

Document	Date	Date Stmp
Letter sent via DHL to mr. Gregg M. Worley U.S. EPA - Letter to Mr. Mike Halpin Re: Request for Additional Information Pollution controls Upgrad Project Seminole Generating Station, Unit 1 & 2 DEP File 1070025-004-AC		4/18/2006
Letter to Gregg M. worley, Chief Air Permits Section U.S. EPA Region 4 for 1070025-005- AC PSD-FL-375 from Patty Adams for Jeff Koerner	3/15/2006	
Letter to John Bunyak, Chief Policy, Planning & Permit Review Brance NPS-Air Quality Div. for 1070025-005-AC PSD-FL-375 from Patty Adams for Jeff Koerner	3/15/2006	
Memo and Notice of Final Permit for Seminole Electric Generating Station DEP File No. 1070025-004-AC with Final Determination Attached	6/14/2008	
Final Permit Certificate of Service		6/21/2006
Letter from Seminole Electric Coop. to Mike Halpin Re: Request for Additional Information reponse for 1070025-004-AC		4/18/2006
Emissions Unit Information Section 7 of 7 D. Segment Process/Fuel Information (2 pages)	12/29/2005	
Letter from U.S. EPA Washing ton DC to Ms. Trina Vielhauer Re: Seminole Electric Cooperatin, Inc. Permit Number PSD-FL-375 Appeal Number PSD 08-09	10/9/2008	10/14/2008

Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer

THRU: J. F. Koerner *JK*

FROM: M. P. Halpin *MJ*

DATE: April 28, 2006

SUBJECT: Seminole Electric Cooperative, Inc.
Pollution Control Upgrades including CAIR/CAMR
DEP File No. 1070025-004-AC

Attached is the public notice package for Seminole Electric Cooperative's Seminole Generating Station (SGS) air construction permit. This is an existing facility which is currently in the process of adding pollution controls to its two existing steam generating units in Palatka. The modification incorporates a proposal to meet the CAIR and CAMR requirements, as well as provide for emission reductions adequate to provide some PSD netting for a planned Unit 3 (covered in a separate application).

I recommend your approval.

/mph

Attachments

P.E. Certification Statement

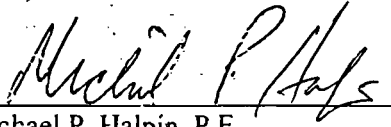
Seminole Electric Cooperative, Inc.
Seminole Generating Station
Putnam County

DEP File No.: 1070025-004-AC
Facility ID No.: 1070025

Project: Air Construction Permit

I HEREBY CERTIFY that the engineering features described in the above referenced application and related additional information submittals, if any, and subject to the proposed permit conditions, provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

(Seal)


Michael P. Halpin, P.E.
Registration Number: 31970

5-1-06
Date

Permitting Authority:

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
North Permitting Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 1070025-004-AC

Seminole Electric Cooperative
Seminole Generating Station
Units 1 and 2 Pollution Control Upgrades

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Seminole Electric Cooperative, Inc. to upgrade the pollution controls for Units 1 and 2. The upgrades include replacing the existing Low NO_x burners and modifying the existing Over-Fire Air System, upgrading the existing Flue Gas Desulphurization System, and adding Selective Catalytic Reduction Systems, Alkali Injection Systems and a Carbon Burnout UnitTM. The new equipment will be installed at the existing Seminole Generating Station, which is located at 890 North U.S. Highway 17, north of Palatka, in Putnam County, Florida. The applicant's authorized representative is James R. Frauen, Manager of Environmental Affairs. The applicant's mailing address is SECI, 16313 North Dale Mabry Highway, Tampa, FL 33618.

The project is being proposed so as to comply with proposed Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR) as well as to create selected air emission reductions in order to prepare for the potential installation of a new steam generating unit. In accordance with the specific conditions, the draft permit authorizes the construction and installation of these pollution controls. Actual emissions of all regulated air pollutants are expected to remain the same or decrease.

The Department will issue the Final Permit with the attached conditions unless a response received in accordance with the following procedure results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
(111 S. Magnolia Drive, Suite 4)
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400
Telephone: 850/488-0114

Department of Environmental Protection
Northeast District Office
Air Resources Section
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7577
904-807-3371

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above or the following website: <http://www.dep.state.fl.us/Air/permitting/construction.htm>

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

Elzabeth Working copy
Florida Department of**Memorandum****Environmental Protection**

TO: Joe Kahn, Acting Director – DARM

THRU: Trina Vielhauer, Chief - BAR
Jeff Koerner, Air Permitting North ✓

FROM: Michael P. Halpin, Air Permitting North

DATE: June 14, 2006

SUBJECT: Seminole Electric Generating Station
DEP File No. 1070025-004-AC
Units 1 - 2 Pollution Control Upgrades

Attached is the final air construction permit for Seminole Electric Cooperative's Seminole Generating Station. This is an existing facility which is currently in the process of adding pollution controls to its two existing steam generating units in Palatka. The modification incorporates a proposal to meet the CAIR and CAMR requirements, as well as provide for emission reductions adequate to provide some PSD netting for a planned Unit 3 (covered in a separate application).

The Public Notice of Intent to Issue concerning the Draft Permit was published in the Palatka Daily News on May 13, 2006. No comments were received other than those from the applicant, which are identified within the Final Determination (attached).

I recommend your approval.

Attachments

/mph

*Joe -
we spoke with Seminole about
our responses to their comments &
they are OK.
Trina*

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33618

Air Permit No. 1070025-004-AC
Seminole Generating Station
Units 1-2 Pollution Controls Upgrade

Authorized Representative:

James R. Frauen, Project Director

Enclosed is Final Air Permit No. 1070025-004-AC, which authorizes the construction and/or upgrade of pollution control equipment for Units 1 and 2 at the existing Seminole Generating Station. The existing power plant is located at 890 North U.S. Highway 17, north of Palatka, in Putnam County, Florida. As noted in the attached Final Determination, only minor changes and clarifications were made. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) 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 must be filed within thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

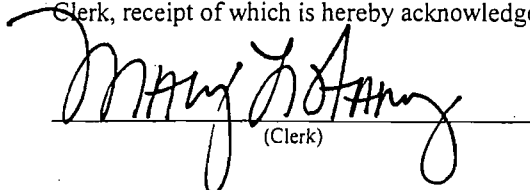
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 6/21/06 to the persons listed:

Mr. James R. Frauen, SECI *
Mr. Michael P. Opalinski, SECI
Mr. Mike Roddy, SECI
Mr. Scott Osbourn, Golder Associates Inc.
Mr. Ken Kosky, Golder Associates Inc.
Mr. Chris Kirts, NED
Mr. Gregg Worley, EPA Region 4
Mr. John Bunyak, NPS

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.


(Clerk)

6/21/06
(Date)

FINAL DETERMINATION

Seminole Electric Cooperative, Inc.
Seminole Generating Station
DEP File No. 1070025-004-AC

The Department distributed a public notice package on May 5, 2006 to allow the applicant, Seminole Electric Cooperative, Inc. (SECI) to install pollution control equipment on Seminole Generating Station (SGS) Units 1 and 2 located at 890 US Highway 17, North of Palatka, Putnam County. The Public Notice of Intent to Issue concerning the Draft Permit was published in the Palatka Daily News on May 13, 2006.

COMMENTS/CHANGES

No comments were received by the Department from the public. No comments were received from EPA. Comments were received from the applicant by letter dated May 19, 2006. The applicants comments are summarized below and the Department's responses are included following each comment.

Minor edits: Cover page (Authorized representative Title), page 2 (Project Description), page 5 (Specific Condition 2 – added the word “may” prior to the variety of FGD improvements being contemplated, and Specific Condition 3 – struck reference to approved drawings and plans, since there were none), page 6 (Specific Condition 6 – added a sentence specifying gross MW rating, and “Emissions Standards” note - specified that interim limits become effective once changes are completed), page 7 (Specific Conditions 10 - allowed EPA Method 8A, Specific Conditions 11 and 16 – changed Rule Cites), and page 9 (Specific Condition 1 – changed language from “no additional emissions occur” to “emissions are minimized”).

RESPONSE: These changes are acceptable, with the exception of the suggested “Emissions Standards” note, which is accepted in part (see the remainder of this Determination).

Page 4, Condition 7: Provide an option to submit the Title V application when the renewal is due (July, 2009), since this is reasonably close to the expected air construction completion date.

RESPONSE: Per Rule, the Department is unable to accommodate this change.

Page 6, Condition 8: Change NO_x emission limits from 30-day rolling to 12-month rolling averages.

RESPONSE: The Department agrees. The NO_x limit has been established in the permit for 2 reasons – for PSD netting and CAIR emission allotments. In both cases, the regulatory requirement is annual; hence a 12-month rolling average is appropriate.

Page 6, Condition 9: Change CO emission limit from a 0.20 lb/MMBtu 12-month rolling average to a 13,448 TPY 12-month rolling limit. Add an initial compliance test to demonstrate the vendor's burner guarantee of 0.20 lb/MMBtu.

RESPONSE: The Department agrees in part. The CO limit of 0.20 lb/MMBtu was placed in the permit to demonstrate that the vendor's burner guarantee could be met. However, the regulatory requirement is that there can be no increase in CO emissions above the baseline of 13,448 TPY (PSD netting). The Department notes that by meeting the 0.20 lb/MMBtu emission rate specified in the draft permit which was publicly noticed, the effective PSD annual emission rate is 12,565 TPY. Absent the applicant agreeing to an additional public notice to accommodate an “apparent” increase in CO emissions of 883 TPY, a 12-month rolling total (federally enforceable) of 12,565 will be allowed.

Page 7, Condition 12: Change the Hg limit from 0.36 TPY (combined for Units 1 and 2) to 0.59 TPY (combined for Units 1, 2 and 3). The applicant notes that the basis for Hg limits on Units 1 and 2 is the upcoming CAMR, as well as PSD netting. For the purposes of PSD netting, the regulatory requirement

FINAL DETERMINATION

Seminole Electric Cooperative, Inc.
Seminole Generating Station
DEP File No. 1070025-004-AC

is established from the baseline emissions of 0.65 TPY, hence a facility limit of 0.59 TPY *still* represents a reduction in mercury emissions.

RESPONSE: The Department agrees. The proposed facility limit (Units 1, 2, and 3) of 0.59 TPY ensures that both the PSD netting and the CAMR requirements can be met.

NOTE: *The Department acknowledges that the Draft Permit included the following typographical error: the mercury emissions standard should have been "0.36 TPY" and not "0.036 TPY". This standard represented the total emissions from Units 1 and 2.*

Page 9, Condition 5: The condition should be revised to provide for the (more restrictive) Subpart Db NO_x emission limit of 0.20 lb/MMBtu on a 30-day rolling average, for the steam generating unit configured to accept the operating CBOTM Unit emissions.

RESPONSE: The Department agrees and will also add item "d." to Page 6, Condition 8, reflecting the same issue.

Emissions Standards Note (Page 6) and Condition 17 (Page 8): These two sections of the permit establish the effective date of the emissions standards and notification requirements to the initial coal fires in SGS Unit 3. The applicant requested that these provisions be tied to "initial commercial startup" rather than the "initial coal fires".

RESPONSE: The Department does not accept the requested changes, which could allow the project to exceed the PSD significant emissions rates.

Changes to Technical Evaluation and Preliminary Determination: Several changes proposed by applicant.

RESPONSE: Since there exists no requirement for the subject document to be re-issued (i.e. there is no BACT Determination), the Department makes no response to SECI's suggested changes.

ADDITIONAL CHANGES

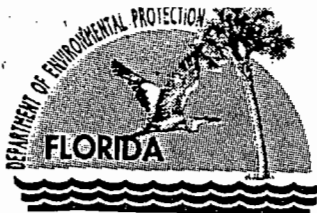
For the purposes of providing the applicable Citation, the Department adds the word [Design] after Conditions 2 through 6 (Pages 5 and 6).

For the purposes of clarification, the Department changes the word "total" to "emissions rate" in Conditions 7.c, 8.c and 10.c (Pages 6 and 7).

For the purpose of clarification, the Department eliminates the words "(except NO_x)" in Condition 5, Page 9.

CONCLUSION

The final action of the Department is to issue the permit with the minor changes described above.



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

PERMITTEE

Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33618

Authorized Representative:

James R. Frauen, Project Director

Air Permit No. 1070025-004-AC
Seminole Generating Station
Units 1-2 Pollution Controls Upgrade
Facility ID No. 1070025
SIC No. 4911
Permit Expires: December 31, 2009

PROJECT AND LOCATION

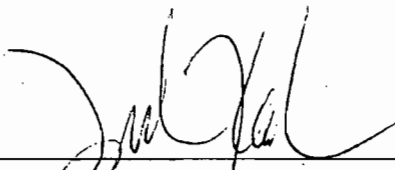
This permit authorizes the construction and/or upgrade of pollution control equipment for Units 1 and 2 at the existing Seminole Generating Station, which is located at 890 North U.S. Highway 17, north of Palatka, in Putnam County, Florida. The map coordinates are: Zone 17; 438.80 km East; and 3289.20 km North.

STATEMENT OF BASIS

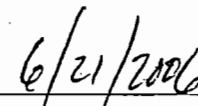
This air pollution construction permit is issued under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. This air construction permit supplements all other valid air construction and operation permits.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices



Joseph Kahn, P.E., Acting Director
Division of Air Resource Management



(Date)

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

The existing Seminole Generating Station (SGS) consists of two 714.6 megawatt, electric, coal fired steam electric generators; a coal handling and storage system; a limestone unloading, handling and storage system; and a flue gas desulphurization (FGD) sludge stabilization system.

This project includes the replacement of the low NO_x burners; the addition of SCRs, an alkali injection system and carbon burnout (CBO); and improvements to the existing FGD system and steam turbines. The following units are affected by this air construction permit:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
001	Steam Generation	SGS (Existing) Unit 1 upgraded to 735.9 MW
002	Steam Generation	SGS (Existing) Unit 2 upgraded to 735.9 MW
009	Materials Handling	Carbon Burn-Out (CBO TM) Feed Fly Ash Silo (New)
010	Materials Handling	CBO TM Product Fly Ash Storage Dome (New)
011	Materials Handling	CBO TM Product Fly Ash Loadout Storage Silo (New)
012	Materials Handling	CBO TM Product Fly Ash Fugitives (New)
013	Hot Water Generation	CBO TM Process Fluidized Bed Combustor (New) NSPS Subpart Db

REGULATORY CLASSIFICATION

Title III: The existing facility is a major source of hazardous air pollutants (HAP).

Title IV: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The existing facility is a PSD-major facility in accordance with Rule 62-212.400, F.A.C., although this project does not trigger a PSD Review.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate emissions units at this facility 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 permit applications shall also be sent to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Northeast District Office at 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256-7577.
3. Appendices: The following Appendices are attached as part of this permit: Appendix GC (General Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated 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, 62-296, and 62-297, 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 62-4, 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
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. Construction Approval: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Rule 62-210.200(76), F.A.C. defines *construction* as, "Construction –
 - (a) The act of performing on-site fabrication, erection, installation or modification of an emissions unit or facility of a permanent nature, including installation of foundations or building supports; laying of underground pipe work or electrical conduit; and fabrication or installation of permanent storage structures, component parts of an emissions unit or facility, associated support equipment, or utility connections. Land clearing and other site preparation activities are not a part of the construction activities.
 - (b) For the purposes of Rules 62-212.300, 62-212.400, 62-212.500, and 62-212.720, F.A.C., construction means any physical change or change in the method of operation (including fabrication, erection, installation, or modification of an emissions unit) that would result in a change in emissions.
 - (c) For the purposes of the provisions of 40 CFR Parts 60 and 61, adopted by reference in Rule 62-204.800, F.A.C., construction means fabrication, erection, or installation of an affected facility.
 - (d) For the purposes of the provisions of 40 CFR Part 63, adopted by reference in Rule 62-204.800, F.A.C., construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed." Such permits shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

SECTION 2. ADMINISTRATIVE REQUIREMENTS

7. Title V Permit: This permit authorizes construction 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 completion of 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. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 001 and 002 – Boilers No. 1 and 2

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

Emissions Unit Nos. 001 and 002

Steam Electric Generator Nos. 1 and 2 are existing, coal fired utility, dry bottom wall-fired boilers, each having a maximum generator rating of 714.6 megawatts, electric. The maximum heat input to each emissions unit is 7,172 million Btu per hour. Steam Electric Generator Nos. 1 and 2 are each equipped with an electrostatic precipitator (ESP) to control particulate matter, a wet limestone flue gas desulphurization (FGD) unit to control sulfur dioxide, and low NO_x burners and low excess-air firing to control nitrogen oxides.

{Permitting note(s): IMPORTANT REGULATORY CLASSIFICATIONS - The emissions units are regulated under Acid Rain, Phase II and Phase I; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated August 9, 1979. Steam Electric Generator No. 2 began commercial operation in 1984 and Steam Electric Generator No. 1 began commercial operation in 1985.}

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for this emissions unit. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070, F.A.C.]

EQUIPMENT AND CONSTRUCTION

2. Flue Gas Desulphurization System (FGD) Upgrade: In order to reduce the emissions of sulfur dioxide, the permittee shall make upgrades to the existing Units 1 and 2 scrubbers so as to improve the SO₂ removal efficiency from approximately 87 to 95%. The improvements may include the following types of work: scrubber module modifications, upgrades to the modules mist eliminator wash system, expansion of the oxidation air system, modifications to the existing sparger rings in the absorber recycle tanks, upgrades to the Effluent Processing Facility (EPF) System and a new gypsum conveyor system. The upgrades will allow SGS to meet the 0.67 lb/MMBtu SO₂ emission limits specified in this permit. [Design]
3. Selective Catalytic Reduction (SCR) Systems: The permittee shall construct, tune, operate, and maintain a new SCR system for Units 1 and 2, to reduce emissions of nitrogen oxides (NO_x) as described in the application. The SCR system shall be designed to achieve a NO_x emission rate of no more than 0.07 lb/MMBtu. An SCR reagent system shall be installed, consisting of a new urea to ammonia processing system and associated bulk storage systems. The SCR system shall be designed for a maximum ammonia slip rate of 5 ppmvd @ 15% O₂. [Design]
4. Low NO_x Burner Replacement: The permittee shall replace, tune, operate and maintain low NO_x burners on Units 1 and 2. Additionally, the existing burner inlet systems will be modified to ensure even air flow, and the Overfire Air System (OFA) will be modified to utilize at least six ports per wall compared with the existing system design of four ports per wall. These replacements are designed to achieve the Acid Rain Program NO_x annual average emission limit of 0.46 lb/MMBtu, which will be effective in 2008. [Design]
5. Alkali Injection System: The permittee shall construct and operate a new alkali injection system on Units 1 and 2 to mitigate the potential impacts of SO₃ formation resulting from the operation of the SCR control systems. The design criteria shall ensure that sulfuric acid mist emissions do not increase above the sulfuric acid mist emissions baseline. [Design]
6. Turbine Upgrade: Each existing steam turbine for Units 1 and 2 shall be upgraded for increased unit

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 001 and 002 – Boilers No. 1 and 2

efficiency, and in order to recover portions of the lost electrical output from powering the above additions. Such efficiency improvements may include blade and/or rotor redesigns and replacements. The nominal gross MW rating per unit will increase from 714.6 to 735.9 MW although each boiler maximum heat input will remain at 7,172 MMBtu/hr. [Design]

PERFORMANCE REQUIREMENTS

This permit does not alter any specifications or limitations included in previous permits that define permitted capacities such as heat input rates, fuel consumption, or hours of operation. It does not authorize any additional fuels or such other methods of operation.

EMISSIONS STANDARDS

A concurrent application is being processed for a new SGS Unit 3. Where affected, the below emission standards are shown for this project (Pollution Control Upgrades) as "interim" limits which become effective once all upgrades are complete. As of the first monitoring period following the establishment of initial coal fires in SGS Unit 3, the latter "permanent" emission limits will become effective.

7. Sulfur Dioxide (SO₂):

- a. The interim Sulfur Dioxide emissions from Units 1 and 2 shall not exceed 0.67 lb/MMBtu (combined for Units 1 and 2), based upon a 24 hour block average via CEMS.
- b. The permanent limits shall be 0.38 lb/MMBtu (combined for Units 1 and 2), based upon a 24 hour block average via CEMS.
- c. The combined emission rate shall be computed by adding the total lbs emitted for both Units 1 and 2, divided by the total MMBtu heat input for both Units 1 and 2 for each 24-hour block period.

[PSD Avoidance]

8. Nitrogen Oxides (NO_x):

- a. The interim Nitrogen Oxide emissions from Units 1 and 2 shall not exceed 0.46 lb/MMBtu, based upon a 12-month rolling average. Compliance shall be determined by data collected from the certified continuous emissions monitor (CEM).
- b. The permanent limits shall be 0.33 lb/MMBtu (combined for Units 1 and 2), based upon a 12-month rolling average via CEMS.
- c. The combined emission rate shall be computed by adding the total lbs emitted for both Units 1 and 2, divided by the total MMBtu heat input for both Units 1 and 2 for each 12-month rolling period.
- d. When operating the CBO fluidized bed combustor, the affected Steam Electric Generating Unit shall not exceed 0.20 lb/MMBtu NO_x emissions based on a 30-day rolling average via CEMS.

[40 CFR Parts 72 and 76; NSPS Subpart Db and PSD Avoidance]

9. Carbon Monoxide (CO)/Volatile Organic Compounds (VOC): The emission of Carbon Monoxide shall not exceed 12,565 TPY based upon a 12-month rolling total. The existing CO emission monitors which are installed in the stack shall be certified according to 40 CFR Part 60 and the data collected shall be combined and utilized to demonstrate compliance annually. Also, initial performance test data shall be submitted to demonstrate compliance with the burner CO guarantee of 0.20 lb/MMBtu. For VOC, an initial stack test (only) shall be required in order to demonstrate that the emissions do not exceed the established baseline emission rate of 0.06 lb/ton of coal. Testing shall be according to EPA Method 18, 25, 25A or 25B.

[PSD Avoidance]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 001 and 002 – Boilers No. 1 and 2

10. Sulfuric Acid Mist (SAM):

- a. The interim Sulfuric Acid Mist emissions from Units 1 and 2 shall not exceed 0.096 lb/MMBtu, based upon an initial stack test (only) via EPA Method 8 or 8A.
- b. The permanent limits shall be 0.031 lb/MMBtu (combined for Units 1 and 2), based upon annual stack test via EPA Method 8 or 8A.
- c. The combined emission rate shall be computed measuring the lb/MMBtu emission rate on each unit, multiplying each unit's maximum emission rate by its annual heat input (MMBtu), adding the total lbs emitted for both Units 1 and 2, and dividing by the total MMBtu heat input for both Units 1 and 2.

