



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

P.E. Certification Statement

Florida Power Corporation
Crystal River Plant

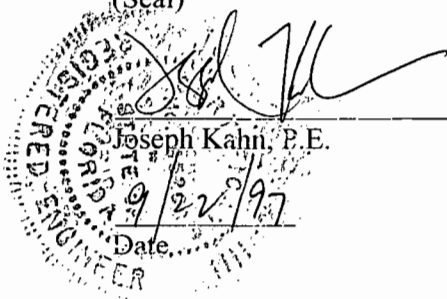
DRAFT Permit No.: 0170004-004-AV
Facility ID No.: 0170004

Project type: Initial Title V Air Operation 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).

This review was conducted by myself and Susan C. DeVore under my responsible supervision.

(Seal)



Permitting Authority:

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

Telephone: 850/488-1344
Fax: 850/922-6979

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

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STATEMENT OF BASIS

Title V DRAFT Permit No.: 0170004-004-AV

Florida Power Corporation

Crystal River Plant

Citrus County

This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

This facility consists of four coal-fired fossil fuel steam generating (FFSG) units with electrostatic precipitators; two natural draft cooling towers for FFSG Units 4 and 5; helper mechanical cooling towers for FFSG Units 1, 2 and 3; coal-, fly ash-, and bottom ash-handling facilities, and three relocatable diesel fired generators. The nuclear unit (Unit 3) is not considered part of this permit, although certain emissions units associated with Unit 3 are included in this permit.

Also included in this permit are miscellaneous unregulated/exempt emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Emissions units are as follows:

Fossil Fuel Steam Generators, Units 1 and 2, are pulverized coal dry bottom boilers, tangentially-fired. Emissions are controlled from each unit with a high efficiency electrostatic precipitator, manufactured by Buell Manufacturing Company, Inc. These emissions units are regulated under Acid Rain, Phase I and II and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input, and Power Plant Siting Certification PA 77-09 conditions. Fossil fuel fired steam generator Unit 1 began commercial operation in 1966. Fossil fuel fired steam generator Unit 2 began commercial operation in 1969.

Fossil Fuel Steam Generators, Units 4 and 5, are pulverized coal dry bottom boilers, wall-fired. Emissions are controlled from each unit with a high efficiency electrostatic precipitator, manufactured by Combustion Engineering. These emissions units are regulated under Acid Rain, Phase I and II and Rule 62-210.300, F.A.C., Permits Required and are subject to 40 CFR 60 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971, and Power Plant Siting Certification PA 77-09 conditions. Fossil fuel fired steam generator Unit 4 began commercial operation in 1982. Fossil fuel fired steam generator Unit 5 began commercial operation in 1984.

Emissions unit 006, fly ash transfer (Source 1) from Fossil Fuel Steam Generator (FFSG) Unit 1. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the Unit 1 electrostatic precipitator to the fly ash storage silo (Source 3) at a design transfer rate of 44 tons per hour. Particulate matter emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 1820 acfm.

Emissions unit 008, fly ash storage silo (Source 3) for FFSG Units 1 and 2. This emissions unit consists of the fly ash storage silo used to store fly ash from the electrostatic precipitators of Units 1 and 2. Fly ash is pneumatically conveyed from the Units 1 and 2 ESPs at a combined transfer rate of 174 tons per hour. Particulate matter emissions are controlled by a PulseKing Model M 100 S baghouse at a design air flow of 2546 acfm. Fly ash from the storage silo is disposed of either in a dry form by loading into enclosed tanker trucks or in a wet form by loading wet ash into open trucks.

Emissions unit 009, fly ash transfer (Source 4) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the Unit 2 ESP number 2C to the fly ash storage silo (Source 3) at a design transfer rate of 60 tons per hour. Particulate matter emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2200 acfm.

Emissions unit 010, fly ash transfer (Source 5) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the Unit 2 ESP number 2A and 2B to the fly ash storage silo (Source 3) at a maximum design transfer rate of 70 tons per hour. Particulate matter emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2800 acfm.

Emissions units 006, 008, 009 and 010 are regulated under Best Available Control Technology (BACT), Determinations ordered 2/5/79 (proposed 1/26/79) and 8/16/79.

Emissions unit 014, bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points). This emissions unit consists of the system to collect and store bottom ash and economizer ash from both FFSG Units 1 and 2 at a total rate of 16 tons per hour (8 tons per hour from each FFSG unit) at an airflow rate of 2200 scfm from each unit. Ash is conveyed by vacuum from each FFSG unit by a separate vacuum blower, with air and ash passing through a baghouse (filter/separator) where ash is deposited in the silo and air is exhausted through the vacuum blower. Air displaced in the silo is vented through an additional bag filter (the bin vent filter) at an airflow rate of 2400 scfm. Ash stored in the silo is unloaded into trucks for sale, use or disposal at the on-site ash disposal facility. Ash will be wet via a pugmill before loading into open trucks, or dry ash will be transferred to enclosed tanker trucks. This emissions units are regulated under 62-296.320, F.A.C., and by applicable requirements of AC 09-235915.

Emissions Unit 012, three relocatable diesel fired generators, rated at 0.82 MW, 8.58 mmBtu/hr while being fueled by 62.1 gallons of new number 2 fuel oil per hour, with emissions exhausted through a 15 ft. stack. These relocatable generators are Caterpillar Model 3508-DITA 820 kilowatt diesel generators. These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. Each generator has its own stack.

Emissions unit 013, cooling towers for FFSG Units 1, 2 and 3, used to reduce plant discharge water temperature. (This emission unit may be referred to as "helper cooling towers.") This emissions unit consists of four towers with nine cells per tower, with high efficiency drift eliminators, operating at a maximum seawater flow rate of 735,000 gallons per minute for all cells combined, with a design airflow rate of 1.46×10^6 acfm from each cell. Seawater is sprayed through the towers where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions controlled by high efficiency drift eliminators. This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit AC 09-162037/PSD-FL-139 issued 8/29/90) and Best Available Control Technology (BACT), Determination dated 8/29/90, which set a drift emission rate of 0.004%.

Emissions unit 015, cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature. (These towers are hyperbolic cooling towers.) Seawater is sprayed through the towers where induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions controlled by high efficiency drift eliminators. Seawater flow rate is 331,000 gallons per minute. This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit PSD-FL-007 issued by EPA as modified by EPA on 11/30/88.)

Emissions unit 016, material handling activities for coal-fired steam units. This emissions unit consists of the storage and transport of coal, fly ash and bottom ash for FFSG Units 1, 2, 4 and 5 not addressed by other emissions units. Emissions are particulate matter and PM_{10} from these activities. This emissions unit is regulated partially under Power Plant Siting Certification PA77-09; NSPS 40 CFR 60 Subpart Y; and PSD permit AC 09-162037, PSD-FL-139.



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 22, 1997

Mr. W. Jeffrey Pardue, C.E.P.
Director, Environmental Services Department
Florida Power Corporation
3201 34th Street South
St. Petersburg, FL 33711

Re: DRAFT Title V Permit No.: 0170004-004-AV
Crystal River Plant

Dear Mr. Pardue:

One copy of the DRAFT Title V Air Operation Permit for the Crystal River Plant located at Power Line Road, West of U.S. Hwy. 19, Crystal River, FL 34428, Citrus County, is enclosed. The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible upon receipt of this letter. This issue is important in order for you to receive your Title IV Acid Rain permit by January 1, 1998, pursuant to the Clean Air Act and Section 403.0872, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Joseph Kahn, P.E., at 850/488-1344.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/jk

Enclosures

cc: Ms. Carla E. Pierce, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
Ms. Yolanda Adams, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
"Protect, Conserve and Manage Florida's Environment and Natural Resources"

In the Matter of an
Application for Permit by:

Florida Power Corporation
3201 34th Street South
St. Petersburg, FL 33711

DRAFT Permit No.: 0170004-004-AV
Crystal River Plant
Citrus County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit (copy of DRAFT Permit enclosed) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, Florida Power Corporation, applied on June 14, 1996, to the permitting authority for a Title V air operation permit for the Crystal River Plant located at Power Line Road, West of U.S. Hwy. 19, Crystal River, FL 34428, Citrus County.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The permitting authority intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-103.150 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." This issue is important in order for you to receive your Title IV Acid Rain permit by January 1, 1998, pursuant to the Clean Air Act and Section 403.0872, Florida Statutes. The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax: 850/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the enclosed Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If

written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority 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. Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must 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 28-5.207, F.A.C.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

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

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

- (a) The name, address, and telephone number of the petitioner;

- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
- (c) Each rule or portion of a rule from which a variance or waiver is requested;
- (d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
- (e) The type of action requested;
- (f) The specific facts that would justify a variance or waiver for the petitioner;
- (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,
- (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

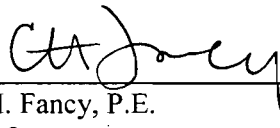
The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at 401 M. Street, SW, Washington, D.C. 20460.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



C. H. Fancy, P.E.

Chief

Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) and all copies were sent by certified mail before the close of business on 9/24/97 to the person(s) listed:

Mr. W. Jeffrey Pardue, C.E.P.

