energy Florida, Inc.
Crystal River Steam Plant
15760 W. Powerline Street
CN77
Crystal River, FL 34428

The schedule below provides our current plan for increasing the coal sulfur and performing the initial testing on the alkali injection system. This schedule is dependent on construction progress and operational performance with the new coals. Progress Energy will supply the department with updates to the schedule as changes develop.

December 2009	Tie in of FGD on Unit 5 – beginning of FGD tuning (180 days)
February 2010	Begin Unit 4 Outage (until May 2010)
March 2010	Begin combusting 2.5# blend (up to 1.35% S) coal in Unit 5
March 2010	Commission alkali injection system
April 2010	Perform preliminary alkali injection performance test, Unit 5
May 2010	Tie in of FGD on Unit 4 – beginning of FGD tuning (180 days)
June 2010	Perform Unit 5 SAM emissions compliance test
July 2010	Begin combusting 2.5# blend coal in Unit 4
August 2010	Begin combusting 3.5# blend (up to 2% S) coal in Unit 5
September 2010	Perform second Unit 5 SAM emissions compliance test
	Perform Unit 4 SAM emissions compliance test

Throughout the FGD start up period for each unit, Progress Energy will manage the coal sulfur content to maintain compliance with the current permit limits. RATAs will be performed on CEMS within 60 days of operation through the new stacks for each unit. Additional increases in coal sulfur content are planned in late 2010 and early 2011 with a goal of reaching a maximum (2.63% S – 3.13% S) coal in the second quarter of 2011. Exact dates for that schedule are dependent on operational issues.

Progress Energy looks forward to continuing to work with you on this issue. If you have additional questions or need additional information please contact Mr. Benjamin Borsch in our St. Petersburg office by telephone at (727) 820-5002 or via email at benjamin.borsch@pgnmail.com.

Sincerely,

Larry E. Hatcher

Larry E. Hatcher
Manager, Crystal River Fossil Plant & Fuel Operations

Enclosures

SULFURIC ACID MIST
PRELIMINARY PERFORMANCE TEST PROTOCOL

for

Progress Energy
Crystal River Power Plant
Unit 5
Citrus County, Florida

June 2009
Revision 1

Prepared By:

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5104 Bur Oak Circle
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(919) 510-5102

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1.0 INTRODUCTION

Progress Energy will soon be completing construction of low NO_x burners (LNB), a selective catalytic reduction system (SCR), and an acid mist mitigation system (AMM) on Unit 5 at its Crystal River Power Plant (Crystal River). In accordance with FL DEP Air Permit No. PSD-FL-383 Section 3, Special Condition 16, Progress Energy must conduct a series of preliminary performance tests of the AMM system on either Unit 4 or Unit 5 to determine sulfuric acid mist emissions rates under a variety of unit operating conditions. The preliminary test program must be conducted no later than 60 days after the completing construction on the new pollution control equipment. The purpose of this test program is to document the impact of the alkali injection rates on reducing sulfuric acid mist emissions and to develop correlation curves between alkali injection rates, unit operating conditions and sulfuric acid mist emissions. **Consistent with FL DEP Air Permit No. PSD-FL-383 Section 3, Special Condition 16, Progress Energy is exempt from the sulfuric acid mist permit standards during this preliminary performance test program.**

Progress Energy notes that three 1-hour sulfuric acid mist test runs will also be conducted for compliance test purposes. In accordance with permit conditions, the compliance tests will be conducted following completion of this test protocol and development and submission of the required AMM system operating plan..

CEM Solutions of Hernando, Florida has been contracted to perform the stack testing for this particular project. Appendix 1 of this protocol contains all the contact information for this particular project.

2.0 TEST PROGRAM

Air Permit No. PSD-FL-383, Emissions Unit Specific Condition No.16 outlines the general performance testing requirements for either Unit 4 or Unit 5. Progress Energy will conduct a minimum of nine (9) test runs 1-hour test runs. The initial performance tests will be conducted while the unit combusts the current fuel blend (currently not expected to be "compliance coal", not exceeding 0.68% sulfur) and operates at load rates that are representative of the actual operations for Units 4 and 5. As specified in Condition 16, additional testing will be performed when the fuel sulfur content is increased by more than 0.5% sulfur.