[PSD Avoidance]

11. Particulate Matter (PM/PM₁₀): The emission limit for particulate matter shall not exceed 0.03 lb/MMBtu on each individual unit, as measured by an annual stack test via EPA Method 5B. [Current Title V Limit]
12. Mercury (Hg): The permanent emission limitation for mercury shall be 0.59 tons per year (combined for Units 1, 2 and any future emission units), based upon annual stack tests via EPA Method 101A or 108 or CEMS (when operational and certified). The combined total shall be computed by measuring the lb/MMBtu emission rate on each unit, multiplying each unit's emission rate by its annual heat input (MMBtu) and adding the total lbs emitted, divided by 2000. [Requested by Applicant]

EMISSIONS PERFORMANCE TESTING

13. Test Notification: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. The notification shall include: the scheduled date, approximate start time, test team, contact name and phone number, description of unit to be tested, and the tests to be performed. [Rule 62-297.310(7)(a)9, F.A.C.]
14. Ammonia Slip, Performance Tests: Within 60 days after completing construction of each SCR system and bringing each unit on line, the permittee shall conduct tests to determine the ammonia slip rate in accordance with EPA Method CTM-027 or other methods approved by EPA. Subsequent tests shall be conducted during each federal fiscal year. If tests show ammonia slip emissions are greater than 5 ppmvd @ 15% O₂, the permittee shall take corrective actions such as repair, addition of catalyst, replacement of catalyst, etc. The corrective actions which are taken shall be submitted with the test data. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]

CONTINUOUS MONITORING REQUIREMENTS

15. NO_x and SO₂ CEMS: The permittee shall demonstrate compliance with the emissions standards specified in this permit with data collected from the existing NO_x, SO₂, CO₂, and stack gas flow rate continuous monitors installed pursuant to the Acid Rain requirements. [Rules 62-4.070(3) and 62-212.400, F.A.C.]
16. CO CEMS: To demonstrate compliance, the permittee shall certify, calibrate, operate and maintain a continuous emissions monitoring system (CEMS) to continuously monitor and record the emissions of carbon monoxide. The existing Thermo Electron Corp Model 48C monitors may be utilized for this purpose, provided that they are able to demonstrate compliance with 40 CFR 60 Appendix B, Performance Specification 4 and Appendix F, Quality Assurance Procedures. CEMS shall monitor and record data during all periods of Units 1 and 2 operation, including startup, shutdown, malfunction or emergency conditions, but not including continuous monitoring system breakdowns, repairs, calibration checks, or zero and span adjustments. For each calendar quarter, monitor availability shall be 95% or greater. If unable to achieve this level, the permittee shall submit a report identifying the problems in achieving 95% monitor availability and a plan of corrective actions. The permittee shall implement the reported corrective actions within the next calendar quarter. [Rules 62-4.070(3), F.A.C. and requested by applicant]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 001 and 002 – Boilers No. 1 and 2

RECORDS AND REPORTS

17. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the provisions of Rule 62-297.310(8), F.A.C. The report shall include copies of the continuous monitoring records. Additionally, an official notification shall be made to the Compliance Authority 72 hours prior to the establishment of initial coal fires in SGS Unit 3, for the purpose of complying with the limits herein.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. EUs 009 to 013 – Combined Conditions

This section of the permit addresses the following emissions units:

EMISSION UNIT No.	SYSTEM	EMISSION UNIT DESCRIPTION
009	Materials Handling	Carbon Burn-Out (CBO™) Feed Fly Ash Silo
010	Materials Handling	CBO™ Product Fly Ash Storage Dome
011	Materials Handling	CBO™ Product Fly Ash Loadout Storage Silo
012	Materials Handling	CBO™ Product Fly Ash Fugitives
013	Hot Water Generation	CBO™ Process Fluidized Bed Combustor NSPS Subpart Db

DESIGN AND ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

1. CBO™ Process Fluidized Bed Combustor: The maximum design heat input rate to the CBO™ Process Fluidized Bed Combustor (EU-013) shall be 114.7 MMBtu/hr. The emissions from the CBO™ Process Fluidized Bed Combustor shall be routed back to Units 1 and 2 flue gas ductwork, upstream of the ESP, SCR and FGD System, so as to ensure that emissions are minimized. [Design; Rules 62-210(PTE) and 62-4.070(3), F.A.C.]
2. Baghouse Controls: Particulate emissions from Emission Units Nos. 009, 010 and 011 shall be controlled by baghouses that are designed, operated, and maintained to achieve a particulate matter design specification of 0.01 grains/acf of exhaust. New and replacement bags shall meet these specifications based on vendor design information. No particulate matter emissions tests are required. The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Design; Rules 62-4.070(3) and 62-210.650, F.A.C.]
3. Hours of Operation: Emission Unit Numbers 009, 010, 011, 012 and 013 associated with the Carbon Burnout Unit are each allowed to operate continuously (8760 hrs/yr). [Rule 62-210.200(PTE), F.A.C.]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

4. Authorized Fuels: Only fly ash generated from EU-001 and 002 may be used as fuel for the CBO™ Process Fluidized Bed Combustor (EU-013), except for the purposes of start-up. Start-up fuel shall be distillate fuel oil, limited to 0.5% sulfur and 14,300 gallons per calendar year. Records of fuel oil consumed for EU-013, demonstrating compliance with this condition shall be kept on-site so as to be readily available for review. Additionally, SGS shall totalize fuel usage data for annual (AOR) reporting. [Design; Rule 62-4.070(3), F.A.C.]
5. NSPS Provisions: EU-013 shall comply with the requirements of 40 CFR 60, Subpart Db. As a result of the configuration identified in above Condition 1, demonstration of the Subpart limits shall be allowed via the existing SGS Units 1 and 2 CEMS and stack testing. SGS shall include this demonstration upon initial installation and annually thereafter. [Note: Due to the configuration, there will be no practical method to test the CBO™ Unit separately. However, the combined emissions from the steam generating unit with the CBO™ Unit (when operating) shall comply with the NSPS NO_x limit of 0.20 lb/MMBtu on a 30 day rolling average via CEMS. The CBO™ Unit exhaust shall only be routed to one unit at a time.]
6. Baghouse Exhausts: As determined by EPA Method 9 observations, visible emissions shall not exceed 5% opacity from each baghouse exhaust point for Emissions Unit Nos. 009, 010 and 011. [Design; Rules 62-4.070(3), 62-210.650, and 62-297.620(4) F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. EUs 009 to 013 – Combined Conditions

7. Fugitive Dust Control: The following requirements shall be met to minimize fugitive dust emissions from the storage and handling facilities, including haul roads and CBO-related operations:
- All conveyors and conveyor transfer points will be enclosed to the extent practical, so as to preclude PM emissions.
 - Water sprays or chemical wetting agents and stabilizers will be applied to storage piles, handling equipment, roadways, etc. as necessary to minimize opacity.
8. Maximum Expected Emissions: The following table identifies the maximum expected emissions, design specifications and fugitives associated with the CBO™ Process. This table is shown for convenience purposes and does not represent additional, allowable emission limitations beyond those listed within the permit. [Design]

Emissions Unit No.	Control Device	Exhaust Flow Rate (dscfm)	PM Emission Rate (gr/dscf)	PM Emission Rate (lb/hr)	PM Emission Rate (TPY)
009	Baghouse	3,000	0.01	0.3	1.1
010	Baghouse	6,000	0.01	0.5	2.3
011	Baghouse	6,000	0.01	0.5	2.3
012	Paved Roads; Watering	---	---	0.1	0.2
TOTALS				1.4	5.8

TEST METHODS AND PROCEDURES

9. Test Notification: At least 15 days prior to the date on which each formal compliance test is to begin, the permittee shall notify the Compliance Authority of: the date, time, and place of the test; and the contact person who will be responsible for coordinating and having the test conducted. [Rule 62-297.310(7)(a)9, F.A.C.]
10. Compliance Tests: Each baghouse exhaust point for EU-009, EU-010, and EU-011 shall be tested to demonstrate initial compliance with the specified opacity standard. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. Thereafter, each baghouse exhaust point for EU-009, EU-010, and EU-011 shall be tested to demonstrate compliance with the specified opacity standard during each federal fiscal year (October 1st to September 30th) and within the 12-month period prior to renewing the operation permit. [Rule 62-297.310(7)(a)1 and 4, F.A.C.]
11. Test Procedures: All tests shall be conducted in accordance with EPA Method 9, which is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. Tests shall also comply with the applicable requirements of Rule 62-297.310, F.A.C. Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rules 62-204.800 and 62-297.310(4) and (5), F.A.C.; 40 CFR 60, Appendix A]
12. Special Compliance Tests: When the Compliance Authority, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Compliance Authority. [Rule 62-297.310(7)(b), F.A.C.]

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.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.
- G.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.
- G.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.
- G.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.
- G.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.
- G.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.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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.

- G.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.
- G.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.
- G.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.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology ()
 - b) Determination of the applicability of Prevention of Significant Deterioration (X); and
 - c) Compliance with New Source Performance Standards (X).
- G.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.
- G.15 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.

EMISSIONS UNIT INFORMATION

Section [7] of [7]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type): Feed fly ash burned in the CBO™ FBC			
2. Source Classification Code (SCC): 1-02-002-17		3. SCC Units: Tons Burned	
4. Maximum Hourly Rate: 75	5. Maximum Annual Rate: 657,000	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur: 0.41	8. Maximum % Ash: 100	9. Million Btu per SCC Unit: 2.76	
10. Segment Comment: <i>not available per SCC unit</i>			

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): Distillate fuel oil burned in the CBO FBC (start-up fuel)			
2. Source Classification Code (SCC): 1-02-005-02		3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 0.25	5. Maximum Annual Rate: 14.3	6. Estimated Annual Activity Factor:	
7. Maximum % Sulfur: 0.5	8. Maximum % Ash: 0.1	9. Million Btu per SCC Unit: 140	
10. Segment Comment: Field 5 based on four cold starts per year.			

EMISSIONS UNIT INFORMATION

Section [7] of [7]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Fabric Filter for CBO- 017, Exhaust ducted through Units 1 and 2 Controls:

Selective Catalytic Reduction (SCR)- 139

Electrostatic Precipitator (ESP)- 010

Flue Gas Desulfurization (FGD)- 067

Should this be
code #39?

2. Control Device or Method Code(s): 017, 139, 010, and 067



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT - 9 2008

ENVIRONMENTAL APPEALS BOARD

RECEIVED

OCT 14 2008

BUREAU OF AIR REGULATION

Ms. Trina Vielhauer
Florida Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

Re: Seminole Electric Cooperative, Inc.
Permit Number: PSD-FL-375
Appeal Number: PSD 08-09

Dear Ms. Vielhauer:

Enclosed is a petition dated October 6, 2008 (received by the Environmental Appeals Board (the "Board") on October 6, 2008, filed by Joanne Spalding, on behalf of the Sierra Club, asking the Board to review a PSD determination by your department.

To assist the Board in deciding whether the matters raised by Petitioner should be reviewed, please have your staff prepare a response that addresses Petitioner's contentions and whether Petitioner has satisfied the requirements for obtaining review under 40 C.F.R. Section 124.19.

Response Seeking Summary Disposition. If you believe that the petition in its entirety may be appropriate for summary disposition, either because the Board does not have jurisdiction to consider the petition, the appeal is untimely, Petitioner lacks standing to file an appeal, or none of the issues raised in the petition were preserved for review, please file a response to that effect by no later than October 24, 2008. Please include relevant portions of the administrative record with your response.

File an original (signed in blue ink) and five copies of these materials with the Board (at the address shown below) by the date specified above, and send a copy to Petitioner, with a certificate of service showing the date and method of service. Petitioner shall have 10 days from the date of service of a response seeking summary disposition to file a reply with the Board.¹

¹The Environmental Appeals Board has an innovative system that allows parties to submit copies of documents, including exhibits, electronically in PDF. Instructions on

If the Board determines that summary disposition is appropriate, the Board will issue an order to that effect. If the Board determines that summary disposition is not appropriate, or that the issue of summary disposition should be reserved until after a response to the merits of the petition is filed, the Board will issue an order directing that a response to the merits of the petition be filed within 15 days of the Board's order.

Response not Seeking Summary Disposition. If you do not file a response seeking summary disposition, please file a response to the merits of the petition by not later than November 10, 2008. Please include with your response relevant portions of the administrative record, together with a certified index of the entire administrative record.

File an original (signed in blue ink) and five copies of these materials with the Board, and send a copy to petitioner, with a certificate of service showing the date and method of service.

Mailing and Hand Delivery Instructions²

All documents that are sent through the U.S. Postal Service, Express Mail, hand-delivered, via courier must include the name of the organization, address, facsimile number, telephone number, and an email address, if available.

Documents that are sent through the U.S. Postal Service (except by Express Mail) **MUST** be addressed to the Environmental Appeals Board's mailing address which is:

U.S. Environmental Protection Agency
Clerk of the Board
Environmental Appeals Board 1103B
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001

registration and document submission, are available by using the "Electronic Submission" link on the Board's website. Please note that, at the present time, electronic submissions will not be considered a substitute for filing an original document with the Clerk of the Board. The Clerk of the Board still must actually receive the original document by the document's due date in order for it to be timely filed. However, Agency offices and private parties that use this system for submitting electronic copies will be excused from the requirement to submit multiple paper copies with their original filing.

²The Environmental Protection Agency is experiencing delays in delivery of mail from the U.S. Postal Service. These delays are due to a new sterilization procedure applied to all U.S. Postal Service mail delivered to the federal government. Parties are encouraged to utilize non-U.S. Postal Service carriers and the Board's hand-delivery address when filing time-sensitive pleadings with the Board. Additional information regarding mail delivery to the Board is available on the Environmental Appeals Board website (www.epa.gov/eab) at the Clerk of the Board or Frequently Asked Questions.

Documents that are sent to the Environmental Appeals Board's hand-delivery address (below) through the U.S. Postal Service (except by Express Mail) will be returned to the sender and shall not be considered as filed.

Hand Delivery Address

Documents that are **hand-carried** in person, delivered via courier, mailed by Express Mail, or delivered by a non-U.S. Postal Service carrier (e.g., Federal Express or UPS) **MUST** be delivered to:

U.S. Environmental Protection Agency
Clerk of the Board
Environmental Appeals Board
1341 G Street NW, Suite 600
Washington, D.C. 20005

Documents that are hand-carried may be delivered to the Clerk of the Board from 8:30 a.m. to 12:00 p.m. and from 1:00 p.m. to 4:30 p.m., Monday through Friday (excluding federal holidays).

Filing Requirements

IMPORTANT: All documents, including the materials due October 24, 2008 and November 14, 2008, must reference the appeal number. In addition, any envelope or other packaging containing documents sent to the address, as prescribed above, must bear a complete and accurate return address in the upper left hand corner. The envelope or packaging must also clearly state the case name and case identifier in the lower left hand corner.

No further briefing will be allowed except by order of the Board.

A copy of this letter is being sent to the petitioner as notification of these filing requirements.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Eurika Durr", written in a cursive style.




Eurika Durr
Clerk of the Board

Enclosure

cc: w/o encl: Joanne Spalding
Kristin Henry
Sierra Club
85 Second Street, Second Floor
San Francisco, CA 94105

w/encl: Mary J. Wilkes,
Director and Regional Counsel
U.S. EPA, Region 4
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960

James R. Frauen, Project Director
Seminole Electric Cooperative, Inc.
16313 North Dale Mabry Highway
Tampa, FL 33618

BEST AVAILABLE COPY		PARCELS: 1/1	
		Front DEP AIR RESOURCE MGMT P. Adams DIRECTOR OFFICE STE 23 111 S MAGNOLIADR TALLAHASSEE, FL 32301 UNITED STATES Tel: 850-921-9505 To: U.S. EPA Region 4 Mr. Gregg M. Worley 61 Forsyth Street Air Permits Section Atlanta, GA 30303 UNITED STATES	
Description: PSD-FL-376 application PSD-FL-375 correspondence Weight: 7 lbs for 1 pcs Date: 2006-04-21 DHL standard terms and conditions apply.		30303 POSTCODE: 30303 Sender's ref: 37550201000 A7 AP255 Tel: 404-562-9141	
 (ZL)US30303		HARB 6V ATT	
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To(Company):
 U.S. EPA Region 4
 Air Permits Section
 61 Forsyth Street

Atlanta, GA 30303
 UNITED STATES

Attention To: Mr. Gregg M. Worley
 Phone#: 404-562-9141

Sent By: P. Adams
 Phone#: 850-921-9505

Rate Estimate: 3.06
 Protection: Not Required
 Description: PSD-FL-376 application
 PSD-FL-375 correspondence

Weight (lbs.): 7
 Dimensions: 0 x 0 x 0

Ship Ref: 37550201000 A7 AP255
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EGEH 9E

DHL standard terms and conditions apply.

Description: PSD-FL-376 application PSD-FL-375 correspondence

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Date: 2006-04-21

Front DEP AIR RESOURCE MGMT
P. Adams
DIRECTOR OFFICE STE 23
111 S MAGNOLIA DR
TALLAHASSEE, FL 32301
UNITED STATES Tel: 850-921-9505
To: National Park Service
Mr. John Bunyak
12795 W. Alameda Parkway
Air Division
Lakewood, CO 80228
UNITED STATES

Tel: 303-966-2818

80228

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37550201000 A7 AP255

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National Park Service
Air Division
12795 W. Alameda Parkway
Lakewood, CO 80228
UNITED STATES

Attention To: Mr. John Bunyak
Phone#: 303-966-2818

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

April 14, 2006

Mr. Michael P. Halpin, P.E.
Florida Department of Environmental Protection
Division of Air Resource Management
North Permitting Section
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

RECEIVED

APR 18 2006

BUREAU OF AIR REGULATION

Re: Request for Additional Information
Pollution Controls Upgrade Project
Seminole Generating Station, Unit 1 and 2
DEP File 1070025-004-AC

Dear Mr. Halpin:

Seminole Electric Cooperative, Inc. (SECI) is in receipt of your letter dated March 1, 2006, which offers comments and requests additional information on the air permit application submitted for the above-referenced project. Specifically, the air application addresses several pollution control upgrades planned for Units 1 and 2 at the Seminole Generating Station (SGS) in Palatka, Florida. The Department's comments and questions are addressed below.

Department's Comment

1. The Department notes that on Table B-4 entitled "PSD Netting Analysis", one PSD Pollutant (CO) is expected to cause a BACT Review and every other PSD pollutant shows an increase. Please address the following issues relative to Table B-4:
 - A. It is unclear which part of the project is responsible for the increase in CO emissions. Please provide specific information on where this increase originates. For example, if the applicant has deemed that the replacement burners will generate the additional CO, the Department will require support for this increase in the way of supplying detailed manufacturer burner specifications for the new as well as the existing burners. Upon receipt of such information, the Department will be better positioned to evaluate whether the selected burners meet the Department's BACT Standard for CO emissions.

SECI's Response

The original baseline data for CO contained in the application was based on an average of individual CO test data taken when co-firing petroleum coke with coal. While these tests reflect the operating conditions at the time, establishing an emissions limit for CO is problematic due to

the inherent hour-to-hour variability of CO emissions. Indeed, CO emissions are influenced by many factors including fuel moisture content, excess air, pulverizer operation and fuel grindability, to name only a few.

The Department's recent adoption of Rule 62-210.370 Emissions Computation and Reporting, prescribes the approach for determining annual emissions through a hierarchy of technical methods. In summary, the presumptive hierarchy in Rule 62-210.370 is:

- continuous emission monitoring systems (CEMS) including continuous parameter monitoring systems (CPMS) and predictive emissions monitoring systems (PEMS),
- mass-balance, and
- emission factors (e.g., developed based on stack tests).

In 2001, CO monitors were added for operational purposes due to the NO_x emissions requirements of the EPA acid rain program. These CO monitors were used to evaluate the combustion process and not specifically required for compliance or any other applicable requirement. The CO monitors are TECO Model 48C, which would meet the technical requirements for the instrument in 40 CFR Part 60 Appendix B, Performance Specification 4. Specification sheets regarding the instruments are included as Attachment 1 to this letter. The CO monitors were connected to existing probes and umbilicals for each unit. The calibration gases used are a dual-blend certified calibration gas for both SO₂ and CO, as supplied by Scott Specialty Gases.

In light of the known variability in individual CO stack test data and based on the provisions of Rule 62-210.370 F.A.C., the use of the existing continuous CO monitors for reporting historical emissions would be the most appropriate method for estimating baseline actual emissions for each unit.

The available CO CEMs data was recorded and is available as daily averages. In order to calculate the estimated annual CO emission rates in lb/MMBtu, data on generation (MWs), heat rate and gas flow were used. The gas flow data was used to determine the mass emissions of CO, while the generation and heat rate data were used to calculate heat input. The estimated CO emission rates in lb/MMBtu were then validated by comparing the data taken during the days stack testing was done to the daily averages from the estimated CO emission rates. The comparison of this data is summarized in the following table.

Comparison of Calculated CO Emission Rates

Date	Stack Test Average (lb/MMBtu)	CO CEMS Average (lb/MMBtu)
Unit #1		
25-Jul-01	0.064	0.053
27-Jul-01	0.023	0.023
16-Jul-02	0.077	0.129

18-Jul-02	0.069	0.225
Unit #2		
26-Jul-01	0.039	0.054
28-Jul-01	0.027	0.063
15-Jul-02	0.030	0.051
17-Jul-02	0.030	0.032

The stack test data obtained for 3 hourly test runs compares favorably with the CO CEMs data obtained over a 24-hour period and estimated using the procedure outlined above. Differences between the data are likely a result in differences in averaging times (3-hour runs compared to 24-hours) and calculation procedures (F-factor versus unit operating parameters). Accordingly, this comparison further supports the accuracy of the CEMs data.

The estimated baseline CO emission rates using CEMs data is summarized in the following table. The data availability is shown since for some certain periods of each year data was not available from the records.