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

Mr. Kennard F. Kosky, Golder Associates

Mr. Scott H. Osbourn, FPC

Mr. Bill Thomas, P.E., DEP Southwest District, Air Section

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

Barbara J. Pontwell 9/24/97
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Title V DRAFT Permit No.: 0170004-004-AV
Crystal River Plant
Citrus County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to Florida Power Corporation for the Crystal River Plant located at Power Line Road, West of U.S. Hwy. 19, Crystal River, FL 34428, Citrus County. The applicant's name and address are: Mr. W. Jeffrey Pardue, C.E.P., Director, Environmental Services Department, Florida Power Corporation, 3201 34th Street South, St. Petersburg, FL 33711.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority 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, Florida Statutes (F.S.). Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. A petitioner must 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 applicable 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 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;

(f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

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

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at 401 M. Street, SW, Washington, D.C. 20460.

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:

Permitting Authority:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Affected District/Local Program:

Department of Environmental Protection
Southwest District Office
8407 Laurel Fair Circle
Tampa, FL 33619
Telephone: 813/744-6100
Fax: 813/744-6458

The complete project file includes the DRAFT Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/488-1344, for additional information.

Is your RETURN ADDRESS completed on the reverse side?

SEND

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. W. Jeffrey Pardue, C.E.P.
Director, Environmental Services
Department
Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33711

4a. Article Number

2 127 635 990

4b. Service Type

- ☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

9/24/97

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X Bare S [Signature]

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

2 127 635 990



Receipt for
Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to	
Mr. W. Jeffrey Pardue, C.E.P.	
Street and No.	
3201 34th Street South	
P.O., State, and ZIP Code	
St. Petersburg, FL 33711	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
9/24/97 DRAFT PERMIT	
FPC - Crystal River Plant	
ID#0170004-004-AV	

PS Form 3800, March 1993

UNITED STATES POSTAL SERVICE



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

RECEIVED

• Print your name, address, and ZIP Code in this box •

SEP 29 1997

**BUREAU OF
AIR REGULATION**

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR RESOURCES MANAGEMENT
BUREAU OF AIR REGULATION - TITLE V
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



Florida Power Corporation
Crystal River Plant
Facility ID No.: 0170004
Citrus County

Initial Title V Air Operation Permit
DRAFT Permit No.: 0170004-004-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

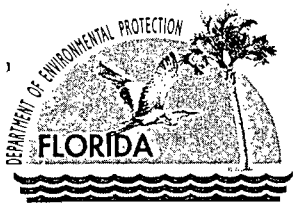
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September 22, 1997

Initial Title V Air Operation Permit
DRAFT Permit No.: 0170004-004-AV

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Department of Environmental Protection

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

Virginia B. Wetherell
Secretary

Permittee:

Florida Power Corporation
3201 34th Street South
St. Petersburg, FL 33711

DRAFT Permit No.: 0170004-004-AV

Facility ID No.: 0170004

SIC Nos.: 49, 4911

Project: Initial Title V Air Operation Permit

This permit is for the operation of the Crystal River Plant. This facility is located at Power Line Road, West of U.S. Hwy. 19, Crystal River, Citrus County; UTM Coordinates: Zone 17, 334.3 km East and 3204.5 km North; Latitude: 28° 57' 34" North and Longitude: 82° 42' 1" West.

STATEMENT OF BASIS: This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix E-1, List of Exempt Emissions Units and/or Activities
Appendix TV-1, Title V Conditions (version dated 8/11/97)
Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)
Table 297.310-1, Calibration Schedule (version dated 10/07/96)
Figure 1 - Summary Report-Gaseous And Opacity Excess Emission And Monitoring System Performance Report (version dated 7/96)
Phase II Acid Rain Application/Compliance Plan received 12/22/95
Phase I Acid Rain permit dated 3/27/97
Alternate Sampling Procedure: ASP Number 97-B-01
Order Granting Petition for Reduced Frequency of Particulate Testing, OGC Case No. 86-1576, Order dated December 12, 1986 (Emissions Unit 001)
BACT Determination dated 8/29/90 (Cooling Tower Drift Emission Rate)
BACT Determinations ordered 2/5/79 (proposed 1/26/79) and 8/16/79 (Fly Ash Transfer)
Best Management Plan, KBN, November 1990
Figure A, Ambient Air Monitoring Locations, Crystal River, Florida

Effective Date: January 1, 1998

Renewal Application Due Date: July 5, 2002

Expiration Date: December 31, 2002

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms/jk

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

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Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of four coal-fired fossil fuel steam generating (FFSG) units with electrostatic precipitators; two natural draft cooling towers for FFSG Units 4 and 5; helper mechanical cooling towers for FFSG Units 1, 2 and 3; coal-, fly ash-, and bottom ash-handling facilities, and three relocatable diesel fired generators. The nuclear unit (Unit 3) is not considered part of this permit, although certain emissions units associated with Unit 3 are included in this permit.

Also included in this permit are miscellaneous unregulated/exempt emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator (FFSG), Unit 1
002	FFSG, Unit 2
004	FFSG, Unit 4
003	FFSG, Unit 5
006	Fly ash transfer (Source 1) from FFSG Unit 1
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2
009	Fly ash transfer (Source 4) from FFSG Unit 2
010	Fly ash transfer (Source 5) from FFSG Unit 2
014	Bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points)
012	Three relocatable diesel fired generators, rated at 0.82 MW, 8.58 mmBtu/hr
013	Cooling towers for FFSG Units 1, 2, and 3, used to reduce plant discharge water temperature
015	Cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature
016	Material handling activities for coal-fired steam units

Unregulated Emissions Units and/or Activities

017	Fuel and lube oil tanks and vents
018	Sewage treatment, water treatment, lime storage

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History/ID Number Changes

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 14, 1996

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS is a part of this permit.

{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. **Not Federally Enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. & 4, F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
b. certification forms and/or RMPs according to the promulgated rule schedule.
[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Exempt Emissions Units and/or Activities. Appendix E-1, List of Exempt Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

7. **Not Federally Enforceable.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The owner or operator shall:
a. Tightly cover or close all VOC or OS containers when they are not in use.
b. Tightly cover all open tanks which contain VOC or OS when they are not in use.

- c. Maintain all pipes, valves, fittings, etc., which handle VOC or OS in good operating condition.
- d. Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

8. Not Federally Enforceable. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility shall include:

- a. Maintenance of paved areas as needed.
- b. Regular mowing of grass and care of vegetation.
- c. Limiting access to plant property by unnecessary vehicles.

[Rule 62-296.320(4)(c)2., F.A.C.; Proposed by applicant in the initial Title V permit application received June 14, 1996]

- 9.** When appropriate any recording, monitoring or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which defines day one.
[Rule 62-213.440, F.A.C.]

- 10.** The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, FL 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6458

Any reports, data, notifications, certifications and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, GA 30303
Phone: 404/562-9099
Fax: 404/562-9095

- 11. Statement of Compliance.** The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition No. 51., Appendix TV-1, Title V Conditions}
[Rule 62-214.420(11), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator, Unit 1, rated at 440.5 MW, 3750 mmBtu/hr, capable of burning bituminous coal , with number 2 fuel oil as a startup fuel, with emissions exhausted through a 499 ft. stack.
002	Fossil Fuel Steam Generator, Unit 2, rated at 523.8 MW, 4795 mmBtu/hr, capable of burning bituminous coal , with number 2 fuel oil as a startup fuel, with emissions exhausted through a 502 ft. stack.

Fossil Fuel Steam Generators, Units 1 and 2, are pulverized coal dry bottom boilers, tangentially-fired. Emissions are controlled from each unit with a high efficiency electrostatic precipitator, manufactured by Buell Manufacturing Company, Inc.

{Permitting Notes: These emissions units are regulated under Acid Rain, Phase I and II and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input, and Power Plant Siting Certification PA 77-09 conditions. Fossil fuel fired steam generator Unit 1 began commercial operation in 1966. Fossil fuel fired steam generator Unit 2 began commercial operation in 1969.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum operation heat input rates are as follows:

Unit No.	mmBtu/hr Heat Input	Fuel Type
001	3750	Bituminous Coal
002	4795	Bituminous Coal

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

A.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **I.11**.

[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation. Fuels. The only fuel allowed to be burned is bituminous coal, with the exception that number 2 fuel oil may be used as an ignitor fuel. Unit 2 may also burn used oil in accordance with other conditions of this permit (see specific condition **A.15**). These emissions units may also burn oily flyash in accordance with specific condition **A.16** of this permit.

[Rule 62-213.410, F.A.C., 0170004-002-AO and 0170004-005-AO]

Emission Limitations and Standards

A.4.a. Visible Emissions - Emissions Unit 001. Visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions standard shall compliance test for particulate matter emissions annually.

[Rule 62-296.405(1)(a), F.A.C.; and OGC Case No. 86-1576, Order dated December 12, 1986.]

A.4.b. Visible Emissions - Emissions Unit 002. Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent. Emissions units governed by this visible emissions limit shall compliance test for particulate matter emissions annually and as otherwise required by Chapter 62-297, F.A.C.

[Rule 62-296.405(1)(a), F.A.C.]

A.5. Visible Emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition.

[Rule 62-210.700(3), F.A.C., Note: these units have operational continuous opacity monitors.]

A.6. Particulate Matter. Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods.

[Rule 62-296.405(1)(b), F.A.C.]

A.7. Particulate Matter - Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

[Rule 62-210.700(3), F.A.C.]

A.8. Sulfur Dioxide. When burning coal, sulfur dioxide emissions shall not exceed 2.1 pounds per million Btu heat input.

