

## RECEIVED

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093-89648

November 17, 2009

**DUREAU OF AIR REGULATION** 

DEP/DARM
Division of Air Resource Management
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400

Attention: Mr. Jonathon Holtom, P.E.

RE: STANTON ENERGY CENTER, FACILITY ID NO. 0950137
AIR APPLICATION FOR REVISIONS TO TITLE V AND CONSTRUCTION PERMITS
0950131-030-AQ-0950131-029-AV

Attached is an application for revisions to the Stanton Energy Center (SEC) Title V air permit (Permit No. 0950137-027-AV) and to air construction Permit No. 0950137-015-AC for installation of low NOx burners and overfire air systems for Units 1 and 2. Specifically, the following permit revisions are requested:

- Incorporate the requirements of air construction Permit No. 0950137-015-AC for installation of the low NOx burners and overfire air system for Units 1 and 2.
- Request revisions to air construction Permit No. 0950137-015-AC to remove Specific Condition 21 for monthly reporting.
- Incorporate the requirements of air construction Permit No. 0950137-011-AC for installation of the dibasic acid (DBA) additive systems for Units 1 and 2 WFGD systems.

Enclosed are an original and three copies of the application package. OUC appreciates your timely processing of the application. Please don't hesitate to contact me at (813) 287-1717 if you have any questions.

Sincerely,

**GOLDER ASSOCIATES INC.** 

Scott Osbourn, P.E.

Associate and Senior Consultant

**Enclosure** 

Cc: Caroline Shine, DEP Central District

Garfield Blair, OUC Director of Environmental Affairs

SO/ev







# Department of Environmental Protection

## Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

## I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

## To ensure accuracy, please see form instructions.

#### **Identification of Facility**

1.	1. Facility Owner/Company Name: Orlando Utilities Commission					
2.	Site Name: Stanton Energy Center					
3.	Facility Identification Number: 0950137					
4.	Facility Location Stanton Energy Center Street Address or Other Locator: 5100 South Alafaya Trail					
	City: Orlando County: Orange Zip Code: 32193					
5.	Relocatable Facility?  Yes X No  6. Existing Title V Permitted Facility?  X Yes No					
Ar	oplication Contact - Stanton Energy Center					
1.	Application Contact Name: David R. Baez					
2.	Application Contact Mailing Address Organization/Firm: Orlando Utilities Commission					
	Street Address: P.O. Box 3193					
	City: Orlando State: FL Zip Code: 32802					
3.	Application Contact Telephone Numbers					
	Telephone: (407) 658 - 6444 ext. 3691 Fax: (407) 244 - 8794					
4.	4. Application Contact E-mail Address: dbaez@ouc.com					
Application Processing Information (DEP Use)						
1.	Date of Receipt of Application: ( 2 9 3. PSD Number (if applicable):					
2.	Project Number(s): 09503 - 08 AC 4. Siting Number (if applicable):					
	0950137-029-AV					

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08 1

#### **Purpose of Application**

This application for air permit is being submitted to obtain: (Check one)
Air Construction Permit
Air construction permit.
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.
Air Operation Permit
☐ Initial Title V air operation permit.
Title V air operation permit revision.
Title V air operation permit renewal.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)
<b>X</b> Air construction permit and Title V permit revision, incorporating the proposed project.
Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:
I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

#### **Application Comment**

This application is for revisions to the Stanton Energy Center (SEC) Title V air permit (Permit No. 0950137-027-AV) and to air construction Permit No. 0950137-015-AC for installation of low NOx burners and overfire air systems for Units 1 and 2. Specifically, the following permit revisions are requested:

- Incorporate the requirements of air construction Permit No. 0950137-015-AC for installation of the low NOx burners and overfire air system for Units 1 and 2.
- Request revisions to air construction Permit No. 0950137-015-AC to remove Specific Condition 21 for monthly reporting.
- ☐ Incorporate the requirements of air construction Permit No. 0950137-011-AC for installation of the dibasic acid (DBA) additive systems for Units 1 and 2 WFGD systems.

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## **Scope of Application**

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
001	Fossil Fuel Steam Generation Unit #1		
002	Fossil Fuel Steam Generation Unit #2		

Application Processing Fee	
Check one: Attached - Amount: \$	X Not Applicable

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## **Owner/Authorized Representative Statement**

Complete if applying for an air construction permit or an initial FESOP.

1.	Owner/Authorized Representative Name:			
2.	Owner/Authorized Representative Organization/Firm:	Mailing Address		
	Street Address:			
	City:	State:	Zip Code:	
3.	Owner/Authorized Representative	Telephone Numbers	S	
	Telephone: ( ) - ext.	Fax: ( ) -		
4.	Owner/Authorized Representative	E-mail Address:		
5.	Owner/Authorized Representative Statement:			
	I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.			
	Signature		Date	

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## **Application Responsible Official Certification**

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible	e Official Name: Jan C. Aspuru, Vice President of Power Resources			
2. Application Respon applicable):	sible Official Qualification (Check one or more of the following options, as			
charge of a principa decision-making fur person if the represe	ne president, secretary, treasurer, or vice-president of the corporation in l business function, or any other person who performs similar policy or actions for the corporation, or a duly authorized representative of such entative is responsible for the overall operation of one or more duction, or operating facilities applying for or subject to a permit under A.C.			
	sole proprietorship, a general partner or the proprietor, respectively.			
	, county, state, federal, or other public agency, either a principal executive			
officer or ranking el	ested official. esentative at an Acid Rain source, CAIR source, or Hg Budget source.			
	official Mailing Address P.O. Box 3193, Orlando FL 32802			
**	ando Utilities Commission			
Street Address: R	eliable Plaza, 100 West Anderson			
City: Orlando	State: FL Zip Code: 32801			
4. Application Responsible Telephone: (407) 658	e Official Telephone Numbers - 6444 ext. 3900 Fax: (407) 275 - 4120			
5. Application Responsible	e Official E-mail Address: jaspuru@ouc.com			
6. Application Responsible	Official Certification:			
6. Application Responsible Official Certification:  I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.				
100	11/17/09			
/ Signature	Date			

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Effective: 3/16/08

	olessional Engineer Certification			
1.	Professional Engineer Name: Scott H. Osbourn, Senior Consultant			
	Registration Number: 57557			
2.	Professional Engineer Mailing Address			
	Organization/Firm: Golder Associates, Inc.			
	Street Address: 5100 West Lemon Street, Suite 114			
	City: Tampa State: FL Zip Code: 33609			
3.	Professional Engineer Telephone Numbers			
	Telephone: (813) 287-1717 ext. Fax: (813) 287-1716			
<u>4.</u>	Professional Engineer E-mail Address: sosbourn@golder.com			
٥.	Professional Engineer Statement:			
	I, the undersigned, hereby certify, except as particularly noted herein*, that:			
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and			
	(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.			
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.			
	(4) If the purpose of this application is to obtain an air construction permit (check here $\square$ , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here $\square$ , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.			
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.			
	Signature Date/			
	(seal)			

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<sup>\*</sup> Attach any exception to certification statement.

## II. FACILITY INFORMATION

## A. GENERAL FACILITY INFORMATION

## **Facility Location and Type**

1.	I. Facility UTM Coordinates Zone 17 East (km) 483.5 North (km) 3150.6		2. Facility Latitude/Longitude Latitude (DD/MM/SS) 28° 29` 1" N Longitude (DD/MM/SS) 81° 10` 7" W		
3.	Governmental	4. Facility Status	5. Facility Major	6. Facility SIC(s):	
	Facility Code:	Code:	Group SIC Code:	4044	
	4	Active	49	4911	
7.	Facility Comment:		,		
Ц	<del></del>	<del></del>			

## Facility Contact - Stanton Energy Center

1.	Facility Contact Name:  David R. Baez, Project Engineer, E	Environmental Affai	rs
2.	Facility Contact Mailing Address Organization/Firm: Orlando Utilit Street Address: P.O. Box 3193	ties Commission	
	City: Orlando	State: FL	Zip Code: 32802
3.	Facility Contact Telephone Numb Telephone: (407) 658 - 6444		Fax: (407) 244 - 8794
4.	Facility Contact E-mail Address:	dbaez@ouc.com	

## Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

1.	Facility Primary Responsible Official Name:					
2.	2. Facility Primary Responsible Official Mailing Address Organization/Firm:					
	Street Address:					
	City:		State	•	Zip Code:	
3.	Facility Primary Responsib	ole Offici	al Telepho	ne Numbers		
	Telephone: ( ) -	ext.	Fax: ( )	-		
4.	Facility Primary Responsib	ole Offici	al E-mail A	Address:		

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## **Facility Regulatory Classifications**

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1.  Small Business Stationary Source	☐ Unknown
2. Synthetic Non-Title V Source	
3. X Title V Source	
4. X Major Source of Air Pollutants, Other than	Hazardous Air Pollutants (HAPs)
5. Synthetic Minor Source of Air Pollutants, Ot	her than HAPs
6. X Major Source of Hazardous Air Pollutants (	HAPs)
7. Synthetic Minor Source of HAPs	
8. X One or More Emissions Units Subject to N	SPS (40 CFR Part 60)
9.  One or More Emissions Units Subject to Em	ission Guidelines (40 CFR Part 60)
10.  One or More Emissions Units Subject to NE	SHAP (40 CFR Part 61 or Part 63)
11. Title V Source Solely by EPA Designation (	40 CFR 70.3(a)(5))
12. Facility Regulatory Classifications Comment:	

## **List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
SO2	A	N
CO	Α	N
NOX	Α	N
PM	A	N
PM10	Α	N
VOC	A	N
HAPs	Α	N

## **B. EMISSIONS CAPS**

## Facility-Wide or Multi-Unit Emissions Caps

	O E 33		4 TY 1	F A 1	[ D 1 C ]
1. Pollutant	2. Facility-	3. Emissions	4. Hourly	5. Annual	6. Basis for
Subject to	Wide Cap	Unit ID's	Cap	Cap	Emissions
Emissions		Under Cap	(lb/hr)	(ton/yr)	Cap
Cap	(all units)	(if not all units)			
			<u> </u>		
-					
			<del> </del>		
			<u></u>	<u></u>	
7. Facility-V	Vide or Multi-Unit	Emissions Cap Con	nment:		
					i
					!
					!

## C. FACILITY ADDITIONAL INFORMATION

## Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID:  **Treviously Submitted**, Date: 5/21/09
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID:  **Previously Submitted, Date: 5/21/09
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID:  **Previously Submitted, Date: 5/21/09
Ad	Iditional Requirements for Air Construction Permit Applications
1.	Area Map Showing Facility Location:  Attached, Document ID:  X Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):  Attached, Document ID: NA
3.	Rule Applicability Analysis:  Attached, Document ID: NA
4.	List of Exempt Emissions Units:  Attached, Document ID: x Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification:  Attached, Document ID: X Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.):  Attached, Document ID: x Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.):  Attached, Document ID: X Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):  Attached, Document ID: x Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):  Attached, Document ID:  Total Not Applicable
10	. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):  Attached, Document ID: X Not Applicable

DEP Form No. 62-210.900(1) – Instructions Effective: 3/16/08

## C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

## **Additional Requirements for FESOP Applications**

1.	List of Exempt Emissions Units:  Attached, Document ID:  Not Applicable (no exempt units at facility)					
A	Additional Requirements for Title V Air Operation Permit Applications					
1.	st of Insignificant Activities: (Required for initial/renewal applications only)  Attached, Document ID:					
	Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)  X Attached, Document ID: SEC-FI-C1					
	☐ Not Applicable (revision application with no change in applicable requirements)					
3.	Compliance Report and Plan: (Required for all initial/revision/renewal applications)  X Attached, Document ID: SEC-FI-C2					
	Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.					
4.	List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)  Attached, Document ID:					
	Equipment/Activities Onsite but Not Required to be Individually Listed					
	X Not Applicable					
5.	Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)  Attached, Document ID:					
6.	Requested Changes to Current Title V Air Operation Permit:  ** Attached, Document ID: SEC-FI-C3   Not Applicable					

## C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

## Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:		
Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):		
Attached, Document ID: x Previously Submitted, Date: 5/21/09		
Not Applicable (not an Acid Rain source)		
Phase II NO <sub>X</sub> Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):		
Attached, Document ID: Previously Submitted, Date:		
X Not Applicable		
New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):		
Attached, Document ID: Previously Submitted, Date:		
X Not Applicable		
2. CAIR Part (DEP Form No. 62-210.900(1)(b)):		
Attached, Document ID: X Previously Submitted, Date: 5/21/09		
☐ Not Applicable (not a CAIR source)		
3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)):		
Attached, Document ID: Previously Submitted, Date:		
X Not Applicable (not a Hg Budget unit)		
Additional Requirements Comment		

# ATTACHMENT SEC-FI-C1 Identification of Applicable Requirements



# Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

#### PERMITTEE:

Orlando Utilities Commission (OUC) 500 South Orange Avenue Orlando, Florida 32802

Authorized Representative:

Ms. Denise Stalls, Vice President
Environmental Affairs

DEP File No. 0950137-015-AC Curtis H. Stanton Energy Center Stanton Units 1 and 2 SIC No. 4911 Low NO<sub>X</sub> Burners and Overfire Air Project Orange County, Florida

Permit Expires: April 1, 2009

#### PROJECT AND LOCATION

This permit authorizes the installation of low nitrogen oxides (NO<sub>x</sub>) burners (LNB) and an overfire air (OFA) system on Units 1 and 2 at the OUC Curtis H. Stanton Energy Center. The facility is located at 5100 Alafaya Trail, Orlando, Orange County.

#### STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Parts 60 and 63 of the Code of Federal Regulations (CFR). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Florida Department of Environmental Protection (the Department).

#### **CONTENTS**

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Units Specific Conditions

Section 4. Appendices

Joseph Kahn, Director

Division of Air Resource Management

Luca & Vulhaurber

2/6/08

(Date)

JK/tlv/aal/tbc

#### **FACILITY AND PROJECT DESCRIPTION**

The existing facility consists of two 468 megawatt (MW) fossil fuel fired steam electric generating units (Units 1 and 2), and one 640 MW combined cycle unit. There are storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash. A recently permitted nominal 285 MW integrated gasification and combined cycle unit (Unit B) is under construction and will be operational by 2012.

As noted above, the project under this permit is for the installation of LNB and OFA equipment on Units 1 and 2. The burners shall be of a proven design which has been previously utilized to achieve similar emissions requirements when firing fuels similar to those fired at Unit 1 and Unit 2. The burners and OFA systems shall be designed specifically for low NO<sub>x</sub> formation. Burner design shall provide accurate fuel-air ratio control and thorough mixing of fuel and air at all ratings. Burner design shall prevent flame impingement on steam generator tubes or burner tile at any time.

EU ID	Emissions Unit Description	
001	Fossil Fuel Fired Steam Electric Generator No. 1	
002 Fossil Fuel Fired Steam Electric Generator No. 2		

#### REGULATORY CLASSIFICATION

The facility is a potential major source of hazardous air pollutants (HAP).

The facility operates existing units subject to the Acid Rain provisions of Title IV of the Clean Air Act (CAA).

The facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).

The facility is a major Prevention of Significant Deterioration (PSD) stationary source in accordance with Rule 62-212.400, F.A.C.

The facility operates units subject to the Standards of Performance for New Stationary Sources pursuant to 40 CFR Part 60.

The facility does not operate electrical generating units subject to National Emissions Standards for Hazardous Air Pollutants pursuant to 40 Code of Federal Regulations (CFR) Part 63.

The facility is subject to the Federal Clean Air Interstate Rule (CAIR) in accordance with the Final Department Rules issued pursuant to CAIR as implemented by the Department in Rule 62-296.470, F.A.C.

The facility is subject to the Federal Clean Air Mercury Rule (CAMR) implemented by the Department in Rule 62-296.480, F.A.C.

The facility operates units that were certified under the Florida Power Plant Siting Act, 403.501-518, F.S.

#### **RELEVANT DOCUMENTS**

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete; the draft air construction permit; and the Department's Technical Evaluation and Preliminary Determination.

#### **SECTION 2. ADMINISTRATIVE REQUIREMENTS**

- 1. <u>Permitting Authority</u>: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
- Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Central District Office. The mailing address and phone number of the Central District Office are: Department of Environmental Protection, Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando Florida 32803-3767. Telephone: (407)894-7555. Fax: (407)897-5963.
- 3. <u>Appendices</u>: The following Appendices are attached as part of this permit: Appendix BD, Appendix CEMS, and Appendix GC (General Conditions).
- 4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
- 5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 6. <u>Modifications</u>: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
- 7. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Bureau of Air Regulation with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

This section of the permit addresses the following existing emissions units.