In order to complete this testing, Progress Energy intends to use engineering calculations in combination with data gathered during the tuning of the ammonia injection system to establish a baseline alkali injection rate that is equivalent to the stoichiometric amount of ammonia required to react with all of the SAM. SAM performance testing will then be based on a series of tests with injection rates above and below the stoichiometric rate with the SCR in and out of service. Testing will also be performed at high-load, mid-load and low-load conditions. At a minimum, one 1-hr test run will be conducted at each of the operating conditions listed in Table 2-1. Table 2-1 provides a summary of the sulfuric acid mist performance test program: however, as necessary, additional testing may be performed (e.g., at additional injection rates or load conditions).

Table 2-1. Sulfuric Acid Mist Test Matrix – Unit 5

Test Condition	Operating Condition
1	SAM emissions w/o SCR & "Baseline" alkali injection rate – High load
2	SAM emissions w/o SCR & "Baseline + 20%" alkali injection rate – High load
3	SAM emissions w/o SCR & "Baseline – 20%" alkali injection rate – High load
4	SAM emissions w/ SCR & "Baseline" alkali injection rate – High load
5	SAM emissions w/ SCR & "Baseline + 20%" alkali injection rate – High load
6	SAM emissions w/ SCR & "Baseline – 20%" alkali injection rate – High load
7	SAM emissions w/ SCR & "Baseline" alkali injection rate – Mid load
8	SAM emissions w/ SCR & "Baseline + 20%" alkali injection rate – Mid load
9	SAM emissions w/ SCR & "Baseline – 20%" alkali injection rate – Mid load
10	SAM emissions w/ SCR & "Baseline*" alkali injection rate – Low load
11	SAM emissions w/ SCR & "Baseline* + 20%" alkali injection rate – Low load

12	SAM emissions w/ SCR & "Baseline* – 20%" alkali injection rate – Low load

***Note that the baseline injection rate will be a function of the SO2 generation rate and will not be the same all load conditions.**

During each test run or group of runs, Progress Energy will collect representative fuel samples for ultimate and proximate analysis and record the unit operating data listed below in Section 4.

3.0 FACILITY DESCRIPTION

3.1 Facility Location

Progress Energy's Crystal River Power Plant is located in the Crystal River Energy Complex in Citrus County, Florida. The Crystal River Power Plant is currently in the process of installing new burners, new selective catalytic reduction (SCR) systems, new flue gas desulfurization (FGD) systems, and new stacks for the existing Units 4 & 5.

3.2 Unit Description

Unit 5 is a fossil fuel-fired electric utility steam generator with a dry bottom, wall fired, boiler rated at 760 megawatts (MW). The boiler is capable of burning bituminous coal, a bituminous coal and bituminous coal briquette mixture, and used oil. Number 2 oil can be used as a startup fuel, and natural gas can be used for startup and for low-load flame stabilization. Unit 5 began commercial operations in 1984. Air pollution control equipment will include low-NO_x burners, SCR systems, FGD systems, alkali injection and an electrostatic precipitator (ESP). The flue gas will exhaust at 130 °F through a 30.5' diameter stack that is 598' tall.

The construction of the pollution control equipment is proceeding on a staged schedule. At the time this testing is performed, the LNB and SCR will be installed along with an acid mist mitigation (AMM) system. The FGD will not yet be installed and the flue gas will be exhausted through the existing stack.

3.3 Reference Methods Sampling Locations

The CEMS monitoring and stack testing locations (as well as other pertinent, descriptive information) for the Unit 5 stack are described in Table 3-1. Appendix 2 of this protocol contains the stack diagrams and dimensions for Unit 5. All stack dimensions will be verified for completeness and accuracy at the time of testing.

Table 3-1. Stack Testing Locations – Unit 5

Unit	Stack Exit Height (feet)	Test Port Height (feet)	Stack ID (feet)	Accessed By
5	598	401.25	28.3	Elevator

4.0 REFERENCE METHOD PERFORMANCE TESTING PROCEDURES

This section includes a brief discussion of the test methods that will be used for the preliminary test program. Unless stated otherwise, all stack sampling will be performed in accordance with the applicable test methods as prescribed in the referenced air permit. Any deviations from the standard procedures are clearly noted in this protocol. Testing will be conducted as described in Table 2-1 of this test protocol.

During the performance test program, all process data will either be electronically logged and printed out by the CEMS data acquisition and handling system (DAHS), or manually recorded at 15-minute increments. The following process data will be provided by the plant for each test run (where applicable):

- Unit
- Date
- Time
- Load (MW)
- SCR NH_3 injection rate,
- Alkali injection rate (lbs/minute),
- Flue gas flow rate (scfh) – using CEMS data, and
- Sulfuric acid emissions (lb/mmBtu & lb/hr).