[Rules 62-213.440, F.A.C. and PPSC PA 77-09]

Test Methods and Procedures

A.9. Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17 or 5 incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.

[Rules 62-213.440, 62-296.405(1)(e)2., and 62-297.401, F.A.C.]

A.10. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee may demonstrate compliance using fuel sampling and analysis.** If the permittee elects to discontinue fuel sampling and analysis, it shall perform a stack test for sulfur dioxide at the time of the next particulate matter test, and annually thereafter until fuel sampling and analysis is resumed.

[Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.401, F.A.C.]

A.11. Sulfur Dioxide. The owner or operator may demonstrate compliance with the sulfur dioxide limitation using fuel sampling and analysis. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **A.10** and **A.12**.

[Rule 62-296.405(1)(f)1.b., F.A.C.]

A.12. Sulfur Dioxide - Fuel Sampling. The following fuel sampling and analysis program shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard:

- a. Determine and record the as-fired fuel sulfur content, percent by weight, for coal using appropriate ASTM methods such as, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition methods, to analyze a representative sample of coal following each fuel delivery.
- b. Record daily the amount of coal fired, the density of each fuel, the Btu value, and the percent sulfur content by weight of each fuel.
- c. Utilize the information in a. and b., above, to calculate the SO₂ emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

Monitoring of Operations

A.13. Annual Tests Required - PM and VE. Except as provided in specific conditions **I.6** and **I.7** of this permit, emission testing for particulate matter emissions and visible emissions shall be performed annually, no later than June 1st of each year, except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service.

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

A.14. Excess Emissions - Report. Submit to the Southwest District Air Section a written report of emissions in excess of emission limiting standards as set forth in this permit, for each calendar

quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

Used Oil

A.15. Used Oil. Burning of on-specification used oil is allowed only in Unit 2 in accordance with all other conditions of this permit and the following conditions:

- a. On-specification Used Oil Allowed as Fuel: This permit allows the burning of used oil fuel meeting EPA "on-specification" used oil specifications, with a PCB concentration of less than 50 ppm. Used oil that does not meet the specifications for on-specification used oil shall not be burned at this facility.

On-specification used oil shall meet the following specifications: [40 CFR 279, Subpart B.]

Arsenic shall not exceed 5.0 ppm;
Cadmium shall not exceed 2.0 ppm;
Chromium shall not exceed 10.0 ppm;
Lead shall not exceed 100.0 ppm;
Total halogens shall not exceed 1000 ppm;
Flash point shall not be less than 100 degrees F.

- b. Quantity and Lead Limited.

The maximum quantity of used oil that may be burned is 26 million gallons in any consecutive 12-month period.

The maximum quantity of lead that may be emitted as a result of burning used oil is 1200 pounds in any consecutive 12-month period.

- c. Used Oil Containing PCBs Not Allowed: Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. PCB Concentration of 2 to less than 50 ppm: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.

Before accepting from each marketer the first shipment of on-specification used oil with a PCB concentration of 2 to 49 ppm, the owner or operator shall provide each marketer with a one-time written and signed notice certifying that the owner or operator will burn the used oil in a qualified combustion device and must identify the class of combustion device. The notice must state that EPA or a RCRA-delegated state agency has been given a description of the used oil management activities at the facility and that an industrial boiler or furnace will be used to burn the used oil with a PCB concentration of

2 to 49 ppm. The description of the used oil management activities shall be submitted to the EPA or may be submitted to the Administrator, Hazardous Waste Regulation Section, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. A copy of the notice provided to each marketer shall be maintained at the facility. [40 CFR 279.61 and 761.20(e)]

- e. Certification Required: The owner or operator shall receive from the marketer, for each load of used oil received, a certification that the used oil meets the specifications for on-specification used oil and contains a PCB concentration of less than 50 ppm. This certification shall also describe the basis for the certification, such as analytical results.

Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs. Note that a claim that used oil does not contain quantifiable levels of PCBs (that is, that the used oil contains less than 2 ppm of PCBs) must be documented by analysis or other information. The first person making the claim that the used oil does not contain PCBs is responsible for furnishing the documentation. The documentation can be tests, personal or special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the used oil contains no detectable PCBs.

- f. Testing Required: The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs*, and specific gravity.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods), latest edition.

* Analysis for PCBs is not required if a claim is made that the used oil does not contain quantifiable levels of PCBs.

- g. Record Keeping Required: The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department: [40 CFR 279.61 and 761.20(e)]
- (1) The gallons of on-specification used oil accepted and burned each month in Unit 2. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period in Unit 2. (This record shall be completed no later than the fifteenth day of the succeeding month.)
 - (3) Results of the analyses required above, including documentation if a claim is made that the used oil does not contain quantifiable levels of PCBs.
 - (4) The total amount of lead emitted from Unit 2 from burning used oil each month (calculated from the amount burned, the specific gravity of the used oil and the concentration of lead in the used oil), and the total amount of lead emitted from

Unit 2 in the preceding consecutive 12-month period. (This record shall be completed no later than the fifteenth day of the succeeding month.)

- (5) The source and quantity of each batch of used oil received each month, including the name, address and EPA identification number (if applicable) of all marketers that delivered used oil to the facility, and the quantity delivered.
- (6) The dates and times of any periods during which used oil is burned.
- (7) Records of the operating rate of Unit 2 while burning used oil.

- h. Reporting Required: The owner or operator shall submit to the Department's Southwest District, Air Section, within thirty days of the end of each calendar quarter, the analytical results and the total amount of on-specification used oil generated and burned during the quarter. The owner or operator shall also submit calculations showing the amount of lead emitted each month of the quarter, and the 12-month total lead emissions from each month of the quarter.

The owner or operator shall submit, with the Annual Operation Report form, the analytical results and the total amount of on-specification used oil burned during the previous calendar year.

[Rules 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, and 0170004-002-AO, unless otherwise noted]

Oily Flyash

A.16. Oily Flyash. These emissions units may burn oily flyash ("flyash") from Bartow Unit 1 in accordance with the following:

- a. Only flyash from Bartow Unit 1 shall be burned in these emissions units. Once the accumulated backlog of Bartow Unit 1 flyash (estimated at approximately 13,000 tons) is burned, only the additional flyash generated at Bartow Unit 1 shall be burned in these emissions units.
- b. The maximum flyash blend rate shall not exceed 2% of the total boiler feed on a weight basis.
- c. The owner or operator shall make and maintain the following records for each day that flyash is burned in the boiler:
 1. Date and Unit number;
 2. Time period of flyash burning and start and end times;
 3. Total quantity of flyash burned in tons per day;
 4. Maximum flyash blend rate during period of flyash burn (percent flyash in total emissions unit fuel feed on a weight basis).

[Rules 62-4.070(3) and 62-213.440, F.A.C., and 0170004-005-AO]

Common Conditions

A.17. This emissions unit is also subject to conditions **I.1** through **I.15** contained in **Subsection I. Common Conditions**.

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
004	Fossil Fuel Steam Generator, Unit 4, rated at 760 MW, 6665 mmBtu/hr, capable of burning bituminous coal , with number 2 fuel oil as a startup fuel, and natural gas as a startup and low-load flame stabilization fuel, with emissions exhausted through a 600 ft. stack.
003	Fossil Fuel Steam Generator, Unit 5, rated at 760 MW, 6665 mmBtu/hr, capable of burning bituminous coal , with number 2 fuel oil as a startup fuel, and natural gas as a startup and low-load flame stabilization fuel, with emissions exhausted through a 600 ft. stack.

Fossil Fuel Steam Generators, Units 4 and 5, are pulverized coal dry bottom boilers, wall-fired. Emissions are controlled from each unit with a high efficiency electrostatic precipitator, manufactured by Combustion Engineering.

{Permitting Notes: These emissions units are regulated under Acid Rain, Phase I and II and Rule 62-210.300, F.A.C., Permits Required and are subject to 40 CFR 60 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971, and Power Plant Siting Certification PA 77-09 conditions. Fossil fuel fired steam generator Unit 4 began commercial operation in 1982. Fossil fuel fired steam generator Unit 5 began commercial operation in 1984.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum operation heat input rates are as follows:

Unit No.	mmBtu/hr Heat Input	Fuel Type
004	6665	Bituminous Coal
003	6665	Bituminous Coal

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **I.11.**
[Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation. Fuels. The only fuel allowed to be burned is bituminous coal, with the exception that number 2 fuel oil may be used as an ignitor fuel, and natural gas may be used as a startup and low-load flame stabilization fuel. Fuel oil shall not contain more than 0.73% sulfur by weight.
[Rule 62-213.410, F.A.C. and PPSC PA 77-09 and modified conditions]

Emission Limitations and Standards

B.4. Pursuant to 40 CFR 60.42 Standard For Particulate Matter.

(a) No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which:

- (1) Contain particulate matter in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel.
 - (2) Exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity.
- [40 CFR 60.42(a)(1) & (2)]

B.5. Standard For Sulfur Dioxide.

(a) No owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of:

- (1) 340 nanograms per joule heat input (0.80 lb per million Btu) derived from liquid fossil fuel.
 - (2) 520 nanograms per joule heat input (1.2 lb per million Btu) derived from solid fossil fuel.
- (b) When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) shall be determined by proration using the following formula:

$$PS_{SO_2} = [y(340) + z(520)]/(y+z)$$

where:

PS_{SO_2} is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired,

y is the percentage of total heat input derived from liquid fossil fuel, and

z is the percentage of total heat input derived from solid fossil fuel.