Year	Unit 1			
	Data (%)	Min (lb/MMBtu)	Max (lb/MMBtu)	Average (lb/MMBtu)
2001	45.4	0.002	0.764	0.189
2002	70.5	0.002	1.060	0.250
2003	78.4	0.033	0.955	0.408
2004	78.1	0.012	1.006	0.402
2005	17.2	0.052	0.709	0.350
Year	Unit 2			
	Data (%)	Min (lb/MMBtu)	Max (lb/MMBtu)	Average (lb/MMBtu)
2001	49.5	0.004	0.798	0.105
2002	76.0	0.002	0.438	0.116
2003	79.0	0.006	0.712	0.193
2004	71.3	0.013	0.898	0.199
2005	83.1	0.002	0.767	0.296

The data availability is not related to monitor accuracy or operation. The gaps are simply due to the retrieval of the data. As the monitors were not installed for compliance, the data was not compiled in a typical data acquisition and handling system (DAHS) and was filed on PCs and discs. Seminole also recently upgraded the boiler controls for both units to a new DCS system and that has compounded the problem of retrieving old data. The Unit 1 upgrade occurred in 2005 and is one reason the recovery of data for that year was 17 percent. The monitors were operating properly; the problem was with the retrieval of all data records.

Calibrations are performed weekly, as opposed to daily for NO_x and SO₂ compliance monitors. QA/QC is performed using the requirements of 40 CFR Part 75 on the probes, umbilicals, and calibration gas lines/connections. No major problems have ever existed with the monitors and

calibrations are always minor. Seminole's onsite technicians did not keep calibration records, however they said that they did not recall ever having a major calibration issue, only minor adjustments. They indicated that the most frequent CEMS problems are with probe pluggage and problems with umbilical connections.

Relative accuracy tests audits (RATAs) have not been performed on the CO monitors and monitor operation has not consistently met the precise technical requirements of 40 CFR Part 60. The CO monitors were also not integrated into the compliance CEMs database where data collected from the CO CEMs could be used with data from the NOx CEMs (i.e., using O₂ concentrations and F-factors to calculate lb/MMBtu emission rates). However, since the CO CEMS are connected to the plant's existing compliance probes and umbilicals, this component of the system is operated according to EPA QA/QC requirements. The fact that RATAs are conducted on compliance monitors connected to these same lines confirms the integrity of this portion of the system.

The table above shows the minimum, maximum and average daily CO emission rates in lb/MMBtu. At your request, the calculation spreadsheet, containing the raw data, was sent to your attention via e-mail on April 11, 2006. The data support the highly variable nature of the CO emissions during operation. For the proposed upgrades Project, SECI is proposing to use the average estimated CO emission rates for 2003 and 2004 to calculate baseline actual emissions. For Units 1 and 2, the average emission rates for 2003-2004 are 0.405 lb/MMBtu and 0.196 lb/MMBtu, respectively. Using the heat input values for the 2003-2004 period (45,523,619 MMBtu/yr and 43,203,374 MMBtu/yr for Units 1 and 2, respectively) results in 9,219 TPY for Unit 1 and 4,229 TPY for Unit 2, or a total of 13,448 TPY for the CO emissions baseline.

Projected emissions after the upgrade Project would be based on a short-term emission rate of 0.2 lb/MMBtu for Units 1 and 2. This would result in an estimated 12,565 TPY, with a 100 percent capacity factor. Even when factoring in the relatively small contribution from the CBO unit of 123 TPY, Seminole should not exceed the baseline CO emission estimates. There is sufficient margin in the difference between the assumed worst-case capacity factor of 100 percent and the anticipated actual capacity factor of 85 percent that, even if short-term emissions were to exceed the anticipated 0.2 lb/MMBtu, emissions would be well below the estimated baseline on an annual basis. Vendor-supplied data indicates that CO emissions will consistently meet 200 ppm, which is roughly equivalent to 0.2 lb/MMBtu. Relevant excerpts from the vendor's response to the Request for Proposal are included as Attachment 2 to this letter. Please note that these data show a balancing of the CO and NOx emissions, and that further reductions of CO would result in a corresponding increase in NOx emissions.

This change in the method of calculating CO emissions requires that the emission tables in Appendix B of the application be updated. Accordingly, attached to this letter are revised Tables B-4 through B-4S (Attachment 3). In addition, the sections of the air application long form, relative to CO emissions, have been revised and attached, including Section H of the form which provides additional information on the CO CEMS (Attachment 4).

In the initial application, SECI had proposed a CO BACT level of 0.15 lb/MMBtu (or 1,076 pounds per hour) for CO emissions from Units 1 and 2, based on previous estimates of these units' CO baseline emissions. The additional CO baseline data discussed above, as well as

projected actual CO emissions data (based on information supplied by the low NO_x burner vendor), now lead to the conclusion that CO emissions will not increase as a result of this project and therefore PSD review, including a BACT determination for CO, is no longer necessary.

Future CO emissions will be monitored using the existing CO CEMs, to ensure the accuracy of SECI's projections that future emissions (for 10 years) following the changes do not result in a significant net increase on an annual basis. These CEMs will be integrated into the same database as the NO_x and SO₂ monitors such that emission rates in lb/MMBtu can be calculated using the F-Factor method in 40 CFR Part 60 Appendix A-7, Method 19. The monitor operation will be upgraded to meet the requirements of Appendix B, Performance Specification 4, including applicable RATA requirements.

Department's Comment

- B. Contemporaneous Emissions Changes are defined in Rule 62-212.500(l)(e)3 as follows:

3. Contemporaneous Emissions Changes. An increase or decrease in the actual emissions, or in the quantifiable fugitive emissions, of a facility is contemporaneous with a particular modification if it occurs within the period beginning five years prior to the date on which the owner or operator of the facility submits a complete application for a permit to modify the facility, and ending on the date on which the owner or operator of the modified facility projects the new or modified facility to begin operation.

Also, Rule 62-210.200(34) defines Baseline Actual Emissions as follows:

(34) "Baseline Actual Emissions" and "Baseline Actual Emissions for PAL" – The rate of emission, in tons per year, of a PSD pollutant, as follows:

(a) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding the date a complete permit application is received by the Department. The Department shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

The Department notes that based upon the above definitions, the Baseline Actual Emissions which are allowable for forming the basis of a netting analysis, cannot precede February 13, 2001; however, emissions for calendar year 2000 have been included within your application. The Department requests that the applicant indicate which 24-month period(s) following January 2001 is to be utilized for the baseline emission calculations of the project.

SECI's Response

Calendar year 2000 data were included in the tables for informational purposes, but were not used in the baseline determination for any of the subject pollutants. As indicated in Tables B-4E

through B-4S, SECI selected baseline years for each pollutant as follows (on a calendar-year basis):

<i>Pollutant</i>	<i>Baseline Years</i>	<i>Annual Emissions (TPY)</i>
SO ₂	2004-2005	29,074
NO _x	2001-2002	23,289
CO	2003-2004	4,976*
VOC	2002-2003	108
PM	2002-2003	822
PM ₁₀	2002-2003	822
SAM	2002-2003	2,129

* Note that, based on the previous response regarding the CO emissions baseline, the above figure (4,976 TPY) has now been revised to 13,448 TPY. The baseline years, however, are unchanged.

SECI requests that calendar year data be utilized and, for the proposed NO_x baseline period of 2001 - 2003, acknowledges that this approach results in two months (i.e., January and February of 2001) falling outside of the 5-year (60 month) contemporaneous window, based on the date of application filing. The Department has the authority to allow the use of this proposed NO_x baseline, and it is appropriate to do so in this circumstance. Emissions data are routinely calculated and reported on a calendar-year basis and the calendar years chosen are representative of normal SECI operations. Further, Rule 62-212.300(1) (e) requires that post-project tracking of annual emissions be performed on a calendar-year basis. As further support, using the 24-month period from March 2001 to February 2003 (the 48th – 60th months immediately preceding the application submittal), would result in a NO_x baseline of 22,670 TPY, a difference of only 619 TPY from the proposed calendar-year period of 23,289.

Finally, Seminole has further updated Table B-4 with respect to projected actual emissions for NO_x, SO₂ and sulfuric acid mist. The initial application had provided projections that included an additional emissions increase in TPY, allowed under the rules while not triggering PSD review. Seminole has maintained that there will be no increase in these pollutants as a result of this project; therefore, this allowable emission increase, albeit small, is no longer included in the projections. In addition, the revised table corrects an inadvertent entry for the NO_x projection that was the result of a glitch in the calculation spreadsheet. The revised value is 23,289 TPY, versus the previous estimate of 21,638 TPY.

Department's Comment

- C. The following tables compare Departmental AOR records (TPY) of Unit 1 plus Unit 2 emissions to your TPY submittals:

[See Department's Letter for Tabular Summaries]

In summary, after SECI has elected the baseline period(s) from the table above, any TPY values which are shaded, represent areas where the applicant is required to provide further supporting data for the higher than AOR values. If stack test data is

utilized (e.g. CO, PM, or H₂SO₄), the Department requires that certified summaries of all stack tests conducted during the subject calendar years be submitted; where AP-42 emissions factors are utilized, the Department requires calculations along with the supporting data (i.e. annual heat input by fuel type, etc). Where CEMS data is utilized, the Department requires that the applicant provide supporting documentation from EPA's Acid Rain database demonstrating the data matches. For the year 2005, the DARM/BAR is not in receipt of a copy of the AOR; hence no comparison can be made. Should SECI determine that 2004/2005 represents the baseline period, supporting data shall be required for all 2005 TPY emission data.

SECI's Response

As an initial matter, SECI utilized Part 75 CEMs data where available to develop its baseline emissions in accordance with the recently revised Rule 62-210.370, and this is the same data reported in the Acid Rain database.

The baseline data used for SO₂ is the average of calendar years 2004 plus 2005. The 2005 AOR was submitted to the Department on February 27, 2006 with SO₂ emissions of 31,444 tons which is the same value used in the Units 1 and 2 permit package. We are attaching a copy of SECI's 2005 AOR (Attachment 5) for your convenience.

As explained in the response above, the NO_x baseline emissions are the average of calendar years 2001 plus 2002, based on CEMs (as required by Rule 62-210.370) and as reported in the Acid Rain database. The difference in the 2001/2002 AOR value (19,618 tons) and the SECI Application value (23,289 tons) is due to the different approaches, purposes and prescribed methodologies for the two requirements. The Department's AOR rules require annual emissions data to be calculated per fuel type, and this is best performed using fuel analysis data for the heat input and the CEMs annual emission rate in lb/MMBtu. The Acid Rain program, and the Department's baseline-emissions-calculation rules, are only looking for a facility-wide annual emission value in tons per year, and require the use of CEMs data for both the emission rate and heat input. The primary difference in the values used in the AOR and those reported in the application are related to the calculation of heat input, based on fuel weight/rate/heating value measurements and based on CEMS reported heat input, respectively.

The baseline data used for CO is the average of calendar years 2003 plus 2004. The difference in the AOR value (3230 tons) and the SECI Application value (4976 tons) is due to the same difference described above for NO_x. The emission rates in lb/mmBtu were taken from stack test data submitted to the Department's Northeast District. However, as described earlier, Seminole's revised CO emissions estimates will now be based on the use of CEMS.

The baseline data used for VOC is the average of calendar years 2002 plus 2003. The values were based on fuel use quantities and the AP-42 emission factor of 0.06 lbs/ton of coal. The difference between the AOR value (107 tons) and the SECI Application value (108 tons) appears to be due to rounding.

Department's Comment

2. Please confirm the Department's understanding of the permit limits you are seeking for Units 1 & 2. The Department notes that in order to "carve out" emission reductions so as to make room for Unit 3, federally enforceable permit limits will need to be established for those pollutants where netting is desired.

Pollutant	Current Limit	Proposed Limit
SO ₂	1.20 lb/MMBtu – 30 day rolling	0.67 lb/MMBtu – 30 day rolling
NO _x	0.60 lb/MMBtu – 30 day rolling	0.46 lb/MMBtu – 30 day rolling
PM/PM ₁₀	0.30 lb/MMBtu stack test	Same
CO	NA	0.146 lb/MMBtu
VOC	NA	0.06 lb/ton coal
SAM	NA	0.096 lb/MMBtu

SECI's Response

The Department's understanding of SECI's proposed emission limits for SO₂, NO_x and PM/PM₁₀, as summarized in the above table, is correct. However, SECI had proposed a BACT level of 0.15 lb/MMBtu (or 1,076 pounds per hour) for CO emissions from Units 1 and 2, based on previous estimates of these units' CO baseline emissions. Additional data regarding the baseline estimates, as well as projected actual emissions data supplied by the low NO_x burner vendor, now lead to the conclusion that PSD review, as well as a BACT determination, are no longer necessary. Finally, no limits were proposed for emissions of VOC and SAM. SECI does not anticipate short-term emissions of these two pollutants, as well as CO, to increase as a result of this project and, in accordance with Rule 62-212.300(1) (e), propose to track and submit to the Department, on an calendar-year basis for a period of ten years from the date the project is completed, information demonstrating that the modification did not result in significant emissions increases of these pollutants. The emissions computation and reporting will be based on the requirements of Rule 62-210.370 F.A.C. The basis for evaluating an emission increase is on a tons-per-calendar-year basis.

Department's Comment

Please note that EPA and NPS have been copied on your application, and should FDEP receive questions or comments from them, we will forward you a copy.

SECI's Response

SECI notes the Department's comment.

Department's Comment

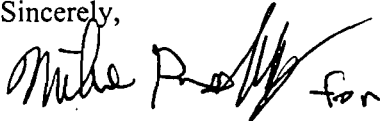
Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the state of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Please note that per Rule 62-4.055(1): "The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department..... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

SECI's Response

As some of the above responses to the Department's request for additional information are of an engineering nature, Seminole has provided for both professional engineering and Responsible Official certifications that accompany this response package.

If you have any questions regarding any of the above responses, please don't hesitate to contact me at (813) 739-1213.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike P. Frauen", followed by the word "for" in a smaller, less distinct script.

James R. Frauen
Manager of Environmental Affairs

Hamilton Owen, DEP-SCO
Chris Kirts, DEP-NED
Scott Osbourn, P.E., Golder Associates Inc.

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name :

Michael P. Opalinski

2. Owner/Authorized Representative Mailing Address...

Organization/Firm: **Seminole Electric Cooperative, Inc.**

Street Address: **16313 North Dale Mabry Highway**

City: **Tampa**

State: **FL**

Zip Code: **33618**

3. Owner/Authorized Representative Telephone Numbers...

Telephone: **(813) 963-994**

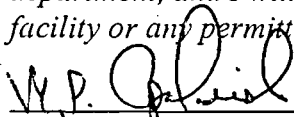
ext.

Fax: **(813) 264-7906**

4. Owner/Authorized Representative Email Address: **MOpalinski@seminole-electric.com**

5. Owner/Authorized Representative Statement:

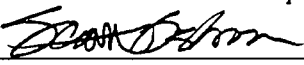
I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best 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 requirements identified in this application to which the facility 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.


Signature

4/14/06
Date

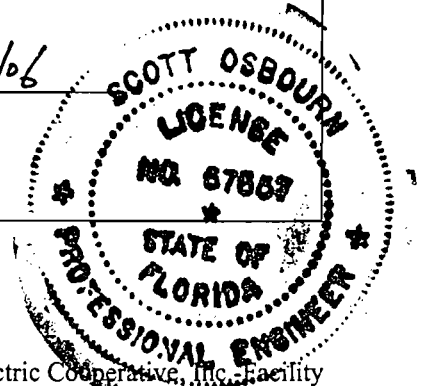
APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Scott H. Osbourn Registration Number: 57557
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 5100 West Lemon St., Suite 114 City: Tampa State: FL Zip Code: 33609
3. Professional Engineer Telephone Numbers... Telephone: (813) 287-1717 ext. 211 Fax: (813) 287-1716
4. Professional Engineer Email Address: sosbourn@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> (1) <i>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</i> (2) <i>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.</i> (3) <i>If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, 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.</i> (4) <i>If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, 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 <input type="checkbox"/>, 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.</i> (5) <i>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 <input type="checkbox"/>, 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.</i> <div style="display: flex; justify-content: space-between;"><div>Signature  (seal)</div><div>Date <u>4/14/06</u></div></div>

* Attach any exception to certification statement.

** Board of Professional Engineers Certificate of Authorization #00001670



ATTACHMENT 1
CO CEMS SPEC SHEET

Model 48C Gas Filter Correlation (GFC) CO Analyzer
 This filter correlation analyzer for ambient air monitoring
 and source emissions monitoring.

For High Sensitivity Air Monitoring

The Model 48C Gas Filter Correlation (GFC) CO Analyzer measures low CO concentrations. It combines proven detection technology, easy-to-use menu-driven software and advanced diagnostics to offer unsurpassed flexibility and reliability.

The Model 48C is based on the principle that carbon monoxide (CO) absorbs infrared radiation at a wavelength of 4.6 microns. Because infrared absorption is a nonlinear measurement technique, it is necessary for the instrument electronics to transform the basic analyzer signal into a linear output. The Model 48C uses an exact calibration curve to accurately linearize the instrument output over any range up to a concentration of 10,000 ppm.

The sample is drawn into the analyzer through the SAMPLE bulkhead. The sample flows through the optical bench. Radiation from an infrared source is chopped and then passed through a gas filter alternating between CO and N₂. The radiation then passes through a narrow bandpass interference and enters the optical bench where absorption by the sample gas occurs. The infrared radiation then exits the optical bench and falls on an infrared detector.

Key Features:

- U.S. EPA Designated Method (RFA-0981-054)
- Gas filter correlation selectivity
- Highly specific to CO
- Electronic diagnostic transducers
- Multi-line alpha numeric display
- Dedicated communications processor
- Remote performance diagnostics
- Self aligning optics



Preset Ranges	0-1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000 and 10000 ppm 0-1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000 and 10000 mg/m ³
Custom Ranges	0-1 to 10000 ppm 0-1 to 10000 mg/m ³
Zero Noise	0.02 ppm RMS (30 second time setting)
Lower Detectable Limit	0.04 ppm
Zero Drift (24 hours)	<0.1 ppm
Span Drift (24 hours)	+/-1% full scale
Response Time	60 seconds (30 second time setting)
Precision	+/-0.1 ppm
Linearity	+/-1% full scale ≤ 1000 ppm +/-2.5% full scale > 1000 ppm
Sample Flow Rate	0.5-2 liters/min
Operating Temperature	20°C - 30°C
Power Requirements	105-125 VAC @ 50/60 Hz 220-240 VAC @ 50/60 Hz 100 Watts
Size and Weight	16.75" (W) x 6.62" (H) x 23" (D), 45 lbs.
Outputs	Selectable voltages and RS-232 (standard) 4-20 mA isolated current RS-485 (optional)

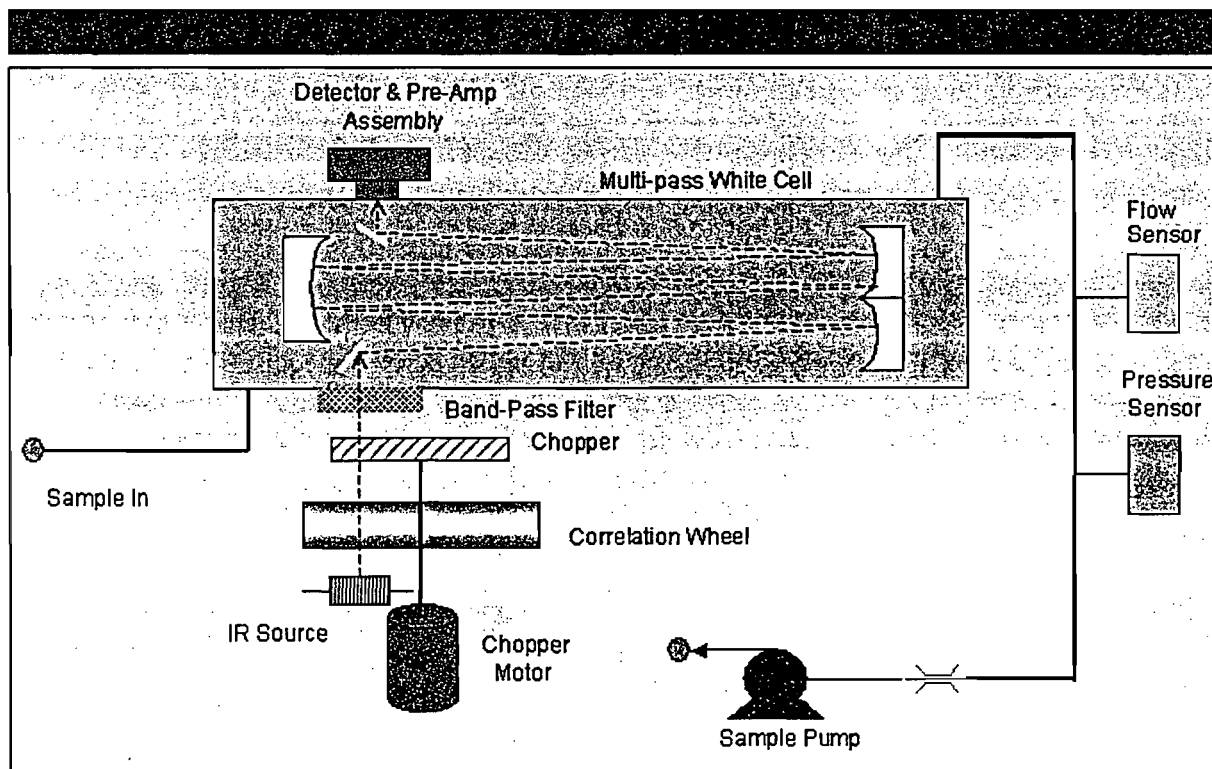
Analyze • Detect • Diagnose • Control

Thermo
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Comprehensive Service Solutions

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. Thermo Electron offers comprehensive, flexible support solutions for all phases of the product lifecycle. Through predictable, fixed-cost pricing, Thermo services help protect the return on investment (ROI) and total cost of ownership of your Thermo Electron air quality products.

Model 48C Flow Diagram



The CO gas filter acts to produce a reference beam which cannot be further attenuated by CO in the sample cell. The N₂ side of the filter wheel transparent to the infrared radiation and therefore produces a measure beam which can be absorbed by CO in the cell.

The chopped detector signal is modulated by the alternation between the two gas filters with an amplitude related to the concentration of CO in the sample cell. Other gases do not cause modulated by the detector signal since they absorb the reference and measure beams equally. Thus the GFC system responds specifically to CO.