4.1 Sample Point Location

Single-point sampling will be performed for each H_2SO_4 test run. The traverse point will be located a minimum of 1 meter from the inside wall of the stack.

4.2 Wet Chemistry Methods – H_2SO_4 (Method 8A)

Testing for sulfuric acid mist (H_2SO_4) will be performed using Method 8A. In principle, H_2SO_4 includes the sum of the components of sulfur trioxide (SO_3) and SO_4. As described in section 2, one 1-hour run will be completed at each of the test conditions.

The SO_3 will be withdrawn from the stack in a Method 8A sampling train, consisting of the following components:

- A heated (600°F ± 25°F) quartz glass probe;
- A heated (600°F ± 25°F) filter;
- A condenser used to condense and capture H_2SO_4;
- An impinger train consisting of five sequential impingers. The first two impingers will contain the absorbing solution (3% H_2O_2 or IPA) absorbing solution. The third impinger will contain distilled deionized (DDI) water. The fourth impinger will be empty and the final impinge will contain a pre-weighed amount of indicating silica gel (200 – 300 g) and
- A metering system capable of maintaining an isokinetic sampling rate and accurately determining the sample volume according to those specifications in Section 2.2.1.5 of the Method 8A.

Following each run, a fifteen-minute purge with clean dry ambient air will be conducted at the average sampling rate observed during the sampling run(s). The condenser is used to collect the sulfuric acid mist. After passing through the condenser, the sample gas is then bubbled through the 3% H_2O_2 absorbing solution of the first two impingers to capture the SO_2. The silica gel impinger will be used to collect any remaining moisture in the sample stream before entering into the dry gas meter.

The samples will be measured to the nearest milliliter for moisture determination and recovered by transferring the impinger solutions to laboratory prepared polyethylene sample bottles. The probe, first impinger, all connecting glassware before the filter, and front half of filter holder will be subsequently rinsed with DDI water. The two H_2O_2 impingers (plus connecting glassware) will be rinsed with DDI water. The rinse will be added to the initial impinger solutions.

All sample containers will be sealed and marked. Immediately prior to analysis, the level of the liquid in each sample bottle will be observed for liquid losses. The pollutant fractions will be analyzed and measured by titration according to Method 8 or by ion chromatography. Any solution

blanks which yield a positive concentration will be subtracted from the actual sample concentrations.

5.0 PERFORMANCE TEST REPORTS

Upon completion of the test program, a preliminary (draft final) report will be provided to Progress Energy's Generation and Transmission Construction Department (GTC) and Environmental, Health, and Safety Services Section (EHSS) for internal review prior to submitting the final report(s). The final test report(s) will include the following:

- raw field test data
- emissions calculations
- applicable unit process data
- QA check results (calibrations, leak checks, etc.)
- stack information (dimensions and process/data flow diagrams)
- narrative discussion of the test program (including test method procedures)
- equipment calibrations
- description of RM sampling equipment used
- names and contact information of test program participants
- sample calculations
- unit operating parameter data
- owner/authorized agent certification statement

Air Permit No. PSD-FL-383, Section III, Specific Condition No. 16 requires that a given test report be submitted within 45 days after completion of the last test run.

Six (6) copies of the report will be provided to the Crystal River Plant. Two (2) of those copies will be forwarded to FL DEP for review. Four (4) copies will be kept by Progress Energy and distributed to the Crystal River Plant staff and GTC. EHSS will be provided with a pdf version of the final report.

6.0 PERFORMANCE TEST SCHEDULE

In accordance with Air Permit No. PSD-FL-383, Section 3, Special Condition 16, this protocol is being submitted at least fifteen (15) days prior to the earliest anticipated commencement date of performance testing.

At the current time, the Unit 5 sulfuric acid mist performance test program is scheduled to take place the week of **July 13, 2009**. The test program itself should take approximately 3 to 4 days.

The Crystal River Plant requests that any future changes to the test schedule be provided to FL DEP via periodic email and/or telephone updates. To the extent possible, at least seven (7) days notice will be provided in this manner should the testing dates be revised. Note that, where possible and depending upon electrical demand, testing may be performed at any hour of the day (i.e., mornings, evenings, or nights) during the test program. Because of the number of part load conditions required during these tests, many of the test runs will be conducted during off peak (overnight) hours.