(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

[40 CFR 60.43(a), (b) and (c), and PPSC PA 77-09]

B.6. Pursuant to 40 CFR 60.44 Standard For Nitrogen Oxides.

(a) On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, no owner or operator subject to the provisions of 40 CFR 60, Subpart D, shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO_2 in excess of:

- (1) 86 nanograms per joule heat input (0.20 lb per million Btu) derived from gaseous fossil fuel.
 - (2) 129 nanograms per joule heat input (0.30 lb per million Btu) derived from liquid fossil fuel.
 - (3) 300 nanograms per joule heat input (0.70 lb per million Btu) derived from solid fossil fuel.
- (b) When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NO_x} = \frac{x(86) + y(129) + z(300)}{x + y + z}$$

where:

PS_{NOx} = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels fired;

x = is the percentage of total heat input derived from gaseous fossil fuel;

y = is the percentage of total heat input derived from liquid fossil fuel; and,

z = is the percentage of total heat input derived from solid fossil fuel.

[40 CFR 60.44(a)(2) and (3), and (b), and PPSC PA 77-09]

Test Methods and Procedures

B.8. Pursuant to 40 CFR 60.46 Test methods and Procedures.

(a) When conducting emissions tests, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in 40 CFR 60.46, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in 40 CFR 60.46(d).

(b) The owner or operator shall determine compliance with the particulate matter, SO_2 , and NO_x standards in 40 CFR 60.42, 60.43, and 60.44 as follows:

(1) The emission rate (E) of particulate matter, SO_2 , or NO_x shall be computed for each run using the following equation:

$$E = C F_d (20.9)/(20.9 - \%O_2)$$

E = emission rate of pollutant, ng/J (1b/million Btu).

C = concentration of pollutant, ng/dscm (1b/dscf).

$\%O_2$ = oxygen concentration, percent dry basis.

F_d = factor as determined from Method 19.

(2) Method 5 shall be used to determine the particulate matter concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems.

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train may be set to provide a gas temperature no greater than 160 ± 14 °C (320 ± 25 °F).

(ii) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B shall be used to determine the O_2 concentration ($\%O_2$). The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of all the individual O_2 sample concentrations at each traverse point.

(iii) If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O_2 traverse points.

(3) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

(4) Method 6 shall be used to determine the SO_2 concentration.

(i) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft). The sampling time and sample volume for each sample run shall be

at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval.

(ii) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B shall be used to determine the O₂ concentration (%O₂). The O₂ sample shall be taken simultaneously with, and at the same point as, the SO₂ sample. The SO₂ emission rate shall be computed for each pair of SO₂ and O₂ samples. The SO₂ emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.

(5) Method 7 shall be used to determine the NO_x concentration.

(i) The sampling site and location shall be the same as for the SO₂ sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.

(ii) For each NO_x sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B shall be used to determine the O₂ concentration (%O₂). The sample shall be taken simultaneously with, and at the same point as, the NO_x sample.

(iii) The NO_x emission rate shall be computed for each pair of NO_x and O₂ samples. The NO_x emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.

(c) When combinations of fossil fuels are fired, the owner or operator (in order to compute the prorated standard as shown in 40 CFR 60.43(b) and 60.44(b)) shall determine the percentage (x, y, or z) of the total heat input derived from each type of fuel as follows:

(1) The heat input rate of each fuel shall be determined by multiplying the gross calorific value of each fuel fired by the rate of each fuel burned.

(2) ASTM Methods D 2015-77 (solid fuels), D 240-76 (liquid fuels), or D 1826-77 (gaseous fuels) (incorporated by reference-see 40 CFR 60.17) shall be used to determine the gross calorific values of the fuels.

(3) Suitable methods shall be used to determine the rate of each fuel burned during each test period, and a material balance over the steam generating system shall be used to confirm the rate.

(d) The owner or operator may use the following as alternatives to the reference methods and procedures in 40 CFR 60.46 or in other sections as specified:

(1) The emission rate (E) of particulate matter, SO₂ and NO_x may be determined by using the F_c factor, provided that the following procedure is used:

(i) The emission rate (E) shall be computed using the following equation:

$$E = C F_c (100 / \%CO_2)$$

where:

E = emission rate of pollutant, ng/J (lb/million Btu).

C = concentration of pollutant, ng/dscm (lb/dscf).

%CO₂ = carbon dioxide concentration, percent dry basis.

F_c = factor as determined in appropriate sections of Method 19.

(ii) If and only if the average F_c factor in Method 19 is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B shall be used to determine the O₂ and CO₂ concentration according to the procedures in 40 CFR 60.46(b) (2)(ii), (4)(ii), or (5)(ii). Then if F_o (average of three runs), as calculated from the equation in Method 3B, is more than ± 3 percent than the average F_o value, as determined from the average values of

F_d and F_c in Method 19, i.e., $F_{oa} = 0.209 (F_{da} / F_{ca})$, then the following procedure shall be followed:

(A) When F_o is less than $0.97 F_{oa}$, then E shall be increased by that proportion under $0.97 F_{oa}$, e.g., if F_o is $0.95 F_{oa}$, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.

(B) When F_o is less than $0.97 F_{oa}$ and when the average difference (\bar{d}) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under $0.97 F_{oa}$, e.g., if F_o is $0.95 F_{oa}$, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(C) When F_o is greater than $1.03 F_{oa}$ and when \bar{d} is positive, then E shall be decreased by that proportion over $1.03 F_{oa}$, e.g., if F_o is $1.05 F_{oa}$, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(2) For Method 5 or 5B, Method 17 may be used at facilities with or without wet FGD systems if the stack gas temperature at the sampling location does not exceed an average temperature of 160°C (320°F). The procedures of sections 2.1 and 2.3 of Method 5B may be used with Method 17 only if it is used after wet FGD systems. Method 17 shall not be used after wet FGD systems if the effluent gas is saturated or laden with water droplets.

(3) Particulate matter and SO_2 may be determined simultaneously with the Method 5 train provided that the following changes are made:

(i) The filter and impinger apparatus in sections 2.1.5 and 2.1.6 of Method 8 is used in place of the condenser (section 2.1.7) of Method 5.

(ii) All applicable procedures in Method 8 for the determination of SO_2 (including moisture) are used:

(4) For Method 6, Method 6C may be used. Method 6A may also be used whenever Methods 6 and 3B data are specified to determine the SO_2 emission rate, under the conditions in 40 CFR 60.46(d)(1).

(5) For Method 7, Method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time for each run shall be at least 1 hour and the integrated sampling approach shall be used to determine the O_2 concentration ($\%\text{O}_2$) for the emission rate correction factor.

(6) For Method 3, Method 3A or 3B may be used.

(7) For Method 3B, Method 3A may be used.

[40 CFR 60.46(a), (b), (c) & (d)]

Monitoring of Operations

B.10. Maintain Daily Log. The owner or operator shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values to facilitate calculations of emissions.

[PPSC PA 77-09]

B.11. Record Heat Input. The owner or operator shall make and maintain records of the heat input to the boiler from all fuels at all times to demonstrate compliance with specific condition B.3 of this permit.

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

B.12. Annual Tests Required - PM, VE, SO₂ and NO_x Except as provided in specific conditions **I.6** and **I.7** of this permit, emission testing for particulate matter emissions, visible emissions, sulfur dioxide and nitrogen oxides shall be performed annually, no later than June 1st of each year, except for units that are not operating because of scheduled maintenance outages and emergency repairs, which will be tested within thirty days of returning to service.
[Rules 62-4.070(3) and 62-213.440, F.A.C.]

B.13. Pursuant to 40 CFR 60.45 Emission Monitoring.

CMS for Opacity, SO₂, NO_x, and CO₂ are Required.

(a) Each owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, and carbon dioxide except as provided in 40 CFR 60.45(b).

(c) For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used:

(1) Methods 6, 7, and 3B, as applicable, shall be used for the performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B are given in 40 CFR 60.46(d).

(2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60.

(3) For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent and for a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as follows:

[In parts per million]

Fossil fuel	Span value for sulfur dioxide	Span value for nitrogen oxides
Gas.....	{1}	500
Liquid.....	1,000	500
Solid.....	1,500	1000
Combinations.....	$1,000y+1,500z$	$500(x+y)+1,000z$

{1} Not applicable.

where:

x = the fraction of total heat input derived from gaseous fossil fuel, and

y = the fraction of total heat input derived from liquid fossil fuel, and

z = the fraction of total heat input derived from solid fossil fuel.

(4) All span values computed under 40 CFR 60.45(c)(3) for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm.

(e) For any continuous monitoring system installed under 40 CFR 60.45(a), the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/million Btu):

(1) When a continuous monitoring system for measuring oxygen is selected, the measurement of the pollutant concentration and oxygen concentration shall each be on a consistent basis (wet

or dry). Alternative procedures approved by the Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E = CF[20.9/(20.9\text{-percent O}_2)]$$

where:

E, C, F, and % O₂ are determined under 40 CFR 60.45(f).

(2) When a continuous monitoring system for measuring carbon dioxide is selected, the measurement of the pollutant concentration and carbon dioxide concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure shall be used:

$$E = CF_c [100/\text{percent CO}_2]$$

where:

E, C, F_c and %CO₂ are determined under 40 CFR 60.45(f).