#### Emissions Units 001 and 002

Fossil Fuel Fired Steam Generators 1 and 2 are wall-fired, dry bottom boilers, firing pulverized coal as the primary fuel and No. 6 fuel oil for purposes of startup and flame stabilization. Each unit has a maximum heat input rate of 4,286 million British thermal units (mmBtu) per hour with a nominal generating capacity of 468 MW. Each unit is equipped with an electrostatic precipitator (ESP) for control of particulate matter (PM/PM<sub>10</sub>), a wet flue gas desulfurization (WFGD) system for sulfur dioxide (SO<sub>2</sub>) control, and low NO<sub>X</sub> burners for nitrogen oxides (NO<sub>X</sub>) control. Unit 2 is also equipped with a selective catalytic reduction (SCR) system for further control of NO<sub>X</sub> emissions. The following parameters are continuously monitored on both units: NO<sub>X</sub>, opacity, SO<sub>2</sub>, carbon dioxide (CO<sub>2</sub>), and stack gas flow rate.

#### APPLICABLE STANDARDS AND REGULATIONS

- 1. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]
- 2. The facility is subject to all of the requirements specified in Title V Air Operation Permit Renewal No. 0950137-006-AV.

#### **GENERAL OPERATION REQUIREMENTS**

- 3. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4), F.A.C.]
- 4. <u>Plant Operation Problems</u>: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Department as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]
- 5. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.
  [Rule 62-4.070(3), F.A.C.]
- 6. <u>Circumvention</u>: No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

  [Rule 62-210.650, F.A.C.]

#### **EQUIPMENT AND CONTROL TECHNOLOGY**

7. Low NO<sub>x</sub> Burners and Overfire Air Equipment: The permittee is authorized to construct, operate and maintain low NO<sub>x</sub> burners and overfire air equipment for Units 1 and 2 as described in the application. The burners and OFA systems shall be designed specifically for low NO<sub>x</sub> formation. The existing burner configuration, control logic, and associated auxiliary combustion equipment shall be reused in its current configuration. Any replacement burners provided for Unit 2 and any new burners provided for Unit 1 shall be mounted within the existing wind box to the maximum extent possible. Any needed wind box modifications or internal supports shall be included in the configuration. Burner design shall provide accurate fuel-air ratio control and thorough mixing of fuel and air at all ratings. Burner design shall prevent

flame impingement on steam generator tubes or burner tile at any time. Adequate burner cooling air shall be provided when the burner is out of service during steam generator operation. In addition, the burner shall be fabricated of materials designed to eliminate the thermal effects resulting in distortion of the burner during its design lifetime. Provision shall be made for burner maintenance to be performed from outside of the furnace. Both an air and coal flow monitoring system shall be provided at each burner.

[Applicant Request.]

#### REPORTING AND NOTIFICATION REQUIREMENTS

8. Notification: Within one week of beginning construction of the low NO<sub>x</sub> burners and overfire air project, the permittee shall notify the Compliance Authority that the project has commenced and provide a general schedule of construction activities. Within one week following the end of construction, the permittee shall notify the Compliance Authority that the project was completed. [Rule 62-4.210, F.A.C.]

#### **EMISSION STANDARDS**

9. Carbon Monoxide (CO):

Emissions of CO from Unit 1 shall not exceed 0.18 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required continuous emissions monitoring system (CO-CEMS). Emissions of CO from Unit 2 shall not exceed 0.15 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required CO-CEMS. Emissions of CO shall not exceed these respective limits on a 3-hr average during the initial compliance demonstration. See Specific Condition 10.

[62-210.200 (BACT), and 62-212.400(PSD), F.A.C.]

#### **EMISSIONS COMPLIANCE DEMONSTRATION**

- 10. Continuous Compliance with CO limits: The applicant shall install a carbon monoxide (CO) continuous emissions monitor (CO-CEMS) and conduct the appropriate performance specification by June 30, 2008, for Unit 2, and December 31, 2008, for Unit 1, respectively. Upon certification of the CO-CEMS, compliance with the 30-operating day rolling average shall be demonstrated using data collected from the required CO-CEMS. See Specific Conditions 12. and 15. [Rule 62-4.070(3), F.A.C.]
- 11. <u>Additional Requirements Appendix CEMS</u>: Additional requirements applicable to the CO-CEMS are given in Section 4, Appendix CEMS.
- 12. <u>Initial Compliance Demonstration</u>: Within 60 days of commencing operation of each respective unit, following installation of the Low-NO<sub>X</sub> burners and overfire air system, tests shall be conducted to determine emissions of CO and NO<sub>X</sub>. Tests shall be conducted between 90% and 100% of permitted capacity while firing coal and fuel oil. Tests shall consist of three, 1-hour test runs. [Rule 62-297.310(7)(a)1, F.A.C.]
- 13. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments	
7E	Determination of Nitrogen Oxide Emissions (Instrumental).	
10	Determination of Carbon Monoxide Emissions	

The methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the administrator of the Department's Emissions Monitoring Section in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

14. <u>Test Results</u>: Compliance test results shall be submitted to the Department's Central District Office no later than 45 days after completion of the last test run. [Rule 62-297.310(8), F.A.C.]

#### **CONTINUOUS MONITORING REQUIREMENTS**

15. <u>Performance Specifications and Quality Assurance</u>: The acceptability of the CO-CEMS shall be evaluated by conducting the appropriate performance specification, as follows.

The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A within 180 calendar days of commencing operation following installation of the low NO<sub>X</sub> burners and overfire air system. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.

[Rules 62-4.070(3), 62-210.200(BACT), F.A.C.]

#### 16. CEMS Data Requirements for CO BACT Standard:

- a. Data Collection: The CO-CEMS shall monitor and record emissions during all operations and whenever emissions are being generated, including during episodes of startups, shutdowns, and malfunctions. All data shall be used, except for invalid measurements taken during monitor system breakdowns, repairs, calibration checks, zero adjustments, and span adjustments.
- b. Operating Hours and Operating Days: An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Any day with at least one operating hour for an emissions unit is an operating day for that emission unit.
- c. Valid Hourly Averages: The CO-CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
  - 1) Hours that are not operating hours are not valid hours.
  - 2) For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data, the 1-hour block average is not valid, and the hour is considered as "monitor unavailable."
- d. Rolling 30-day average: Compliance shall be determined after each operating day by calculating the arithmetic average of all the valid hourly averages from that operating day and the prior 29 operating days.
- e. Monitor Availability: The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CO-CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

[Rules 62-4.070(3) and 62-210.200(BACT), F.A.C.]

#### **CEMS FOR ANNUAL EMISSIONS REPORTING**

17. CO-CEMS Annual Emissions Requirement: The owner or operator shall use data from the CO-CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rule 62-210.370(3), F.A.C. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.

[Rules 62-210.200, and 62-210.370(3), F.A.C.]

#### REPORTING AND RECORD KEEPING REQUIREMENTS

18. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. and in Appendix GC of this permit. [Rule 62-297.310(8), F.A.C.]

#### 19. Excess Emissions Reporting:

- a. Malfunction Notification: If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. The Department may request a written summary report of the incident.
- b. SIP Quarterly Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO emissions in excess of the BACT permit standard following the NSPS format in 40 CFR 60.7(c), Subpart A. In addition, the report shall summarize the CO-CEMS system monitor availability for the previous quarter.
- c. NSPS Reporting: Within 30 days following the calendar quarter, the permittee shall submit the written reports required by 40 CFR 60 Subpart Da (Standards of Performance for Fossil-Fuel Fired Steam Generators) for the previous semi-annual period to the Compliance Authority.

{Note: If there are no periods of excess emissions as defined in 40 CFR, Part 60, Subpart Da, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report.}

[Rules 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C., and 40 CFR 60.7]

- 20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility in accordance with 62-210.370. Annual operating reports shall be submitted to the Compliance Authority by March 1<sup>st</sup> of each year. [Rule 62-210.370(2), F.A.C.]
- 21. Monthly CO-CEMS Report: Upon certification of the CO-CEMS the permittee shall submit, on a monthly basis, a report in electronic file format which includes Unit 1 and Unit 2 CO, NO<sub>X</sub>, and heat input data. The report shall be submitted by the 15<sup>th</sup> of each month by mailing a compact disc to the Department's Bureau of Air Regulation Permitting South Section and shall include all hourly readings from the previous month. Alternatively, upon contacting the Bureau's project engineer, the file may be emailed to the appropriate Bureau personnel.

#### **SECTION 4. APPENDICES**

#### APPENDIX BD

The Department establishes the following standards as the best available control technology (BACT) for the OUC Stanton Energy Center Units 1 and 2:

Emissions of CO from Unit 1 shall not exceed 0.18 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required continuous emissions monitoring system (CO-CEMS). Emissions of CO from Unit 2 shall not exceed 0.15 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required CO-CEMS. Emissions of CO shall not exceed these respective limits on a 3-hr average during the initial compliance demonstration.

#### UNITS 1 AND 2 CO EMISSION STANDARDS AND CO-CEMS

- 1. Emissions of CO from Unit 1 shall not exceed 0.18 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required continuous emissions monitoring system (CO-CEMS). Emissions of CO from Unit 2 shall not exceed 0.15 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required CO-CEMS. Emissions of CO shall not exceed these respective limits on a 3-hr average during the initial compliance demonstration. [62-210.200 (BACT) and 62-212.400(PSD), F.A.C.]
- 2. CEMS Required for Demonstrating Compliance: The owner or operator shall properly install, calibrate, maintain and operate a continuous emissions monitoring system (CEMS) to measure and record emissions of CO in the units of parts per million (ppm) and convert the reading to lb/mmBtu. The owner or operator shall comply with the conditions of Appendix CEMS for the CO-CEMS required to be installed by this permit as the compliance method for a SIP-based emission standard.
- 3. CEMS Required for Reporting Annual Emissions: The owner or operator shall use data from the CO-CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rules 62-210.370(3) and 62-212.300(1)(e), F.A.C. The owner or operator shall follow the procedures in Appendix CEMS for calculating annual emissions.

#### **CEMS OPERATION PLAN**

4. CEMS Operation Plan: The owner or operator shall create and implement a plan for the proper installation, calibration, maintenance and operation of the CO-CEMS required by this permit. The owner or operator shall submit the CEMS Operation Plan to the Bureau of Air Monitoring and Mobile Sources for approval at least 60 days prior to CEMS installation. The CEMS Operation Plan shall become effective 60 days after submittal or upon its approval. If the CEMS Operation Plan is not approved, the owner or operator shall submit a new or revised plan for approval.

{Permitting Note: The Department maintains both guidelines for developing a CEMS Operation. Plan and example language that can be used as the basis for the facility-wide plan required by this permit. Contact the Emissions Monitoring Section of the Bureau of Air Monitoring and Mobile Sources at (850)488-0114.}

## INSTALLATION, PERFORMANCE SPECIFICATIONS AND QUALITY ASSURANCE

- 5. <u>Timelines</u>: The owner or operator shall install the CO-CEMS required by this permit and conduct the appropriate performance specification for the CO-CEMS no later than June 30, 2008, for Unit 2, and December 31, 2008, for Unit 1, respectively.
- 6. <u>Installation</u>: The CO-CEMS shall be installed such that representative measurements of emissions or process parameters from the facility are obtained. The owner or operator shall locate the CEMS by following the procedures contained in the applicable performance specification of 40 CFR Part 60, Appendix B.
- 7. <u>Span Values and Dual Range Monitors</u>: The owner or operator shall set appropriate span values for the CEMS. The owner or operator shall install dual range monitors if required by and in accordance with the CEMS Operation Plan.

- 8. <u>Moisture Correction</u>: If necessary, the owner or operator shall determine the moisture content of the exhaust gas and develop an algorithm to enable correction of the monitoring results to a dry basis (0% moisture).
  - {Permitting Note: The CEMS Operation Plan will contain additional CEMS-specific details and procedures for installation.}
- 9. <u>Performance Specifications</u>: The owner or operator shall evaluate the acceptability of the CO-CEMS by conducting the appropriate performance specification, as follows. CEMS determined to be unacceptable shall not be considered installed for purposes of meeting the timelines of this permit. For CO monitors, the owner or operator shall conduct Performance Specification 4 or 4A of 40 CFR part 60, Appendix B.
- 10. Quality Assurance: The owner or operator shall follow the quality assurance procedures of 40 CFR Part 60, Appendix F. The required relative accuracy test audit (RATA) tests for the CO-CEMS shall be performed using EPA Method 10 in Appendix A of 40 CFR part 60 and shall be based on a continuous sampling train.
- 11. Substituting RATA Tests for Compliance Tests: Data collected during CEMS quality assurance RATA tests can substitute for annual stack tests, and vice versa, at the option of the owner or operator, provided the owner or operator indicates this intent in the submitted test protocol and follows the procedures outlined in the CEMS Operation Plan.

#### **CALCULATION APPROACH**

- 12. <u>CEMS Used for Compliance</u>: Once adherence to the applicable performance specification for each CEMS is demonstrated, the owner or operator shall use the CEMS to demonstrate compliance with the applicable emission standards as specified by this permit.
- 13. <u>CEMS Data</u>: Each CEMS shall monitor and record emissions during all periods of operation and whenever emissions are being generated, including during episodes of startups, shutdowns, and malfunctions. All data shall be used, except for invalid measurements taken during monitor system breakdowns, repairs, calibration checks, zero adjustments and span adjustments, and except for allowable data exclusions as per Condition 20 of this appendix.
- 14. Operating Hours and Operating Days: For purposes of this appendix, the following definitions shall apply. An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Unless otherwise specified by this permit, any day with at least one operating hour for an emissions unit is an operating day for that emission unit.
- 15. <u>Valid Hourly Averages</u>: The CO-CEMS shall be designed and operated to sample, analyze and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
  - a. Hours that are not operating hours are not valid hours.
  - b. For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data, the 1-hour block average is not valid, and the hour is considered as "monitor unavailable."

16. <u>Calculation Approaches</u>: The owner or operator shall implement the calculation approach specified by this permit for the CO-CEMS, as follows: For the 30-day rolling CO average, compliance shall be determined after each operating day by calculating the arithmetic average of all the valid hourly averages from that operating day and the prior 29 operating days.

#### MONITOR AVAILABILITY

17. Monitor Availability: The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CO-CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

#### **EXCESS EMISSIONS**

#### 18. Definitions:

- a. Startup is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
- b. Shutdown means the cessation of the operation of an emissions unit for any purpose.
- c. Malfunction means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
- 19. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
- 20. <u>Data Exclusion Procedures for SIP Compliance</u>: As per the procedures in this condition, limited amounts of CEMS emissions data may be excluded from the corresponding compliance demonstration, provided that best operational practices to minimize emissions are adhered to and the duration of data excluded is minimized. The data exclusion procedures of this condition apply only to SIP-based emission limits.
  - a. Excess Emissions. Data in excess of the applicable emission standard may be excluded from compliance calculations if the data are collected during periods of permitted excess emissions (for example, during startup, shutdown or malfunction). The maximum duration of excluded data is 2 hours in any 24-hour period, unless some other duration is specified by this permit.
  - b. Limited Data Exclusion. If the compliance calculation using all valid CEMS emission data, as defined in Condition 13 of this appendix, indicates that the emission unit is in compliance, then no CEMS data shall be excluded from the compliance demonstration.
  - c. Event Driven Exclusion. The underlying event (for example, the startup, shutdown or malfunction event) must precede the data exclusion. If there is no underlying event, then no data may be excluded. Only data collected during the event may be excluded.
  - d. Reporting Excluded Data. The data exclusion procedures of this condition are not necessarily the same procedures used for excess emissions as defined by federal rules. Quarterly or semi-

- annual reports required by this permit shall indicate not only the duration of data excluded from SIP compliance calculations but also the number of excess emissions as defined by federal rules.
- 21. Notification Requirements: The owner or operator shall notify the Compliance Authority within one working day of discovering any emissions that demonstrate noncompliance for a given averaging period. Within one working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data. For malfunctions, notification is sufficient for the owner or operator to exclude CEMS data.

#### **ANNUAL EMISSIONS**

- 22. <u>CEMS Used for Calculating Annual Emissions</u>: All valid data, as defined in Condition 13 of this appendix, shall be used when calculating annual emissions.
  - a. Annual emissions shall include data collected during startup, shutdown and malfunction periods.
  - b. Annual emissions shall include data collected during periods when the emission unit is not operating but emissions are being generated (for example, when firing fuel to warm up a process for some period of time prior to the emission unit's startup).
  - c. Annual emissions shall not include data from periods of time where the monitor was functioning properly but was unable to collect data while conducting a mandated quality assurance/quality control activity such as calibration error tests, RATA, calibration gas audit or relative accuracy audit (RAA). These periods of time shall be considered missing data for purposes of calculating annual emissions.
  - d. Annual emissions shall not include data from periods of time when emissions are in excess of the calibrated span of the CEMS. These periods of time shall be considered missing data for purposes of calculating annual emissions.
- 23. Accounting for Missing Data: All valid measurements collected during each hour shall be used to calculate a 1-hour block average. For each hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, the owner or operator shall account for emissions during that hour using site-specific data to generate a reasonable estimate of the 1-hour block average.
- 24. <u>Emissions Calculation</u>: Hourly emissions shall be calculated for each hour as the product of the 1-hour block average and the duration of pollutant emissions during that hour. Annual emissions shall be calculated as the sum of all hourly emissions occurring during the year.