The preliminary performance tests shall be conducted within 60 days after completing construction on the SCR system.

Within 45 days following the submittal date of the performance test report to FL DEP and no later than 90 days after the last test was conducted, Progress Energy will submit an operating protocol that will detail procedures to set alkali injection rates based on operating conditions and to estimate sulfuric acid mist emissions.

APPENDIX 1

PERFORMANCE TEST CONTACT LIST

Progress Energy's Environmental, Health, and Safety Services Section (Corporate EHSS)

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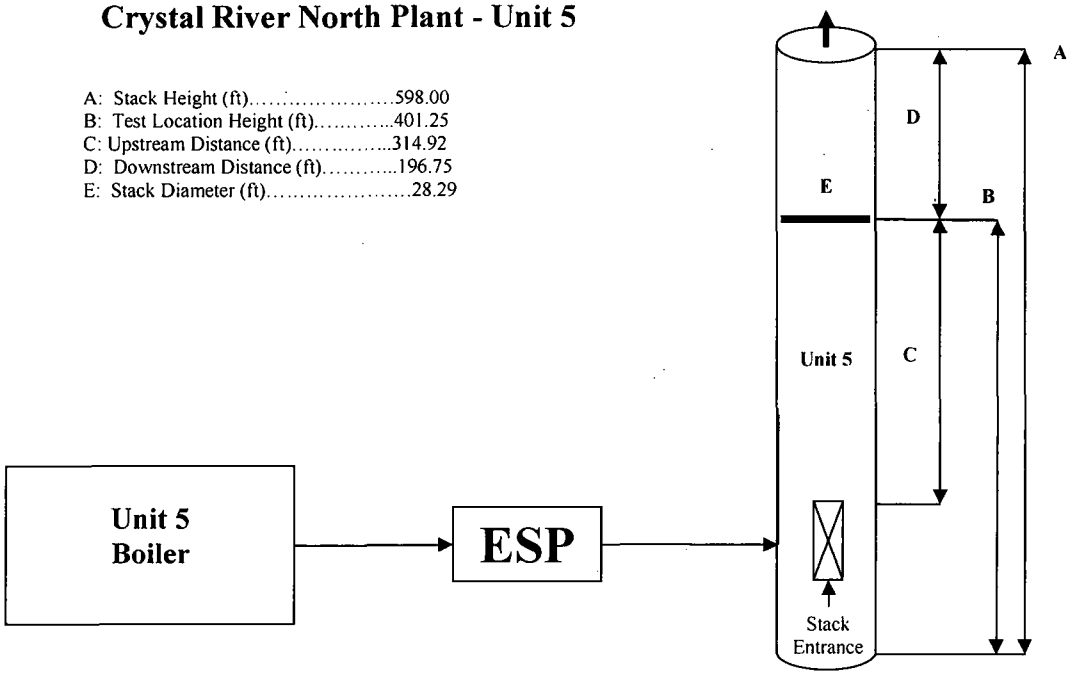
APPENDIX 2