(f) The values used in the equations under 40 CFR 60.45(e) (1) and (2) are derived as follows:

(1) E = pollutant emissions, ng/J (lb/million Btu).

(2) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15×10^4 M ng/dscm per ppm (2.59×10^{-9} M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for sulfur dioxide and 46.01 for nitrogen oxides.

(3) % O₂, %CO₂ = oxygen or carbon dioxide volume (expressed as percent), determined with equipment specified under 40 CFR 60.45(a).

(4) F, F_c = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of carbon dioxide generated to the calorific value of the fuel combusted (F_c), respectively. Values of F and F_c are given as follows:

(ii) For subbituminous and bituminous coal as classified according to ASTM D388-77 (incorporated by reference-see 40 CFR 60.17), $F = 2.637 \times 10^{-7}$ dscm/J (9,820 dscf/million Btu) and $F_c = 0.486 \times 10^{-7}$ scm CO₂ /J (1,810 scf CO₂ /million Btu).

(iii) For liquid fossil fuels including crude, residual, and distillate oils, $F = 2.476 \times 10^{-7}$ dscm/J (9,220 dscf/million Btu) and $F_c = 0.384 \times 10^{-7}$ scm CO₂ /J (1,430 scf CO₂ /million Btu).

(iv) For gaseous fossil fuels, $F = 2.347 \times 10^{-7}$ dscm/J (8,740 dscf/million Btu). For natural gas, propane, and butane fuels, $F_c = 0.279 \times 10^{-7}$ scm CO₂ /J (1,040 scf CO₂ /million Btu) for natural gas, 0.322×10^{-7} scm CO₂ /J (1,200 scf CO₂ /million Btu) for propane, and 0.338×10^{-7} scm CO₂ /J (1,260 scf CO₂ /million Btu) for butane.

(5) The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/million Btu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or F_c factor (scm CO₂ /J, or scf CO₂ /million Btu) on either basis in lieu of the F or F_c factors specified in 40 CFR 60.45(f)(4):

$$F = 10^{-6} \frac{[227.2 (\text{pct. II}) + 95.5 (\text{pct. C}) + 35.6 (\text{pct. S}) + 8.7 (\text{pct. N}) - 28.7 (\text{pct. O})]}{\text{GCV}}$$

$$F_c = \frac{2.0 \times 10^{-5} \text{ (pct. C)}}{\text{GCV}} \\ \text{(SI units)}$$

$$F = 10^6 \frac{3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)}{\text{GCV}} \\ \text{(English units)}$$

$$F_c = \frac{20.0(\%C)}{\text{GCV}} \\ \text{(SI units)}$$

$$F_c = \frac{321 \times 10^3 (\%C)}{\text{GCV}} \\ \text{(English units)}$$

(i) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM method D3178-74 or D3176 (solid fuels) or computed from results using ASTM method D1137-53(75), D1945-64(76), or D1946-77 (gaseous fuels) as applicable. (These five methods are incorporated by reference-see 40 CFR 60.17.)

(ii) GCV is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015-77 for solid fuels and D1826-77 for gaseous fuels as applicable. (These two methods are incorporated by reference-see 40 CFR 60.17.)

(6) For affected facilities firing combinations of fossil fuels, the F or F_c factors determined by paragraphs 40 CFR 60.45(f)(4) or (f)(5) shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^n X_i F_i \quad \text{or} \quad F_c = \sum_{i=1}^n X_i (F_c)_i$$

where:

X_i = the fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, etc.)

F_i or $(F_c)_i$ = the applicable F or F_c factor for each fuel type determined in accordance with paragraphs (f)(4) and (f)(5) of this section.

n = the number of fuels being burned in combination.

[40 CFR 60.45(a), (b), (c), (e) and (f); PPSC PA 77-09]

Excess Emission Reports.

(g) Excess emission reports shall be submitted to the Department for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission report shall include the information required in 40 CFR 60.7(c). Periods of excess emissions that shall be reported are defined as follows:

(1) Opacity. Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.

(2) Sulfur dioxide. Excess emissions for affected facilities are defined as:

(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under 40 CFR 60.43.

(3) Nitrogen oxides. Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44.

[40 CFR 60.45(g)]

Other NSPS Subpart D Conditions

B.14. Pursuant to 40 CFR 60.41 Definitions. As used in 40 CFR 60 Subpart D, all terms not defined in 40 CFR 60.41 shall have the meaning given them in the Act, and in Subpart A of 40 CFR 60.

Ambient Air Monitoring

B.15. Ambient Air Monitoring. The owner or operator shall continue to operate the existing ambient monitoring devices for sulfur dioxide and total suspended particulates at the two locations (sites) designated on Figure A, Ambient Air Monitoring Locations, Crystal River, Florida, attached to this permit. The frequency of operation of each monitoring device for total suspended particulates shall be every six days, and continuously for sulfur dioxide, unless otherwise specified by the Department. New or existing monitoring devices shall be located as designated by the Department. The monitoring devices for sulfur dioxide shall meet the requirements of 40 CFR 53.

[PPSC PA 77-09, and order modifying conditions of certification, OGC Case No. 83-0818, dated February 2, 1984, and Rules 62-213.440 and 62-296.405(1)(c)3., F.A.C.]

B.16. Not Federally Enforceable. Conversion of Particulate Monitoring to PM_{2.5}. The owner or operator shall convert the ambient monitoring equipment at the two locations (sites) designated on Figure A for total suspended particulate to PM_{2.5} no later than twelve months from the effective date of this permit. Monitoring for total suspended particulate shall continue until the conversion is complete. The owner or operator shall notify the Department's Bureau of Air Monitoring and Mobile Sources (BAMMS) when the conversion is complete and identify which data correspond to the new monitoring results. The owner or operator shall then continue to operate the ambient monitoring devices for PM_{2.5}. The frequency of operation of each monitoring device for PM_{2.5} shall be at a minimum of every three days, unless otherwise specified by the Department. The owner or operator may install a continuous monitor for PM_{2.5}, provided that such monitor is a correlated acceptable continuous (CAC) fine particle monitor. [Rule 62-213.440, F.A.C.]

B.17. Not Federally Enforceable. Ambient Monitoring Specifications and Reporting Requirements. Ambient monitoring activities required by specific conditions B.15 and B.16 of this permit, for sulfur dioxide, total suspended particulates and PM_{2.5} shall be conducted in such

a manner so as to meet the Department's minimum quality assurance requirements as delineated in 40 CFR Parts 50 and 58.14; Part 58, Appendices A, C, D and E; and the Department's *State-Wide Quality Assurance Air Program Plan (Plan)*. Changes to the *Plan* will be distributed by the Department's Bureau of Air Monitoring and Mobile Sources (BAMMS) to the owner or operator. The owner or operator shall comply with *Plan* changes as soon as practicable, but no later than upon renewal of this permit.

The owner or operator shall, within 90 days of the effective permit date, submit to the Department for review and approval standard operating procedures for each monitor, calibrator and ancillary piece of equipment utilized in the production of the required ambient air quality data.

The owner or operator shall submit the required monitoring data and quality assurance results to BAMMS within ninety (90) days after the end of each calendar quarter in an electronic medium and format: either Aerometric Information Retrieval System (AIRS) or Storage and Retrieval of Aerometric Data (SAROAD) for the monitoring data, and the Precision and Accuracy Data (PAData) format for the quality assurance data, unless other formats are specified by the Department.

The owner or operator shall allow Department auditors, with a minimum of seven (7) days prior notification, access to the monitoring locations for the purpose of the performance of accuracy audits which may be completed in lieu of, or in addition to, the owner or operator's quarterly accuracy audits as specified in 40 CFR, Part 58, Appendix A, 3.2 and 3.4. The owner or operator shall also submit to an annual systems audit as specified in 40 CFR, Part 58, Appendix A, 2.5. The systems audit, which reviews the quality assurance and monitoring effort for the preceding year, shall be conducted between February and June of the year following the year in which the audited data were produced. In addition, the Department staff shall be allowed access to the monitoring locations, with a minimum of seven (7) days prior notification, on an annual basis, for the purpose of determining compliance with the siting requirements as specified in 40 CFR, Part 58, Appendix E.

[PPSC PA 77-09, and order modifying conditions of certification, OGC Case No. 83-0818, dated February 2, 1984, and Rules 62-213.440 and 62-296.405(1)(c)3., F.A.C.]

B.18. Flue Gas Desulfurization (FGD) equipment. Prior to the installation of any FGD equipment, plans and specifications for such equipment shall be submitted to the Department for review and approval.

[PPSC PA 77-09]

Common Conditions

B.19. This emissions unit is also subject to conditions **I.1** through **I.15**, except for **I.2** and **I.3**, contained in **Subsection I. Common Conditions**.

B.20. These emissions units are also subject to conditions **J.1** through **J.5** contained in **Subsection J. NSPS Common Conditions**.

Subsection C. This section addresses the following emissions units.

E.U. ID No.	Brief Description
006	Fly ash transfer (Source 1) from Fossil Fuel Steam Generator (FFSG) Unit 1.
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2.
009	Fly ash transfer (Source 4) from FFSG Unit 2.
010	Fly ash transfer (Source 5) from FFSG Unit 2.

Emissions unit 006, fly ash transfer (Source 1) from Fossil Fuel Steam Generator (FFSG) Unit 1. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the Unit 1 electrostatic precipitator to the fly ash storage silo (Source 3) at a design transfer rate of 44 tons per hour. Particulate matter emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 1820 acfm.