#### SECTION 4. APPENDIX GC – GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

- 1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and

b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (Not Applicable);
  - b. Determination of Prevention of Significant Deterioration (Not Applicable);
  - c. Compliance with National Emission Standards for Hazardous Air Pollutants (Not Applicable); and
  - d. Compliance with New Source Performance Standards (Not Applicable).
- 14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.

When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF FINAL PERMIT

In the Matter of an Application for Air Permit by:

Ms. Denise Stalls, Vice President – Environmental Affairs Orlando Utilities Commission (OUC) 500 South Orange Ave Orlando, Florida 32802 DEP File No. 0950137-015-AC Curtis H. Stanton Energy Center Low NO<sub>X</sub> Burners and Overfire Air Project Orange County

Enclosed is the Final Permit Number 0950137-015-AC authorizing the applicant OUC to install low nitrogen oxides (NO<sub>x</sub>) burners (LNB) and overfire air (OFA) equipment on Units 1 and 2 at the existing OUC Curtis H. Stanton Energy Center, Southeast of Orlando in Orange County. The burners shall be of a proven design which has been previously utilized to achieve similar emissions requirements when firing fuels similar to those fired at Unit 1 and Unit 2. The burners and OFA systems shall be designed specifically for low NO<sub>x</sub> formation. Burner design shall provide accurate fuel-air ratio control and thorough mixing of fuel and air at all ratings. Burner design shall prevent flame impingement on steam generator tubes or burner tile at any time.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation

Lund Vulhaur

### **CERTIFICATE OF SERVICE**

Denise Stalls, OUC: dstalls@ouc.com

Jim Bradner, DEP CD: james.bradner@dep.state.fl.us
Lori Cunniff, Orange County EPD: lori.cunniff@ocfl.net
Jim Little, EPA Region 4: little.james@epamail.epa.gov
Katy Forney, EPA Region 4: forney.kathleen@epa.gov

Larry Todd Newland, P.E., Black & Veatch: newlandlt@bv.com

Mike Halpin, DEP Siting: mike.halpin@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

// XIm 1.

(Clerk)

(Date)

#### **FINAL DETERMINATION**

#### **PERMITTEE**

Orlando Utilities Commission (OUC) 500 South Orange Ave Orlando, Florida 32802

#### PERMITTING AUTHORITY

Florida Department of Environmental Protection Division of Air Resource Management Bureau of Air Regulation 2600 Blair Stone Road, MS# 5505 Tallahassee, Florida 32399-2400

#### **PROJECT**

Air Construction Permit No. 0950137-015-AC Curtis H. Stanton Energy Center Low NO<sub>x</sub> Burners and Overfire Air Project

The project authorized by this permit is for the installation of low nitrogen oxides (NO<sub>x</sub>) burners (LNB) and overfire air (OFA) equipment on Units 1 and 2 at the existing OUC Curtis H. Stanton Energy Center, located Southeast of Orlando in Orange County. The burners shall be of a proven design which has been previously utilized to achieve similar emissions requirements when firing fuels similar to those fired at Unit 1 and Unit 2. The burners and OFA systems shall be designed specifically for low NO<sub>x</sub> formation. Burner design shall provide accurate fuel-air ratio control and thorough mixing of fuel and air at all ratings. Burner design shall prevent flame impingement on steam generator tubes or burner tile at any time.

#### NOTICE AND PUBLICATION

The Department distributed an "Intent to Issue Permit" package on November 21, 2007. The applicant published the "Public Notice of Intent to Issue" in the Orlando Sentinel on December 22, 2007, with proof of publication received by the Department on January 11, 2008. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed. Minor comments and corrections were received from the applicant concerning the Intent to Issue the Air Construction Permit package, and the final permit was adjusted accordingly. No comments were received from EPA Region 4 or the public at large.

#### **CONCLUSION**

The final action of the Department is to issue the air construction permit with changes indicated above.

## Florida Department of Environmental Protection

TO:

Joseph Kahn, Director, Division of Air Resource Management

THROUGH:

Trina Vielhauer, Chief, Bureau of Air Regulation

THROUGH:

Al Linero (IA

FROM:

Tom Cascio

DATE:

February 4, 2008

SUBJECT:

Final Air Construction Permit No. 0950137-015-AC

Orlando Utilities Commission (OUC) Curtis H. Stanton Energy Center

Low NO<sub>x</sub> Burners and Overfire Air Project

Attached for your review are the following items:

• Final Notice;

• Final Determination; and

• Final Permit.

The Final Determination explains the purpose of the project. We recommend your approval of the attached final permit for this project.

Attachments

STATE OF FLORIDA

## DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF FINAL PERMIT

In the Matter of an Application for Air Permit by:

Ms. Denise Stalls, Vice President – Environmental Affairs Orlando Utilities Commission (OUC) 500 South Orange Ave Orlando, Florida 32802 DEP File No. 0950137-015-AC Curtis H. Stanton Energy Center Low NO<sub>X</sub> Burners and Overfire Air Project Orange County

Enclosed is the Final Permit Number 0950137-015-AC authorizing the applicant OUC to install low nitrogen oxides (NO<sub>x</sub>) burners (LNB) and overfire air (OFA) equipment on Units 1 and 2 at the existing OUC Curtis H. Stanton Energy Center, Southeast of Orlando in Orange County. The burners shall be of a proven design which has been previously utilized to achieve similar emissions requirements when firing fuels similar to those fired at Unit 1 and Unit 2. The burners and OFA systems shall be designed specifically for low NO<sub>x</sub> formation. Burner design shall provide accurate fuel-air ratio control and thorough mixing of fuel and air at all ratings. Burner design shall prevent flame impingement on steam generator tubes or burner tile at any time.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appealate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation

Lund Vulhaur

#### CERTIFICATE OF SERVICE

Denise Stalls OUC: dstalls@ouc.com

Line Bradner DEP CD: james.bradner@dep.state.fl.us

Lori Cunniff, Orange County EPD: <a href="mailto:lori.cunniff@ocfl.net">lori.cunniff@ocfl.net</a> <a href="mailto:little.james@epamail.epa.gov">little.james@epamail.epa.gov</a>

THATY Pomey EPA Region 4: forney kathleen@epa.gov

Larry Todd Newland, P.E., Black & Veatch: newlandlt@bv.com

Make Halpin, DEP Siting: mike.halpin@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

o //

Date)

## Harvey, Mary

From: Newland, Larry T. (Todd) [NewlandLT@bv.com]

Sent: Thursday, February 07, 2008 12:37 PM

To: Harvey, Mary

Subject: RE: Orlando Utilities Commission (OUC) - DEP-File No. 0950137-015-AC-FINAL

#### Confirmed.

From: Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]

Sent: Thursday, February 07, 2008 12:29 PM

To: Denise Stalls, OUC:; Bradner, James; Lori Cunniff, Orange County EPD:; Jim Little, EPA Region 4:; Katy

Forney, EPA Region 4:; Newland, Larry T. (Todd); Halpin, Mike Cc: Cascio, Tom; Walker, Elizabeth (AIR); Gibson, Victoria

Subject: Orlando Utilities Commission (OUC) - DEP File No. 0950137-015-AC-FINAL

#### Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site:

http://www.adobe.com/products/acrobat/readstep.html.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

## Harvey, Mary

From:

Bradner, James

Sent:

Thursday, February 07, 2008 1:00 PM

To:

Harvey, Mary

Subject: RE: Orlando Utilities Commission (OUC) - DEP File-No-0950137-015-AG-FINAL

Received—thank you.

From: Harvey, Mary

Sent: Thursday, February 07, 2008 12:29 PM

To: 'Denise Stalls, OUC:'; Bradner, James; 'Lori Cunniff, Orange County EPD:'; 'Jim Little, EPA Region 4:'; 'Katy

Forney, EPA Region 4:'; 'Larry Todd Newland, P.E., Black & Veatch:'; Halpin, Mike

Cc: Cascio, Tom; Walker, Elizabeth (AIR); Gibson, Victoria

Subject: Orlando Utilities Commission (OUC) - DEP File No. 0950137-015-AC-FINAL

#### Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

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Thank you,

DEP, Bureau of Air Regulation

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### Harvey, Mary

From:

Forney.Kathleen@epamail.epa.gov Thursday, February 07, 2008 1:32 PM

Sent:

Harvey, Mary

Subject:

Re: FW: Orlando Utilities Commission (OUC) - DEP File No. 0950137-015-AC-FINAL

Thanks.

Katy R. Forney Air Permits Section EPA - Region 4 61 Forsyth St., SW Atlanta, GA 30303

Phone: 404-562-9130 Fax: 404-562-9019

"Harvey, Mary"
<Mary.Harvey@dep
.state.fl.us>

02/07/2008 01:30 PM To Kathleen Forney/R4/USEPA/US@EPA

CC

Subject FW: Orlando Utilities Commission (OUC) - DEP File No. 0950137-015-AC-FINAL

Thanks, Mary

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

From: Harvey, Mary

Sent: Thursday, February 07, 2008 12:29 PM

To: 'Denise Stalls, OUC:'; Bradner, James; 'Lori Cunniff, Orange County EPD:'; 'Jim Little, EPA Region 4:'; 'Katy Forney, EPA Region 4:'; 'Larry Todd Newland, P.E., Black & Veatch:'; Halpin, Mike

Cc: Cascio, Tom; Walker, Elizabeth (AIR); Gibson, Victoria Subject: Orlando Utilities Commission (OUC) - DEP File No. 0950137-015-AC-FINAL

## Harvey, Mary

From:

Lori.Cunniff@ocfl.net

Sent:

Monday, February 11, 2008 7:51 PM

To:

Harvey, Mary

Subject: RE: Orlando Utilities Commission (OUC) - DEP File No. 0950137-015-AC-FINAL

#### Received

Lori Cunniff, Manager Orange County Environmental Protection Division 800 Mercy Drive Orlando, FL 32808 407-836-1405

Please consider the environment before printing this e-mail.

PLEASE NOTE: Florida has a very broad public records law (F. S. 119). All e-mails to and from County Officials are kept as a public record. Your e-mail communications, including your e-mail address may be disclosed to the public and media at any time.

From: Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]

Sent: Thursday, February 07, 2008 12:29 PM

To: Denise Stalls, OUC:; Bradner, James; Cunniff, Lori; Jim Little, EPA Region 4:; Katy Forney, EPA Region 4:;

Larry Todd Newland, P.E., Black & Veatch:; Halpin, Mike Cc: Cascio, Tom; Walker, Elizabeth (AIR); Gibson, Victoria

Subject: Orlando Utilities Commission (OUC) - DEP File No. 0950137-015-AC-FINAL

#### Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

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## Harvey, Mary

From:

Stalls, Denise M. [DStalls@ouc.com]

Sent:

Wednesday, February 13, 2008 2:12 PM

To:

Harvey, Mary

Subject: RE. Final Air Permit No. 0950137-012-AGE Orlando Utilitles: Commission, (OUC)

#### Hi Mary

I am just back in the office from vacation time off. Thank you for continued support of OUC's projects.

From: Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]

Sent: Wednesday, February 13, 2008 10:31 AM

To: Stalls, Denise M.; Halpin, Mike

Subject: FW: Final Air Permit No. 0950137-012-AC - Orlando Utilities Commission (OUC)

Good Morning!!

Please email me your read receipt if you have received this permit. I need the read receipt to complete the file.

Thanks, Mary

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

From: Harvey, Mary

Sent: Thursday, February 07, 2008 3:47 PM

To: 'Denise Stalls, OUC:'; Bradner, James; 'Lori Cunniff, Orange County EPD:'; 'Jim Little, EPA Region 4:'; 'Katy

Forney, EPA Region 4:'; 'Larry Todd Newland, P.E., Black & Veatch:'; Halpin, Mike

متداديا فتراوح الانتاب

Cc: Read, David; Walker, Elizabeth (AIR); Gibson, Victoria

Subject: Final Air Permit No. 0950137-012-AC - Orlando Utilities Commission (OUC)

#### Dear Sir/Madam:

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The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be

### Harvey, Mary

From:

Halpin, Mike

To:

Harvey, Mary

Sent:

Subject:

Wednesday, February 13, 2008 10:36 AM Read: FW: Final Air Permit No. 0950137-012-AC - Orlando Utilities Commission (OUC)

#### Your message

To:

'dstalls@ouc.com'; Halpin, Mike

Subject:

FW: Final Air Permit No. 0950137-012-AC - Orlando Utilities Commission (OUC)

Sent:

2/13/2008 10:31 AM

was read on 2/13/2008 10:36 AM.

From:

Harvey, Mary

Sent:

Wednesday, January 10, 2007 4:42 PM

To:

'fhaddad@ouc.com'; 'dstalls@ouc.com'; Kozlov, Leonard; 'lori.cunniff@ocfl.net'; 'little.james@epa.gov';

'newlandIt@bv.com'; Halpin, Mike

Cc:

Mulkey, Cindy; Adams, Patty; Gibson, Victoria

Subject:

Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-AC-FINAL

Attachments: 0950137.011.AC.F\_pdf.zip

#### Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

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Thank you,

DEP, Bureau of Air Regulation

From:

Harvey, Mary

Sent:

Wednesday, January 10, 2007 4:45 PM

To:

Adams, Patty; Mulkey, Cindy

Subject:

FW: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-

**AC-FINAL** 

From: Halpin, Mike

Sent: Wednesday, January 10, 2007 4:44 PM

To: Harvey, Mary

Subject: Read: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-AC-FINAL

#### Your message

To:

'fhaddad@ouc.com'; 'dstalls@ouc.com'; Kozlov, Leonard; 'lori.cunniff@ocfl.net'; 'little.james@epa.gov'; 'newlandit@bv.com'; Halpin,

Mike

Cc:

Mulkey, Cindy; Adams, Patty; Gibson, Victoria

Subject:

Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-AC-FINAL

Sent:

1/10/2007 4:42 PM

was read on 1/10/2007 4:44 PM.

From:

Harvey, Mary

Sent:

Thursday, January 11, 2007 9:53 AM

To:

Adams, Patty

Subject:

FW: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-

**AC-FINAL** 

From: Newland, Larry T. (Todd) [mailto:NewlandLT@bv.com]

Sent: Thursday, January 11, 2007 2:19 AM

Subject: Read: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-AC-FINAL

Your message

To: NewlandLT@bv.com

Subject:

was read on 1/11/2007 2:19 AM.

From:

Harvey, Mary

Sent:

Thursday, January 11, 2007 10:28 AM

To:

'little.james@epa.gov'

Cc:

Mulkey, Cindy; Adams, Patty

Subject:

FW: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-AC-FINAL

Attachments: Signed Documents for Facility #0950137-011-AC-FINAL.pdf: 011FinalDeter - Permit #0950137-011-AC-

FINAL.PDF: 011FPermit - Permit #0950137-001-AC-FINAL.PDF

Jim, I hope you are able to get these files this time.

Thanks. Mary

From: Harvey, Mary

Sent: Wednesday, January 10, 2007 4:42 PM

To: 'fhaddad@ouc.com'; 'dstalls@ouc.com'; Kozlov, Leonard; 'lori.cunniff@ocfi.net'; 'little.james@epa.gov'; 'newlandlt@bv.com';

Halpin, Mike

Cc: Mulkey, Cindy; Adams, Patty; Gibson, Victoria

Subject: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #0950137-001-AC-FINAL

#### Dear Sir/Madam:

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Thank you,

DEP, Bureau of Air Regulation

From:

Harvey, Mary

Sent:

Thursday, January 11, 2007 11:29 AM

To:

Adams, Patty; Mulkey, Cindy

Subject:

FW: FW: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #

0950137-001-AC-FINAL

----Original Message----

From: Little.James@epamail.epa.gov [mailto:Little.James@epamail.epa.gov]

Sent: Thursday, January 11, 2007 11:04 AM

To: Harvey, Mary

Subject: Re: FW: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #

0950137-001-AC-FINAL

Got 'em. Thanks.

Jim

"Harvey, Mary" <Mary.Harvey@dep .state.fl.us>

01/11/2007 10:27

James Little/R4/USEPA/US@EPA

To CC

"Mulkey, Cindy"

<Cindy.Mulkey@dep.state.fl.us>,

"Adams, Patty"

<Patty.Adams@dep.state.fl.us>

Subject

FW: Orlando Utilities Commission

- Stanton Energy Center -

Facility Permit

#0950137-001-AC-FINAL

Jim, I hope you are able to get these files this time.