DIAGRAMS

Stack Diagram

Crystal River North Plant - Unit 5

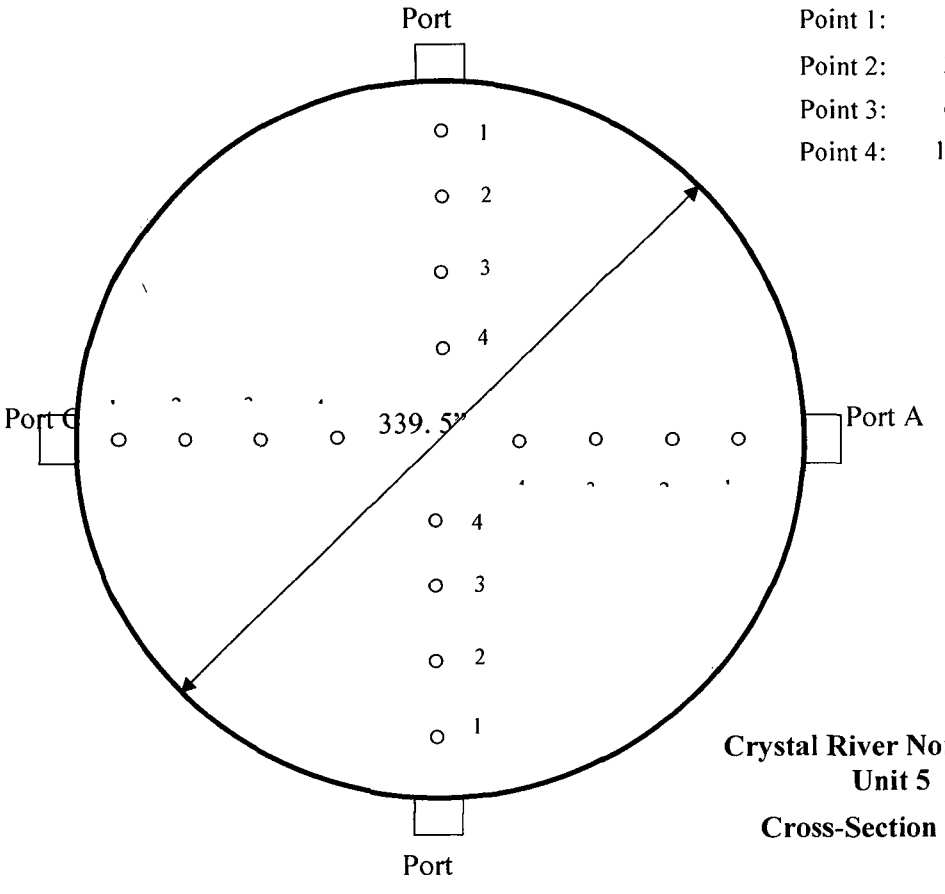
A: Stack Height (ft).....598.00
B: Test Location Height (ft).....401.25
C: Upstream Distance (ft).....314.92
D: Downstream Distance (ft).....196.75
E: Stack Diameter (ft).....28.29



Traverse Point Diagram

Traverse Points

Point 1:	10.9"
Point 2:	35.6"
Point 3:	65.9"
Point 4:	109.6"



Crystal River North Plant
Unit 5

Cross-Section View

SULFURIC ACID MIST COMPLIANCE TEST PROTOCOL

for

Progress Energy
Crystal River Power Plant
Unit 5
Citrus County, Florida

May, 2009
Revision 0

Prepared By:

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CONTENTS

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1.0 INTRODUCTION

Progress Energy will soon be completing construction of low NO_x burners (LNB) and a selective catalytic reduction (SCR) system on Unit 5 at its Crystal River Power Plant (Crystal River). As a result, the unit is subject to air emissions testing and reporting requirements as set forth by the Environmental Protection Agency (EPA) in Title 40 of the Code of Federal Regulations Part 60 (40 CFR Part 60) for Best Available Control Technology (BACT). These requirements are administered by the Florida Department of Environmental Protection (FL DEP).

The purpose of the test program outlined in this compliance test protocol is to determine compliance with specific air emission permit limits as contained in FL DEP Air Permit No. PSD-FL-383 Section 3. Special Condition 8. This protocol outlines the procedures to be followed, the test methods to be used, and any requested deviations from either the specific conditions and limitations as listed in the above referenced air permit, or from the test methods themselves.

CEM Solutions of Hernando, Florida has been contracted to perform the stack testing for this particular project. Overall project oversight, test protocol development, and final report generation will be provided by RMB Consulting & Research, Inc. (RMB). Appendix 1 of this protocol contains all the contact information for this particular project.

2.0 BACKGROUND

Testing will be performed on the Unit 5 exhaust stack. Air Permit No. PSD-FL-383, Emissions Unit Specific Condition Nos. 8, 18 and 19 outline the specific compliance testing requirements for the stack.

Compliance testing for sulfuric acid mist (SAM) is required for Unit 5 following the installation of the LNB and SCR systems. Per standard FL DEP test conditions, the testing of emissions shall be conducted with the unit operating at permitted capacity. Per FL DEP policy, permitted capacity is defined as within at least 90% of the 7200 mmBtu/hr capacity of the unit. Table 2-1 provides a summary of the sulfuric acid mist test program.

Table 2-1. Sulfuric Acid Mist Test Matrix – Unit 5

Pollutant	Method	Fuel	% Load/ MW	# of Runs	Run Duration	Emission Limits	
						Limit #1	Limit #2
SAM	8A	Bituminous	100%	3	60 min.	0.009 lb/mmBtu	64.8 lb/hr

3.0 FACILITY DESCRIPTION

3.1 Facility Location

Progress Energy's Crystal River Power Plant is located in the Crystal River Energy Complex in Citrus County, Florida. The Crystal Energy Power Plant is currently in the process of installing new burners, new SCR systems, new flue gas desulfurization (FGD) systems, and a new stack for the existing Units 4 & 5.