Lit_48CEID_8/05

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Air Quality Instruments

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ATTACHMENT 2
LOW NOX BURNER VENDOR DATA

2A.6.0.2.3. Burner to Burner Coal Flow Differential Control Capability

Foster Wheeler guarantees that coal flow distribution control can be demonstrated to be controlled within $\pm 15\%$ from average on an individual mill basis based on the calibrated ECT system relative coal flow reading over a one (1) hour demonstration test, when firing the specified blend fuel at a maintained rate at a turbine inlet steam flow of 4,706,000 lbs/hr.

The predicted performance shall be furnished across the full operating range.

<u>ITEM</u>	<u>VALUE</u>
Main Steam Capacity	4,706,621 lb/hr at 1000° F, see Note 2.
NO _x , lb/MBtu (at economizer outlet, corrected to 3% O ₂)	0.35
CO, ppmvd (corrected to 3% O ₂) by volume dry basis (at economizer outlet)	200
Fly Ash LOI	As indicated in Contract Section IV – Price, 1.1.
Combustion air pressure drop	As indicated in Contract Section IV – Price, 1.1.
Coal fineness	97.55% passing 50 mesh, 87.55% passing 100 mesh, 67.4% passing 200 mesh
Burner to burner air flow differential	No burner greater than 5% from average
Sec. Air front/rear windbox differential	Less than 5%
Burner to burner coal flow differential	No burner greater than 10% from average

The Contractor shall modify the system or pay the specified Liquidated Damages in accordance with Section I, Provision 49 until all Guarantees are met simultaneously at no less than 2.5% excess O₂ (dry volume basis) as measured at economizer exit.

NOTE 1: Failure to meet the Guarantees at the stated excess air level following Combustion System Modifications shall result in liquidated damages and/ or draw upon the Letter of Credit to the extent of Contractor's inability to pay said liquidated damages per Section I – General Terms and Conditions

NOTE 2: The guaranteed steam capacity shall be determined by reading the 1st stage shell pressure. A 1st stage shell pressure of 2045 psi (top heater o/s), corresponds to a steam capacity (at the turbine) of 4,706,621 lb/hr.

2A.6.0.3 Performance Condition Requirements during Performance Testing

To ensure a technically proper evaluation of the Combustion System Modifications performance, it is necessary to have normal, non-transient unit and system operating conditions. The following requirements are the basis for the Performance Test.



4 DESCRIPTION OF PROPOSED COMBUSTION SYSTEM MODIFICATIONS

Based on SECI's requirements and Foster Wheeler's evaluation of the current unit operation, Foster Wheeler is proposing a NOx reduction system consisting of the following components.

Base Scope:

- Foster Wheeler Vortex Series Low NOx Burners
- Vortex Series OFA Registers (Omitted in Approach 2)
- System of "Jumper Ducts" to supplement OFA Air (Omitted in Approach 2)
- CFD Modeling of Air Flow and Combustion Process
- Redesigned Secondary Air and Hot Primary Flow Measurement Systems
- ~~Fuel Injection System, consisting of Electric Charge Transfer Coal Flow Measurement System (ECT) and Register Air Distribution Measurement (RADM)~~
- Coal Distribution Aids (three way coal distributors, Omitted if Optional RC Style Dynamic Classifiers are selected)
- Installation of All Above

Optional Scope:

- ~~Foster Wheeler RC Style Dynamic Classifiers~~
- ~~Plugging of the existing OFA ports with straight tube panels (Provided for Approach 2)~~
- Coal Piping Support Study
- ~~Supply New Forney Type IV/IR Inflame Flame Scanners for Main and Igniter service~~
- ~~Installation of Selected Options Above~~

The new Foster Wheeler Low NOx burners, Overfire Air, and Fuel Injection Systems are described and shown in the following section. The proposed modifications to Seminole Units 1 and 2 OFA System are described here, and also shown on Foster Wheeler proposal drawings presented in Appendix E. For the complete scope of supply, please refer to Section 5.0

4.1. Foster Wheeler Low NOx Burners

Foster Wheeler proposes installation of our latest burner design, the Vortex Series/Split Flame (VS/SF) burner. The changes described in this section are primarily for performance reasons but have the added benefit of improved burner adjustability and maintenance, as well as flow measurement capabilities. Figure 4-1 shows a sketch of the proposed Foster Wheeler VS/SF burner. Design details of the VS/SF burner are discussed in subsequent sections. The register will include new electric motor drives for



the sleeve dampers. The burner cone damper and swirlers will be operated by manual screw drives, and only need to be set once during unit optimization.

Burner performance is closely related to the throat geometry and the velocities of air and coal. Under Approach 1 in which the new and improved OFA System will be provided, we have investigated the relationship of the existing burner throat size of 44" diameter with the proposed OFA System, and have determined that the existing tube panels do not need to be resized. All 36 burners per unit will be provided with new seal refurbishment, and will feature a ~~Nitride-Silicon Carbide replacement~~ refractory design.

In the current modularized Foster Wheeler burner design, a rigid truss-like structure distributes the burner weight between the watertube wall and the front panel of the windbox.

The new burners will be designed with an elbow inlet, a more cost-effective approach, and current standard for Foster Wheeler. This modification eliminates coal layout problems common to scrolls, reduces future maintenance costs, and significantly reduces burner deck crowding. In addition, the elbow design results in lower primary air pressure drop, allowing for additional primary air flow margin.

Further, coal roping is essentially eliminated by design as compared with the scroll inlet, with added precautions provided in the form of a rope breaker bar. Finally, the internals of the coal elbow are coated with a high hardness refractory surfacing to minimize the effects of coal particle erosion.

The elbow inlet conversion necessitates some changes of the coal pipe immediately upstream of the burners to accommodate the simpler axial burner inlet. The current coal pipes approach the burner axes tangentially from a location close to the windbox. Typically, an elbow burner retrofit makes coal pipe changes necessary to meet the burner inlet that is away from the windbox and on the burner axis.

Foster Wheeler has developed a modification to the windbox to accommodate an axial elbow that minimizes the coal pipe changes and eliminates interference with platforms and steel. This greatly reduces retrofit costs. Our innovative design only requires changing the angle in the final bend of the coal pipes towards the burners. The fuel injector will use the Split Flame Tip fuel nozzle with inner adjustable tip to allow easy changes to the primary air exit velocity for optimized combustion. A schematic view of the proposed recessed Type VS/SF burner appears in Figure 4-1.

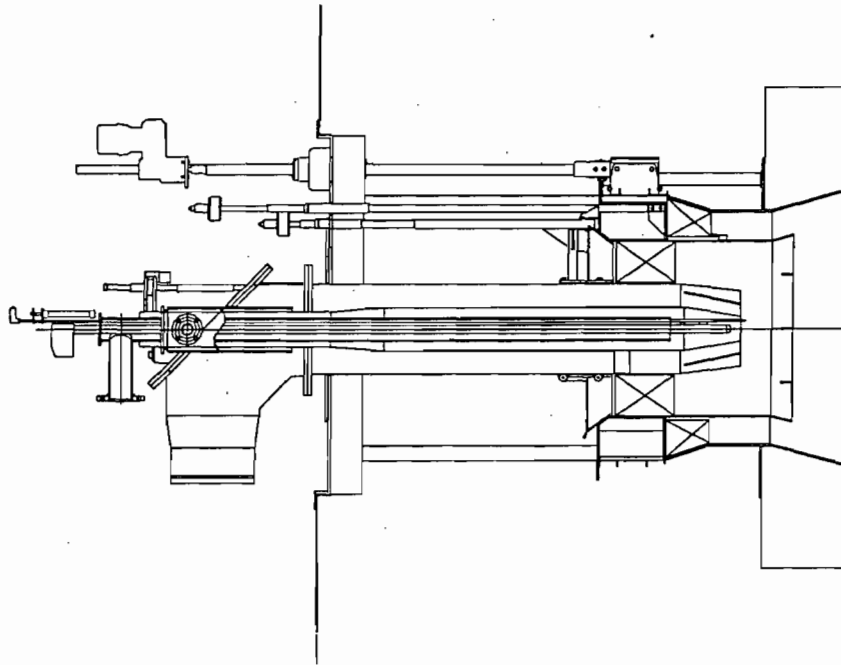


Figure 4-1: Vortex Series Burner

4.2 Vortex Register Description.

In 1971 Foster Wheeler began development of Low NO_x burners for coal-fired boilers with the introduction of new NO_x emission legislation in the US. The first generation Controlled Flow (CF) design burner was demonstrated in 1976. Three (3) years later, the second generation Controlled Flow/Split Flame Burner (CF/SF) was commercially operational. The latest burner design, the Vortex Series Low NO_x Burner, is a result of a rigorous design review of the CF/SF design. The burner was radically simplified and the performance improved. The design goals for this burner were defined as follows:

- Combustion air flow and swirl must be independently controllable.
- Primary air/coal velocity must be adjustable to control staging between primary and secondary air streams.
- Primary and secondary air pressure drop must be within the range for existing burners, eliminating the need for additional fan head capacity.
- The design must have plug-in retrofitability, i.e., minimal pressure part changes, conduit rearrangement or major windbox modifications.
- The design must have the capability to fire a wide range of coals under high efficiency combustion AND low NO_x conditions.
- The design must have low maintenance qualities including superior oxidation and wear resistance.



- The design must have reliable individual air flow measurement capability

Much of the above was achieved with the design of the now standard register, the Vortex Series Register. This unique register minimizes retrofit costs and provides exceptional performance with low maintenance. A sketch of a typical Vortex Series Burner shown in a split view is presented in Figure 4-2.

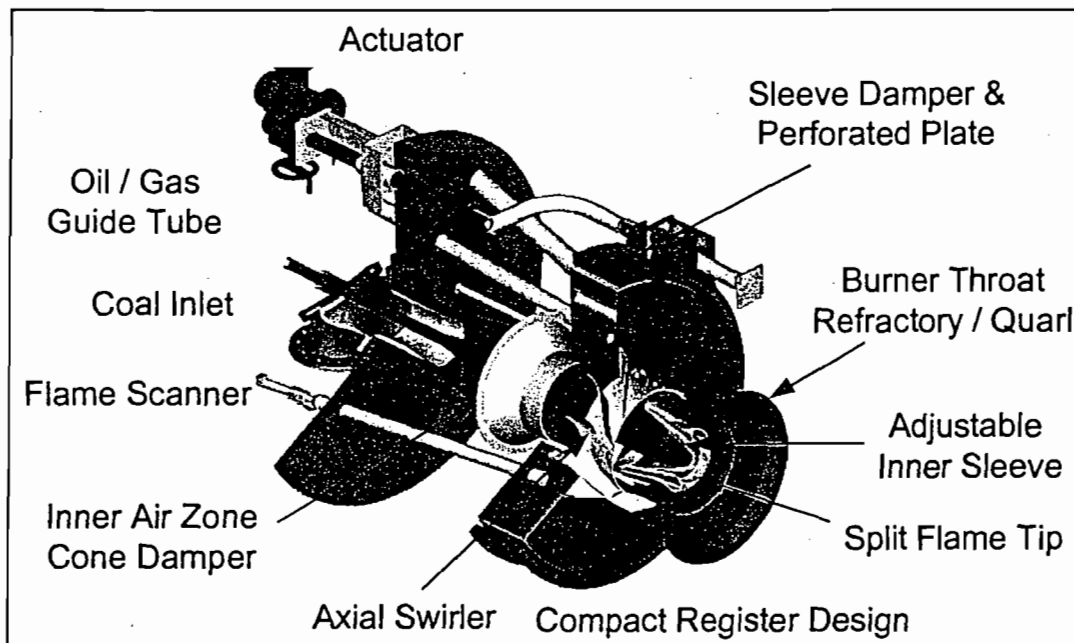


Figure 4-2: Vortex Series Burner Split View

The existing burner register generates swirl with a set of moving blades installed in the burner air paths. The radial blades are attached to linkages for synchronous movement. However, the multiple linkages and blades have the tendency to bind and break which results in deteriorating flame stability and NOx performance. The Vortex Series Register uses an axially movable swirl generator to produce air and fuel mixing. This ensures superior combustion, emission control, as well as reliable operation and flame stability over the entire boiler load range. All register components exposed to furnace radiation are fabricated from stainless steel to provide years of reliable longevity.

The Vortex Series Register has only three moving parts:

- The Vortex Series design eliminates the complexities associated with most burner air registers. Swirl is generated by a set of aerodynamically shaped fixed vanes that are mounted on a hub. The outer periphery of the swirler is conical and fits



into a conical section of the register housing. When the swirler is inserted fully into the cone full swirl capability is achieved. By retracting the swirler partly, unswirled air bypasses the swirler and mixes downstream with the swirled air. The movable swirler results in a high degree of swirl adjustability, which provides significant flame-shape control. A high nickel-chrome alloy assures superior durability under all operating conditions. Once its position is established, no further adjustment should be necessary unless dictated by major fuel changes. The photographs below show the adjustment of the swirl generation with just one moving part; please refer to Figure 4-3.

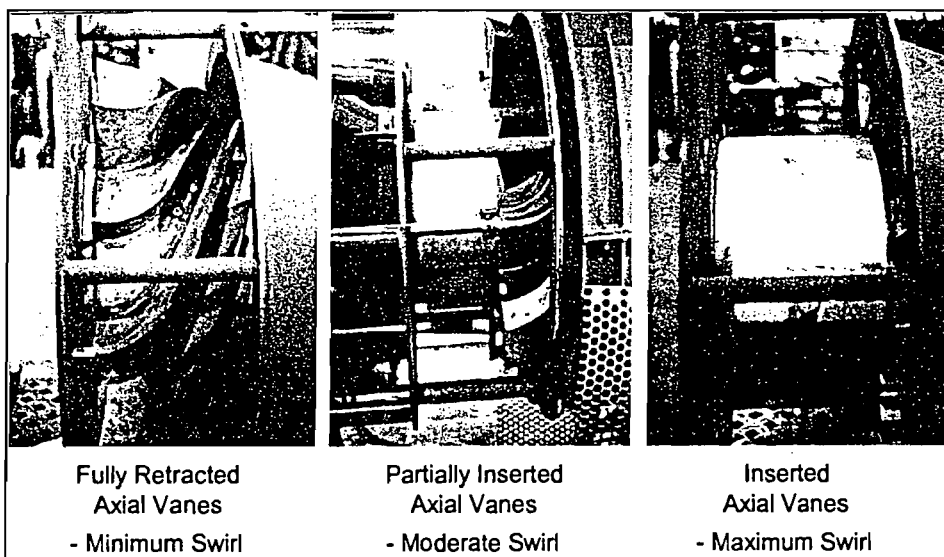


Figure 4-3: Vortex Series Register Principle

- Within the inner air register, a conical damper regulates the flow of secondary air around the perimeter of the coal jet to optimize combustion efficiency and flame position. The damper is moving in the axial direction.
- The sliding sleeve damper provides the air flow control to each burner. This circular sleeve damper also serves as the means to provide burner to burner balancing and the necessary cooling when burners are out of service. An electric drive is used for sleeve damper control.



4.2.1. Split Flame Nozzle and Fuel Injector

Foster Wheeler burners have a coal nozzle that uses the *split flame nozzle* technology. The Split Flame Coal Nozzle has for many years been a central component of Foster Wheeler's burner technology. This design segregates the coal into multiple concentrated streams producing a fuel staging effect, which inhibits NO_x formation throughout the combustion process in a furnace, while at the same time promoting complete combustion of the fuel. The nozzle tip design forces the finer coal particles to devolatilize early and ignites the fuel under oxygen-lean conditions reducing fuel nitrogen conversion. The unique configuration also causes controlled mixing of coal with secondary air further from the burner as the coal jets begin to dissipate into the secondary air, ensuring high combustion efficiency with the added benefit of NO_x emissions reduction. Each nozzle tip is designed specifically for each application. The material used is a high nickel chromium alloy casting which has demonstrated over the years to provide superior oxidation and erosion resistance. Figure 4-4 shows the current generation of fuel staged four port split flame nozzle tip design.

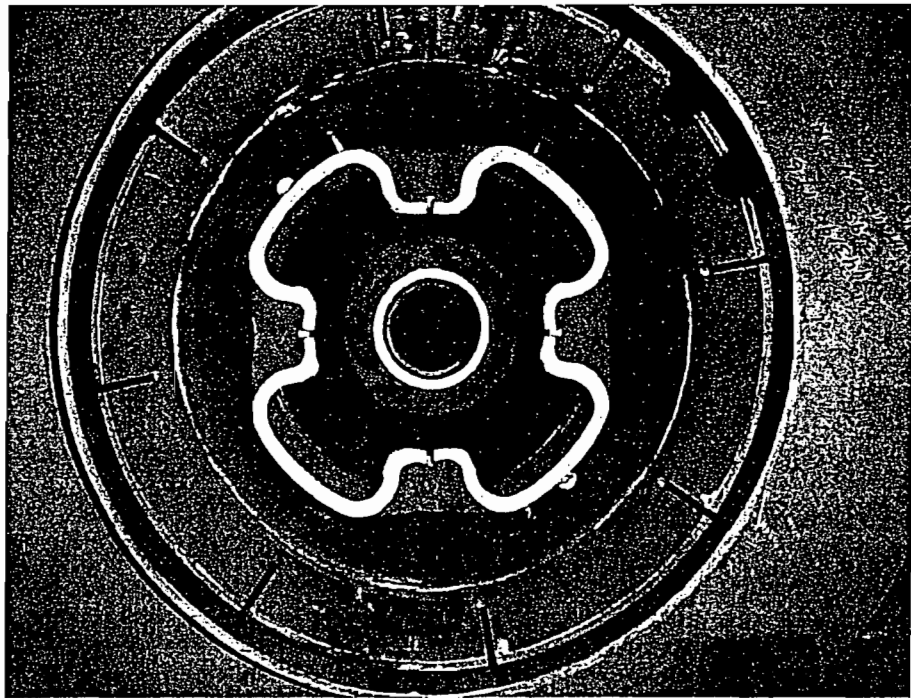


Figure 4-4: Split Flame Coal Nozzle Tip

The design features of the split flame tip are intended for coal with high slagging potentials, as are high sulfur, high iron containing coals such as Patiki, and petroleum coke in general.



One of the other unique features of the split flame coal nozzle is the ability to change the exit velocity of the primary air and coal jet. It should be noted that no other burner design offers this degree of flexibility. This adjustability is key for achieving optimized emissions; low NO_x, low CO, and low LOI. It provides the flexibility to optimize individual burner exit velocities based their associated primary air flow differences. As a result, this feature also allows for firing a wider range of coals with a single burner design. The simple design of the adjustable tip allows for optimization of the primary air/coal velocity without changing primary air flow. The proper relationship between primary and secondary air is important for both NO_x control and fly ash LOI management. Foster Wheeler's experience has shown that there is a NO_x performance relationship between coal jet velocity and fly ash LOI.

Foster Wheeler includes special burner thermocouples for temperature monitoring. In current designs, three thermocouples are installed on the nozzle tip and inner barrel.

~~4.2.2. Foster Wheeler's Individual Burner Register Air-Flow Measurement~~

~~The registers were designed to be equipped with a non-pitot tube based measurement of the secondary air flow. The system uses the pressure drop generated by the axial swirler to measure the air flow. We have applied for a patent for this novel approach. This system was developed in our air flow laboratory using full size registers. An example of a test set up is shown in Figure 4-5, in which are seen the various pressure tap and temporary sensing lines used to calibrate the system in preparation for installation at a jobsite.~~



4.3 Improved OFA System – Approach 1

The proposed OFA (Overfire Air System) system under Approach 1 will achieve lowest consistent NO_x reductions as well as lowest CO and fly ash LOI, beyond the capabilities of the current design. Foster Wheeler will add two additional OFA registers to the front wall, and two to the rear wall for better overfire air flow distribution in the furnace. The new OFA registers will be located over the outer burner columns, in order to complement the Vortex Series Low NO_x burner operation by providing more optimum penetration of overfire air above the entire burner zone. The existing original OFA registers will be replaced with Vortex Series OFA Registers. Additional OFA air will be supplied to the existing OFA windboxes from the tops of their respective main windboxes by means of six supplemental OFA Air *jumper ducts*. These ducts are shown in Figure 4-7 in green.

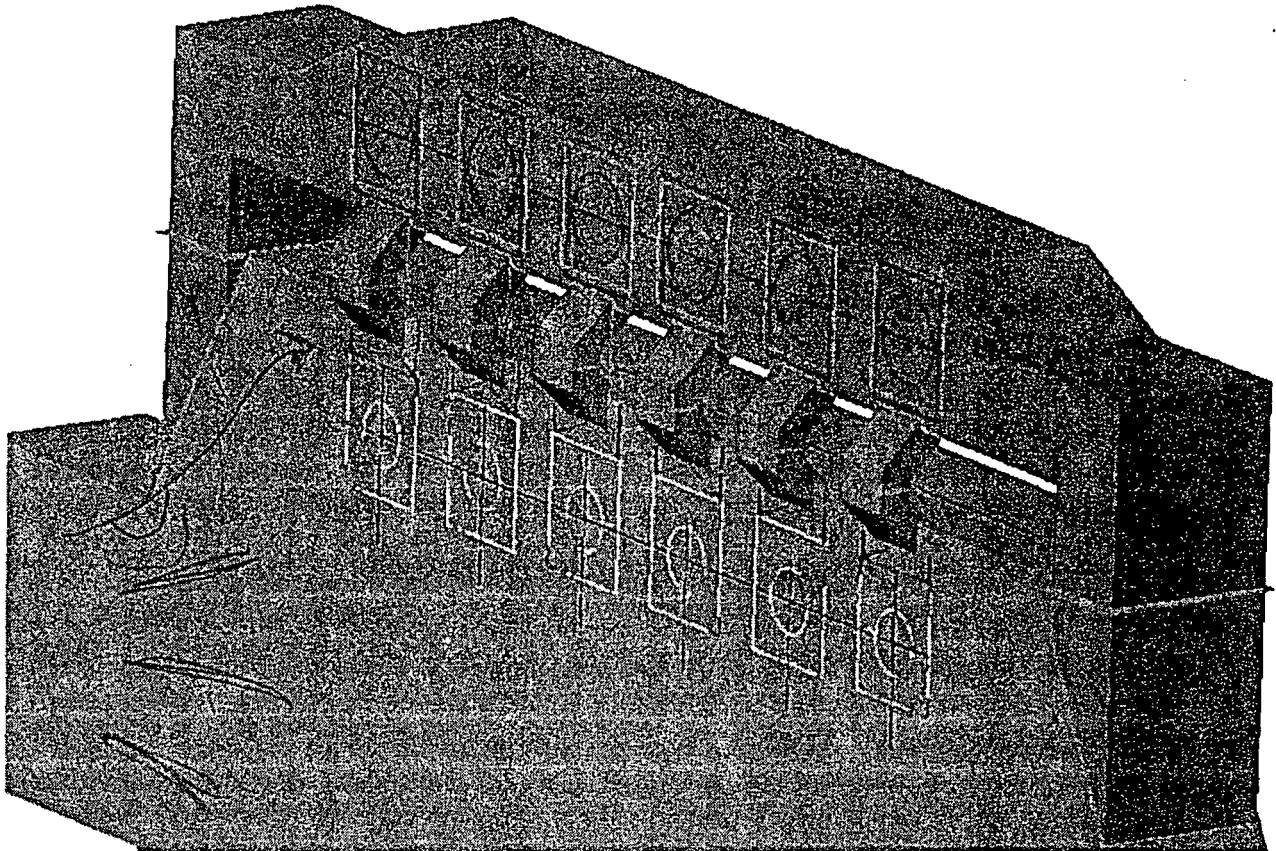


Figure 4-7: Concept Isometric View of OFA Jumper Ducts used to Supplement OFA from top of Main Windbox



Based on Foster Wheeler's review of the alternative flow-enhancement improvements described in the referenced EPRI CFD study, the level of improvements are not adequate to provide the additional OFA air required to achieve the low NO_x levels target of 0.35 lb/M Btu, thus more flow area is required. The sizing and location of the OFA jumper ducts will be such that the additional OFA air required to achieve the lower target NO_x is provided to the OFA registers.