Emissions unit 008, fly ash storage silo (Source 3) for FFSG Units 1 and 2. This emissions unit consists of the fly ash storage silo used to store fly ash from the electrostatic precipitators of Units 1 and 2. Fly ash is pneumatically conveyed from the Units 1 and 2 ESPs at a combined transfer rate of 174 tons per hour. Particulate matter emissions are controlled by a PulseKing Model M 100 S baghouse at a design air flow of 2546 acfm. Fly ash from the storage silo is disposed of either in a dry form by loading into enclosed tanker trucks or in a wet form by loading wet ash into open trucks.

Emissions unit 009, fly ash transfer (Source 4) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the Unit 2 ESP number 2C to the fly ash storage silo (Source 3) at a design transfer rate of 60 tons per hour. Particulate matter emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2200 acfm.

Emissions unit 010, fly ash transfer (Source 5) from FFSG Unit 2. This emissions unit consists of the fly ash conveying line, dense phase transfer vessel and separator used to transfer fly ash from the Unit 2 ESP number 2A and 2B to the fly ash storage silo (Source 3) at a maximum design transfer rate of 70 tons per hour. Particulate matter emissions are controlled by a Monex Resources, Inc. Model MD80 baghouse at a design air flow of 2800 acfm.

{Permitting note(s): These emissions units are regulated under Best Available Control Technology (BACT), Determinations ordered 2/5/79 (proposed 1/26/79) and 8/16/79.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The transfer rates shall not exceed:

Emissions Unit	Transfer Rate (tons per hour)
006	44
008	174
009	60
010	70

[Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

C.2. Emission Limitations. Emissions from the following emissions units shall not exceed:

Emissions Unit	Emission Limit (pounds per hour)	Emission Limit (tons per year)
006	3.5 ^a	15.4 ^a
008	0.6 ^a	2.6 ^a
009	2.2 ^b	9.6 ^{b, c}
010	2.2 ^b	9.6 ^{b, c}

Notes:

- a Emission limits based on a BACT Determination proposed 1/26/79, ordered 2/5/79. BACT for emissions units 006 and 007 included a VE limit of 5% opacity.
- b Emission limits based on a BACT Determination ordered 8/16/79.
- c The tons per year limits for emissions units 009 and 010 have been corrected to two decimal places.

[AC 09-256791]

C.3. VE in Lieu of Stack Test. Because the ash handling system emissions units are controlled with baghouses, the Department has waived particulate matter testing requirements and specified an alternate standard of 5% opacity. If the Department has reason to believe that the particulate emission standard applicable to each emissions unit (006, 008, 009 and 010) is not being met, it may require that compliance be demonstrated by stack testing in accordance with rule 62-297, F.A.C.

[Rule 62-297.620(4), F.A.C., AC 09-256791]

C.4. Additional Reasonable Precautions for Control of Particulate Matter Emissions. The owner or operator shall take the following reasonable precautions to control emissions of particulate matter from transport of ash from emissions unit 008 for disposal or use. Ash for transport shall be wetted before loading into open trucks, or dry ash shall be transferred to enclosed tanker trucks.

[Rule 62-4.070(3), F.A.C., AC 09-256791]

Monitoring of Operations

C.5. Annual VE Tests Required. Each emissions unit (006, 008, 009 and 010) shall be tested for visible emissions annually by June 1st using EPA Method 9. Each test shall be a minimum of thirty minutes in duration from each exhaust point, while transferring fly ash from both Units 1 and 2 to the silo (emissions unit 008) at the same time. The tests shall be conducted during a period when both Units 1 and 2 are operating at 90 to 100% of full load while sootblowing. A statement of the Unit loads, verifying the tests were conducted during sootblowing shall be submitted with the test reports.

[Rule 62-4.070(3), F.A.C., AC 09-256791]

Common Conditions

C.6. This emissions unit is also subject to conditions **I.1** through **I.15**, except for **I.3**, contained in **Subsection I. Common Conditions**.

Subsection D. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
014	Bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points).

Emissions unit 014, bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points). This emissions unit consists of the system to collect and store bottom ash and economizer ash from both FFSG Units 1 and 2 at a total rate of 16 tons per hour (8 tons per hour from each FFSG unit) at an airflow rate of 2200 scfm from each unit. Ash is conveyed by vacuum from each FFSG unit by a separate vacuum blower, with air and ash passing through a baghouse (filter/separator) where ash is deposited in the silo and air is exhausted through the vacuum blower. Air displaced in the silo is vented through an additional bag filter (the bin vent filter) at an airflow rate of 2400 scfm. Ash stored in the silo is unloaded into trucks for sale, use or disposal at the on-site ash disposal facility. Ash will be wet via a pugmill before loading into open trucks, or dry ash will be transferred to enclosed tanker trucks.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.320, F.A.C., and by applicable requirements of AC 09-235915.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The transfer rates shall not exceed 16 tons per hour (8 tons per hour from each FFSG unit).

[Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

D.2. Visible Emissions (VE) Limitation. Visible emissions shall not exceed the emission limit of 20% opacity established by Rule 62-296.320(4)(b)1. See Section II, condition 3 of this permit.

[Rule 62-296.320(4)(b)1, F.A.C.]

D.3. Additional Reasonable Precautions for Control of Particulate Matter Emissions. The owner or operator shall take the following reasonable precautions to control emissions of particulate matter from transport of ash from emissions unit 014 for disposal or use. Ash for transport shall be wet via a pugmill before loading into open trucks, or dry ash shall be transferred to enclosed tanker trucks.

[Rule 62-4.070(3), F.A.C., AC 09-235915]

Monitoring of Operations

D.4. Annual VE Tests Required. Each emission point of emissions unit 014 shall be tested for visible emissions annually by June 1st of each year using EPA Method 9. Each test shall be a minimum of thirty minutes in duration from each exhaust point, while transferring bottom ash and economizer ash from both Units 1 and 2 to the silo at the same time at 90-100% of design throughput rate of 8 TPH. [Rules 62-4.070(3) and 62-296.320(4)(b)4, F.A.C., AC 09-235915, AO 09-248541 (test frequency base date)]

Common Conditions

D.5. This emissions unit is also subject to conditions **I.1** through **I.15**, except for **I.3**, contained in **Subsection I. Common Conditions**.

Subsection E. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
012	Three relocatable diesel fired generators, rated at 0.82 MW, 8.58 mmBtu/hr while being fueled by 62.1 gallons of new number 2 fuel oil per hour, with emissions exhausted through a 15 ft. stack.

These relocatable emissions units are Caterpillar Model 3508-DITA 820 kilowatt diesel generators. The generators may be relocated at any of the following facilities:

1. Crystal River Plant, Powerline Road, Red Level, Citrus County.
2. Bartow Plant, Weedon Island, St. Petersburg, Pinellas County.
3. Higgins Plant, Shore Drive, Oldsmar, Pinellas County.
4. Bayboro Plant, 13th Ave. & 2nd St. South, St. Petersburg, Pinellas County.
5. Wildwood Reclamation Facility, State Road 462, 1 mi. east of U.S. 301, Wildwood, Sumter County.
6. The future FPC Polk County Site, County Road 555, 1 mi. southwest of Homeland, Polk County.

{Permitting Notes: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required. Each generator has its own stack.}

The following specific conditions apply to the emissions units listed above regardless of location:

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum operation heat input rates are as follows:

Unit No.	Heat Input	Fuel Type
012	25.74 mmBtu/hr ¹	Number 2 Fuel Oil

1 This is total heat input for all three generators combined.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

E.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition **E.9.**
[Rule 62-297.310(2), F.A.C.]

E.3. Methods of Operation - Fuels. Only new number 2 fuel oil with a maximum sulfur content of 0.5% S by weight shall be fired in the diesel generators.
[Rule 62-213.410, F.A.C.]

E.4. Hours of Operation. The hours of operation expressed as "engine-hours" shall not exceed 2970 hours in any consecutive 12 month period. The total hours of operation expressed as "engine-hours" shall be the summation of the individual hours of operation of each generator.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and AO 09-205952.]

Emission Limitations and Standards

E.5. Standard for Visible Emissions. Visible emissions from each generator shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; and AO 09-205952.]

Monitoring of Operations

E.6. Fuel Sulfur Analysis. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor or permittee upon each fuel delivery. See specific conditions **E.8** and **E.14**.

[Rule 62-213.440, F.A.C.]

Test Methods and Procedures

E.7. VE Test Method. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.

[Rules 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

E.8. Fuel Sulfur Test Methods. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s).

[Rules 62-213.440 and 62-297.440, F.A.C.]

E.9. Operating Rate During Testing. In addition to the requirements of specific condition **I.11** of this permit, testing of emissions shall be conducted with the generators operating at 90 to 100 percent of the maximum fuel firing rate of 186.3 gallons per hour. Failure to submit the actual operating rate with the test report may invalidate the test.

[Rules 62-297.310(2), F.A.C.; and AO 09-205952.]

E.10. Visible Emissions Testing - Annual. Each generator shall be tested on an annual basis no later than October 25th, however, annual emissions compliance testing for visible emissions is not required for these emissions units if they burned liquid fuels for less than 400 hours in the previous year.

[Rules 62-297.310(7)(a)4. & 8., F.A.C.]