3.2 Unit Description

Unit 5 is a fossil fuel-fired electric utility steam generator with a dry bottom, wall fired, boiler rated at 760 megawatts (MW). The boiler is capable of burning bituminous coal, a bituminous coal and bituminous coal briquette mixture, and used oil. Number 2 oil can be used as a startup fuel, and natural gas can be used for startup and for low-load flame stabilization. Unit 5 began commercial operations in 1984. Air pollution control equipment will include low-NO_x burners, selective catalytic reduction (SCR) systems, flue gas desulfurization (FGD) systems, alkali injection and an electrostatic precipitator (ESP). The flue gas will exhaust at 130 °F through a 30.5' diameter stack that is 598' tall.

The construction of the pollution control equipment is proceeding on a staged schedule. At the time this testing is performed, the LNB and SCR will be installed along with an acid mist mitigation (AMM) system. The FGD will not yet be installed and the flue gas will be exhausted through the existing stack.

3.3 Reference Methods Sampling Locations

The CEMS monitoring and stack testing locations (as well as other pertinent, descriptive information) for the Unit 5 stack are described in Table 3-1. Appendix 2 of this protocol contains the stack diagrams and dimensions for Unit 5. All stack dimensions will be verified for completeness and accuracy at the time of testing.

Table 3-1. Stack Testing Locations – Unit 5

Unit	Stack Exit Height (feet)	Test Port Height (feet)	Stack ID (feet)	Accessed By
5	598	401.25	28.3	Elevator

4.0 REFERENCE METHOD COMPLIANCE TESTING PROCEDURES

This section includes a brief discussion of the test methods that will be used for sampling and analysis at the Crystal River Unit 5 exhaust stack. Unless stated otherwise, all stack sampling will be performed in accordance with the applicable test methods as prescribed in the referenced air permit. Any deviations from the standard procedures are clearly noted in the following subsections of this protocol. Testing will be conducted as described in Table 2-1 of this test protocol. CEM Solutions of Hernando, Florida has been contracted to perform the sulfuric acid mist testing.

During the compliance test program, all process data will either be electronically logged and printed out by the CEMS data acquisition and handling system (DAHS), or manually recorded at 15-minute increments. The following process data will be provided by the plant for each test run (where applicable):

- Unit
- Date
- Time
- Load (MW)
- Fuel Flow

4.1 Sample and Velocity Traverses (Method 1)

For the purposes of this test program, sampling will be performed at a single-point for each SO_2/H_2SO_4 test run. The location of the traverse point will be at least one meter in from the inside wall of the stack liner.

4.2 Wet Chemistry Methods – H_2SO_4 (Method 8A)

As part of this test program, testing for sulfuric acid mist (H_2SO_4) will be performed using Method 8A. In principle, H_2SO_4 includes the sum of the components of sulfur trioxide (SO_3) and SO_4. A set of three 60-minute test runs will be performed while Unit 5 operates at high load.

The SO_3 will be withdrawn from the stack in a Method 8A sampling train, consisting of the following components:

- A heated (600°F ± 25°F) quartz glass sample probe;
- A heated (600°F ± 25°F) filter;
- A condenser used to condense and capture H_2SO_4;
- An impinger train consisting of five sequential impingers. The first two impingers will contain the absorbing solution (3% H_2O_2 or IPA) absorbing solution. The third impinger will contain distilled deionized (DDI) water. The fourth impinger will be empty and the final impinger will contain a pre-weighed amount of indicating silica gel (200 – 300 g) and
- A metering system capable of maintaining an isokinetic sampling rate and accurately determining the sample volume according to those specifications in Section 2.2.1.5 of the Method 8A.

Following each run, a fifteen-minute purge with clean dry ambient air will be conducted at the average sampling rate observed during the sampling run(s). The condenser is used to collect the sulfuric acid mist. After passing through the condenser, the sample gas is then bubbled through the 3% H_2O_2 absorbing solution of the first two impingers to capture the SO_2. The silica gel impinger will be used to collect any remaining moisture in the sample stream before entering into the dry gas meter.