Thanks, Mary

From: Harvey, Mary

Sent: Wednesday, January 10, 2007 4:42 PM

To: 'fhaddad@ouc.com'; 'dstalls@ouc.com'; Kozlov, Leonard; 'lori.cunniff@ocfl.net'; 'little.james@epa.gov'; 'newlandlt@bv.com'; Halpin, Mike

Cc: Mulkey, Cindy; Adams, Patty; Gibson, Victoria

Subject: Orlando Utilities Commission - Stanton Energy Center - Facility Permit #

0950137-001-AC-FINAL

## Memorandum

# Florida Department of Environmental Protection

TO:

Joseph Kahn, Director, DARM

Through:

Trina L. Vielhauer, Chief, BAR

From:

A.A. Linero, P.E., PA/Cindy Mulkey South Permitting Section

DATE:

January 8, 2007

SUBJECT:

Orlando Utilities Commission – Stanton Energy Center

Dibasic Acid additive system and neural network Units 1 & 2

DEP File No. 0950137-011-AC

Attached is the final permit package for the installation of a dibasic acid (DBA) additive system for Units 1 and 2 WFGD systems, and a neural network-based combustion optimization system on Units 1 and 2.

The recent Unit B IGCC project includes a requirement for  $NO_X$  reductions on Units 1 and 2. The installation of the combustion optimization system is the first measure identified by OUC towards meeting the requirements pursuant to the IGCC Unit B construction permit and is consistent with efforts pursuant to CAIR.

The only potential increase in emissions from either of these projects is a slight increase in fugitive particulate emissions associated with increased limestone handling as a result of greater SO<sub>2</sub> removal. Such an increase would not be significant.

We determined that the DBA additive system and the neural network combustion optimization system will not result in any significant increases in any criteria pollutants.

Comments were received from Orange County during the 30-day comment period and have been addressed in the attached Final Determination to Issue a Construction Permit.

We recommend your approval of the attached Final Notice and Pemit.

AAL/cm

Attachments

#### FINAL DETERMINATION

## ORLANDO UTILITIES COMMISSION CURTIS H. STANTON ENERGY CENTER DEP FILE NO. 0950137-011-AC

On November 22, 2006 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit" for the installation of a dibasic acid additive system for the Unit 1 and 2 desulfurization systems, and installation of a neural network-based combustion optimization system on Units 1 and 2 at the existing Curtis H. Stanton Energy Center east of Orlando in Orange County.

The package included the Department's Draft Air Construction Permit, the Intent to Issue Air Construction Permit, the Technical Evaluation and Preliminary Determination, and the Public Notice of Intent to Issue Air Construction Permit. The Department sent copies of the package to various persons and agencies. Orlando Utilities Commission (OUC) published the Public Notice in *The Orlando Sentinel* on December 9, 2006 and provided to the Department the required proof of publication.

The Department has reasonable assurance that the project will not result in significant net emission increases from the units that would otherwise require a review under the Rules for the Prevention of Significant Deterioration (PSD) at Paragraph 62-212.400, F.A.C. or 40 CFR 52.21.

No requests for administrative hearings were received on the Notice of Intent to Issue.

Written comments were received during the 30-day public comment period from the Orange County Environmental Protection Division (EPD) on December 15, 2006. No comments were received from other agencies or the public regarding the Draft Air Construction Permit. EPD's comments are listed below followed by the Department's responses.

#### **EPD** Comments

- "This project adds NO<sub>X</sub> control equipment to existing coal-fired boilers, which Orlando utilities Commission (OUC) committed to do when applying for a permit for Unit B. This equipment is required for OUC to net out of PSD permitting requirements for NO<sub>X</sub> for Unit B. The NO<sub>X</sub> control equipment will also be required for OUC to meet the low NO<sub>X</sub> emissions limits of the Clean Air Interstate Rule (CAIR), which becomes effective before Unit B is built. The neural networked-based combustion optimization system NO<sub>X</sub> control equipment proposed for this project was not one of the options listed for consideration in the OUC letter of May 10, 2006 requesting to net out of PSD. That letter implied that Unit 1 would likely be upgraded with NO<sub>X</sub> controls similar to Unit 2, though no final decisions had been made."
- "This permit and technical evaluation are written as if Units 1 and 2 were identical. As you know, Units 1 and 2 differ significantly in NO<sub>X</sub> control systems and NO<sub>X</sub> and sulfur dioxide (SO<sub>2</sub>) emission rates for the two units differ by a factor of more than 2. EPD believes that Unit 1 should be upgraded to the same configuration as Unit 2 as quickly as possible, to improve the county's air quality and meet CAIR's 2009 effective date for NO<sub>X</sub>. This would likely require an expensive SCR system, other modifications such as a low-NO<sub>X</sub> burner with an improved control system, and upgrades to the existing flue gas desulfurization system. However, these changes would result in significant reductions in NO<sub>X</sub> and SO<sub>2</sub> emissions rates likely to meet CAIR requirements. The changes proposed appear likely to yield relatively small improvements in Unit 1 emissions, not the significant improvements needed by 2009."

#### **Department Response**

The Unit B project to which EPD refers is the recently permitted integrated gasification combined cycle unit (Stanton Unit B). The Unit B IGCC project does include a  $NO_X$  emissions cap on the existing coal fired boilers (Units 1 and 2) that ensures a net emissions increase for the Unit B project of less than the significant emission rate, thereby allowing the IGCC project to "net out" of PSD requirements for  $NO_X$ .

Final Determination
Orlando Utilities Commission
Units 1 and 2

The installation of the combustion optimization system is the first specific measure identified by OUC towards meeting the requirements pursuant to the IGCC Unit B permit (incorporated into this permitting action). The neural network system will help to determine initial low cost, low NO<sub>X</sub> operational strategies while the dibasic acid project will accomplish some further low cost SO<sub>2</sub> reductions beyond the existing WFGD systems.

In order to meet the new emissions cap on Units 1 and 2, OUC will be applying additional  $NO_X$  control strategies on these units. As stated in the Department's Technical Evaluation for this project, the other specific control strategies are not yet detailed for the required  $NO_X$  emissions reductions, but are understood to include a series of measures to be undertaken over a period of time prior to the startup of Unit B.

The OUC letter of May 10, 2006 referred to by EPD included the basis for OUC's netting analysis and requested specific permit limits for Units 1 and 2. Also included, were brief descriptions of the types of NO<sub>X</sub> reduction technologies being considered by OUC for Stanton Units 1 and 2. The OUC letter can be viewed at the following website: <a href="http://www.dep.state.fl.us/Air/permitting/construction/oucsouthern.htm">http://www.dep.state.fl.us/Air/permitting/construction/oucsouthern.htm</a>.

The inclusion of the requirements to meet the lower  $NO_X$  emissions limits on Units 1 and 2 ( $NO_X$  emissions cap) in this permit, as recommended by EPA, was not meant to imply that this project is the single requirement necessary to meet the lower  $NO_X$  limits. OUC has a number of options available to them and the Department expects to see additional applications for related projects in the near future.

EPD refers to the "significant" difference in existing  $NO_X$  control equipment on Units 1 and 2. Unit 2 is equipped with low  $NO_X$  burners and a selective catalytic reduction (SCR) system, while Unit 1 is currently equipped with neither of these control options. The draft permit indicated the presence of low  $NO_X$  burners on both units. The unit description of the final permit has been changed accordingly.

No other changes to the permit are necessary as a result of these comments. The final decision by the Department is to issue the permit as drafted.



# Florida Department of Environmental Protection

Bob Martinez Center 2600 Blairstone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary - Designee

#### PERMITTEE:

Orlando Utilities Commission 500 South Orange Avenue . Orlando, Florida 32802

Authorized Representative:
Frederick Haddad, Jr.
V.P., Power Resources Business Unit

DEP File No. 0950137-011-AC Curtis H. Stanton Energy Center Dibasic Acid Additive System Neural Network Systems Stanton Units 1 and 2 Orange County, Florida

#### PROJECT AND LOCATION

This permit authorizes the addition of a dibasic acid additive delivery system to the existing wet flue gas desulfurization systems, and a neural network-based combustion optimization system to Units 1 and 2 at the Curtis H. Stanton Energy Center. The facility is located at 5100 Alafaya Trail, Orlando, Orange County.

#### STATEMENT OF BASIS

This permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department). This permit supplements all other air construction and operation permits for the affected emissions units and does not alter any requirements from such previously issued air permits.

The attached Appendices are made a part of this permit:

Appendix GC Construction Permit General Conditions

Joseph Kahn, Director

Division of Air Resource Management

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF PERMIT

In the Matter of an Application for Permit by:

Frederick F. Haddad, Jr., V.P. Power Resources Orlando Utilities Commission 500 South Orange Avenue Post Office Box 3193 Orlando, Florida 32802 Curtis H. Stanton Energy Center
DEP File No. 0950137-011-AC
Units 1 and 2 Dibasic Acid Additive and
Neural Network Systems Installation
Orange County

Enclosed is the Final Permit (No. 0950137-011-AC) for the installation of a dibasic acid additive system for the wet flue gas desulfurization systems on Units 1 and 2, and for the installation of a neural network-based combustion optimization system on Units 1 and 2 at the Curtis H. Stanton Energy Center. The facility is located southeast of Orlando, in Orange County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation

#### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit) and all copies were sent electronically (with Received Receipt) before the close of business on 1/10/07 to the person(s) listed:

Frederick F. Haddad, Jr., OUC: fhaddad@ouc.com

Denise Stalls, OUC: dstalls@ouc.com

Len Kozlov, DEP CD: <a href="leonard.kozlov@dep.state.fl.us">leonard.kozlov@dep.state.fl.us</a>
Lori Cunniff, Orange County EPD: <a href="lori.cunniff@ocfl.net">lori.cunniff@ocfl.net</a>
Jim Little, EPA Region 4: <a href="little.james@epamail.epa.gov">little.james@epamail.epa.gov</a>
Larry Todd, Newland, Black & Veatch: <a href="newlandlt@bv.com">newlandlt@bv.com</a>
Mike Halpin, DEP Siting: <a href="mike.halpin@dep.state.fl.us">mike.halpin@dep.state.fl.us</a>

#### Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

#### **FACILITY DESCRIPTION**

The existing facility consists of two 468 MW fossil fuel fired steam electric generating stations (Units 1 and 2), and one 640 MW combined cycle unit. There are storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash. A draft PSD permit was recently issued for the construction of a nominal 285 MW integrated gasification combined cycle unit (Unit B) planned to be operational by 2012.

#### PROJECT DESCRIPTION

The projects under this permit include installation of a dibasic acid (DBA) additive system on the existing wet scrubber flue gas desulfurization (WFGD) systems for Units 1 and 2, and a neural network-based combustion optimization system on Units 1 and 2.

The DBA system includes: three metering pumps; one DBA storage tank; associated piping, valves, and components; and instrumentation and controls. This project will accomplish further SO<sub>2</sub> reductions beyond the existing systems that may suffice for reductions pursuant to the Clean Air Interstate Rule.

Installation of the neural network-based combustion optimization system is the first measure identified by OUC towards meeting the requirements pursuant to the IGCC Unit B permit (PSD-FL-373) and is consistent with efforts pursuant to CAIR. The system will run on its own dedicated server pc, and will communicate directly with the plant distributed control system.

#### **EMISSIONS UNITS**

This permit addresses the following emissions units:

EU ID	Emissions Unit Description
001	Fossil Fuel Fired Steam Electric Generator No. 1
002	Fossil Fuel Fired Steam Electric Generator No. 2

#### **REGULATORY CLASSIFICATION**

Title I, Part C. Clean Air Act (CAA): The facility is a PSD-major facility pursuant to Rule 62-212, F.A.C.

Title I, Section 111, CAA: Units 1 and 2 are subject to the New Source Performance Standards of 40 CFR 60, Subpart Da (Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978).

Title I, Section 112, CAA: The facility is a "Major Source" of hazardous air pollutants (HAPs).

Title IV, CAA: The facility operates units subject to the Acid Rain provisions of the Clean Air Act.

Title V, CAA: The facility is a Title V or "Major Source of air pollution" in accordance with Chapter 62-213, F.A.C.

CAIR: As an electric generating unit, Units 1 and 2 may be subject to the Clean Air Interstate Rule pending finalization of DEP rules.

Siting: The facility was originally certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

#### SECTION I. GENERAL INFORMATION

#### PERMITTING AUTHORITY

All documents related to applications for permits to construct, operate or modify an emissions unit shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall also be submitted to the Compliance Authority.

#### **COMPLIANCE AUTHORITY**

All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department of Environmental Protection Central District Office at 3319 Maguire Boulevard, Suite 232, Orlando Florida 32803-3767.

#### **RELEVANT DOCUMENTS**

The documents listed below are not a part of this permit; however, this information is specifically related to the permitting action and is on file with the Department.

- Application for installation of DBA and neural network systems received September 7, 2006.
- Department's Technical Evaluation and Preliminary Determination issued November 22, 2006.
- Department's Final Determination issued concurrently with this Final Permit.

#### SECTION II. ADMINISTRATIVE REQUIREMENTS

- 1. <u>General Conditions</u>: The permittee shall operate under the attached General Conditions listed in Appendix GC of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- 2. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and the Title 40, Parts 51, 52, 60, and 63 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 3. <u>Construction and Expiration</u>: Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

  [Rules 62-4.070(4), 62-4.080, 62-210.300(1), F.A.C.]
- 4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

#### 5. Source Obligation.

- a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
- b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

- 6. <u>Modifications</u>: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Chapters 62-210 and 62-212, F.A.C.]
- 7. <u>Title V Permit</u>: This permit authorizes construction or modification of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions units. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

#### **SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS**

#### Units 1 and 2 Fossil Fuel Fired Steam Generators (EU 001 and 002)

This section of the permit addresses the following existing emissions units.

#### Emissions Unit 001 and 002

Fossil Fuel Fired Steam Generators 1 and 2 are wall-fired, dry bottom boilers, firing pulverized coal as the primary fuel and No. 6 fuel oil for purposes of startup and flame stabilization. Each unit has a maximum heat input rate of 4,286 mmBtu per hour with a nominal generating capacity of 468 MW. Each unit is equipped with an electrostatic precipitator (ESP) for control of particulate matter (PM/PM<sub>10</sub>), and a WFGD system for sulfur dioxide (SO<sub>2</sub>) control. Unit 2 is also equipped with low NO<sub>X</sub> burners and a selective catalytic reduction (SCR) system for control of nitrogen oxide (NO<sub>X</sub>) emissions. The following parameters are continuously monitored on both units: NO<sub>X</sub>, opacity, SO<sub>2</sub>, CO<sub>2</sub>, and stack gas flow rate.

#### **ADMINISTRATIVE REQUIREMENTS**

1. Relation to Other Permits: The conditions of this permit are in addition to those of any other air construction or operation permits for these units. [Rule 62-4.030, 62-4.210, and 62-210.300(1)(b), F.A.C.]

#### **EQUIPMENT AND CONTROL TECHNOLOGY**

- 2. <u>Dibasic Acid Additive System</u>: The permittee is authorized to install and maintain a dibasic acid (DBA) additive system associated with the existing WFGD systems on Units 1 and 2 for the purpose of improving SO<sub>2</sub> removal efficiencies and enhancing overall scrubber performance. The additive system consists of the following components:
  - Three skid-mounted DBA metering pumps with associated valves and equipment;
  - DBA storage tank;
  - DBA addition piping and valves from storage tank to pump skid and from pump skid to the existing scrubber additive storage tanks; and
  - Instrumentation and controls.

[Applicant Request, and Rule 62-210.300 (Permits Required), F.A.C.]

 Neural Network Combustion Optimization System: The permittee is authorized to install and maintain a neural network-based combustion optimization system to interface with the existing plant distributed control system for the purpose of optimizing boiler operations.
 [Applicant Request, and Rule 62-210.300 (Permits Required), F.A.C.]

#### **EMISSIONS REQUIREMENTS**

- 4. NO<sub>X</sub> Emissions Cap: Units 1 and 2 will meet the following NO<sub>X</sub> emissions limits.
  - a. Existing Units 1 and 2: The combined NO<sub>X</sub> emissions from existing coal fired boiler steam electric generating Stanton Unit 1 and Stanton Unit 2 shall not exceed 8,300 tons per year on a 12-month rolling total. Total NO<sub>X</sub> emissions shall be based on data collected from the Unit 1 and Unit 2 NO<sub>X</sub> CEMS. Compliance shall be determined after each calendar month by calculating the total emissions from that calendar month and the last 11 calendar months beginning the first month of first fire of IGCC Unit B and thereafter.
  - b. If the combined NO<sub>X</sub> emissions from Units 1 and 2 exceed 8,300 tons during any 12-month period, and/or the total NO<sub>X</sub> emissions from Unit B exceeds 1,006 tons during any 12-month period, Unit B shall be subject to PSD preconstruction review at that time, and a determination of BACT for NO<sub>X</sub> shall be made.

#### SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

#### Units 1 and 2 Fossil Fuel Fired Steam Generators (EU 001 and 002)

c. For purposes of meeting the NO<sub>X</sub> emissions caps, annual emission of NO<sub>X</sub> from existing Units 1 and 2, and Unit B shall be calculated with no allowable data exclusions. All valid hours of data (including startup and shutdown) must be included in the rolling 12-month totals. Also, the data substitution procedures of Part 75 for missing data shall not be used in these calculations.

[62-210.200 (net emissions increase), 62-210.370 (emissions computation), and 62-212.400(12) (Source Obligation), F.A.C.]

{Permitting Note: IGCC Unit B did not trigger PSD for  $NO_X$  due to a  $NO_X$  emissions cap taken on existing coal fired boiler steam electric generating Unit 1 and Unit 2. The above conditions establish the requirements for meeting the  $NO_X$  emissions limitations for purposes of avoiding PSD preconstruction review by Unit B. These requirements in no way supersede any federal requirement of the applicable NSPS or NESHAP provisions.}

#### REPORTING AND NOTIFICATION REQUIREMENTS

- 5. Notification: Within one week of beginning construction of the DBA additive system, the permittee shall notify the Compliance Authority that the project has commenced and provide a general schedule of construction activities. Within one week following the end of construction, the permittee shall notify the Compliance Authority that the project was completed. Within one week of completing installation of the neural network-based combustion optimization system, the permittee shall notify the Compliance Authority that the project was completed. [Rule 62-4.210, F.A.C.]
- 6. <u>SIP Quarterly Report</u>: In addition to, and included in, the SIP quarterly excess emissions report required for Unit B the permittee shall submit a report to the Compliance Authority summarizing the previous three 12-month totals of NO<sub>X</sub> emissions from Units 1 and 2. The quarterly report is due within 30 days following the end of each calendar-quarter. [Rule 62-4.070, F.A.C.]

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

- 1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

#### Appendix GC - Construction Permit General Conditions

- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
  - Determination of Best Available Control Technology (Not Applicable);
  - b. Determination of Prevention of Significant Deterioration (Not Applicable);
  - c. Compliance with National Emission Standards for Hazardous Air Pollutants (Not Applicable); and
  - d. Compliance with New Source Performance Standards (Not Applicable).
- 14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.

When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly

ATTACHMENT SEC-FI-C2
Compliance Report and Plan

## ATTACHMENT SEC-FI-C2 Compliance Report and Plan

This attachment provides copies of the documents that were submitted to the Department, as required, to demonstrate compliance with the provisions of the respective air construction permits. Specifically, this attachment contains the following:

- Air construction Permit No. 0950137-015-AC for installation of the low NOx burners and overfire air system for Units 1 and 2.
  - o Notification letters for initiation of project for Units 1 and 2
  - Notification letters for completion of project for Units 1 and 2
- Air construction Permit No. 0950137-011-AC for installation of the dibasic acid (DBA) additive systems for Units 1 and 2 WFGD systems. DBA project.
  - o Notification letter for initiation of project for Units 1 and 2
  - Notification letter for completion of project for Units 1 and 2
  - The CEMS certification reports (the cover pages and summary tables only) for the CO CEMS for Units 1 and 2
  - o The CEMS Operation Plan (Section 4, Condition 4)
  - o Compliance tests for NOx and CO (the cover pages and summary tables only)
  - o The most recent monthly report, per Condition 21.

This completes the list of necessary attachments for the air application for revisions to the Stanton TV permit.



August 7, 2008

Mr. Joseph Kahn, Director Division of Air Resource Management Florida Department of Environmental Protection Bob Martinez Center 2600 Blair Stone Road, MS 5500 Tallahassee, Florida 32399-2400

Subject:

OUC Stanton Permit No. 0950137-015-AC

Notification of Beginning Construction of Unit 1 Low NOx Burner and Overfire Air

System

Dear Mr. Kahn:

Black & Veatch, on behalf of the Orlando Utilities Commission (OUC), hereby notifies your office that construction on the Stanton Unit 1 Low NOx Burner and Overfire Air System effectively began on July 28, 2008. This notification satisfies a requirement of Section III Condition 8 of air construction permit No. 0950137-015-AC. Also, as required by that permit condition, the following is a general schedule of construction activities for installation of the Unit 1 Low NOx Burner and Overfire Air System.

- Install Overfire Air (OFA) Windbox & Duct: 7/28 11/6
- Stage Equipment: 9/23 9/26
- Demo Existing Equipment: 9/27 10/1
- Install Burners, OFA Registers, ACPs: 10/2 11/6
- Electrical Checkout: 11/6 11/15
- Completion: 11/15/2008

We appreciate the opportunity to work with the Department in obtaining the required air quality permits and approvals for the OUC Curtis H. Stanton Energy Center. Should you have any questions or concerns regarding this submittal, please do not hesitate to contact me at (913) 458-7563 or Louis Brown of OUC at (407) 658-6444.

Sincerely,

Mike Soltys

Site Certification Coordinator

Mike Solly 5



Orlando Utilities Commission Stanton Energy Center

B&V Project 143799 November 10, 2008

Mr. Joseph Kahn
Director, Division of Air Resource Management
Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Notification of Completion of Construction

Dear Mr. Kahn:

On behalf of the Orlando Utilities Commission (OUC), I am pleased to notify your office that construction on the Stanton Unit 1 Low NOx Burner/Overfire Air System was completed on November 7, 2008. This notification satisfies a requirement of Section III Condition 8 of air construction permit No. 0950137-015-AC.

If you have any questions or concerns regarding this notice, please do not hesitate to contact me at (913) 458-7563 or Louis Brown of OUC at (407) 658-6444.

Very truly yours,

J. Michael Soltys

Site Certification Coordinator

cc: Louis Brown, OUC
John Davisson, B&V

#### **B&V LETTERHEAD**

February 21, 2008

Joseph Kahn - Director Florida Department of Environmental Protection Bob Martinez Center 2600 Blair Stone Road Tallahassee, FL 32399-2400

Subject:

OUC Stanton Permit No. 0950137-015-AC

Notification of Beginning Construction of Unit 2 Low NOx Burner and

Overfire Air System

Dear Mr. Kahn:

Per this submittal, on behalf of the Orlando Utilities Commission (OUC), we are notifying your office that construction on the Unit 2 Low NOx Burner and Overfire Air System effectively began on February 18, 2008. This notification satisfies a requirement of Section III Condition 8 of air construction permit No. 0950137-015-AC. Also, as required by the aforementioned permit condition, the following is a general schedule of construction activities for installation of the Unit 2 Low NOx Burner and Overfire Air System.

- Stage Burners and Materials for Installation: 2/18 thru 3/7/08
- Remove and Install New Low NOx Burners: 3/11 thru 04/09/08
- Install Anti-Corrosion Ports: 04/07 thru 04/17/08
- Remove Old and Install New Overfire Air Registers: 04/09 thru 04/17/08
- Electrical Checkout of Burners: 04/17 thru 05/02/08
- Completion: 05/09/08

OUC appreciates the opportunity to work with the Department in obtaining the required air quality permits and approvals for the OUC Curtis H. Stanton Energy Center. Should you have any questions or concerns regarding this submittal, please do not hesitate to contact me at (913) 458-7563 or Louis Brown of OUC at (407) 658-6444.

Sincerely,

Mike Soltys Site Certification Coordinator Black & Veatch



June 18, 2008

Mr. Joseph Kahn - Director Division of Air Resource Management Florida Department of Environmental Protection Bob Martinez Center 2600 Blair Stone Road, MS 5500 Tallahassee, FL 32399-2400

Subject: OUC Stanton Air Permit No. 0950137-015-AC

Notification of Completion of Construction

Dear Mr. Kahn:

On behalf of the Orlando Utilities Commission (OUC), Black & Veatch wishes to advise you that construction of the Stanton Unit 2 Low NOx Burner/Overfire Air System was completed on June 13, 2008. This notification satisfies Condition 8 in Section III of the Stanton air construction permit No. 0950137-015-AC.

OUC appreciates the opportunity to work with the Department in obtaining the required air quality permits and approvals for the Curtis H. Stanton Energy Center. Should you have any questions or concerns regarding this submittal, please do not hesitate to contact me at (913) 458-7563 or Louis Brown of OUC at (407) 658-6444.

Very truly yours,

**BLACK & VEATCH CORPORATION** 

Mile Sollys

Michael Soltys

Site Certification Coordinator



ENERGY . WATER . INFORMATION . GOVERNMENT

Orlando Utilities Commission Stanton Energy Center B&V Project 143799 May 15, 2007

Vivian F. Garfein, Director Florida Department of Environmental Protection Central District Office 3319 Maguire Blvd, Suite 232 Orlando, FL 32803-3767

Subject: OUC Stanton Permit No. 0950137-011-AC Start of Construction Notification

Dear Ms. Garfein:

On behalf of the Orlando Utilities Commission (OUC), Black & Veatch is pleased to notify your office that construction on the DBA additive system began on May 15, 2007. This notification satisfies a requirement of Section III Condition 5 of air construction permit No. 0950137-011-AC. Also, as required by the aforementioned permit condition, the following is a general schedule of construction activities for installation of the DBA additive systems.

- May 15, 2007: Contractor Mobilization
- June 26, 2007: Equipment (Prefabricated Pump/Tank Skid) delivery
- · August 23, 2007: Work complete

OUC appreciates the opportunity to work with the Department in obtaining the required air quality permits and approvals for the Curtis H. Stanton Energy Center. Should you have any questions or concerns regarding this submittal, please do not hesitate to contact me at (913) 458-7563 or Louis Brown of OUC at (407) 658-6444.

Very truly yours,

J. Michael Soltys

Site Certification Coordinator

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ENERGY . WATER . INFORMATION . GOVERNMENT

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DEP Central Dist.

Send to OK to euclie An Linero Pallahassel

B&V Project 143799 November 29, 2007

Orlando Utilities Commission Stanton Energy Center

Ms. Vivian F. Garfein, Director

3319 Maguire Blvd, Suite 232

Orlando, FL 32803-3767

Florida Department of Environmental Protection

**Central District Office** 

RECEIVED

DEC 07 2007

BUREAU OF AIR REQULATION

Subject: OUC Stanton Air Permit No. 0950137-011-AC Notification of Construction Completion

Dear Ms. Garfein:

On behalf of the Orlando Utilities Commission (OUC), please be advised that construction of the DBA additive system installed on the Stanton Units 1 and 2 flue gas desulfurization systems was completed on November 27, 2007. This notification satisfies Condition 5 in Section III of air construction permit No. 0950137-011-AC.

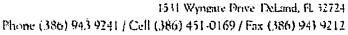
OUC appreciates the opportunity to work with the Department in obtaining the required air quality permits and approvals for these improvements at the Stanton Energy Center. Should you have any questions or concerns regarding this submittal, please do not hesitate to contact me at (913) 458-7563 or Louis Brown of OUC at (407) 658-6444.

Sincerely,

Michael Soltys

Site Certification Coordinator

Mike Sold



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

## Emissions Test Report

AIR CONSULT

## ORLANDO UTILITIES COMMISSION

## Unit 1

## NOx AND CO COMPLIANCE REPORT

## Prepared for:

Orlando Utilities Commission 5100 South Alafaya Trail Orlando, FL 32831

### Prepared by:

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

January 15, 2009

## STATEMENT OF VALIDITY

All testing activities and results represented herein were conducted and obtained in accordance with the approved EPA protocols listed in 40 CFR Parts 60 & 75. The contents have been reviewed and verified to be true and correct at the time of testing.

Stephen C. Webb

President

## **PROJECT STATISTICS**

Client: Orlando Utilities Commission

Facility: Stanton Energy Center Unit 1

Location: 5100 South Alafaya Trail

Orlando, FL 32831

Type of Process Tested: Coal Fired Utility Steam Generating Unit

Test Protocols Performed: Oxygen/Carbon Dioxide-EPA Method 3A

Nitrogen Oxide-EPA Method 7E Carbon Monoxide-EPA Method 10

Testing Firm: Coastal Air Consulting, Inc.

1531 Wyngate Dr. DeLand, FL 32724

Test Personnel: Stephen Webb Site Superviser

Test Date: January 7, 2009

Client Representative: Louis Brown

Observers: None

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#### 1.0 Introduction

Coastal Air Consulting, Inc. (Coastal) was contracted by Orlando Utilities Commission (OUC) to determine the NOx and CO compliance at the Stanton Energy Center Unit 1 in Orlando, Florida.

The sampling program was conducted on January 7, 2009. The compliance testing was performed by Coastal personnel, with the assistance of personnel assigned by Orlando Utilities Commission. Orlando Utilities Commission personnel coordinated plant operation during testing activities.

## 2.0 Test Program Summary

A summary of test results developed by this source sampling program is presented in Table 1.

TABLE 1
NOx and CO Compliance Summary

PARAMETERS	LB/MMBTU	ALLOWABLE LB/MMBTU
NOx	0.270	0.600
со	0.061	0.180

## 3.0 Results of Testing

These results indicate that Unit 1 passed the compliance for NOx and CO at the time of testing under normal operating conditions.

## 4.0 Description of Source

Stanton Energy Center Unit 1 is a coal fired utility steam generator. The flue gas is exhausted through the Unit 1 stack. A schematic of the process and stack sampling location is included in Appendix 5 "Figures".

## 5.0 Sampling Procedures

EPA testing protocols utilized during this test program include the following:

Sources (Instrumental Analyzer Method)

EPA Method 3A Gas Analysis for CO<sub>2</sub>, O<sub>2</sub>, Excess Air and Dry Molecular Weight (Instrumental Analyzer Method)

EPA Method 7E Determination of Nitrogen Oxides Emissions From Stationary Sources (Instrumental Analyzer Method)

EPA Method 10 Determination of Carbon Monoxides Emissions From Stationary

## 6.0 Operating Conditions

Orlando Utilities Commission personnel monitored operating conditions throughout the duration of the sampling program.

## 7.0 Quality Assurance Procedures

Quality assurance procedures followed during these testing activities were applied consistent with the requirements outlined by the EPA methods referenced in 40 CFR Part 60 & 75. Analyzer calibrations, system bias and drift checks were completed before and after each sample run utilizing EPA Protocol 1 calibration gases.



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

## Emissions Test Report

## ORLANDO UTILITIES COMMISSION

## Unit 2

## NOx AND CO COMPLIANCE REPORT

## Prepared for:

Orlando Utilities Commission 5100 South Alafaya Trail Orlando, FL 32831

## Prepared by:

Coastal Air Consulting, Inc. 1531 Wyngate Dr. DeLand, FL 32724 (386) 943-9241

July 12, 2008

## STATEMENT OF VALIDITY

All testing activities and results represented herein were conducted and obtained in accordance with the approved EPA protocols listed in 40 CFR Parts 60 & 75. The contents have been reviewed and verified to be true and correct at the time of testing.

Steplen C. Well-Stephen C. Webb

President

## **PROJECT STATISTICS**

Client: Orlando Utilities Commission

Facility: Stanton Energy Center Unit 2

Location: 5100 South Alafaya Trail

Orlando, FL 32831

Type of Process Tested: Coal Fired Utility Steam Generating Unit

Test Protocols Performed: Oxygen/Carbon Dioxide-EPA Method 3A

Nitrogen Oxide-EPA Method 7E Carbon Monoxide-EPA Method 10

Testing Firm: Coastal Air Consulting, Inc.

1531 Wyngate Dr. DeLand, FL 32724

Test Personnel: Stephen Webb Site Superviser

Test Date: June 16, 2008

Client Representative: David Baez

Observers: None

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#### 1.0 Introduction

Coastal Air Consulting, Inc. (Coastal) was contracted by Orlando Utilities Commission (OUC) to determine the NOx and CO compliance at the Stanton Energy Center Unit 2 in Orlando, Florida.

The sampling program was conducted on June 16, 2008. The compliance testing was performed by Coastal personnel, with the assistance of personnel assigned by Orlando Utilities Commission. Orlando Utilities Commission personnel coordinated plant operation during testing activities.

## 2.0 Test Program Summary

A summary of test results developed by this source sampling program is presented in Table 1.

TABLE 1
NOx and CO Compliance Summary

PARAMETERS	LB/MMBTU	ALLOWABLE LB/MMBTU
NOx	0.152	0.170
со	0.125	0.150

## 3.0 Results of Testing

These results indicate that Unit 2 passed the compliance for NOx and CO at the time of testing under normal operating conditions.