Careful consideration for potential air starving of the top elevation of burners will be given in the CFD modeling, and appropriate deflection baffles will be incorporated into the design to mitigate these effects. Foster Wheeler has taken a similar approach on a very successful recent OFA project, where deflector baffles were introduced to *protect* the top outer burners in a conceptually similar OFA air duct extraction project.

The Vortex Series OFA registers are based on the same air flow principles as is the Vortex Series burner. An example of a Vortex Series OFA register is shown in Figure 4-8.

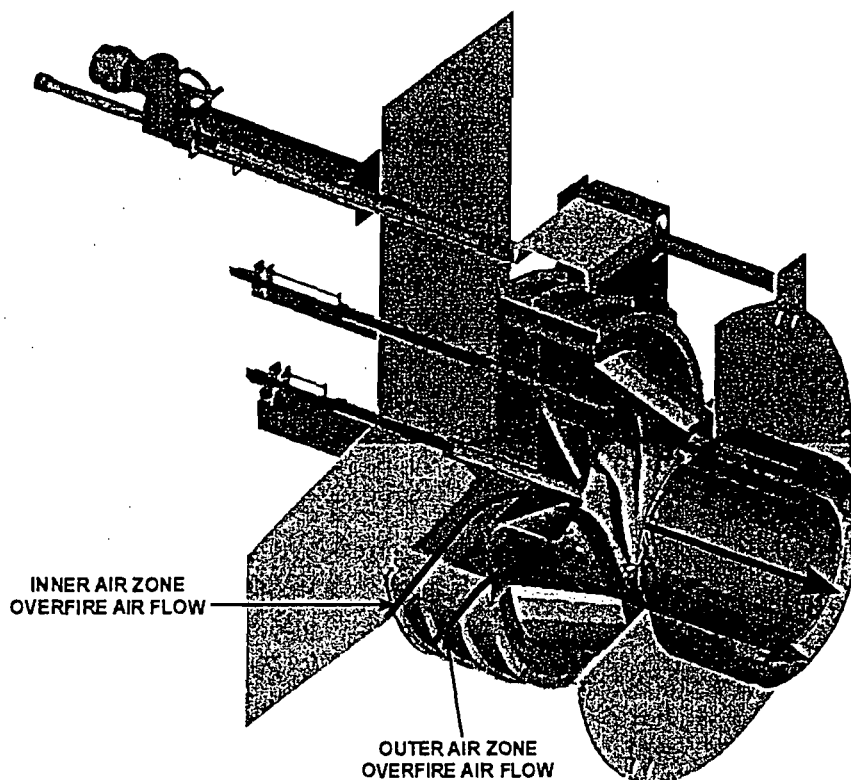


Figure 4-8: Vortex Series OFA Register Split View



The Vortex Series OFA Register also consists of a dual zone opening. The outer annulus can be swirled to increase mixing in the vicinity of the OFA register. By retracting the movable swirler from the conical housing, the degree of swirl can be reduced to produce a jet with high momentum and penetration. The inner zone can be closed with a conical damper to force more air through the outer zone. The swirler and the inner cone settings are manual adjustments that are set during optimization. The airflow through the register is modulated with the sleeve damper around the circumference of the register. This sleeve damper is motor operated to allow OFA bias across the boiler width and as well as reduce airflow at low load points.

With all of these features, the Foster Wheeler OFA System Vortex Register provides a high degree of adjustability creating effective mixing of air and flue gas at the right location within the furnace.

Included in each OFA Register will be a set of static pressure taps and sensor tubing leading to pressure taps at the front of the windbox. The purpose of these taps is to provide relative flow readings to assist in balancing the OFA flows during operation. As with the burner registers, this flow-measurement feature forms the basis of the RADM (Register Air Distribution Monitoring) System, which along with the coal flow measurement (ECT) system forms the "Fuel Injection" air/fuel balancing system.

The complete set of proposal drawings appears in Appendix E.

4.4 Computational Fluid Dynamics (CFD) Study – Air Flow Model

Foster Wheeler will either begin with the existing EPRI model, or develop its own CFD model to examine the flow distribution throughout the combustion air system from the air heater outlet through the furnace exit. The model will be used to confirm the suitability of the ductwork and damper control modifications proposed as part of the project. The final detailed design of the OFA duct system improvements will be configured based on our experience in conjunction with the air flow CFD analysis to ensure that each OFA register receives the necessary amount of air, without negatively effecting the top elevation of burners. We propose some means of guide vanes as a means to help isolate these top burners, as well as provide appropriate channels for the additional OFA air to flow through. A complete report will be prepared and submitted for SECI review.

A sample of a previous duct air flow modeling study slide is presented in Figure 4-9.

OFA or
other
ducts
&
dampers?

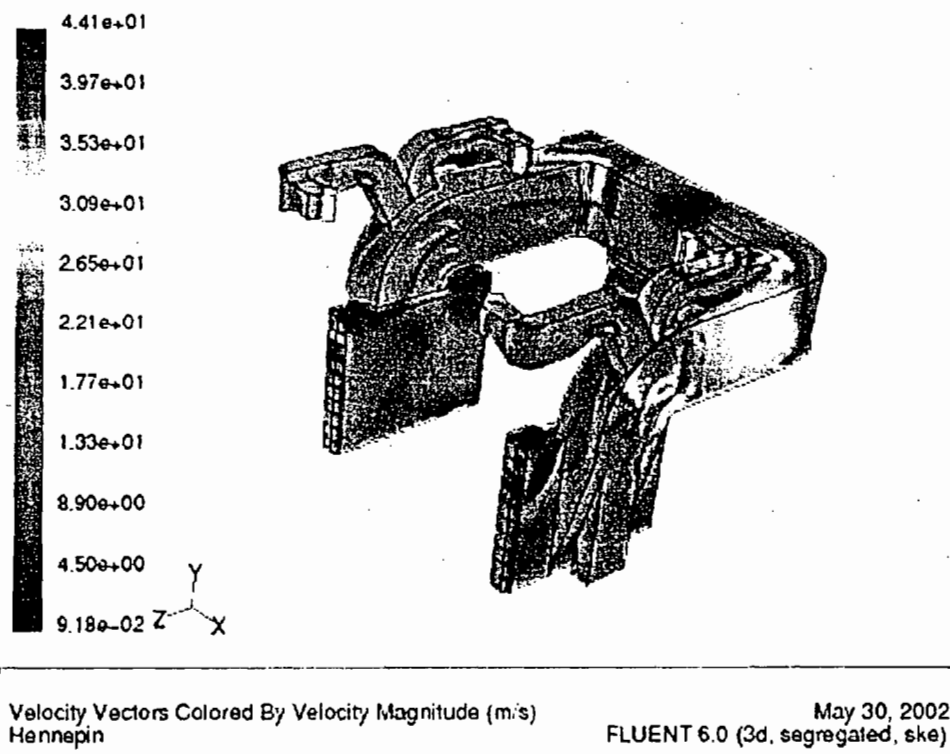


Figure 4-9: Sample CFD Modeling result for Air Flow in Secondary Air Ducts

4.5 Computational Fluid Dynamics (CFD) Study – Combustion Model

As requested, Foster Wheeler is offering a Computational Fluid Dynamics only (CFD) study of the furnace using the proposed Approach 1 OFA arrangement. The Combustion CFD model will extend from the burner fronts up through the leading edge of the first bank of the finishing superheater. Experienced engineers at Foster Wheeler Development Corporation will perform this work.

Vital to any OFA design is the penetration of the air jets into the furnace flue gas to promote mixing with the bulk of the rising flue gases. This is accomplished by choosing appropriate nozzle velocities and sizes. Foster Wheeler studied the jet penetration



through physical modeling and with CFD analysis as part of our engineering standard development. This work yielded that our arrangement of OFA nozzles is in fact achieving a very good lateral air distribution and that empirical correlations for jet penetration depth are describing the model results very well.

A three-dimensional computational fluid dynamics model representing both of Seminole Units 1 & 2 furnaces will be set-up using the Foster Wheeler computer code, FW-FIRE. FW-FIRE contains comprehensive CFD furnace modeling capability that has been well validated for several furnace types including front wall-fired, opposed-wall fired, and tangentially fired units.

Two models will be constructed: 1) existing (present burners and OFA arrangement) and 2) proposed Approach 1 configuration (with FW VS/SF Burners and new “optimized” OFA). Output from the program will predict three-dimensional distributions of O₂, CO, NO_x, temperature, heat flux distribution and identify potential corrosion areas of the furnace walls flue gas temperature, mixing, and velocity. The second CFD model will also address different modes of the burner register settings which vary the burner’s and OFA port’s inner/outer air zones.

The number of “runs” will also address Approach 1 configuration at low, medium, and full loads.

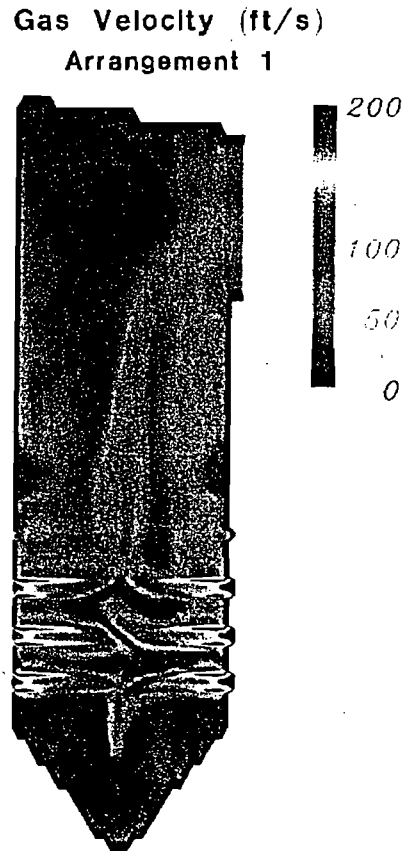


Figure 4-10: Sample CFD Model of an opposed wall fired unit with OFA System

Baseline operating boundary conditions will be applied to the FW-FIRE model of the existing furnace. Burner outlet conditions such as temperatures, velocities and air/coal loading will be input as boundary conditions at the furnace wall. The effects of the over-fired air (OFA) system will be identified by modifying the existing furnace model to include the OFA ports. A set of boundary conditions will be applied to simulate the OFA operation. The effective surface emissivity will be kept at the same value as that determined for the existing baseline case. The program output will be post-processed to determine the OFA penetration and mixing by analyzing the three dimensional distributions of O₂, velocity, and char oxidation. FW-FIRE can also predict the effect of the OFA system on FEGT, surface heat absorption, and unburned carbon (UBC).

A report will be issued which will summarize the model boundary conditions and results for the existing configuration and the proposed Approach 1 OFA cases.

ATTACHMENT 3

UPDATED APPENDIX B EMISSION TABLES

Table B-4 PSD Netting Analysis

Pollutant	Units 1 and 2 Baseline Actual Emissions (tpy)	Projected Actual Emissions with Project (tpy)	Net Emissions Increase with Project (tpy)	Significant Emission Rates (tpy)	PSD Review Required?
SO ₂	29,074	29,074	0.0	40	No
NO _x	23,289	23,289	0.0	40	No
PM	822	846	24.4	25	No
PM ₁₀	822	836	14.4	15	No
H ₂ SO ₄	2,129	2,129	0.0	7	No
VOC	108	147	39.0	40	No
CO	13,448	12,565	0.0	100	No
Hg	0.065	0.065	<0.1	<0.1	No

* Units 1 and 2 baseline actual emissions are based on Tables B-4E through B-4S, as well as a Supplemental Submittal, dated April 14, 2006.

Table B-4A CBO Project - Fluidized Bed Emission Estimates

Pollutant	Emission Rate (lb/MMBtu)	CBO Emission Rate (lb/hr)	CBO Emission Rate (TPY) to Units 1 and 2	Material Handling Emissions (TPY)	Net Emissions Increase with Units 1 and 2 (TPY)	PSD Significant Emission Rates (TPY)	PSD Review Required?
SO ₂	5.200	596.3	2,611.8		0*	40	No
NO _x	0.782	89.7	392.9		0*	40	No
CO	0.244	28.0	122.6		0*	100	No
VOCs	0.018	2.1	9.0		9.0	40	No
PM	0.024	2.8	12.1**	5.8	6.4**	25	No
PM ₁₀	0.024	2.8	12.1**	5.8	6.4**	15	No

* See Table B-4. Projected actual emissions will be limited to baseline actual emissions.

** CBO emissions before Units 1 and 2 ESPs. Based on a conservative 95% removal, PM/PM10 emissions from the CBO FBC will be 0.6 TPY.

Table B-4B CBO Material Handling Emissions

Emission Source	Control Device	Exhaust Flow Rate (dscfm)	PM Emission Rate (gr/dscf)	PM Emission Rate (lb/hr)	PM Emission Rate (TPY)
Feed Fly Ash Silo	Baghouse	3,000	0.01	0.3	1.1
Product Fly Ash Storage Dome	Baghouse	6,000	0.01	0.5	2.3
Product Fly Ash Loadout Silo & Truck Loading	Baghouse	6,000	0.01	0.5	2.3
Fly Ash Fugitives (Truck Traffic)	Paved Roads; Watering	NA		0.1	0.2
Totals				1.4	5.8

Table B-4E Unit 1 Actual 2000 Emissions Rates

Average 2000 Data:

Heat Input	49,418,601 MMBtu/yr (HHV)
Operating Hours	8,007 hr/yr
Coal Sulfur Content	2.90 weight percent S
Petcoke Sulfur Content	6.19 weight percent S
Coal Consumption	1,758,963 tpy
Petcoke Consumption	28,953 tpy
Coal Consumption	98.38 blend weight percent
Petcoke Consumption	1.62 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.603	3,721.5	14,899
NO _x *	0.449	2,834.5	11,094
CO†	0.144	594.2	3,557
VOCs‡	0.002	13.5	54
PM†	0.024	133.3	589
PM ₁₀ **	0.024	133.3	589
H ₂ SO ₄ mist†	0.020	111.8	494

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2000
Golder, 2005

Table B-4F Unit 1 Actual 2001 Emissions Rates

Average 2001 Data:

Heat Input	49,668,948 MMBtu/yr (HHV)
Operating Hours	7,704 hr/yr
Coal Sulfur Content	2.95 weight percent S
Petcoke Sulfur Content	5.88 weight percent S
Coal Consumption	1,665,401 tpy
Petcoke Consumption	66,037 tpy
Coal Consumption	96.19 blend weight percent
Petcoke Consumption	3.81 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.522	3,364.5	12,960
NO _x *	0.459	2,959.2	11,399
CO*	0.189	1,218.5	4,694
VOCs†	0.002	13.6	52
PM†	0.012	75.3	290
PM ₁₀ **	0.012	75.3	290
H ₂ SO ₄ mist†	0.029	187.7	723

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2001
Golder, 2005

Table B-4G Unit 1 Actual 2002 Emissions Rates

Average 2002 Data:

Heat Input	48,594,869 MMBtu/yr (HHV)
Operating Hours	7,517 hr/yr
Coal Sulfur Content	3.01 weight percent S
Petcoke Sulfur Content	6.23 weight percent S
Coal Consumption	1,462,320 tpy
Petcoke Consumption	175,428 tpy
Coal Consumption	89.29 blend weight percent
Petcoke Consumption	10.71 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.457	2,952.8	11,098
NO _x *	0.444	2,870.3	10,788
CO*	0.250	1,616.2	6,074
VOCs†	0.002	13.1	49
PM†	0.012	75.1	282
PM ₁₀ **	0.012	75.1	282
H ₂ SO ₄ mist†	0.051	332.5	1,250

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2002
Golder, 2005

Table B-4H Unit 1 Actual 2003 Emissions Rates

Average 2003 Data:

Heat Input	45,734,834	MMBtu/yr (HHV)
Operating Hours	8,011	hr/yr
Coal Sulfur Content	3.03	weight percent S
Petcoke Sulfur Content	5.97	weight percent S
Coal Consumption	1,620,199	blend weight percent
Petcoke Consumption	271,815	blend weight percent
Coal Consumption	85.63	blend weight percent
Petcoke Consumption	14.37	blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.592	3,382.1	13,547
NO _x *	0.478	2,728.9	10,931
CO*	0.408	2,329.3	9,330
VOCs†	0.002	14.3	57
PM†	0.020	111.5	446
PM ₁₀ **	0.020	111.5	446
H ₂ SO ₄ mist†	0.044	251.0	1,005

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2003
Golder, 2005

Table B-4I Unit 1 Actual 2004 Emissions Rates

Average 2004 Data:

Heat Input	45,312,403 MMBtu/yr (HHV)
Operating Hours	8,162 hr/yr
Coal Sulfur Content	3.07 weight percent S
Petcoke Sulfur Content	5.19 weight percent S
Coal Consumption	1,338,145 tpy
Petcoke Consumption	399,916 tpy
Coal Consumption	76.99 blend weight percent
Petcoke Consumption	23.01 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.630	3,499.1	14,280
NO _x *	0.476	2,642.6	10,784
CO*	0.402	2,231.8	9,108
VOCs†	0.002	12.8	52
PM†	0.015	82.3	336
PM ₁₀ **	0.015	82.3	336
H ₂ SO ₄ mist†	0.045	247.4	1,010

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2004
Golder, 2005

Table B-4J Unit 1 Actual 2005 Emissions Rates

Average 2000 Data:

Heat Input	47,228,429 MMBtu/yr (HHV)
Operating Hours	8,000 hr/yr
Coal Sulfur Content	3.07 weight percent S
Petcoke Sulfur Content	5.19 weight percent S
Coal Consumption	1,338,145 tpy
Petcoke Consumption	399,916 tpy
Coal Consumption	76.99 blend weight percent
Petcoke Consumption	23.01 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.646	3,816.0	15,264
NO _x *	0.474	2,798.3	11,193
CO*	0.350	2,066.2	8,265
VOCs†	0.002	12.8	52
PM†	0.015	87.5	350
PM ₁₀ **	0.015	87.5	350
H ₂ SO ₄ mist†	0.045	263.1	1,052

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2000
Golder, 2005

Table B-4K Unit 2 Actual 2000 Emissions Rates

Average 2000 Data:

Heat Input	51,954,131 MMBtu/yr (HHV)
Operating Hours	7,878 hr/yr
Coal Sulfur Content	2.90 weight percent S
Petcoke Sulfur Content	6.19 weight percent S
Coal Consumption	1,679,618 tpy
Petcoke Consumption	74,443 tpy
Coal Consumption	95.76 blend weight percent
Petcoke Consumption	4.24 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.688	4,536.7	17,870
NO _x *	0.390	2,627.1	10,131
CO†	0.432	1,122.9	11,223
VOCs‡	0.002	13.5	53
PM†	0.009	51.6	236
PM ₁₀ **	0.009	51.6	236
H ₂ SO ₄ mist†	0.018	104.2	474

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2000
Golder, 2005

Table B-4L Unit 2 Actual 2001 Emissions Rates

Average 2001 Data:

Heat Input	55,355,534 MMBtu/yr (HHV)
Operating Hours	8,244 hr/yr
Coal Sulfur Content	2.95 weight percent S
Petcoke Sulfur Content	5.88 weight percent S
Coal Consumption	1,762,839 tpy
Petcoke Consumption	107,738 tpy
Coal Consumption	94.24 blend weight percent
Petcoke Consumption	5.76 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.610	4,093.2	16,872
NO _x *	0.470	3,155.9	13,009
CO*	0.105	705.0	2,906
VOCs‡	0.002	13.7	56
PM†	0.008	50.5	208
PM ₁₀ **	0.008	50.5	208
H ₂ SO ₄ mist†	0.018	123.3	508

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2001
Golder, 2005

Table B-4M Unit 2 Actual 2002 Emissions Rates

Average 2002 Data:

Heat Input	49,488,475	MMBtu/yr (HHV)
Operating Hours	8,033	hr/yr
Coal Sulfur Content	3.01	weight percent S
Petcoke Sulfur Content	6.23	weight percent S
Coal Consumption	1,514,054	tpy
Petcoke Consumption	169,260	tpy
Coal Consumption	89.94	blend weight percent
Petcoke Consumption	10.06	blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.525	3,234.7	12,992
NO _x *	0.460	2,896.6	11,382
CO*	0.116	714.6	2,870
VOCs†	0.002	12.6	50
PM†	0.018	109.2	439
PM ₁₀ **	0.018	109.2	439
H ₂ SO ₄ mist†	0.052	318.5	1,279

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2002
Golder, 2005

Table B-4N Unit 2 Actual 2003 Emissions Rates

Average 2003 Data:

Heat Input	46,823,323 MMBtu/yr (HHV)
Operating Hours	8,243 hr/yr
Coal Sulfur Content	3.03 weight percent S
Petcoke Sulfur Content	5.97 weight percent S
Coal Consumption	1,628,641 tpy
Petcoke Consumption	311,406 tpy
Coal Consumption	83.95 blend weight percent
Petcoke Consumption	16.05 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.590	3,351.4	13,813
NO _x *	0.454	2,578.9	10,629
CO*	0.193	1,096.3	4,518
VOCs†	0.003	14.2	59
PM†	0.020	115.5	476
PM ₁₀ **	0.020	115.5	476
H ₂ SO ₄ mist†	0.031	175.5	723

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2003
Golder, 2005

Table B-40 Unit 2 Actual 2004 Emissions Rates

Average 2004 Data:

Heat Input	39,583,424 MMBtu/yr (HHV)
Operating Hours	7,033 hr/yr
Coal Sulfur Content	3.07 weight percent S
Petcoke Sulfur Content	5.19 weight percent S
Coal Consumption	1,128,531 tpy
Petcoke Consumption	324,146 tpy
Coal Consumption	77.69 blend weight percent
Petcoke Consumption	22.31 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.628	3,533.1	12,424
NO _x *	0.464	2,611.5	9,183
CO*	0.199	1,120.0	3,939
VOCs‡	0.002	12.5	44
PM†	0.013	74.6	262
PM ₁₀ **	0.013	74.6	262
H ₂ SO ₄ mist†	0.031	175.9	618

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2004
Golder, 2005

Table B-4P Unit 2 Actual 2005 Emissions Rates

Average 2004 Data:

Heat Input	50,573,650 MMBtu/yr (HHV)
Operating Hours	7,033 hr/yr
Coal Sulfur Content	3.07 weight percent S
Petcoke Sulfur Content	5.19 weight percent S
Coal Consumption	1,128,531 tpy
Petcoke Consumption	324,146 tpy
Coal Consumption	77.69 blend weight percent
Petcoke Consumption	22.31 blend weight percent

Pollutant	Emissions Rate		
	lb/MMBtu	lb/hr	tpy
SO ₂ *	0.640	4,601.2	16,180
NO _x *	0.476	3,422.9	12,037
CO*	0.296	2,128.5	7,485
VOCs‡	0.002	12.5	44
PM†	0.013	95.3	335
PM ₁₀ **	0.013	95.3	335
H ₂ SO ₄ mist†	0.031	224.7	790

*CEMS Data.