The samples will be measured to the nearest milliliter for moisture determination and recovered by transferring the impinger solutions to laboratory prepared polyethylene sample bottles. The probe, first impinger, all connecting glassware before the filter, and front half of filter holder will be subsequently rinsed with DDI water. The two H_2O_2 impingers (plus connecting glassware) will be rinsed with DDI water. The rinse will be added to the initial impinger solutions.

All sample containers will be sealed and marked. Immediately prior to analysis, the level of the liquid in each sample bottle will be observed for liquid losses. The pollutant fractions will be analyzed and measured by titration according to Method 8 or by ion chromatography. Any solution

blanks which yield a positive concentration will be subtracted from the actual sample concentrations.

4.2 Test Program Duration

Progress Energy also wishes to note that FL DEP policy stipulates that the three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the facility, and a valid third run cannot be obtained within the five-day period allowed for the test, FL DEP may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard.

5.0 COMPLIANCE TEST REPORTS

Upon completion of the test program, a preliminary (draft final) report will be provided to Progress Energy's Generation Construction Department (GCD) and Environmental, Health, and Safety Services Section (EHSS) for internal review prior to submitting the final report(s). The final test report(s) will include the following:

- raw field test data
- emissions calculations
- applicable unit process data
- QA check results (calibrations, leak checks, etc.)
- stack information (dimensions and process/data flow diagrams)
- narrative discussion of the test program (including test method procedures)
- equipment calibrations
- description of RM sampling equipment used
- names and contact information of test program participants
- sample calculations
- owner/authorized agent certification statement

Air Permit No. PSD-FL-383, Section III, Specific Condition No. 21 requires that a given test report be submitted within 45 days after completion of the last test run.

Six (6) copies of the report will be provided to the Crystal River Plant. Two (2) of those copies will be forwarded to FL DEP for review. Four (4) copies will be kept by Progress Energy and distributed to the Crystal River Plant staff and GTC. EHSS will be provided with a pdf version of the final report.

6.0 COMPLIANCE TEST SCHEDULE

Air Permit No. PSD-FL-383 does not specifically list a "due date" for this particular test protocol. However, consistent with a similar 30-day notification requirement specified by 40 CFR Part 60, §60.8(d), this protocol is being submitted at least thirty (30) days prior to the earliest anticipated commencement date of compliance testing.

As specified in Specific Condition 19, the sulfuric acid mist compliance test must occur within 120 days of completion of the pollution control equipment. Although the scrubber (FGD) unit will not be installed until December 2009, PEF will perform this test following installation of the SCR and AMM systems. Construction of these units is expected to be completed June 6, 2009.

The Crystal River Plant requests that any future changes to the test schedule be provided to FL DEP via periodic email and/or telephone updates. To the extent possible, at least seven (7) days notice will be provided in this manner should the testing dates be revised. Note that, where possible and depending upon electrical demand, testing may be performed at any hour of the day (i.e., mornings, evenings, or nights) during the test program. However, every effort will be made to perform the testing during normal business/daylight hours.

APPENDIX 1

COMPLIANCE TEST CONTACT LIST

Progress Energy's Environmental, Health, and Safety Services Section (Corporate EHSS)