## 4.0 Description of Source

Stanton Energy Center Unit 2 is a coal fired utility steam generator. The flue gas is exhausted through the Unit 2 stack. A schematic of the process and stack sampling location is included in Appendix 5 "Figures".

## 5.0 Sampling Procedures

EPA testing protocols utilized during this test program include the following:

EPA Method 3A Gas Analysis for CO2, O2, Excess Air and Dry Molecular Weight

(Instrumental Analyzer Method)

EPA Method 7E Determination of Nitrogen Oxides Emissions From Stationary Sources

(instrumental Analyzer Method)

EPA Method 10 Determination of Carbon Monoxides Emissions From Stationary

Sources (Instrumental Analyzer Method)

## 6.0 Operating Conditions

Orlando Utilities Commission personnel monitored operating conditions throughout the duration of the sampling program.

## 7.0 Quality Assurance Procedures

Quality assurance procedures followed during these testing activities were applied consistent with the requirements outlined by the EPA methods referenced in 40 CFR Part 60 & 75. Analyzer calibrations, system bias and drift checks were completed before and after each sample run utilizing EPA Protocol 1 calibration gases.

## **CERTIFICATION REPORT**

## CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

ORLANDO UTILITIES COMMISSION CURTIS H. STANTON ENERGY CENTER UNIT 1 ORLANDO, FLORIDA

## Source Designation:

Unit 1 CEMS
Orlando Utilities Commission
5100 South Alafaya Trail
Orlando, FL 32831-2005

**Concerning:** TML-30 CO Analyzer

Order No: SCO801608PB

## Prepared by:

Teledyne Monitor Labs, Inc • 35 Inverness Drive East • Englewood, CO 80112

Jason Muckley

**Certification Specialist** 

1/30/09

Date

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CERTIFICATION FORMULAS

#### **SECTION I – INTRODUCTION**

Teledyne Monitor Labs, Inc. (TML) was contracted by the Orlando Utilities Commission to provide a continuous emission monitoring system (CEMS) at the Curtis H. Stanton Energy Center in Orlando, Florida. The Stanton Energy Center operates two fossil fuel fired steam generators designated Units 1 & 2. This report is concerned with the CEMS installed on Unit 1 only.

The Teledyne Monitor Labs contract included completion of CEMS certification for the system in accordance with the requirements identified in 40CFR60 and the Florida Department of Environmental Protection (FDEP). The CEMS measures the emissions of carbon monoxide (CO). CO was tested in accordance with 40CFR60, Appendix B, Performance Specification 4. Emission rates, in units of lbs/mmBtu, were tested in accordance with 40CFR60, Appendix B, Performance Specification 6.

Coastal Air Consulting, Inc. of DeLand, Florida, was retained by Teledyne Monitor Labs to conduct an independent relative accuracy test audit (RATA) program. Coastal Air performed EPA Reference Method Test 10 for carbon monoxide. The complete reference method test results are illustrated in Appendix A of this report. The objective of the certification was to demonstrate the compliance status of the CEMS installed to measure exhaust emissions from Unit 1. As specified in 40CFR60, Coastal Air conducted reference method tests for comparison to data generated by the CEMS installed on the exhaust stack. The data was then used to calculate the relative accuracy (RA) of the CEMS when compared to the reference method tests.

In addition to the RATA, a calibration error test was performed on the CEMS as required for certification by 40CFR60, Appendix B.

#### SECTION II - RESULTS AND DISCUSSION

For the emission RATAs, a total of nine test runs were performed on Unit 1 and the RA of the emissions monitored was calculated based on each of those runs. During the emission RATAs, process operations were greater than 50% operating load.

Table I below summarizes the results of the certification tests performed on the CEMS installed on Unit 1. Emissions were measured or calculated in the CO lb/mmBtu.

Table I CEMS Certification Results

Analyzer	Serial Number	Result	Limit	Calibration Drift Analysis 24 hr (7 day)
TML-30 CO lb/mmBtu	CO151	RA = 5.709%	RA ≤ 20%	Passed

Notes:

RA = Relative Accuracy

The relative accuracy of CO lb/mmBtu was less than 20%, as allowed by 40CFR60, Appendix B.

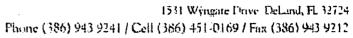
The calibration drift for the CO monitor did not deviate from the reference value of the calibration gas by more than 2.5 percent based upon the span of the instrument. All calibration error test data is illustrated in Appendix B.

## **SECTION III – CONCLUSION**

The certification tests performed on the CEMS and its subsequent evaluation was completed on January 29, 2009. The certification test results verify that the TML-30 CO analyzer installed on Unit 1 meets the performance specifications for relative accuracy and calibration drift, as required by 40CFR60.

## **APPENDIX A**

RELATIVE ACCURACY TEST AUDIT REPORT





# Emissions Test Report

## ORLANDO UTILITIES COMMISSION

## Unit 1

# CARBON MONOXIDE RELATIVE ACCURACY TEST AUDIT REPORT

## Prepared for:

Orlando Utilities Commission 5100 South Alafaya Trail Orlando, FL 32831

## Prepared by:

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

January 19, 2009

## STATEMENT OF VALIDITY

All testing activities and results represented herein were conducted and obtained in accordance with the approved EPA protocols listed in 40 CFR Part 60. The contents have been reviewed and verified to be true and correct at the time of testing.

Stephen C. Webb

President

## **PROJECT STATISTICS**

Client: Orlando Utilities Commission

Facility: Stanton Energy Center Unit 1

Location: 5100 South Alafaya Trail

Orlando, FL 32831

Type of Process Tested: Coal Fired Utility Steam Generating Unit

Test Protocols Performed: Oxygen/Carbon Dioxide-EPA Method 3A

Carbon Monoxide-EPA Method 10

Source Analyzers: Monitor Labs CO ~ 155

Testing Firm: Coastal Air Consulting, Inc.

1531 Wyngate Dr. DeLand, FL 32724

Test Personnel: Stephen Webb Site Superviser

Test Date: January 8, 2009

Client Representative: Louis Brown

Observers: Garry Kuberski & Michael Young DEP

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#### 1.0 Introduction

Coastal Air Consulting, Inc. (Coastal) was contracted by Teledyne Monitor Labs to determine the relative accuracy of the Continuous Emissions Monitoring System (CEMS) at the Orlando Utilities Commission (OUC) Stanton Energy Center Unit 1 in Orlando, Florida.

The sampling program was conducted the week of January 8, 2009. The RATA was performed by Coastal personnel, with the assistance of personnel assigned by Orlando Utilities Commission and Teledyne Monitor Labs. Orlando Utilities Commission personnel coordinated plant operations during testing activities.

## 2.0 Test Program Summary

A summary of test results developed by this source sampling program is presented in Table 1.

TABLE 1
Relative Accuracy Summary

PARAMETERS	RELATIVE ACCURACY %	BIAS	ALLOWABLE %
CO (lb/mmBtu)	5.709	NA	10

## 3.0 Results of Testing

These results indicate that Unit 1 CO passed the RATA at the time of testing under normal operating conditions.

## 4.0 Description of Source

Stanton Energy Center Unit 1 is a coal fired utility steam generator. The flue gas is exhausted through the Unit 1 stack. A schematic of the process and stack sampling location is included in Appendix 5 "Figures".

## 5.0 Sampling Procedures

EPA testing protocols utilized during this test program include the following:

EPA Method 3A Gas Analysis for CO<sub>2</sub>, O<sub>2</sub>, Excess Air and Dry Molecular Weight

(Instrumental Analyzer Method)

EPA Method 10 Determination of Carbon Monoxide Emissions From Stationary

Sources (Instrumental Analyzer Method)

## 6.0 Operating Conditions

Orlando Utilities Commission personnel monitored operating conditions throughout the duration of the sampling program.

## 7.0 Quality Assurance Procedures

Quality assurance procedures followed during these testing activities were applied consistent with the requirements outlined by the EPA methods referenced in 40 CFR Part 60. Analyzer calibrations, system bias and drift checks were completed before and after each sample run utilizing EPA Protocol 1 calibration gases.

## CERTIFICATION REPORT

## **CONTINUOUS EMISSION** MONITORING SYSTEM (CEMS)

ORLANDO UTILITIES COMMISSION **CURTIS H. STANTON ENERGY CENTER** UNIT 2 ORLANDO, FLORIDA

## Source Designation:

Unit 2 CEMS Orlando Utilities Commission 5100 South Alafaya Trail Orlando, FL 32831-2005

> Concerning: TML-30 CO Analyzer

Order No: SCO801608PB

Prepared by:

Teledyne Monitor Labs, Inc • 35 Inverness Drive East • Englewood, CO 80112

**Certification Assistant** 

Nov. 10, 2008 Date

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#### SECTION I – INTRODUCTION

Teledyne Monitor Labs, Inc. (TML) was contracted by the Orlando Utilities Commission to provide a continuous emission monitoring system (CEMS) at the Curtis H. Stanton Energy Center in Orlando, Florida. The Stanton Energy Center operates two fossil fuel fired steam generators designated Units 1 & 2. This report is concerned with the CEMS installed on Unit 2 only.

The Teledyne Monitor Labs contract included completion of CEMS certification for the system in accordance with the requirements identified in 40CFR60 and the Florida Department of Environmental Protection (FDEP). The CEMS measures the emissions of carbon monoxide (CO). CO was tested in accordance with 40CFR60, Appendix B, Performance Specification 4. Emission rates, in units of lbs/mmBtu, were tested in accordance with 40CFR60, Appendix B, Performance Specification 6.

Coastal Air Consulting, Inc. of DeLand, Florida, was retained by Teledyne Monitor Labs to conduct an independent relative accuracy test audit (RATA) program. Coastal Air performed EPA Reference Method Test 10 for carbon monoxide. The complete reference method test results are illustrated in Appendix A of this report. The objective of the certification was to demonstrate the compliance status of the CEMS installed to measure exhaust emissions from Unit 2. As specified in 40CFR60, Coastal Air conducted reference method tests for comparison to data generated by the CEMS installed on the exhaust stack. The data was then used to calculate the relative accuracy (RA) of the CEMS when compared to the reference method tests.

In addition to the RATA, a calibration error test was performed on the CEMS as required for certification by 40CFR60, Appendix B.

#### SECTION II – RESULTS AND DISCUSSION

For the emission RATAs, a total of nine test runs were performed on Unit 2 and the RA of the emissions monitored was calculated based on each of those runs. During the emission RATAs, process operations were greater than 50% operating load.

Table I below summarizes the results of the certification tests performed on the CEMS installed on Unit 2. Emissions were measured or calculated in the CO lb/mmBtu.

Table I

**CEMS Certification Results** 

Analyzer	Serial Number	Result	Limit	Calibration Drift Analysis  24 hr (7 day)
TML-30 CO lb/mmBtu	CO151	RA = 3.487%	RA ≤ 20%	Passed

Notes:

RA = Relative Accuracy

The relative accuracy of CO lb/mmBtu was less than 20%, as allowed by 40CFR60, Appendix B.

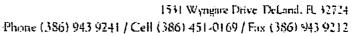
The calibration drift for the CO monitor did not deviate from the reference value of the calibration gas by more than 2.5 percent based upon the span of the instrument. All calibration error test data is illustrated in Appendix B.

## **SECTION III – CONCLUSION**

The certification tests performed on the CEMS and its subsequent evaluation was completed on October 21, 2008. The certification test results verify that the TML-30 CO analyzer installed on Unit 2 meets the performance specifications for relative accuracy and calibration drift, as required by 40CFR60.

## APPENDIX A

RELATIVE ACCURACY TEST AUDIT REPORT



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

## Emissions Test Report

## ORLANDO UTILITIES COMMISSION

## Unit 2

# CARBON MONOXIDE RELATIVE ACCURACY TEST AUDIT REPORT

## Prepared for:

Orlando Utilities Commission 5100 South Alafaya Trail Orlando, FL 32831

## Prepared by:

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

November 4, 2008

## STATEMENT OF VALIDITY

All testing activities and results represented herein were conducted and obtained in accordance with the approved EPA protocols listed in 40 CFR Part 60. The contents have been reviewed and verified to be true and correct at the time of testing.

Stephen C. Webb

President

## **PROJECT STATISTICS**

Client: **Orlando Utilities Commission** 

Facility: Stanton Energy Center Unit 2

Location: 5100 South Alafaya Trail

Orlando, FL 32831

Type of Process Tested: Coal Fired Utility Steam Generating Unit

Oxygen/Carbon Dioxide-EPA Method 3A Carbon Monoxide-EPA Method 10 Test Protocols Performed:

Source Analyzers: Monitor Labs CO - 151

Testing Firm: Coastal Air Consulting, Inc.

1531 Wyngate Dr. DeLand, FL 32724

Test Personnel: Stephen Webb Site Superviser

Test Date: October 21, 2008

Client Representative: David Baez

Observers: Garry Kuberski DEP

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#### 1.0 Introduction

Coastal Air Consulting, Inc. (Coastal) was contracted by Teledyne Monitor Labs to determine the relative accuracy of the Continuous Emissions Monitoring System (CEMS) at the Orlando Utilities Commission (OUC) Stanton Energy Center Unit 2 in Orlando, Florida.

The sampling program was conducted on October 21, 2008. The RATA was performed by Coastal personnel, with the assistance of personnel assigned by Orlando Utilities Commission and Teledyne Monitor Labs. Orlando Utilities Commission personnel coordinated plant operation during testing activities.

## 2.0 Test Program Summary

A summary of test results developed by this source sampling program is presented in Table 1.

**TABLE 1**Relative Accuracy Summary

PARAMETERS	RELATIVE ACCURACY %	BIAS	ALLOWABLE %
CO (lb/mmBtu)	3.487	NA	10

## 3.0 Results of Testing

These results indicate that Unit 2 CO passed the RATA at the time of testing under normal operating conditions.

## 4.0 Description of Source

Stanton Energy Center Unit 2 is a coal fired utility steam generator. The flue gas is exhausted through the Unit 2 stack. A schematic of the process and stack sampling location is included in Appendix 5 "Figures".

## 5.0 Sampling Procedures

EPA testing protocols utilized during this test program include the following:

EPA Method 3A Gas Analysis for CO2, O2, Excess Air and Dry Molecular Weight

(Instrumental Analyzer Method)

EPA Method 10 Determination of Carbon Monoxide Emissions From Stationary

Sources (Instrumental Analyzer Method)

## 6.0 Operating Conditions

Orlando Utilities Commission personnel monitored operating conditions throughout the duration of the sampling program.

## 7.0 Quality Assurance Procedures

Quality assurance procedures followed during these testing activities were applied consistent with the requirements outlined by the EPA methods referenced in 40 CFR Part 60. Analyzer calibrations, system bias and drift checks were completed before and after each sample run utilizing EPA Protocol 1 calibration gases.

## **CEMS OPERATION PLAN**

CARBON MONOXIDE (CO) CONTINUOUS EMISSION MONITORING SYSTEM (CEMS)

ORLANDO UTILITIES COMMISSION
CURTIS H. STANTON ENERGY CENTER
UNITS 1 & 2
DEP File No. 0950137-015-AC

#### **Source Designation:**

5100 South Alafaya Trail Orlando, FL 32831-2005

#### Concerning:

**TML-30 CO Monitors** 

Order No: SCO801608PB

## Prepared by:

TELEDYNE MONITOR LABS, INC • 35 INVERNESS DRIVE EAST ENGLEWOOD, CO 80112

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## 1.0 Summary

The Orlando Utilities Commission (OUC) Curtis H. Stanton Energy Center is subject to emissions monitoring and reporting requirements for carbon monoxide (CO) in order to satisfy the conditions stipulated in the facility's AC permit (Permit No. 0950137-015-AC). The facility will install two continuous emissions monitoring systems (CEMS) at their facility in Orlando, FL, on Units 1 and 2. The CEMS to be installed and certified on each unit are dilution-extractive CO CEMS which will be used to measure and record CO in parts-per-million (ppm). The CEMS are to be certified and operated in accordance with the procedures established in Title 40 of the Code of Federal Regulations, Part 60, Appendices B and F. A test protocol will be submitted that specifically outlines those procedures.

Currently the facility operates CEMS to monitor Nitrogen Oxides (NO<sub>X</sub>), Sulfur Dioxides (SO2), Carbon Dioxide (CO2) and Stack Flow that are certified pursuant to both 40CFR60 and 40CFR75 (Site ORIS Code is 564). The existing CO2 analyzers will be used in conjunction with the new CO analyzers to quantify CO emission rates.