†Stack test data.

‡AP-42 emission factor.

**PM₁₀ assumed equal to PM.

Sources: AOR, 2004
Golder, 2005

Table B-4Q Unit 1 Highest 2 Year Average

Pollutant	2000-2001 (tpy)	2001-2002 (tpy)	2002-2003 (tpy)	2003-2004 (tpy)	2004-2005 (tpy)	Highest 2 Year Average
SO ₂	13,930	12,029	12,323	13,914	14,772	14,772
NO _x	11,247	11,094	10,859	10,857	10,989	11,247
CO	4,125	5,384	7,702	9,219	8,686	9,219
VOCs	53	51	53	55	52	55
PM	439	286	364	391	343	439
PM ₁₀	439	286	364	391	343	439
H ₂ SO ₄ mist	609	987	1,128	1,007	1,031	1,128
Heat Input	49,543,775	49,131,909	47,164,852	45,523,619	46,270,416	49,543,775

Table B-4R Unit 2 Highest 2 Year Average

Pollutant	2000-2001 (tpy)	2001-2002 (tpy)	2002-2003 (tpy)	2003-2004 (tpy)	2003-2004 (tpy)	Highest 2 Year Average
SO ₂	17,371	14,932	13,403	13,119	14,302	17,371
NO _x	11,570	12,195	11,006	9,906	10,610	12,195
CO	7,065	2,888	3,694	4,229	5,712	7,065
VOCs	55	53	55	51	44	55
PM	222	323	457	369	299	457
PM ₁₀	222	323	457	369	299	457
H ₂ SO ₄ mist	491	894	1,001	671	704	1,001
Heat Input	53,654,833	52,422,005	48,155,899	43,203,374	45,078,537	53,654,833

Table B-4S Highest Baseline 2-Year Average

Pollutant	2000-2001 (tpy)	2001-2002 (tpy)	2002-2003 (tpy)	2003-2004 (tpy)	2004-2005 (tpy)	Highest 2 Year Average
SO ₂	31,301	26,961	25,725	27,032	29,074	31,301
NO _x	22,817	23,289	21,865	20,764	21,599	23,289
CO	11,190	8,272	11,397	13,447	14,398	14,398
VOCs	108	104	108	106	96	108
PM	661	610	822	760	642	822
PM ₁₀	661	610	822	760	642	822
H ₂ SO ₄ mist	1,100	1,880	2,129	1,678	1,735	2,129
Heat Input	103,198,607	101,553,913	95,320,751	88,726,992	91,348,953	103,198,607

ATTACHMENT 4

AIR APPLICATION LONG FORM- REVISED PAGES

EMISSIONS UNIT INFORMATIONSection [1]
Steam Electric Generator No. 1**POLLUTANT DETAIL INFORMATION**Page [4] of [6]
Carbon Monoxide**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 2,904.7 lb/hour 9,219 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.405 lb/MMBtu Reference: CEMS Data		7. Emissions Method Code:	
8. Calculation of Emissions: See Supplemental Submittal, dated April 14, 2006, and Appendix B-4 The emission factor (0.405 lb/MMBtu) is based on 2003-2004 data. The TPY value is based on an annual heat input value of 45,523,619 MMBtu/yr (2003-2004 two-year average). Total baseline emissions from Units 1 and 2 combined are 13,448 TPY.			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: There is no allowable CO emissions limitation.			

EMISSIONS UNIT INFORMATION

Section [1]

Steam Electric Generator No. 1

POLLUTANT DETAIL INFORMATION

Page [4] of [6]

Carbon Monoxide

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 12,565 tons/yr	4. Equivalent Allowable Emissions: lb/hour 12,565 tons/year
5. Method of Compliance: See Supplemental Submittal, dated April 14, 2006 and Appendix B-4.	
6. Allowable Emissions Comment (Description of Operating Method): The TPY estimate reflects an assumed short-term rate of 0.2 lb/MMBtu for Units 1 and 2 and a 100 percent capacity factor for both units (i.e., 7,172 MMBtu/hr from each unit; 8,760 hr/yr).	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [1]

Steam Electric Generator No. 1

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 5

1. Parameter Code: SO2	2. Pollutant(s): SO2
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: Thermo-Environmental Instruments, Inc. Model Number: 43B Serial Number: 43B-46935-277	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 10/19/1994
7. Continuous Monitor Comment: 40 CFR 60, Subpart Da and 40 CFR Part 75.	

Continuous Monitoring System: Continuous Monitor 2 of 5

1. Parameter Code: NOX	2. Pollutant(s): NOX
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: Thermo-Environmental, Inc. Model Number: 42D Serial Number: 42D-46961-277	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 10/19/1994
7. Continuous Monitor Comment: 40 CFR 60, Subpart Da and 40 CFR Part 75.	

EMISSIONS UNIT INFORMATION

Section [1]

Steam Electric Generator No. 1

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 3 of 5

1. Parameter Code: VE	2. Pollutant(s): VE
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: KVB/MIP Model Number: LM3086EPA3 Serial Number: 730097	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 11/07/1995
7. Continuous Monitor Comment: 40 CFR 60, Subpart Da and 40 CFR Part 75.	

Continuous Monitoring System: Continuous Monitor 4 of 5

1. Parameter Code:	2. Pollutant(s): CO2
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Thermo-Environmental Instruments, Inc. Model Number: 41H Serial Number: 41H-42927-268	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 10/19/1994
7. Continuous Monitor Comment: 40 CFR Part 75.	

EMISSIONS UNIT INFORMATION

Section [1]

Steam Electric Generator No. 1

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 5 of 5

1. Parameter Code: CO	2. Pollutant(s): CO
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Thermo Electron Corp Model Number: 48C Serial Number: 48C-67478-356	
5. Installation Date: 01/01/2001	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Installed for diagnostic purposes. Future operation will be in accordance with 40 CFR Part 60.	

Continuous Monitoring System: Continuous Monitor of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [2]

Steam Electric Generator No. 2

POLLUTANT DETAIL INFORMATION

Page [4] of [6]

Carbon Monoxide

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: 1,405.7 lb/hour 4,229 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.196 lb/MMBtu Reference: CEMS Data	7. Emissions Method Code:
8. Calculation of Emissions: See Supplemental Submittal, dated April 14, 2006, and Appendix B-4 The emission factor (0.196 lb/MMBtu) is based on 2003-2004 data. The TPY value is based on an annual heat input value of 43,203,374 MMBtu/yr (2003-2004 two-year average). Total baseline emissions from Units 1 and 2 combined are 13,448 TPY.	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: There is no allowable CO emissions limitation.	

EMISSIONS UNIT INFORMATION

Section [2]

Steam Electric Generator No. 2

POLLUTANT DETAIL INFORMATION

Page [4] of [6]

Carbon Monoxide

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 12,565 tons/yr	4. Equivalent Allowable Emissions: lb/hour 12,565 tons/year
5. Method of Compliance: See Supplemental Submittal, dated April 14, 2006 and Appendix B-4.	
6. Allowable Emissions Comment (Description of Operating Method): The TPY estimate reflects an assumed short-term rate of 0.2 lb/MMBtu for Units 1 and 2 and a 100 percent capacity factor for both units (i.e., 7,172 MMBtu/hr from each unit; 8,760 hr/yr).	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [2]

Steam Electric Generator No. 2

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 5

1. Parameter Code: SO2	2. Pollutant(s): SO2
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Thermo-Environmental Instruments, inc. Model Number: 43B Serial Number: 43B-46935-277	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 10/19/1994
7. Continuous Monitor Comment: 40 CFR 60, Subpart Da and 40 CFR Part 75.	

Continuous Monitoring System: Continuous Monitor 2 of 5

1. Parameter Code: NOX	2. Pollutant(s): NOX
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Thermo-Environmental, Inc. Model Number: 42D Serial Number: 42D-46961-277	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 10/19/1994
7. Continuous Monitor Comment: 40 CFR 60, Subpart Da and 40 CFR Part 75.	

EMISSIONS UNIT INFORMATION

Section [2]

Steam Electric Generator No. 2

H. CONTINUOUS MONITOR INFORMATION**Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor **3** of **5**

1. Parameter Code: VE	2. Pollutant(s): VE
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: KVB/MIP Model Number: LM3086EPA3 Serial Number: 730097	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 11/07/1995
7. Continuous Monitor Comment: 40 CFR 60, Subpart Da and 40 CFR Part 75.	

Continuous Monitoring System: Continuous Monitor **4** of **5**

1. Parameter Code:	2. Pollutant(s): CO2
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Thermo-Environmental Instruments, Inc. Model Number: 41H Serial Number: 41H-42927-268	
5. Installation Date: 05/31/1994	6. Performance Specification Test Date: 10/19/1994
7. Continuous Monitor Comment: 40 CFR Part 75.	

EMISSIONS UNIT INFORMATION

Section [2]

Steam Electric Generator No. 2

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 5 of 5

1. Parameter Code: CO	2. Pollutant(s): CO
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Thermo Electron Corp Model Number: 48C Serial Number: 48C-67477-356	
5. Installation Date: 01/01/2001	6. Performance Specification Test Date:
7. Continuous Monitor Comment: Installed for diagnostic purposes. Future operation will be in accordance with 40 CFR Part 60.	

Continuous Monitoring System: Continuous Monitor of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

ATTACHMENT 5
SEMINOLE 2005 AOR



February 27, 2006

SENT BY OVERNIGHT MAIL

Florida Department of Environmental Protection
Division of Air Resources Management, MS5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**Re: Seminole Electric Cooperative, Inc.
Seminole Generating Station - Facility ID 1070025
Payne Creek Generating Station - Facility ID 0490340
2005 Annual Operating Report Forms**

Dear Sir or Madam:

Pursuant to the requirements of Chapter 62-210.370(3), Florida Administrative Code (F.A.C.) and in accordance with Department guidance regarding submittal of the 2005 Annual Operating Report (AOR), please find enclosed the first two pages of the 2005 AOR Forms for the Seminole Electric Cooperative, Inc. (SECI) Seminole Generating Station (Facility ID No. 1070025) and the Payne Creek Generating Station (Facility ID No. 0490340). The second page of each report has been signed and dated by the owner or authorized representative. The Electronic AOR files have been transferred electronically to the Department via the Internet.

Please contact me at (813) 739-1224 if there are any questions regarding the SECI 2005 AORs.

Sincerely,

Mike Roddy
Senior Environmental Engineer

Enclosures



Department of Environmental Protection

Division of Air Resources Management

ANNUAL OPERATING REPORT FOR AIR POLLUTANT EMITTING FACILITY

See Instructions for Form No. 62-210.900(5).

I. FACILITY REPORT

A. REPORT INFORMATION

1. Year of Report	2005	2. Number of Emissions Units in Report	8
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B. FACILITY INFORMATION

1. Facility ID 1070025	2. Facility Status ACTIVE	3. Date of Permanent Facility Shutdown
4. Facility Owner/Company Name SEMINOLE ELECTRIC COOPERATIVE, INC.		
5. Site Name SEMINOLE GENERATING STATION		
6. Facility Location Street Address or Other Locator: 890 NORTH U.S. HIGHWAY 17 City: PALATKA County: PUTNAM Zip Code: 32177-8647		
7. Facility Compliance Tracking Code A	8. Governmental Facility Code 0	9. Facility SIC(s) 4911
10. Facility Comment TITLE V (MAJOR & NSPS)		

C. FACILITY HISTORY INFORMATION

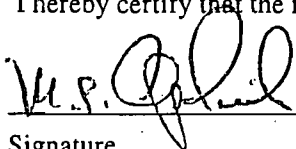
1. Change in Facility Owner/ Company Name During Year?	Previous Name	2. Date of Change
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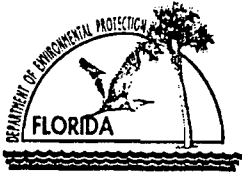
Facility ID : 1070025

D. OWNER/CONTACT INFORMATION

1. Owner or Authorized Representative		
Name and Title MICHAEL P. OPALINSKI VICE PRESIDENT OF TECHNICAL SERVICES		
Mailing Address Organization/Firm: SEMINOLE ELECTRIC COOPERATIVE, INC. Street Address: POST OFFICE BOX 272000 City: TAMPA State: FL Zip Code: 33688-2000		
Telephone: (813) 963-0994 1233 Fax: (813) 264-7906		
2. Facility Contact		
Name and Title BRENDA SHIVER ENVIRONMENTAL COMPLIANCE SPECIALIST		
Mailing Address Organization/Firm: SEMINOLE ELECTRIC COOPERATIVE, INC. Street Address: 890 NORTH U.S. HIGHWAY 17 City: PALATKA State: FL Zip Code: 32177-8647		
Telephone: (386) 328-9255 2174 Fax: (386) 328-5571		

E. OWNER OR AUTHORIZED REPRESENTATIVE STATEMENT

I hereby certify that the information given in this report is correct to the best of my knowledge.	
 Signature	<u>2/27/06</u> Date



Department of Environmental Protection

Division of Air Resources Management

ANNUAL OPERATING REPORT FOR AIR POLLUTANT EMITTING FACILITY

See Instructions for Form No. 62-210.900(5).

I. FACILITY REPORT

A. REPORT INFORMATION

1. Year of Report	2005	2. Number of Emissions Units in Report	8
-------------------	------	--	---

B. FACILITY INFORMATION

1. Facility ID 1070025	2. Facility Status ACTIVE	3. Date of Permanent Facility Shutdown
4. Facility Owner/Company Name SEMINOLE ELECTRIC COOPERATIVE, INC.		
5. Site Name SEMINOLE GENERATING STATION		
6. Facility Location Street Address or Other Locator: 890 NORTH U.S. HIGHWAY 17 City: PALATKA County: PUTNAM Zip Code: 32177-8647		
7. Facility Compliance Tracking Code A	8. Governmental Facility Code 0	9. Facility SIC(s) 4911
10. Facility Comment TITLE V (MAJOR & NSPS)		

C. FACILITY HISTORY INFORMATION

1. Change in Facility Owner/ Company Name During Year?	Previous Name	2. Date of Change
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Facility ID : 1070025

D. OWNER/CONTACT INFORMATION

1. Owner or Authorized Representative		
Name and Title MICHAEL P. OPALINSKI VICE PRESIDENT OF TECHNICAL SERVICES		
Mailing Address Organization/Firm: SEMINOLE ELECTRIC COOPERATIVE, INC. Street Address: POST OFFICE BOX 272000 City: TAMPA State: FL Zip Code: 33688-2000		
Telephone: (813) 963-0994	1233	Fax: (813) 264-7906
2. Facility Contact		
Name and Title BRENDA SHIVER ENVIRONMENTAL COMPLIANCE SPECIALIST		
Mailing Address Organization/Firm: SEMINOLE ELECTRIC COOPERATIVE, INC. Street Address: 890 NORTH HIGHWAY 17 City: PALATKA State: FL Zip Code: 32177-8647		
Telephone: (386) 328-9255	2174	Fax: (386) 328-5571

E. OWNER OR AUTHORIZED REPRESENTATIVE STATEMENT

I hereby certify that the information given in this report is correct to the best of my knowledge.	
_____ Signature	_____ Date

II. EMISSIONS UNIT REPORT**A. EMISSIONS UNIT INFORMATION**

1. Emissions Unit Description Steam Electric Generator No. 1		
2. Emissions Unit ID 001	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number 1070025002AV PPS PA7810	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date 01-Jan-1985	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)
2b. Description of Control Equipment 'b' MODIFIED FURNACE/BURNER DESIGN

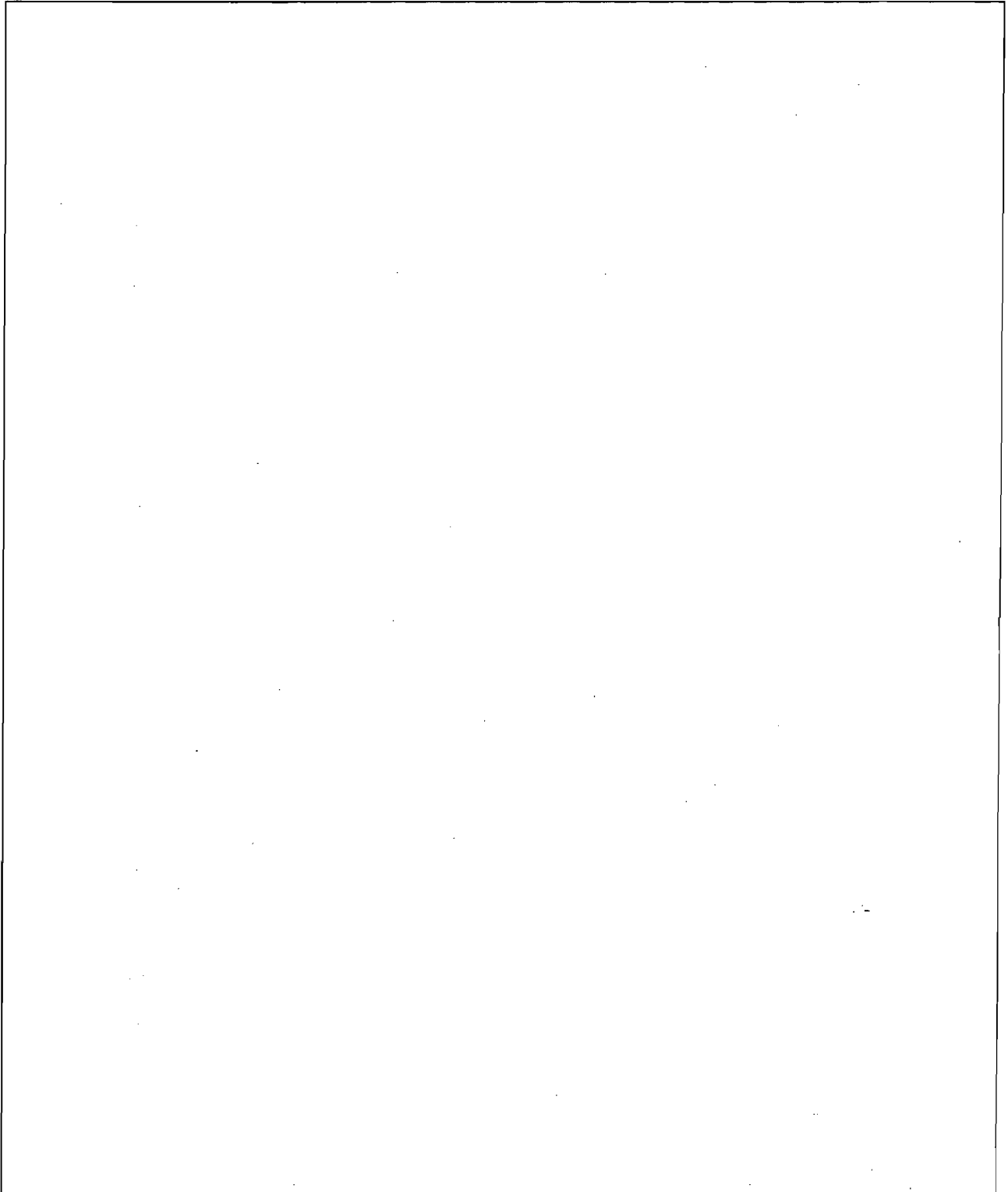
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day 21 days/week 7	2. Total Operation During Year (hours/year) 7648
3. Percent Hours of Operation by Season DJF : 25 MAM : 25 JJA : 25 SON : 25	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

Facility ID : 1070025

Emissions Unit ID : 001

D. EMISSIONS UNIT COMMENT

A large, empty rectangular box with a thin black border, intended for the user to enter comments regarding the emissions unit.