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APPENDIX 2

DIAGRAMS

Stack Diagram

Crystal River North Plant - Unit 5

A: Stack Height (ft).....598.00
B: Test Location Height (ft).....401.25
C: Upstream Distance (ft).....314.92
D: Downstream Distance (ft).....196.75
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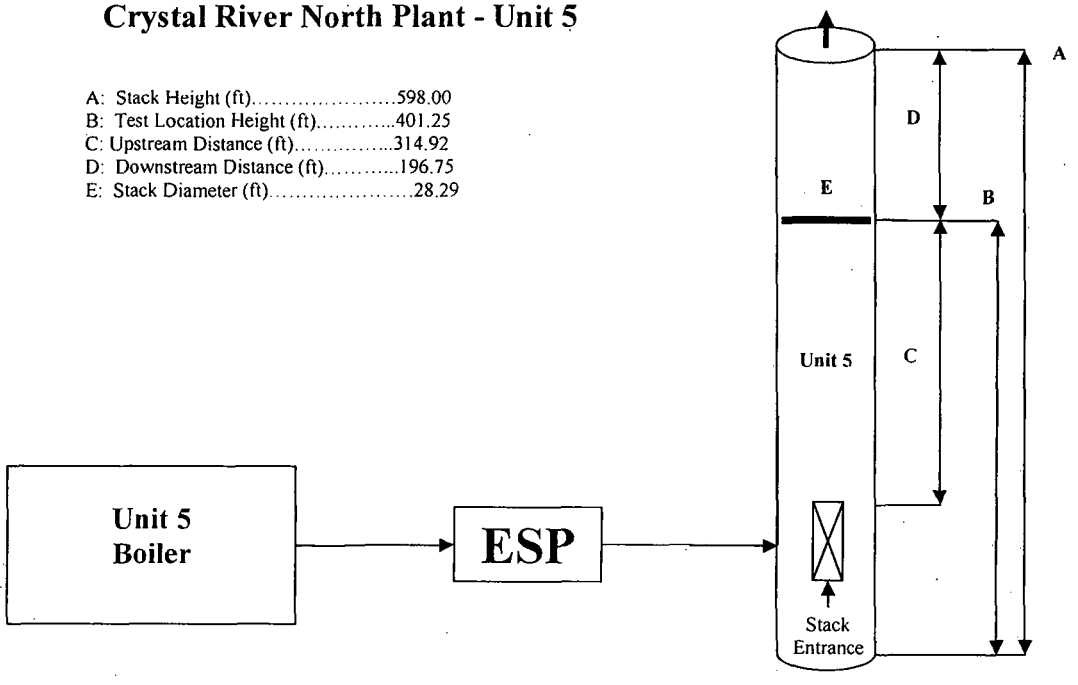
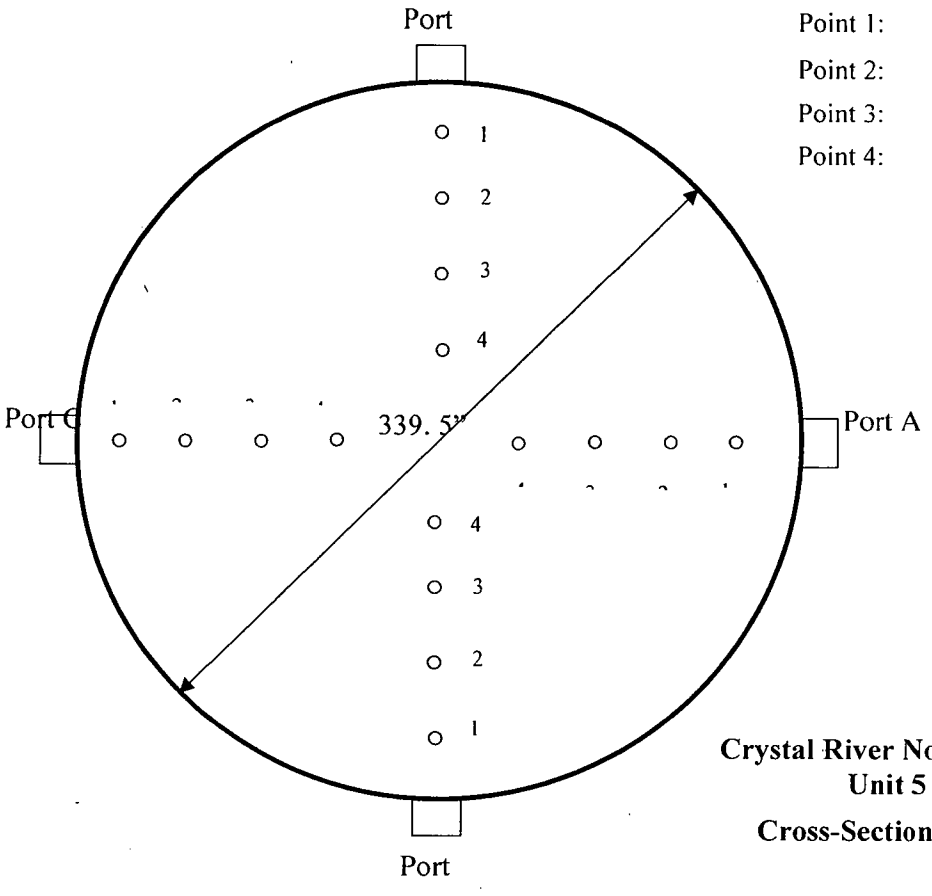


Traverse Point Diagram

Traverse Points

Point 1:	10.9"
Point 2:	35.6"
Point 3:	65.9"
Point 4:	109.6"



Crystal River North Plant
Unit 5
Cross-Section View