E.11. Test After Relocation. After each relocation, each generator shall be tested within 30 days of startup for opacity and the fuel shall be analyzed for the sulfur content. See specific conditions **E.3**, **E.6**, and **E.8**.

[Rules 62-4.070(3) and 62-297.310(7)(b), F.A.C., and AO 09-205952.]

Record Keeping and Reporting Requirements

E.12. Test Reports -- Pinellas County. The test reports for a unit that has been relocated shall be submitted to the Southwest District Office and the Air Quality Division of the Pinellas County Department of Environmental Management, if a generator is located in Pinellas County, within 45 days of testing.

[Rule 62-297.310(8), F.A.C., and AO 09-25952.]

E.13. Record Daily Hours of Operation. To demonstrate compliance with specific condition **E.4**, records shall indicate the daily hours of operation for each of the generators, the daily hours of operation expressed as “engine- hours” for each month. The records shall be maintained for a minimum of 5 years and made available to the Southwest District Office upon request.
[Rules 62-213.440 and 62-297.310(8), F.A.C., and AO 09-205952.]

E.14. Record Sulfur Content. To demonstrate compliance with specific condition **E.3**, records of the sulfur content, in percent by weight, of all the fuel burned shall be kept based on either vendor provided as-delivered or as-received fuel sample analysis. The records shall be maintained for a minimum of five years and made available to the Southwest District Office upon request.
[Rule 62-297.310(8), F.A.C., and AO 09-205952.]

Source Obligation

E.15. Specific conditions in construction permit AC 09-202080, limiting the “engine hours”, were accepted by the applicant to escape Prevention of Significant Deterioration review. If Florida Power Corporation requests a relaxation of any of the federally enforceable emission limits in this permit, the relaxation of limits may be subject to the preconstruction review requirements of Rule 62-212.400(5), F.A.C., as though construction had not yet begun.
[Rule 62-212.400(2)(g), F.A.C., AC 09-202080, and AO 09-205952.]

E.16. Relocation. Florida Power Corporation shall notify the Department’s Southwest District Office, in writing, at least 15 days prior to the date on which any diesel generator is to be relocated. The notification shall specify the following;

- a. which generator, by serial number, is being relocated,
- b. which location the generator is being relocated from and which location it is being relocated to, and
- c. the approximate startup date at the new location.

If a diesel generator is to be relocated within Pinellas County, then Florida Power Corporation shall provide the same notification to the Air Quality Division of the Pinellas County Department of Environmental Management.
[Rule 62-4.070(3), F.A.C. and AC 09-202080]

Common Conditions

E.17. This emissions unit is also subject to conditions **I.1** through **I.15**, except for **I.3** and **I.8**, contained in **Subsection I. Common Conditions**.

Subsection F. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
013	Cooling towers for FFSG Units 1, 2 and 3, used to reduce plant discharge water temperature.

Emissions unit 013, cooling towers for FFSG Units 1, 2 and 3, used to reduce plant discharge water temperature. (This emission unit may be referred to as "helper cooling towers.") This emissions unit consists of four towers with nine cells per tower, with high efficiency drift eliminators, operating at a maximum seawater flow rate of 735,000 gallons per minute for all cells combined, with a design airflow rate of 1.46×10^6 acfm from each cell. Seawater is sprayed through the towers where fan induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions controlled by high efficiency drift eliminators.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit AC 09-162037/PSD-FL-139 issued 8/29/90) and Best Available Control Technology (BACT), Determination dated 8/29/90, which set a drift emission rate of 0.004%.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity. The maximum seawater flow rate shall not exceed 735,000 gallons per minute for all cells combined.

[Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C.]

F.2. Hours of Operation. The operating hours for each cooling tower pump shall not exceed 4320 hours per year (12-month rolling total).

[Rule 62-210.200(PTE), F.A.C., AC 09-162037 (PSD-FL-139)]

Emission Limitations and Standards

F.3. Cooling Tower Emission Limit. Emissions of particulate matter from each cooling tower cell shall not exceed 11.9 pounds per hour.

{Note: The emission limit is based on a BACT Determination setting the maximum drift emissions at 0.004%. Equivalent maximum emissions are 428 lb/hr and 925 tons per year total for all cells. PM_{10} emissions are estimated to be approximately 50% of the particulate matter emission rate.}

[Rule 62-213.440, F.A.C., AC 09-162037 (PSD-FL-139)]

F.4. Drift Eliminators. Drift eliminators shall be installed and maintained so that minimum bypass occurs. Regular maintenance shall be scheduled to ensure proper operation of the drift eliminators.

[Rule 62-213.440, F.A.C., AC 09-162037 (PSD-FL-139)]

{Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets so visible emissions testing is not possible.}

Test Methods and Procedures

F.5. Emission Test Method. Test using EPA Method 5, from 40 CFR 60 Appendix A, except that a distilled water rinse shall be used in place of acetone, and the impinger catch shall be excluded from the emission calculations. Testing shall be conducted on one cell, selected by the Department, of each of the four towers while the towers are being operated at 90-100% of the seawater flow rate. The seawater flow rate shall be estimated using manufacturers certified pump curves or other method approved by the Department. The test report shall include the estimated seawater and air flow rates.

[Rule 62-213.440, F.A.C., AC 09-162037 (PSD-FL-139)]

Monitoring of Operations

F.6. Test Every Five Years. The owner or operator shall test for particulate emissions on June 30, 1998 and every five years thereafter, unless actual emissions exceed 80% of allowable, in which case compliance testing is required every 30 months until actual emissions are less than 80% of allowable.

[Rule 62-213.440, F.A.C., AC 09-162037 (PSD-FL-139), AO 09-236827 establishes the frequency base date]

Record Keeping and Reporting Requirements

F.7. Pump Run Time Meters Required. Equip each cooling tower seawater pump with a run-hour meter and maintain records of run time for each pump based on run-hour meters for each calendar month.

[Rule 62-213.440, F.A.C., AC 09-162037 (PSD-FL-139)]

Common Conditions

F.8. This emissions unit is also subject to conditions **I.1** through **I.15**, except for **I.3**, **I.7** and **I.8**, contained in **Subsection I. Common Conditions**.

Subsection G. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
015	Cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature.

Emissions unit 015, cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature. (These towers are hyperbolic cooling towers.) Seawater is sprayed through the towers where induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift) and salt particles are emitted. Drift emissions controlled by high efficiency drift eliminators. Seawater flow rate is 331,000 gallons per minute.

{Permitting note(s): This emissions unit is regulated under Prevention of Significant Deterioration (PSD) (PSD permit PSD-FL-007 issued by EPA as modified by EPA on 11/30/88.)}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

G.1. Permitted Capacity. The maximum seawater flow rate shall not exceed 331,000 gallons per minute for both cooling towers combined.
[Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

G.2. Cooling Tower Emission Limit. Emissions of particulate matter shall not exceed 175 lb/hr from each cooling tower.

{Note: The emission limit is based on a BACT Determination requiring control of drift emissions with drift eliminators. The modified PSD permit removed a limitation on drift rate, substituting an emissions limit in pounds per hour. PM emissions are assumed to be all PM₁₀.}
[Rule 62-213.440, F.A.C.; Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

{Note: This emissions unit is not subject to a visible emissions limitation. Emissions from this emissions unit include water droplets so visible emissions testing is not possible.}

Test Methods and Procedures

G.3. Emission Test Method. Testing shall be in accordance with following requirements:

- Particulate matter emissions shall be measured by the sensitive paper method.
- Testing shall be conducted either at the drift eliminator level within the tower or at the tower exit plane.
- No less than three test runs shall be conducted for each test and all valid data from each of these test runs shall be averaged to demonstrate compliance. No individual test run result shall determine compliance or noncompliance. The emission rate reported as a

percent of the circulating water, as well as lb/hr., and total dissolved solids in the cooling tower basin and intake water, shall be reported for each test run.

[Rule 62-213.440, F.A.C.; Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

Monitoring of Operations

G.4. Test Every Five Years. The Unit 4 cooling tower shall be tested every five years from 1989 (the next required year from the effective date of this permit is 1999) between October 1st and December 31st. The Unit 5 cooling tower shall be tested every five years from 1992 (the next required year from the effective date of this permit is 1997) between January 1st and May 1st.

[Rule 62-213.440, F.A.C.; Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

G.5. Inspection. The drift eliminators of both towers shall be inspected from the concrete walkways not less than every three months by Florida Power Corporation staff or representatives to assure that the drift eliminators are clean and in good working order. Not less than annually, a complete inspection of the towers shall be conducted by a manufacturer of drift eliminators or by a consultant with recognized expertise in the field.

Certification that the drift eliminators are properly installed and in good working order shall be made at the time of submission of the reports noted below.

[Rule 62-213.440, F.A.C.; Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

Record Keeping and Reporting Requirements

G.6. Reporting. Reports on tower testing and inspection shall be submitted as follows:

- a. Within 30 days after all visual inspections of the drift eliminators.
- b. Within 45 days after the compliance testing of either tower.

[Rule 62-213.440, F.A.C.; Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

G.7. Excess Emissions. Should either tower emission rate exceed 175 lb/hr, the permittee shall:

- a. Notify EPA and the Department within 10 days of becoming aware of the exceedence.
- b. Provide an assessment of necessary corrective actions and a proposed schedule of implementation within an additional 20 days.
- c. Expeditiously complete corrective actions.
- d. Retest the tower within three months after the correction is completed.
- e. Submit the testing report within 45 days after completion of said tests.