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-002-02

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-002-02	2. Description of Process or Type of Fuel External Combustion Boilers Electric Generation		Bituminous/Subbituminous Coal Pulverized Coal: Dry Bottom (Bitu
3. Annual Process or Fuel Usage Rate 1390374	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Bituminous Coal Burned	
6. Fuel Average % Sulfur 3	7. Fuel Average % Ash 7.67	8. Fuel Heat Content (mmBtu/SCC Unit) 24	

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide		CAS No. 630-08-0	[] Below Threshold [] Not Emitted
2. Annual Emissions (ton/year) 457.686272	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 457.686272 = 1998-2002 Average CO Test Results, 100 % Coal (lb/mmBtu) 0.0958 * 100 % Coal Annual Heat Input (mmBtu/year) 9555037 * (1 / 2000)			

1. Pollutant H015 CAS No. <input checked="" type="checkbox"/> Below Threshold Arsenic Compounds (inorganic including arsine) <input type="checkbox"/> Not Emitted		
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-002-02

1. Pollutant H027 Cadmium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 79.251318	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 79.251318 = HCl Emission Factor (lb/ton) 1.9 * Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1390374 * (1 - (FGD HCl Removal Efficiency (%) 94 / 100)) * (1 / 2000) HCl emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-002-02

1. Pollutant H107 CAS No. 7664-39-3			<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 105.529387			3. Ozone Season Daily Emissions (lb/day)
			4. Emissions Method Code 5
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 105.529387 = HF Emission Factor (lb/ton) 0.23 * Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1390374 * (1 - (FGD HF Removal Efficiency (%) 34 / 100)) * (1 / 2000) HF emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

1. Pollutant H150 CAS No. 1336-36-3			<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)			3. Ozone Season Daily Emissions (lb/day)
			4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX CAS No. 10102-44-0			<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 8063.738955			3. Ozone Season Daily Emissions (lb/day)
			4. Emissions Method Code 1
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 8063.738955 = Total Coal Heat Input (mmBtu/yr) 34024215 * NOx CEMS Emission Factor for All Fuels (lbs/mmBtu) 0.474 * (1 / 2000)			

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 0.291979	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 0.291979 = Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1390374 * Emission Factor (Lbs/Tons Bituminous Coal Burned) 0.00042 * (1 / 2000)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 95.55037	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 95.55037 = 100% Coal Heat Input (mmBtu/yr) 9555037 * 100% Coal PM Stack Test Results (lbs/mmBtu) 0.02 * (1 / 2000)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 95.55037	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 95.55037 = 100% Coal Heat Input (mmBtu/yr) 9555037 * 100% Coal PM Stack Test Results (lbs/MMBtu) 0.02 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-002-02

1. Pollutant * SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 11250.334827	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 11250.334827 = Total Coal Heat Input (mmBtu/yr) 34024215 * Emission Factor (lbs/MMBtu) 0.661313410284814 * (1 / 2000)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 41.71122	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 41.71122 = Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1390374 * Emission Factor (Lbs/Tons Bituminous Coal Burned) 0.06 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-005-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-005-01	2. Description of Process or Type of Fuel External Combustion Boilers Distillate Oil Electric Generation Grades 1 and 2 Oil	
3. Annual Process or Fuel Usage Rate 1059	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit 1000 Gallons Distillate Oil (No.
6. Fuel Average % Sulfur 0.34	7. Fuel Average % Ash 0.1	8. Fuel Heat Content (mmBtu/SCC Unit) 140

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide	CAS No. 630-08-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant H015 Arsenic Compounds (inorganic including arsine)	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant H027 Cadmium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H107 Hydrogen fluoride (Hydrofluoric acid)		CAS No. 7664-39-3	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H150 Polychlorinated biphenyls (Aroclors)		CAS No. 1336-36-3	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX Nitrogen Oxides		CAS No. 10102-44-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 34.896354	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 34.896354 = NO_x CEMS Emission Factor for All Fuels (lbs/MMBtu) 0.474 * (Heat Input From No. 2 Oil (MMBtu/yr) 147242) * (1 / 2000)			

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 0.005295	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 0.005295 = Controlled AP-42 Emission Factor (lb/1,000 gal) 0.01 * Annual Process or Fuel Usage Rate (1000 Gallons Distillate Oil (No. 1 & 2) Burned) 1059 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-005-01

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 48.686555	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 48.686555 = Heat Input From No. 2 Oil (MMBtu/yr) 147242 * CEMS SO2 Emission Factor for All Fuels (lbs/MMBtu) 0.661313410284814 * (1 / 2000)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-008-01	2. Description of Process or Type of Fuel External Combustion Boilers Coke Electric Generation All Boiler Sizes Maximum weight of petroleum coke burned shall not exceed 180,000	
3. Annual Process or Fuel Usage Rate 428188	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Coke Burned
6. Fuel Average % Sulfur 5.66	7. Fuel Average % Ash 0.9	8. Fuel Heat Content (mmBtu/SCC Unit) 28

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide	CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 820.359045	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 820.359045 = 1998 - 2002 Average CO Test Results for 70% Coal / 30% Petcoke Blend (lb/mmBtu) 0.045 * Heat Input for 70% Coal / 30% Petcoke Blend (mmBtu/year) 36460402 * (1 / 2000)		

1. Pollutant H015 Arsenic Compounds (inorganic including arsine)	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-008-01

1. Pollutant H027 Cadmium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 24.406716	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 24.406716 = HCl Emission Factor (lb/ton) 1.9 * Annual Process or Fuel Usage Rate (Tons Coke Burned) 428188 * (1 - (FGD HCl Removal Efficiency (%) 94 / 100)) * (1 / 2000) HCl emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-008-01

1. Pollutant H107 CAS No. 7664-39-3			[] Below Threshold [] Not Emitted
Hydrogen fluoride (Hydrofluoric acid)			
2. Annual Emissions (ton/year) 32.499469	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 32.499469 = HF Emission Factor (lb/ton) 0.23 * Annual Process or Fuel Usage Rate (Tons Coke Burned) 428188 * (1 - (FGD HF Removal Efficiency (%) 34 / 100)) * (1 / 2000) HF emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

1. Pollutant H150 CAS No. 1336-36-3			[X] Below Threshold [] Not Emitted
Polychlorinated biphenyls (Aroclors)			
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX CAS No. 10102-44-0			[] Below Threshold [] Not Emitted
Nitrogen Oxides			
2. Annual Emissions (ton/year) 2841.920088	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 2841.920088 = Heat Input From Petcoke (mmBtu/year) 11991224 * NOx CEMS Emission Factor for All Fuels (lbs/mmBtu) 0.474 * (1 / 2000)			

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 382.834221	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 382.834221 = Heat Input From 70% Coal / 30% Petcoke Blend (mmBtu/yr) 36460402 * PM Test Results for 70% Coal / 30% Petcoke Blend (lb/mmBtu) 0.021 * (1 / 2000)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 382.834221	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 382.834221 = Heat Input From 70% Coal / 30% Petcoke Blend (mmBtu/yr) 36460402 * PM Test Results for 70% Coal / 30% Petcoke Blend (lb/mmBtu) 0.021 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-008-01

1. Pollutant * SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 3964.978618	3. Ozone Season Daily Emissions (lb/day) 0	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 3964.978618 = Heat Input From Petcoke (mmBtu/yr) 11991224 * CEMS SO2 Emission Factor for All Fuels (lbs/mmBtu) 0.661313410284814 * (1 / 2000)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 12.84564	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 12.84564 = Annual Process or Fuel Usage Rate (Tons Coke Burned) 428188 * Emission Factor (Lbs/Tons Coke Burned) 0.06 * (1 / 2000)			

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-013-02	2. Description of Process or Type of Fuel External Combustion Boilers Liquid Waste Electric Generation Waste Oil On-Specification: Arsenic 5ppm, Cadmium 2ppm, Chromium 10ppm,	
3. Annual Process or Fuel Usage Rate 0	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit 1000 Gallons Waste Oil Burned
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H015 Arsenic Compounds (inorganic including arsine)		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-013-02

1. Pollutant H027 Cadmium Compounds		CAS No.	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H107 Hydrogen fluoride (Hydrofluoric acid)		CAS No. 7664-39-3	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H150 Polychlorinated biphenyls (Aroclors)		CAS No. 1336-36-3	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX Nitrogen Oxides		CAS No. 10102-44-0	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 001

SCC : 1-01-013-02

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * SO2 Sulfur Dioxide		CAS No: 7446-09-5	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 002

II. EMISSIONS UNIT REPORT**A. EMISSIONS UNIT INFORMATION**

1. Emissions Unit Description Steam Electric Generator No. 2		
2. Emissions Unit ID 002	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number 1070025002AV PPS PA7810	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date 01-Jan-1985	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' WET SCRUBBER HIGH EFFICIENCY (95.0-99.9%)
2b. Description of Control Equipment 'b' MODIFIED FURNACE/BURNER DESIGN

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day 23 days/week 7	2. Total Operation During Year (hours/year) 8415
3. Percent Hours of Operation by Season DJF : 25 MAM : 25 JJA : 25 SON : 25	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

*: Pollutant subject to emissions limiting standard or emissions cap

DEP Form No. 62-210.900(5) - Form

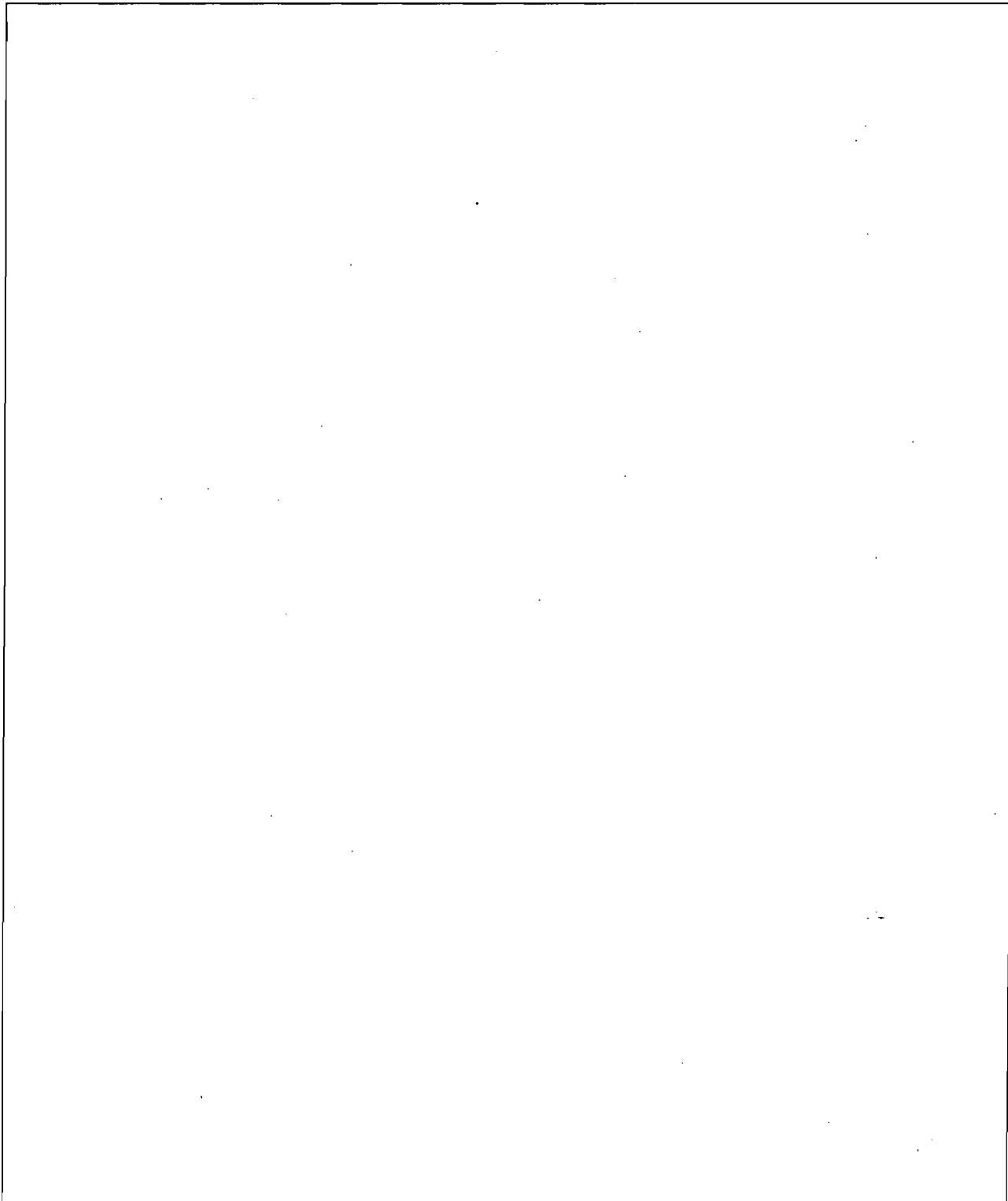
23

Effective: 2/11/99

Facility ID : 1070025

Emissions Unit ID : 002

D. EMISSIONS UNIT COMMENT

A large, empty rectangular box with a thin black border, intended for the user to enter a comment regarding the emissions unit.

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-002-02

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-002-02	2. Description of Process or Type of Fuel External Combustion Boilers Bituminous/Subbituminous Coal Electric Generation Pulverized Coal: Dry Bottom (Bitu	
3. Annual Process or Fuel Usage Rate 1546131	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Bituminous Coal Burned
6. Fuel Average % Sulfur 3	7. Fuel Average % Ash 7.67	8. Fuel Heat Content (mmBtu/SCC Unit) 24

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide	CAS No. 630-08-0	[] Below Threshold [] Not Emitted
2. Annual Emissions (ton/year) 1039.837019	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 1039.837019 = 1998-2002 Average CO Test Results, 100% Coal (lb/mmBtu) 0.1696 * 100% Coal Annual Heat Input (mmBtu/year) 12262229 * (1 / 2000)		

1. Pollutant H015 Arsenic Compounds (inorganic including arsine)		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-002-02

1. Pollutant H027 Cadmium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 88.129467	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 88.129467 = HCl Emission Factor (lb/ton) 1.9 * Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1546131 * (1 - (FGD HCl Removal Efficiency (%) 94 / 100)) * (1 / 2000) HCl emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

1. Pollutant H107 Hydrogen fluoride (Hydrofluoric acid)		CAS No. 7664-39-3	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 117.351343	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 117.351343 = HF Emission Factor (lb/ton) 0.23 * Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1546131 * (1 - (FGD HF Removal Efficiency (%) 34 / 100)) * (1 / 2000) HF emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

1. Pollutant H150 Polychlorinated biphenyls (Aroclors)		CAS No. 1336-36-3	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX Nitrogen Oxides		CAS No. 10102-44-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 9014.254284	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 9014.254284 = Total Coal Heat Input (mmBtu/yr) 37875018 * NOx CEMS Emission Factor for All Fuels (lbs/mmBtu) 0.476 * (1 / 2000)			

*: Pollutant subject to emissions limiting standard or emissions cap.

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 0.324688	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 0.324688 = Emission Factor (Lbs/Tons Bituminous Coal Burned) 0.00042 * Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1546131 * (1 / 2000)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 85.835603	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 85.835603 = 100% Coal Heat Input (mmBtu/yr) 12262229 * 100% Coal PM Stack Test Results (lbs/mmBtu) 0.014 * (1 / 2000)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 85.835603	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 85.835603 = 100% Coal Heat Input (mmBtu/yr) 12262229 * 100% Coal PM Stack Test Results (lbs/MMBtu) 0.014 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-002-02

1. Pollutant * SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 12132.503348	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 12132.503348 = Total Coal Heat Input (mmBtu/yr) 37875018 * Emission Factor (lbs/MMBtu) 0.640659938338263 * (1 / 2000)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 46.38393	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 46.38393 = Annual Process or Fuel Usage Rate (Tons Bituminous Coal Burned) 1546131 * Emission Factor (Lbs/Tons Bituminous Coal Burned) 0.06 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-005-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-005-01	2. Description of Process or Type of Fuel External Combustion Boilers Distillate Oil Electric Generation Grades 1 and 2 Oil	
3. Annual Process or Fuel Usage Rate 770	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit 1000 Gallons Distillate Oil (No.
6. Fuel Average % Sulfur 0.34	7. Fuel Average % Ash 0.1	8. Fuel Heat Content (mmBtu/SCC Unit) 140

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide		CAS No. 630-08-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H015 Arsenic Compounds (inorganic including arsine)		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H027 Cadmium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H107 Hydrogen fluoride (Hydrofluoric acid)		CAS No. 7664-39-3	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H150 Polychlorinated biphenyls (Aroclors)		CAS No. 1336-36-3	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX Nitrogen Oxides		CAS No. 10102-44-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 25.484564	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code 1
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 25.484564 = NOx CEMS Emission Factor for All Fuels (lbs/MMBtu) 0.476 * (Heat Input From No. 2 Oil (MMBtu/yr) 107078) * (1 / 2000)			

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 0.00385	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code 3
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 0.00385 = Controlled AP-42 Emission Factor (lb/1,000 gal) 0.01 * Annual Process or Fuel Usage Rate (1000 Gallons Distillate Oil (No. 1 & 2) Burned) 770 * (1 / 2000)			

*: Pollutant subject to emissions limiting standard or emissions cap

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 34.300292	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 34.300292 = Heat Input From No. 2 Oil (MMBtu/yr) 107078 * CEMS SO2 Emission Factor for All Fuels (lbs/MMBtu) 0.640659938338263 * (1 / 2000)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-008-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-008-01	2. Description of Process or Type of Fuel External Combustion Boilers Coke Electric Generation All Boiler Sizes Maximum petroleum coke burned shall not exceed 180,000lbs per hot	
3. Annual Process or Fuel Usage Rate 447431	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Coke Burned
6. Fuel Average % Sulfur 5.66	7. Fuel Average % Ash 0.85	8. Fuel Heat Content (mmBtu/SCC Unit) 28

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide	CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 629.328299	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 629.328299 = 1998 - 2002 Average CO Test Results for 70% Coal / 30% Petcoke Blend (lb/mmBtu) 0.033 * Heat Input for 70% Coal / 30% Petcoke Blend (mmBtu/year) 38141109 * (1 / 2000)		

1. Pollutant H015 Arsenic Compounds (inorganic including arsine)	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-008-01

1. Pollutant H027 Cadmium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 25.503567	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 25.503567 = HCl Emission Factor (lb/ton) 1.9 * Annual Process or Fuel Usage Rate (Tons Coke Burned) 447431 * (1 - (FGD HCl Removal Efficiency (%) 94 / 100)) * (1 / 2000) HCl emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

1. Pollutant H107 CAS No. 7664-39-3			[] Below Threshold [] Not Emitted
Hydrogen fluoride (Hydrofluoric acid)			
2. Annual Emissions (ton/year) 33.960013	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 5	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 33.960013 = HF Emission Factor (lb/ton) 0.23 * Annual Process or Fuel Usage Rate (Tons Coke Burned) 447431 * (1 - (FGD HF Removal Efficiency (%) 34 / 100)) * (1 / 2000) HF emission factor from Table 3-10, EPCRA Section 313 Industry Guidance, Electricity Generating Facilities, February 2000.			

1. Pollutant H150 CAS No. 1336-36-3			[X] Below Threshold [] Not Emitted
Polychlorinated biphenyls (Aroclors)			
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX CAS No. 10102-44-0			[] Below Threshold [] Not Emitted
Nitrogen Oxides			
2. Annual Emissions (ton/year) 2981.74016	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 2981.74016 = Heat Input From Petcoke (mmBtu/year) 12528320 * NOx CEMS Emission Factor for All Fuels (lbs/mmBtu) 0.476 * (1 / 2000)			

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 305.128872	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 305.128872 = Heat Input From 70% Coal / 30% Petcoke Blend (mmBtu/yr) 38141109 * PM Test Results for 70% Coal / 30% Petcoke Blend (lb/mmBtu) 0.016 * (1 / 2000)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 305.128872	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 305.128872 = Heat Input From 70% Coal / 30% Petcoke Blend (mmBtu/yr) 38141109 * PM Test Results for 70% Coal / 30% Petcoke Blend (lb/mmBtu) 0.016 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-008-01

1. Pollutant * SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 4013.196359	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 1	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 4013.196359 = Heat Input From Petcoke (mmBtu/yr) 12528320 * CEMS SO2 Emission Factor for All Fuels (lbs/mmBtu) 0.640659938338263 * (1 / 2000)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 13.42293	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 13.42293 = Annual Process or Fuel Usage Rate (Tons Coke Burned) 447431 * Emission Factor (Lbs/Tons Coke Burned) 0.06 * (1 / 2000)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-013-02

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 1-01-013-02	2. Description of Process or Type of Fuel External Combustion Boilers Liquid Waste Electric Generation Waste Oil On-Specification: Arsenic 5ppm, Cadmium 2ppm, Chromium 10ppm	
3. Annual Process or Fuel Usage Rate 0	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit 1000 Gallons Waste Oil Burned
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide		CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H015 Arsenic Compounds (inorganic including arsine)		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-013-02

1. Pollutant H027 Cadmium Compounds		CAS No.	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H046 Chromium Compounds		CAS No.	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H106 Hydrogen chloride (Hydrochloric acid)		CAS No. 7647-01-0	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant H107 Hydrogen fluoride (Hydrofluoric acid)		CAS No. 7664-39-3	[] Below Threshold [X] Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-013-02

1. Pollutant H150 Polychlorinated biphenyls (Aroclors)		CAS No. 1336-36-3	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * NOX Nitrogen Oxides		CAS No. 10102-44-0	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PB Lead - Total (elemental lead and lead compounds)		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * PM Particulate Matter - Total		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 002

SCC : 1-01-013-02

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant * SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 003

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description Rail Car Maintenance		
2. Emissions Unit ID 003	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? N
5. DEP Permit or PPS Number PPS PA7810	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT
2a. Description of Control Equipment 'a' PROCESS ENCLOSED
2b. Description of Control Equipment 'b'