## 2.0 Facility Description

Fossil fuel-fired steam generators Units 1 and 2 are wall-fired, dry-bottom boilers, firing pulverized coal as the primary fuel and No. 6 fuel oil for purposes of startup and flame stabilization. Each unit has a maximum heat input rate of 4,286 million British thermal units (mmBtu) per hour with a nominal generating capacity of 468 MW. Each unit is equipped with an electrostatic precipitator (ESP) for control of particulate matter (PM/PM10), a wet flue gas desulfurization (WFGD) system for sulfur dioxide (SO2) control, and low NOx burners for nitrogen oxides (NOx) control. Unit 2 is also equipped with a selective catalytic reduction (SCR) system for further control of NOx emissions. The following parameters are continuously monitored on both units: NOx, opacity, SO2, carbon dioxide (CO2), and stack gas flow rate.

The project under Permit No. 0950137-015-AC is for the installation of low-NOx burners (LNB) and over-fire air (OFA) equipment on Units 1 and 2. The burners shall be of a proven design which has been previously utilized to achieve similar emissions requirements when firing fuels similar to those fired at Unit 1 and Unit 2. The burners and OFA systems shall be designed specifically for low NOx formation. Burner design shall provide accurate fuel-air ratio control and thorough mixing of fuel and air at all ratings. Burner design shall prevent flame impingement on steam generator tubes or burner tile at any time.

The proposed project will increase emissions of carbon monoxide (CO) at levels in excess of PSD significant amounts. CO is a criteria pollutant and has Ambient Air Quality Standards (AAQS) significant impact levels and de minimis monitoring levels defined for it. The applicant shall install a carbon monoxide (CO) continuous emissions monitor (CO-CEMS) and conduct the appropriate performance specification testing by June 30, 2008, for Unit 2, and December 31, 2008, for Unit 1, respectively. Upon certification of the CO-CEMS, compliance with the 30-operating day rolling average shall be demonstrated using data collected from the required CO-CEMS.

## 2.1 Facility Location

The OUC Curtis H. Stanton Energy Center is located in Orange County, Southeast of Orlando and North of Highway 528 at 5100 South Alafaya Trail. The site is located 144 km southeast from the Chassahowitzka National Wildlife Area, the nearest Federal Prevention of Significant Deterioration (PSD) Class I Area. The OUC Stanton Energy Center presently consists of two coal-fired steam electrical generating units and a combined cycle unit. Coal-fired steam electric generating Units 1 and 2 (468)

megawatts-MW each) began operation in 1987 and 1996 while Combined Cycle Unit A (640 MW) began operation in 2003.

The facility is located in an area that is designated as "attainment", "maintenance", or "unclassifiable" for each pollutant subject to a National Ambient Air Quality Standard. It is classified as a "fossil fuel-fired steam electric plant of more than 250 million BTU per hour of heat input", which is one of the 28 Prevention of Significant Deterioration (PSD) Major Facility Categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year, therefore the facility is classified as a "major stationary source" of air pollution with respect to Rule 62-2 12.400 F.A.C., Prevention of Significant Deterioration of Air Quality.

#### 2.2 Unit Descriptions

Unit No. 1 consists of a coal-fueled Babcock and Wilcox boiler/steam generator (Model RB 611) and steam turbine, which drives a generator with a nameplate rating of 468 Megawatts. Fuel oil No. 6 is used for startup and flame stabilization. Biogas from a nearby landfill is also combusted. Air pollution control equipment consists of an electrostatic precipitator (ESP) for PM/PM10 and a wet flue gas desulfurization (WFGD) system, i.e., a scrubber for SO2. The initial requirements for Unit 1 were from the BACT determination and permit PSD-FL-084 issued for Units 1 and 2 in May 1982. Unit 1 is also subject to the requirements of Subpart Da.

Unit No. 2 consists of a coal-fueled Babcock and Wilcox boiler/steam generator (Model RB 621) and steam turbine, which drives a generator with a nameplate rating of 468 Megawatts. Fuel oil No. 6 is used for startup and flame stabilization. Biogas from a nearby landfill is also combusted. Air pollution control equipment includes an ESP for PM/PM10 and a scrubber for SO2. In addition, Unit 2 includes low NOx burners (LNB), overfire air (OFA) and a selective catalytic reduction (SCR) system for NOx control. The more stringent requirements for Unit 2 are from a modification of PSD-FL-084 dated December 1991.

Flue gas from each boiler is discharged via separate stacks. Each stack stands approximately 500 feet above grade and has in internal diameter at the testing ports of approximately 20.82 feet on Unit 1 and 20.62 feet on Unit 2.

## 3.0 CEMS Systems

A gas dilution extractive system draws a sample through the sample probe located in the stack. The motive force is the flow of dilution (instrument) air up to the probe. Dilution air passes through an eductor in the probe, and after drawing a small amount of a stack gas into its stream, it returns back down the sample line. The diluted sample is routed to low-level gas analyzers for measurement. The actual gas measurement is related to the stack value by the dilution ratio; in other words, the stack value is equal to the analyzer value multiplied by the dilution ratio. The dilution ratio is the total flow delivered to the analyzers divided by the flow educed from the stack or process stream. The flow educed from the stack is defined by the size of the critical orifice with the dilution probe. The operation of the probe is controlled by the Programmable Logic Controller (PLC) in the analysis cabinet which enables monitoring and adjustment of the critical flow and pressure parameters and indicates operational modes such as sampling, calibration, backpurge, and bypass. The CEMS cabinet provides gauges and meters for calibration and backpurge flow, vacuum and diluent pressure. A diagnostic control center performs complete system diagnostics and provides access to all diagnostic data. The standard diagnostics package performs real time failure warnings, such as calibration drift and provides a fail-safe startup of the CEMS system. The electronic signals processed by the analyzer controller are sent by serial communication to the Data Acquisition and Handling System (DAHS).

The affected units are currently equipped with dilution-extractive CEMS that monitor Nitrogen Oxides (NO<sub>X</sub>), Sulfur Dioxides (SO2), Carbon Dioxide (CO2) and Stack Flow. Carbon Monoxide (CO) analyzers will be incorporated in the existing CEMS, as shown in the attached Piping and Instrumentation Diagrams (see Appendix). The PLC provides for fault monitoring, emission alarms, measurement calculation and corrections, and automatic timed calibration cycles. It further outputs measurement data in both analog and serial digital format. The electronic signals processed by the controller are sent by serial communications to the DAHS.

## 3.1 Analyzer Information

The sensor-e® CO analyzer (TML30) measures carbon monoxide by comparing infrared energy absorbed by a sample to that absorbed by a reference gas according to the Beer-Lambert law. This is accomplished with a Gas Filter wheel which alternately allows a high energy light source to pass through a CO filled chamber and a chamber with no CO present. The light path then travels through the sample cell, which has a folded path of 14 meters.

The energy loss through the sample cell is compared with the zero reference signal provided by the gas filter to produce a signal proportional to concentration, with little effect from interfering gases within the sample. This design produces excellent zero and span stability and a high signal to noise ratio allowing extreme sensitivity. Multi-tasking software gives real time indication of numerous operating parameters and provides automatic alarms if diagnostic limits are exceeded.

#### 3.2 CEMS Equipment Specifications and Descriptions

Model: TML-30

Ranges: 0-1 ppm to 0-1,000 ppm full sale, user selectable

Dual ranges and autoranging supported

Units: ppb, ppm, pg/m3, mg/m3

Zero Noise: <0.02 ppm

Span Noise: <0.5% of reading above 5 ppm (RMS)

Lower Detectable Limit (LDL): 0.04 ppm

Zero Drift: <0.1 ppm/24 hours, <0.2ppm/7 days

Span Drift: <0.5% of reading/24 hours, 1% reading/7 days

Lag Time: 10 seconds

Rise and Fall Time: <60 seconds to 95%
Linearity: 1% of full scale
Precision: 0.5% of reading
Sample Flow Rate: 800 cc/min + 10%

Operating Temperature Range: 5 - 40°C

#### 3.3 Range Determination

The high range of the CO analyzers (0-3000 ppm) is based on a maximum potential concentration for the purpose of measuring emissions during startup/shutdown events. In order to improve the resolution of the CEMS at the concentration levels expected in the flue gas, the site will utilize dual-range analyzers.

The low range of the CO analyzer (0-300 ppm for Unit 1, and 0-225 ppm for Unit 2) is based upon the permit limits and historical data for normal operation. Also, because these ranges are ten percent or less of the high range of 3000 ppm, the majority of CEMS would be made at the lower end of the monitor range unless dual ranges were used.

The following table lists the planned low and high CO ranges for Units 1 and 2, as well as the ranges for the existing CO2 analyzers.

Unit	Analyzer	Range(s)	Manufacturer/Model	Serial No.
1	CO	Low 0 – 300 ppm	Teledyne Monitor Labs TML-30	TBD
	<u></u>	High 0 – 3000 ppm		
1	CO2	0 – 20%	Teledyne Monitor Labs ML9820	76
2	СО	Low 0 – 225 ppm High 0 – 3000 ppm	Teledyne Monitor Labs TML-30	TBD
2	CO2	O – 20%	Teledyne Monitor Labs ML9820	180

## 4.0 Sampling Location

Each unit has its own approximately 500-foot tall exhaust stack through which exhaust gases are vented to the atmosphere. The gas sample is continuously pulled through freeze-protected UniTherm Electric Trace sample line to the gas analyzers that are located in a temperature-controlled environment. A schematic of the probe locations is included in the Appendix to this plan.

## 5.0 Data Acquisition and Handling System

The CEMS data acquisition and handling system (DAHS) is an automated system that records measured CEMS data as one-minute samples and averages the data for subsequent calculations and report preparation. Reports prepared by the system include alarm, calibration, and routine emission reports. The existing Teledyne Monitor Labs RegPerfect DAHS will be modified to incorporate data collection and reporting for CO.

The DAHS is capable of reading all values over the full range of each measurement device and creates a permanent record of all required raw and calculated data for storage, review, and reporting. In addition, a continuous readout in units of each applicable emission standard or operating criteria is displayed.

## 5.1 Data Calculations and Reporting Procedures

Each CEMS and component shall be capable of completing a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 15-minute interval. All CO concentrations and CO mass emissions shall be reduced to 1-hour averages. These averages shall be computed from four or more data points equally spaced over each 1-hour period.

CO emission rate will be calculated using the following formula:

E = K \* C \* Fc \* 100 / %CO2

```
Where:

E = Emission rate (lb/mmBtu)

K = 7.268 * 10^-8 ([lb/scf]/ppm)

C = Pollutant concentration (ppm, wet basis)
```

Fc = 1800 (scf CO2/mmBtu) %CO2 = CO2 concentration (percent of effluent gas, wet basis)

## 5.2 Data Capture Requirements

Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the hourly averages. Failure of the CEMS to acquire four valid data points, except for hours in which calibrations, quality assurance activities, maintenance, or repairs occur, shall result in invalidation of such data by means of the data acquisition and handling system (DAHS) for the that hour. All data points collected during an hour will be, to the extent practicable, evenly spaced over the hour.

## 6.0 Quality Assurance and Quality Control Programs

Quality Assurance (QA) and Quality Control (QC) are two independent and interrelated functions. Quality Control can be defined as the series of activities performed to provide a quality product (data). Quality Assurance can be defined as the system of activities to provide assurance that the QC is performing adequately.

#### A OA Plan has two functions:

- (1) QA the assessment of the quality of the data (accuracy and precision), and
- (2) QC activities that maintain or improve data quality.

Both functions form a control loop. When accuracy or precision is unacceptable, QC must increase until the quality of data is acceptable.

Quality control functions are usually a series of frequent internal checks, such as system inspections, periodic calibrations, and routine maintenance. Quality assurance, on the other hand, involves less frequent external checks on data quality. These external checks may include independent system audits, third party sample and analysis for accuracy and precision, comparison to known calibration standards, or inter-laboratory audits. This Quality Assurance Plan encompasses both QA and QC functions and, whenever possible, plan activities are identified by the function which they fulfill.

#### **Performance Audits**

Performance audits are performed on the CEMS in order to verify the precision and accuracy of the data, and that the operation and maintenance procedures are working properly.

The first performance audit conducted to establish initial acceptability of the CEMS is the Relative Accuracy Test Analysis (RATA). It is performed in accordance with 40CFR60, Appendix A Reference Method test procedures. A competent professional testing contractor, in accordance with approved testing procedures conducts the performance audit. Should the performance audit produce unacceptable results, corrective action, as required, is taken and the performance audit is repeated. Full documentation of the corrective action is recorded.

Quarterly and/or annual quality assurance assessments are required in accordance with the requirements in 40CFR60, Appendix F. Cylinder gas audits are performed on the CEMS for the remaining calendar quarters.

#### **Daily CEMS Inspection**

A daily inspection of the CEMS, by a qualified CEMS Technician, on a routine basis ensures the maximum capability of the system. A trained CEMS Technician is able to recognize a problem based upon discrepancies in the daily operation check procedure. A CEMS logbook is maintained to document

daily system operational status information, record any maintenance performed, and track long-term performance of the system. An electronic file contains a record of the CEMS daily calibration activities.

#### **Daily CEMS Drift Assessment and Corrective Action**

The CEMS performs a calibration once every 24 hours. The CEMS must be adjusted when either the zero or span calibration drift exceeds twice the applicable performance standard. The CEMS are considered to be out-of-control when:

- Either the zero or span calibration drift exceeds four times the applicable performance specification in 40CFR60.
- Either the zero or span calibration drift exceeds twice the applicable performance specification in 40CFR60 for five consecutive days.
- Calibration or zero drift check for a measurement device is not conducted during a calendar day.

  Data for the following day is considered invalid until a successful drift check is completed.

#### Out-of-control calibration drift criteria

	LEVEL AT WHICH CEMS SHALL BE		
MONITOR	ADJUSTED	ANY ONE DAY	ANY FIVE CONSECUTIVE DAYS
Pollutant CO	±5 % of span	±10 % of span	±5 % of span
Diluent CO <sub>2</sub>	1.0 % diff from std	2.0 % diff from std	1.0 % diff from std

If an out-of-control condition exists, corrective action is initiated as soon as possible. Corrective action steps are identified in the Monitor Labs <u>Operation and Maintenance Manual</u> or the analyzer's <u>Operator Manual</u> for each specific CEMS/analyzer. Corrective action steps may include: adjustment of the analyzer potentiometers, calibration of oxygen flow rate and pressure, or correction of any problem associated with electro-optical filters, calibration gas, instrument air lines, or sample lines installed on the stack. Calibration drift checks are repeated following corrective action to verify the CEMS meets calibration requirements and is no longer out-of-control.

During an out-of-control period, the data collected by the CEMS will not be used in determining emission compliance; nor will it be counted toward meeting the minimum data availability requirements. The out-of-control period begins with the hour of completion of the failed calibration error test and ends with the hour of completion following an effective recalibration. Whenever the failed calibration, corrective action, and effective recalibration occur within the same hour, the hour is not out of control if two or more valid readings are obtained during that hour.

#### **Preventive Maintenance Procedures**

The CEMS requires a certain level of maintenance to assure a high level of confidence in the validity of the data. A good periodic maintenance program will also prevent major and costly equipment failures. Preventive maintenance checks and procedures are identified in the Maintenance and Trouble Shooting Section in each of the analyzer's Operator Manual.

#### **Corrective Maintenance Procedures**

Due to the complexity of the CEMS, a detailed written procedure cannot be provided for a malfunctioning CEMS. Each problem is evaluated by plant personnel utilizing the CEMS <u>Operation and Maintenance Manual</u>, the <u>Operator Manual</u>, and/or factory assistance from Call Center personnel at Teledyne Monitor Labs. A trouble-shooting section is included in each analyzer's <u>Operator Manual</u>.

## 7.0 Reporting and Recordkeeping

Emissions of CO from Unit 1 shall not exceed 0.18 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required continuous emissions monitoring system (CO-CEMS). Emissions of CO from Unit 2 shall not exceed 0.15 lb/mmBtu heat input on a 30-operating day rolling average as demonstrated by the required CO-CEMS. Emissions of CO shall not exceed these respective limits on a 3-hour average during the initial compliance demonstration.

#### **Emissions Performance Test Reports**

A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed.

#### **Excess Emissions Reporting**

Malfunction Notification: If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. The Department may request a written summary report of the incident.

SIP Quarterly Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO emissions in excess of the BACT permit standard following the NSPS format in 40 CFR 60.7(c), Subpart A. In addition, the report shall summarize the CO-CEMS system monitor availability for the previous quarter.

NSPS Reporting: Within 30 days following the calendar quarter, the permittee shall submit the written reports required by 40 CFR 60 Subpart Da (Standards of Performance for Fossil-Fuel Fired Steam Generators) for the previous semi-annual period to the Compliance Authority.

#### **Annual Operating Report**

The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility in accordance with 62-210.370. Annual operating reports shall be submitted to the Compliance Authority by March 1<sup>st</sup> of each year.