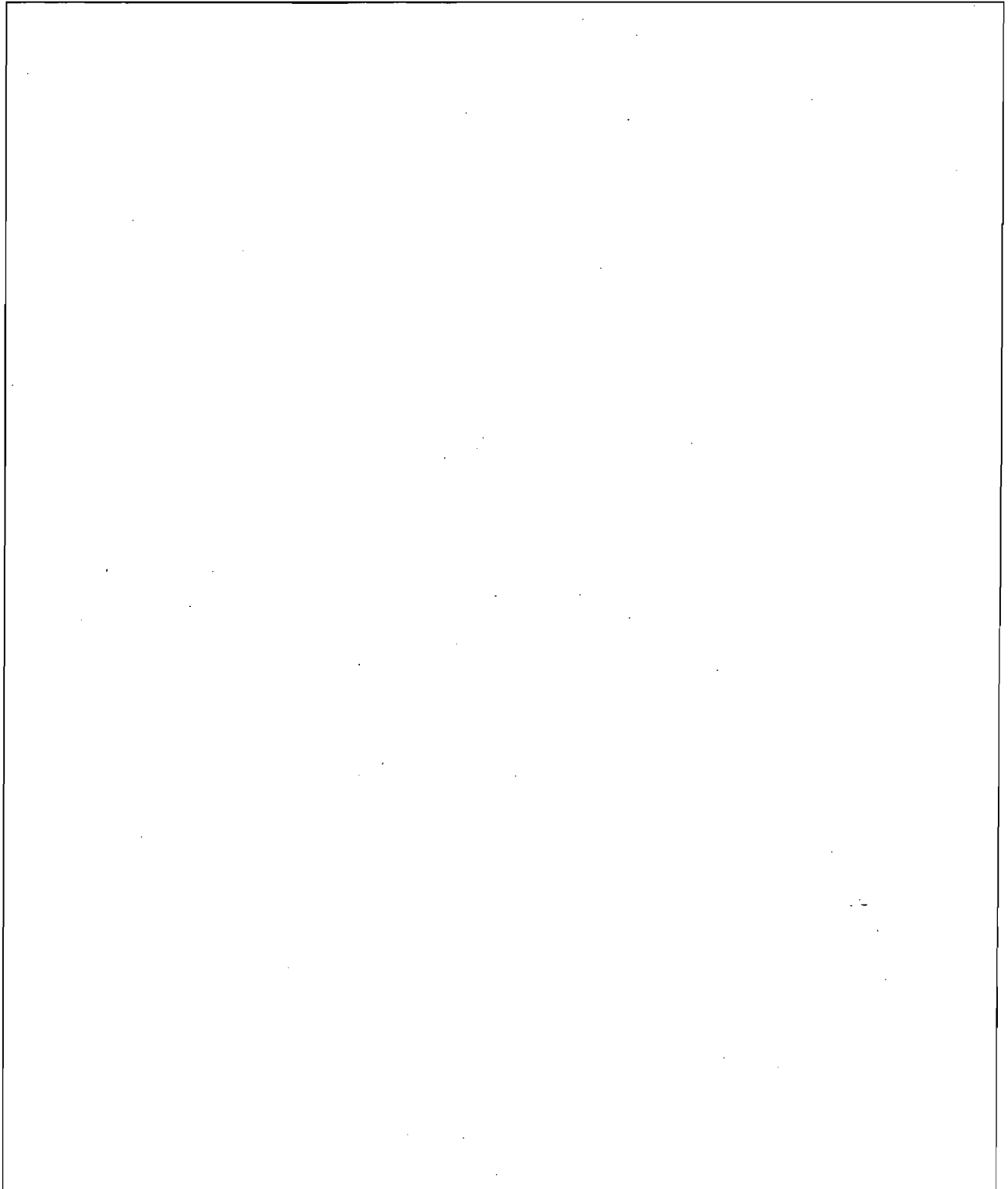
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day days/week	2. Total Operation During Year (hours/year)
3. Percent Hours of Operation by Season DJF : MAM : JJA : SON :	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

Facility ID : 1070025

Emissions Unit ID : 003

D. EMISSIONS UNIT COMMENT

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Facility ID : 1070025

Emissions Unit ID : 004

II. EMISSIONS UNIT REPORT**A. EMISSIONS UNIT INFORMATION**

1. Emissions Unit Description Coal Storage Yard		
2. Emissions Unit ID 004	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number 1070025002AV PPS PA7810	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date 01-Jan-1985	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type NO TRUE EMISSION POINT (FUGITIVE EMISSION)
2a. Description of Control Equipment 'a' DUST SUPPRESSION BY WATER SPRAYS
2b. Description of Control Equipment 'b' PROCESS ENCLOSED

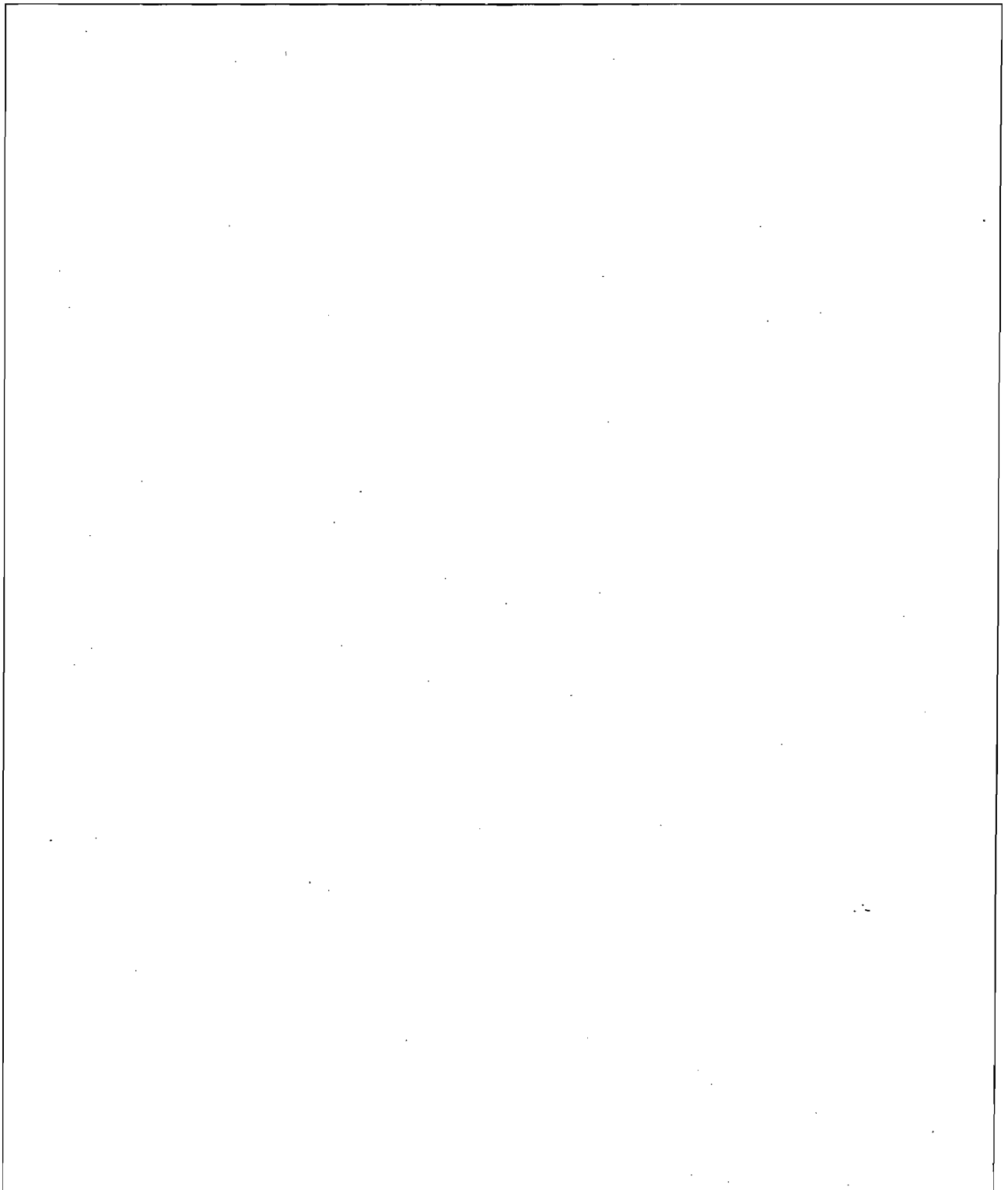
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day 24 days/week 7	2. Total Operation During Year (hours/year) 8760
3. Percent Hours of Operation by Season DJF : 25 MAM : 25 JJA : 25 SON : 25	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

Facility ID : 1070025

Emissions Unit ID : 004

D. EMISSIONS UNIT COMMENT

A large, empty rectangular box with a thin black border, intended for the user to enter comments regarding the emissions unit.

Facility ID : 1070025

Emissions Unit ID : 004

SCC : 3-05-101-03

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-101-03	2. Description of Process or Type of Fuel Industrial Processes Bulk Materials Conveyors Mineral Products Coal Maximum hourly rate based on conveyor belt capacity.	
3. Annual Process or Fuel Usage Rate 3812124	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Material Processed
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

*: Pollutant subject to emissions limiting standard or emissions cap

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Effective: 2/11/99

Facility ID : 1070025

Emissions Unit ID : 004

SCC : 3-05-103-03

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-103-03	2. Description of Process or Type of Fuel Industrial Processes Mineral Products Bulk Materials Open Stockpiles Coal	
3. Annual Process or Fuel Usage Rate 3812124	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Material Processed
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant PM10 Particulate Matter - PM10	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 3
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID : 1070025

Emissions Unit ID : 005

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description Limestone and FGD Sludge Handling and Storage		
2. Emissions Unit ID 005	3. Emissions Unit Classification Regulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number 1070025002AV	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' MAT OR PANEL FILTER
2b. Description of Control Equipment 'b' PROCESS ENCLOSED

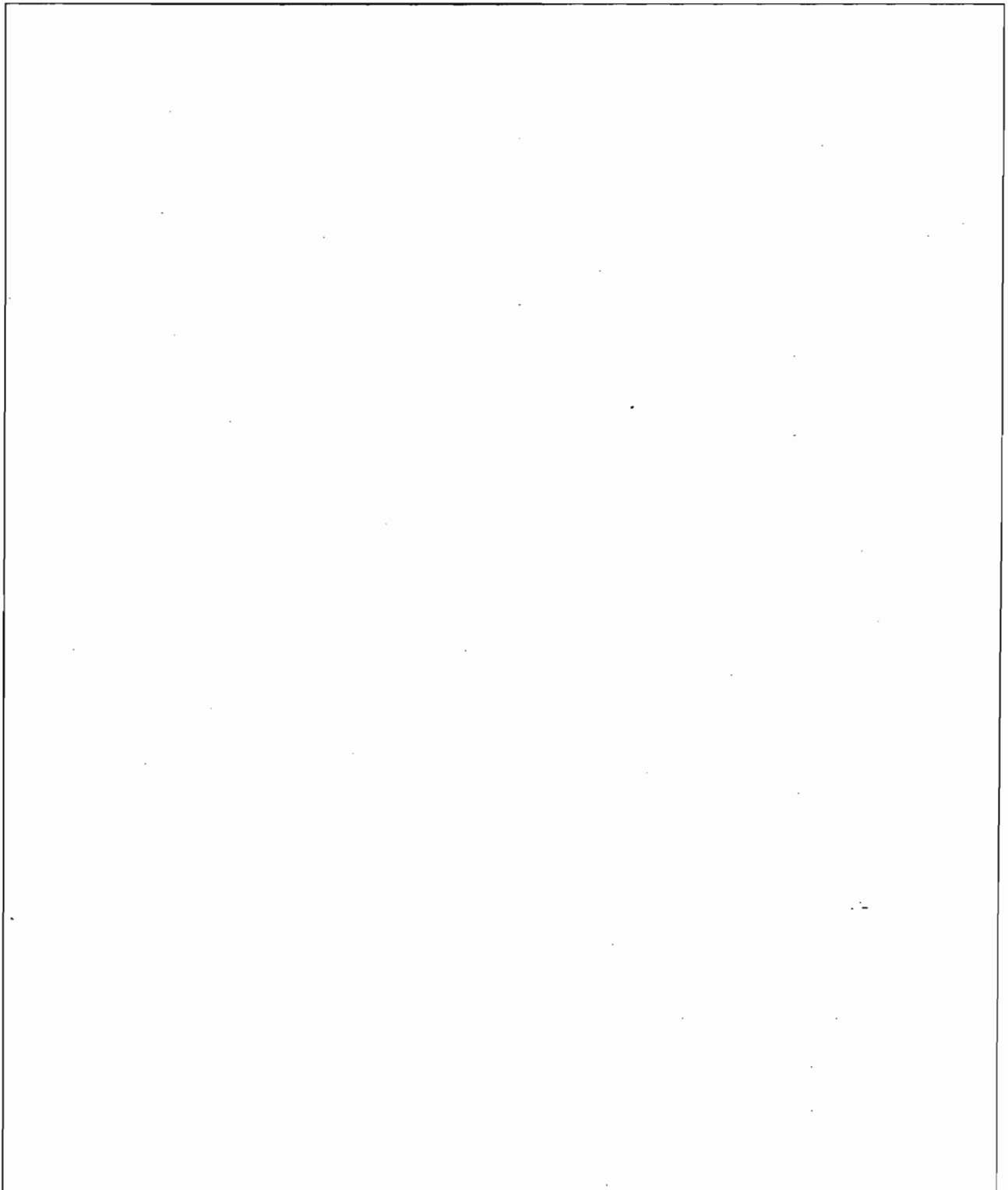
C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day 8 days/week 5	2. Total Operation During Year (hours/year) 2080
3. Percent Hours of Operation by Season DJF : 25 MAM : 25 JJA : 25 SON : 25	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

Facility ID : 1070025

Emissions Unit ID : 005

D. EMISSIONS UNIT COMMENT

A large, empty rectangular box with a thin black border, intended for the user to enter comments regarding the emissions unit.

Facility ID : 1070025

Emissions Unit ID : 005

SCC : 3-05-101-05

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-101-05	2. Description of Process or Type of Fuel Industrial Processes Mineral Products Limestone conveyor.		Bulk Materials Conveyors Limestone
3. Annual Process or Fuel Usage Rate 447831	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Material Processed	
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)	

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant PM10 Particulate Matter - PM10	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID : 1070025

Emissions Unit ID : 005

SCC : 3-05-104-05

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-104-05	2. Description of Process or Type of Fuel Industrial Processes Mineral Products Limestone unloading.		Bulk Materials Unloading Operat Limestone
3. Annual Process or Fuel Usage Rate 447831	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Material Processed	
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)	

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-104-99	2. Description of Process or Type of Fuel Industrial Processes Bulk Materials Unloading Operat Mineral Products Other Not Classified FGD sludge and materials used to stabilize FGD sludge.	
3. Annual Process or Fuel Usage Rate 632996	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Material Processed
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 006

II. EMISSIONS UNIT REPORT

A. EMISSIONS UNIT INFORMATION

1. Emissions Unit Description One or More Emergency Generators		
2. Emissions Unit ID 006	3. Emissions Unit Classification Unregulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number 1070025002AV	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' NO CONTROL EQUIPMENT
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day 1 days/week 1	2. Total Operation During Year (hours/year) 52
3. Percent Hours of Operation by Season DJF : 25 MAM : 25 JJA : 25 SON : 25	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

Facility ID : 1070025

Emissions Unit ID : 006

D. EMISSIONS UNIT COMMENT

Emergency generator engine is operated only for testing purposes.

Facility ID : 1070025

Emissions Unit ID : 006

SCC : 2-02-001-02

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 2-02-001-02	2. Description of Process or Type of Fuel Internal Combustion Engines Distillate Oil (Diesel) Industrial Reciprocating	
3. Annual Process or Fuel Usage Rate 3.5	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit 1000 Gallons Distillate Oil (Diesel)
6. Fuel Average % Sulfur 0.34	7. Fuel Average % Ash 0.1	8. Fuel Heat Content (mmBtu/SCC Unit) 140

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide			CAS No. 630-08-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code		
5. Emissions Calculation (Show separately both annual and daily emissions calculations)				

1. Pollutant NOX Nitrogen Oxides			CAS No. 10102-44-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code		
5. Emissions Calculation (Show separately both annual and daily emissions calculations)				

Facility ID : 1070025

Emissions Unit ID : 006

SCC : 2-02-001-02

1. Pollutant PM Particulate Matter - Total		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

II. EMISSIONS UNIT REPORT**A. EMISSIONS UNIT INFORMATION**

1. Emissions Unit Description One or More Heating Units and General Purpose Engines		
2. Emissions Unit ID 007	3. Emissions Unit Classification Unregulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number 1070025002AV	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type SINGLE POINT SERVING A SINGLE EMISSIONS UNIT
2a. Description of Control Equipment 'a' NO CONTROL EQUIPMENT
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day 1 days/week 1	2. Total Operation During Year (hours/year) 52
3. Percent Hours of Operation by Season DJF : 25 MAM : 25 JJA : 25 SON : 25	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

Facility ID : 1070025

Emissions Unit ID : 007

D. EMISSIONS UNIT COMMENT

Fire water pump engine only operates for testing purposes.

Facility ID : 1070025

Emissions Unit ID : 007

SCC : 2-02-001-02

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 2-02-001-02	2. Description of Process or Type of Fuel Internal Combustion Engines Distillate Oil (Diesel) Industrial Reciprocating	
3. Annual Process or Fuel Usage Rate 0.17	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit 1000 Gallons Distillate Oil (Diesel)
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide	CAS No. 630-08-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant NOX Nitrogen Oxides	CAS No. 10102-44-0	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant PM Particulate Matter - Total		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant SO2 Sulfur Dioxide		CAS No. 7446-09-5	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

II. EMISSIONS UNIT REPORT**A. EMISSIONS UNIT INFORMATION**

1. Emissions Unit Description General Plant Fugitives Emissions		
2. Emissions Unit ID 008	3. Emissions Unit Classification Unregulated Emissions Unit	4. Operated During Year? Y
5. DEP Permit or PPS Number 1070025002AV	6. Emissions Unit Status ACTIVE	7. Ozone SIP Base Year Emissions Unit?
8. Emissions Unit Startup Date	9. Long-term Reserve Shutdown Date	10. Permanent Shutdown Date

B. EMISSION POINT/CONTROL INFORMATION

1. Emissions Point Type NO TRUE EMISSION POINT (FUGITIVE EMISSION)
2a. Description of Control Equipment 'a' NO CONTROL EQUIPMENT
2b. Description of Control Equipment 'b'

C. EMISSIONS UNIT OPERATING SCHEDULE INFORMATION

1. Average Annual Operation hours/day 8 days/week 5	2. Total Operation During Year (hours/year) 2080
3. Percent Hours of Operation by Season DJF : 25 MAM : 25 JJA : 25 SON : 25	
4. Average Ozone Season Operation (June 1 to August 31) hours/day days/week	5. Total Operation During Ozone Season (days/season)

Facility ID : 1070025

Emissions Unit ID : 008

D. EMISSIONS UNIT COMMENT

Facility ID : 1070025

Emissions Unit ID : 008

SCC : 3-05-320-09

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 3-05-320-09	2. Description of Process or Type of Fuel Industrial Processes Mineral Products Abrasive blasting and abrasive blast material bin.		Stone Quarrying - Processing (See Blasting: General
3. Annual Process or Fuel Usage Rate 0.09	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit 1000 Tons Raw Material Proces	
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)	

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant PM10 Particulate Matter - PM10	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID : 1070025

Emissions Unit ID : 008

SCC : 3-05-320-09

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input checked="" type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)		4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 4-02-001-10	2. Description of Process or Type of Fuel Petroleum and Solvent Evaporative Surface Coating Application - Gel Surface Coating Operations		Surface Coating Application - Gel Paint: Solvent-base
3. Annual Process or Fuel Usage Rate 2036	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Gallons Coating Processed	
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)	

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

1. Pollutant PM10 Particulate Matter - PM10	CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code
5. Emissions Calculation (Show separately both annual and daily emissions calculations)		

Facility ID : 1070025

Emissions Unit ID : 008

SCC : 4-02-001-10

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 4.731664	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 2	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 4.731664 = Average coating density (lb/gal) 8.3 * (Average coating VOC content (weight %) 56 / 100) * Annual Process or Fuel Usage Rate (Gallons Coating Processed) 2036 * (1 / 2000)			

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 4-02-999-95	2. Description of Process or Type of Fuel Petroleum and Solvent Evaporati Miscellaneous Surface Coating Operations Specify in Comments Field Painting operations.	
3. Annual Process or Fuel Usage Rate 4.7	4. Ozone Season Daily Process or Fuel Usage Rate	5. SCC Unit Tons Solvent in Coating Used
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit)

(2) EMISSIONS INFORMATION

1. Pollutant PM Particulate Matter - Total		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

1. Pollutant PM10 Particulate Matter - PM10		CAS No.	<input checked="" type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year)	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code	
5. Emissions Calculation (Show separately both annual and daily emissions calculations)			

Facility ID : 1070025

Emissions Unit ID : 008

SCC : 4-02-999-95

1. Pollutant VOC Volatile Organic Compounds		CAS No.	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 0	3. Ozone Season Daily Emissions (lb/day)	4. Emissions Method Code 2	
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 0.0 VOC emissions included in SCC 4-02-001-10.			



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

March 15, 2006

Mr. Gregg M. Worley, Chief
Air Permits Section
U.S. EPA, Region 4
61 Forsyth Street
Atlanta, Georgia 30303-8960

file

RE: Seminole Electric Cooperative, Inc.
Seminole Generating Station, Unit 3
1070025-005-AC, PSD-FL-375

Dear Mr. Worley:

Enclosed for your review and comment is a PSD application submitted by Seminole Electric Cooperative, Inc. for the construction of Unit 3 at the existing Seminole Generating Station in Palatka, Putnam County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Mike Halpin, Review Engineer, at 850/245-8993 or 850/921-9519.

Sincerely,

Patty Adams
for Jeffrey F. Koerner, P.E., Administrator
North Permitting Section

JFK/pa

Enclosure

cc: M. Halpin



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

March 15, 2006

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS – Air Quality Division
P. O. Box 25287
Denver, Colorado 80225

RE: Seminole Electric Cooperative, Inc.
Seminole Generating Station, Unit 3
1070025-005-AC, PSD-FL-375

Dear Mr. Bunyak:

Enclosed for your review and comment is a PSD application submitted by Seminole Electric Cooperative, Inc. for the construction of Unit 3 at the existing Seminole Generating Station in Palatka, Putnam County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Mike Halpin, Review Engineer, at 850/245-8993 or 850/921-9519.

Sincerely,

for Jeffrey F. Koerner, P.E., Administrator
North Permitting Section

JFK/pa

Enclosure

cc: M. Halpin

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Phyllis Fox, Ph.D.
2530 Etna St.
Berkeley, CA 94703

2. Article Number
(Transfer from service label)

7000 1670 0013 3110 1342

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Jim Frauen
Seminole Electric Cooperative, Inc.
Payne Creek Generating Station
16313 North Dale Mabry Highway
Tampa, Florida 33618

2. Article Number
(Transfer from service label)

7000 1670 0013 3110 1335

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☐ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

BEST AVAILABLE COPY

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box.

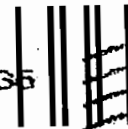
Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

RECEIVED
SEP 05 2006
BUREAU OF AIR REGULATION

0001

UNITED STATES POSTAL SERVICE

TAMPA FL 336



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box.

RECEIVED
AUG 30 2006
BUREAU OF AIR REGULATION

Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

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