#### **Monthly CO-CEMS Report**

Upon certification of the CO-CEMS the permittee shall submit, on a monthly basis, a report in electronic file format which includes Unit 1 and Unit 2 CO, NOx, and heat input data. The report shall be submitted by the 15<sup>th</sup> of each month by mailing a compact disc to the Department's Bureau of Air Regulation Permitting South Section and shall include all hourly readings from the previous month. Alternatively, upon contacting the Bureau's project engineer, the file may he emailed to the appropriate Bureau personnel.

#### **Monitor Availability**

The quarterly excess emission report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CO-CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of the permit.

Availability = (Total Source Operating Time - CEMS Downtime) / Total Source Operating Time \* 100%

## 8.0 System Certification

## 8.1 Relative Accuracy Test Audit (RATA)

One measure of the accuracy of a CEMS is the RATA, which is required for initial certification of a CEMS and for on-going quality assurance. The RATA ensures that the installed monitor measures the "true" pollutant concentration when comparing the monitoring results to a reference method test, which simultaneously measured the stack gas pollutant. Thus, the lower the relative accuracy resulting from the test audit, the more accurate the monitor.

A RATA is performed at least once every four calendar quarters in accordance with procedures in 40CFR60, Appendix F. The RATA requires the support of a third party stack-sampling contractor. The contractor is required to use the reference method stack monitoring procedures of 40CFR60, Appendix A. The source will not operate at any less than 50 percent of the normal rated capacity under normal operating conditions during the RATA testing. Data from the stack-sampling contractor along with data from the CEMS data acquisition system is correlated to determine relative accuracy.

The CEMS are considered out of control under the following conditions:

- (1) If the required RATA is not conducted during a calendar year. Data is considered invalid until a successful relative accuracy test is completed.
- (2) If the CEMS fails relative accuracy testing, data is considered invalid from the time results of the failed test is received until the completion of the next acceptable RATA.

The allowable relative accuracy is specified in the applicable Performance Specification in 40CFR60, Appendix B. If the RATA results exceed the criteria in 40CFR60, Appendix B, the CEMS is considered out-of-control. The Environmental Manager will notify the CEMS Technician that emergency corrective maintenance is required for the out-of-control monitor.

The designated plant personnel will notify the Plant Manager of the results and what corrective maintenance was performed on the CEMS to correct any deficiency. Prompt follow-up testing is scheduled and performed after the corrective maintenance is complete to verify the monitor meets the acceptable criteria. The out-of-control period ends at the time corresponding to completion of resampling of the subsequent successful RATA.

## 8.2 Quarterly Cylinder Gas Audit (CGA)

A Cylinder Gas Audit is conducted during three out of four calendar quarters. A total of 6 non-consecutive measurements are conducted using low (20-30% of span) and mid (50-60% of span) level calibration gases. The mean difference and calibration errors for the low and mid concentration levels are calculated. The calibration error will not exceed 15% or 5 ppm of the absolute difference for CO. The Cylinder Gas Audit is conducted in accordance with the procedures contained in 40CFR60, Appendix F.

The CEMS are considered out of control if the quarterly Cylinder Gas Audit for any instrument exceeds the applicable performance standard (in any of the three calendar quarters during which the test is required). The data collected by that instrument while the CEMS is considered out of control is considered invalid until the completion of the next acceptable Cylinder Gas Audit.

The CEMS are considered out of control if the required quarterly Cylinder Gas Audit is not conducted during a calendar quarter. Data for the following quarter is considered invalid until a successful Cylinder Gas Audit is completed.

The cylinder gas bottles with the certified concentrations must not be expired to validate a successful Cylinder Gas Audit. Cylinders must be certified in accordance with EPA Protocol 1 standards or NIST traceable reference material.

#### Cylinder gas requirements - Cylinder gas audit

PARAMETER	LOW (20-30% of Span)*	MID (50-60% of Span)*
U1 CO low range	60 – 90 ppm	150 – 180 ppm
U2 CO low range	45 – 67.5 ppm	112.5 – 135 ppm
U1/U2 CO high range	600 – 900 ppm	1500 – 1800 ppm

#### 8.3 7-Day Calibration Drift Test

The calibration drift for each CO analyzer will be completed according to the guidelines of 40CFR60, Appendix B, Performance Specification 4/4A. The calibration drift will be determined from the automatic daily calibrations, as programmed to occur by the Teledyne Monitor Labs field service technician, of the analyzers using zero-level (0-20 percent of span) and high-level (50-100 percent of span) calibration gases, instrument air, or internal span cell. The calibration gases are supplied to the probe on the stack to provide verification of the complete analysis system. The test will be performed approximately every 24 hours for seven consecutive unit operating days. The daily test data will be recorded and archived by the data acquisition system. During the test period, no adjustments will be made to the monitor settings between the zero-level and high-level calibration tests. The calibration values for CO shall not deviate from the reference value by more than 5 percent of the span value for 6 out of 7 test days, based on the span of the instrument.

$$CE = |R - A| \times 100$$

where,

CE = Percentage calibration error.

R = Reference value of zero or high-level calibration gas introduced into the monitoring system.

A = Actual monitoring system response to the calibration gas.

S = Span of the instrument

## 8.4 Response Time Test

In order to perform the response time test, a zero gas will be introduced into the analyzer. When the system output has stabilized (no change greater than 1 percent of full scale for 30 sec), an upscale calibration gas will be introduced. The time required to reach 95 percent of the final stable value will be recorded (upscale response time). Next, the zero gas will be reintroduced and the time required to reach a stable reading will be recorded (downscale response time). The entire procedure will be repeated three times to determine the mean upscale and downscale response times. The slower or longer of the two means is the system response time.

## 8.5 Certification Test Reports

Upon completion of the initial certification test program and an internal review of the results, a final test report will be submitted to the applicable regulatory agencies.

# ATTACHMENT SEC-FI-C3 Requested Changes to the TV and AC Air Permits

# ATTACHMENT SEC-FI-C3 Requested Changes to the TV and AC Air Permits

This attachment presents the requested permit language revisions necessary to incorporate the respective air construction permit conditions into the revised TV air operation permit. In addition, permit language revisions are requested to the air construction permit. The requested language revisions are presented on the following pages in a strikethrough/underline format and include the following:

- Incorporate the requirements of air construction Permit No. 0950137-011-AC for installation of the dibasic acid (DBA) additive systems for Units 1 and 2 WFGD systems.
- Incorporate the requirements of air construction Permit No. 0950137-015-AC for installation of the low NOx burners and overfire air system for Units 1 and 2.
- Request revisions to air construction Permit No. 0950137-015-AC to remove Specific Condition 21 for monthly reporting.

#### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Units 001 and 002

The specific conditions in this section apply to the following emissions unit(s):

EU No. Brief Description		
001	Fossil Fuel Fired Steam Generator No. 1	
002	Fossil Fuel Fired Steam Generator No. 2	

Fossil fuel fired steam generator # 1 is a nominal 468 megawatt steam generator designated as Unit # 1. The emission unit is fired primarily on bituminous coal and secondarily on No. 6 fuel oil for startup and flame stabilization, as permitted herein, with a maximum heat input of 4286 MMBtu per hour. Stack height is 550 feet, stack exit diameter is 19.0 feet, flow rate is 1,420,000 actual cubic feet per minute (acfm) at 127 degrees Fahrenheit, stack exit velocity is 83.5 feet per second.

Fossil fuel fired steam generator # 2 is a nominal 468 megawatt steam generator designated as Unit # 2. The emission unit is fired primarily on bituminous coal and secondarily on No. 6 fuel oil and on-specification used oil for startup and flame stabilization, as permitted herein, with a maximum heat input of 4286 MMBtu per hour. Stack height is 550 feet, stack exit diameter is 19.0 feet, flow rate is 1,310,120 acfm at 124 degrees Fahrenheit, stack exit velocity is 77.0 feet per second.

Each boiler/steam generator, units #1 and #2, drives a turbine generator and both units have an individual 550 foot exhaust stack. Particulate matter emissions generated during the operation of the unit are controlled by a dry electrostatic precipitator (ESP) manufactured by Wheelabrator-Frye Inc. The control efficiency of the ESP is 99.7%. Units 1 and 2 are each equipped with low NOx burners (LNBs) and overfire air equipment. The burner design provides accurate fuel-air ratio control and thorough mixing of fuel and air at all ratings. Sulfur dioxide emissions are controlled by flue gas desulfurization equipment manufactured by Combustion Engineering. In addition, the flue gas desulfurization systems for each unit are equipped with a dibasic acid (DBA) additive delivery system. Each DBA system includes: three metering pumps; one DBA storage tank; associated piping, valves and components; and instrumentation and controls.

Each boiler/steam generator (i.e., units #1 and #2) are regulated under the federal Acid Rain Program, Phase II, adopted and incorporated by reference in Rule 62-204.800, F.A.C. These units hold ORIS code 0564.

Emission Units 1 and 2 are subject to compliance assurance monitoring (CAM) for particulate matter (PM) emissions controlled by an ESP. Because the continuous opacity monitoring system (COMS) is required to be used at the facility (for Phase II Acid Rain Program purposes), it must also be used as part of the CAM plan. A CAM plan is included for the ESP. See Appendix CAM.

{Permitting note(s): The emissions units are regulated under Acid Rain, Phase II; NSPS-40 CFR 60, Subpart Da, Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(7)(b)2, F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT), and Compliance Assurance Monitoring (CAM). Fossil fuel fired steam generator # 1 began commercial operation on May 12, 1987; and fossil fuel fired steam generator # 2 began commercial operation on June 1, 1996.}

#### Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

Unit Nos.	MMBtu/hr Heat Input	Fuel Type
001	4,286	Coal, No. 6 fuel oil, on-site generated lubricating oil and used fuel oil which meets the requirements of 40 CFR 266.40, landfill gas from the Orange County Landfill and natural gas as supplied by commercial
002	4,286	pipeline.

[Rules 62-4.160(2), 62-204.800 and 62-210.200(PTE), F.A.C.; PSD-FL-084; and Department Order Modifying Conditions of Power Plant Certification dated December 24, 1997]

#### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Units 001 and 002

(b) 0.46 lb./million Btu heat input on an annual average.

- (2) When combusting liquid fuel, nitrogen oxide emissions shall not exceed shall not exceed 0.30 lb/million Btu heat input (30-day rolling average).
- (3) When liquid and solid fuels are combusted simultaneously in Unit No. 1, the applicable standard for nitrogen oxides is determined by proration using the following formula:

$$En = [0.30 x + 0.60 y]/100$$

where:

En = the applicable standard for nitrogen oxides when multiple fuels are combusted simultaneously (lb/million Btu heat input).

x = the percentage of total heat input derived from the combustion of liquid fuels.

y = the percentage of total heat input derived from the combustion of solid fuels.

b. Unit 2.

- (1) When combusting bituminous coal, nitrogen oxide emissions shall not exceed 0.17 lb./million Btu heat input (30-day rolling average).
- (2) When combusting liquid fuel, nitrogen oxide emissions shall not exceed shall not exceed 0.30 lb/million Btu heat input (30-day rolling average).
- (3) When liquid and solid fuels are combusted simultaneously in Unit No. 2, the applicable standard for nitrogen oxides is determined by proration using the following formula:

$$En = [0.30 x + 0.17 y]/100$$

where:

En = the applicable standard for nitrogen oxides when multiple fuels are combusted simultaneously (lb/million Btu heat input).

X = the percentage of total heat input derived from the combustion of liquid fuels.

Y = the percentage of total heat input derived from the combustion of solid fuels.

- c. Units 1 and 2. The above standards apply at all times except during periods of startup, shutdown, or malfunction. [Rule 62-204.800(8) and 42-214, F.A.C.; and 40 CFR 60.44Da]
- **A.9.** Ammonia Slip. Ammonia slip from the NOx control system shall be limited to less than 30 ppmv, uncorrected. [Rule 62-204.800(8) and 42-214, F.A.C.; and 40 CFR 60.44Da]
- A.10. Carbon Monoxide. Carbon monoxide (CO) emissions from Unit No. 2 shall not exceed 0.15 lb/million Btu heat input.

#### a. Unit 1.

Emissions of CO shall not exceed 0.18 lb/rnmBtu heat input on a 30-operating day rolling average as demonstrated by the required continuous emissions monitoring system (CO-CEMS).

#### b. Unit 2.

Emissions of CO shall not exceed 0.15 lb/rnmBtu heat input on a 30-operating day rolling average as demonstrated by the required CO-CEMS. Based upon a heat input of 4286 million Btu/hr, CO emissions shall not exceed 643 lb/hr (2,816 TPY). [PSD-FL-084]

#### [62-210.200 (BACT), and 62-212.400(PSD), F.A.C]

**A.11.** <u>Volatile Organic Compounds.</u> Volatile Organic Compounds (VOC) emissions from Unit No. 2 shall not exceed 0.015 lb/million Btu heat input. Based upon a heat input of 4,286 million Btu/hr, VOC emissions shall not exceed 64 lb/hr (282 TPY). [PSD-FL-084]

#### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection A. Emissions Units 001 and 002

- A.23. <u>Nitrogen Oxides.</u> The permittee shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxide emissions discharged to the atmosphere. [Rule 62-204.800(8), F.A.C.; 40 CFR 60.49Da]
- **A.24.** Oxygen or Carbon Dioxide. The permittee shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxide emissions are monitored. The oxygen monitor shall be used with automatic feedback or manual controls to continuously maintain optimum air/fuel ratio parameters. [PSD-FL-084, Rule 62-204.800(8), F.A.C.; 40 CFR 60.49Da]
- A.25 Continuous Compliance with CO limits: The permittee shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring carbon monoxide (CO) emissions discharged to the atmosphere. Compliance with the 30-operating day rolling average shall be demonstrated using data collected from the required CO-CEMS. [Rule 62-4.070(3), F.A.C.]

Performance Specifications and Quality Assurance: The acceptability of the CO-CEMS shall be evaluated by conducting the appropriate performance specification, as follows: The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RAT A tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards. [Rules 62-4.070(3), 62-2 10.200(BACT), F.A.C.]

#### CEMS Data Requirements for CO BACT Standard:

- a. Data Collection: The CO-CEMS shall monitor and record emissions during all operations and whenever emissions are being generated, including during episodes of startups, shutdowns, and malfunctions. All data shall be used, except for invalid measurements taken during monitor system breakdowns, repairs, calibration checks, zero adjustments, and span adjustments.
- b. Operating Hours and Operating Days: An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Any day with at least one operating hour for an emissions unit is an operating day for that emission unit.
- c. Valid Hourly Averages: The CO-CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
  - 1) Hours that are not operating hours are not valid hours.
  - 2) For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data, the I-hour block average is not valid, and the hour is considered as "monitor unavailable."
- d. Rolling 30-day average: Compliance shall be determined after each operating day by calculating the arithmetic average of all the valid hourly averages from that operating day and the prior 29 operating days.
- e. Monitor Availability: The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CO-CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit. [Rules 62-4.070(3) and 62-2 210.200(BACT), F.A.C.]

#### SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

#### CEMS FOR ANNUAL EMISSIONS REPORTING

17. CO-CEMS Annual Emissions Requirement: The owner or operator shall use data from the CO-CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rule 62-210.370(3), F.A.C. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.

[Rules 62-210.200, and 62-210.370(3), F.A.C.]

#### REPORTING AND RECORD KEEPING REQUIREMENTS

18. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.31 0(8)(c), F.A.C. and in Appendix GC of this permit.

[Rule 62-297.310(8), F.A.C.]

#### 19. Excess Emissions Reporting:

- a. Malfunction Notification: If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. The Department may request a written summary report of the incident.
- b. SIP Quarterly Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO emissions in excess of the BACT permit standard following the NSPS format in 40 CFR 60.7(c), Subpart A. In addition, the report shall summarize the CO-CEMS system monitor availability for the previous quarter.
- c. NSPS Reporting: Within 30 days following the calendar quarter, the permittee shall submit the written reports required by 40 CFR 60 Subpart Da (Standards of Performance for Fossil-Fuel Fired Steam Generators) for the previous semi-annual period to the Compliance Authority.

{Note: If there are no periods of excess emissions as defined in 40 CFR, Part 60, Subpart Da, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report.}

[Rules 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C., and 40 CFR 60.7]

- 20. <u>Annual Operating Report</u>: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility in accordance with 62-210.370. Annual operating reports shall be submitted to the Compliance Authority by March 151 of each year. [Rule 62-210.370(2), F.A.C.]
- 21. Monthly CO CEMS Report: Upon certification of the CO CEMS the permittee shall submit, on a monthly basis, a report in electronic file format which includes Unit 1 and Unit 2 CO, NOx, and heat input data. The report shall be submitted by the 15th of each month by mailing a compact disc to the Department's Bureau of Air Regulation Permitting South Section and shall include all hourly readings from the previous month. Alternatively, upon contacting the Bureau's project engineer, the file may be emailed to the appropriate Bureau personnel.