[Rule 62-213.440, F.A.C.; Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

Common Conditions

G.8. This emissions unit is also subject to conditions I.1 through I.15, except for I.3, I.7 and I.8, contained in **Subsection I. Common Conditions.**

Subsection H. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
016	Material handling activities for coal-fired steam units.

Emissions unit 016, material handling activities for coal-fired steam units. This emissions unit consists of the storage and transport of coal, fly ash and bottom ash for FFSG Units 1, 2, 4 and 5 not addressed by other emissions units. Emissions are particulate matter and PM₁₀ from these activities.

{Permitting note(s): This emissions unit is regulated partially under Power Plant Siting Certification PA77-09; NSPS 40 CFR 60 Subpart Y; and PSD permit AC 09-162037, PSD-FL-139.}

The following specific conditions apply to the emissions unit(s) listed above:

Emission Limitations and Standards

H.1. Pursuant to 40 CFR 60.252 Standards for Particulate Matter.

(c) The owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

[40 CFR 60.252 (coal facilities associated with Units 4 and 5)]

H.2. Visible Emissions. The owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

[PPSC PA77-09 (coal facilities associated with Units 1, 2, 4 and 5)]

H.3. PM Control -- BMPs. The owner or operator shall control particulate emissions (PM and PM₁₀) through the practices described in the Best Management Plan authored by KBN, November 1990, and distributed to FPC staff November 21, 1990 by Mr. W. Jeffrey Pardue.

[AC 09-162037, PSD-FL-139 (for construction of helper cooling towers) specific condition 3]

Test Methods and Procedures

H.4. (This condition applies to coal facilities associated with emissions units 004 and 003 -- Units 4 and 5.) Pursuant to 40 CFR 60.254 Test Methods and Procedures.

(2) EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

[40 CFR 60.254]

H.5. (This condition applies to coal facilities associated with emissions units 001 and 002 -- Units 1 and 2.) VE Test Method. EPA Method 9 shall be used to determine opacity.

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

Common Conditions

H.6. This emissions unit is also subject to conditions **I.1** through **I.15**, except for **I.3**, **I.7** and **I.8**, contained in **Subsection I. Common Conditions**.

H.7. These emissions units are also subject to conditions **J.3(b)**, **(c)** and **(d)** and **J.4** contained in **Subsection J. NSPS Common Conditions**.

Subsection I. Common Conditions.

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator (FFSG), Unit 1
002	FFSG, Unit 2
004	FFSG, Unit 4
003	FFSG, Unit 5
006	Fly ash transfer (Source 1) from FFSG Unit 1
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2
009	Fly ash transfer (Source 4) from FFSG Unit 2
010	Fly ash transfer (Source 5) from FFSG Unit 2
014	Bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points)
012	Three relocatable diesel fired generators, rated at 0.82 MW, 8.58 mmBtu/hr
013	Cooling towers for FFSG Units 1, 2, and 3, used to reduce plant discharge water temperature
015	Cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature
016	Material handling activities for coal-fired steam units

The following conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

I.1. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting Notes: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Excess Emissions

I.2. (This condition is not applicable to emissions units 004 and 003 - Units 4 and 5.) Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

I.3. (This condition applies to emissions units 001 and 002 - Units 1 and 2.) Excess emissions resulting from startup or shutdown shall be permitted provided that best operational

practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

[Rule 62-210.700(2), F.A.C.]

I.4. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

I.5. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

I.6. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;

- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
- 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests. When the Department, 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 may 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 Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; SIP approved]

I.7. When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

Test Methods and Procedures

{Permitting Notes: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

I.8. (This conditions applies to emissions units 001, 002, 003, 004, 006, 008, 009, 010, & 014.) Visible Emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800 and 62-297.401, F.A.C.]

I.9. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

I.10. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

I.11. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

I.12. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

I.13. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

Record Keeping and Reporting Requirements

I.14. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Southwest District Air Section in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Southwest District Air Section.
[Rule 62-210.700(6), F.A.C.]

I.15. Test Reports

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Southwest District Air Section on the results of each such test.
- (b) The required test report shall be filed with the Southwest District Air Section as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Southwest District Air Section to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.

8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
- [Rules 62-213.440 and 62-297.310(8), F.A.C.]

Subsection J. NSPS Common Conditions.

E.U. ID No.	Brief Description
004	Fossil Fuel Steam Generator, Unit 4, rated at 760 MW, 6665 mmBtu/hr, capable of burning bituminous coal , with number 2 fuel oil as a startup fuel, with emissions exhausted through a 600 ft. stack.
003	Fossil Fuel Steam Generator, Unit 5, rated at 760 MW, 6665 mmBtu/hr, capable of burning bituminous coal , with number 2 fuel oil as a startup fuel, with emissions exhausted through a 600 ft. stack.
016	Material handling activities for coal-fired steam units.

{Permitting Notes: The emissions units above are subject to the following conditions from 40 CFR 60 Subpart A, General Provisions. The affected facilities to which this subpart applies are fossil fuel steam generator, Unit 4 and Unit 5. To the extent allowed by law, the "Administrator" shall mean the "Department."}

The following conditions apply to the NSPS emissions units listed above:

J.1. Pursuant to 40 CFR 60.7 Notification And Record Keeping.

(a) Any owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(b) The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see 40 CFR 60.7(d)) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in Figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[See Attached Figure 1-Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance]

(e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For one full year (e.g., four quarterly or twelve monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under 40 CFR 60 continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all record keeping and monitoring requirements specified in this subpart and the applicable standard; and

(iii) The Administrator does not object to reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required record keeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after

receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7 and Rule 62-213.440(1)(b)2.b., F.A.C.]

J.2. Pursuant to 40 CFR 60.8 Performance Tests.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[40 CFR 60.8]

J.3. Pursuant to 40 CFR 60.11 Compliance With Standards And Maintenance Requirements.

(a) Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

- (b) Compliance with opacity standards in 40 CFR 60.11 shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of 40 CFR 60.11, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5).
- (c) The opacity standards set forth in 40 CFR 60.11 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)(5) The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine opacity compliance. [40 CFR 60.11]

J.4. Pursuant to 40 CFR 60.12 Circumvention.

No owner or operator subject to the provisions of 40 CFR 60.12 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

J.5. Pursuant to 40 CFR 60.13 Monitoring Requirements.

- (a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B of 40 CFR 60 and, if the

continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he/she shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 40 CFR 60.8 and as described in 40 CFR 60.11(e)(5), shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 40 CFR 60.8 is conducted.

(2) Except as provided in 40 CFR 60.13(c)(1), the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)(1) Owners and operators of all continuous emission monitoring systems installed in accordance with the provisions of 40 CFR 60.13 shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of 40 CFR 60 shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorder during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non reduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

[40 CFR 60.13]

Section IV. This section is the Acid Rain Part.

Operated by: Florida Power Corporation/Crystal River Plant
ORIS code: 628

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions units listed below are regulated under Acid Rain, Phase II.

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2
004	Fossil Fuel Steam Generator, Unit 4
003	Fossil Fuel Steam Generator, Unit 5

A.1. The Phase II permit application(s) submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), dated July 1, 1995.
[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations and nitrogen oxide (NO_x) requirements for each Acid Rain unit is as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002
001	1	SO₂ allowances, under Table 2 or 3 of 40 CFR Part 73	12320*	12320*	12320*
		NO_x limit	**	**	**
002	2	SO₂ allowances, under Table 2 or 3 of 40 CFR Part 73	14173*	14173*	14173*
		NO_x limit	**	**	**

E.U. ID No.	EPA ID	Year	2000	2001	2002
004	4	SO2 allowances, under Table 2 or 3 of 40 CFR Part 73	23452*	23452*	23452*
		NOx limit	**	**	**
003	5	SO2 allowances, under Table 2 or 3 of 40 CFR Part 73	25040*	25040*	25040*
		NOx limit	**	**	**

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

** If applicable, by January 1, 1999, this Part will be reopened to add NOx requirements in accordance with the regulations implementing section 407 of the Clean Air Act.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increase in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

A.4. Comments, notes, and justifications: None

Subsection B. This subsection addresses Acid Rain, Phase I.

{Permitting note: The U.S. EPA issues Acid Rain Phase I permit(s)}

The emissions units listed below are regulated under Acid Rain, Phase I

E.U. ID No.	Brief Description
002	Fossil Fuel Steam Generator, Unit 2
004	Fossil Fuel Steam Generator, Unit 4
003	Fossil Fuel Steam Generator, Unit 5

The provisions of the federal Acid Rain, Phase I permit(s), including Early Election Plans for NO_x, govern(s) the above listed emissions unit(s) from the date of issuance of this Title V permit through December 31, 1999. The provisions of the Phase II permit govern(s) those emissions unit(s) from January 1, 2000 through the expiration date of this Title V permit. The Phase II permit governs all other affected units for the effective period of this permit.

B.1. The Phase I permit, including Early Election Plans for NO_x, issued by the U.S. EPA, is a part of this permit. The owners and operators of these Phase I acid rain unit(s) must comply with the standard requirements and special provisions set forth in the permit(s) listed below:

- a. Phase I permit dated 3/27/97

[Chapter 62-213, F.A.C.]

B.2. Comments, notes, and justifications: none

Appendix U-1, List of Unregulated Emissions Units and/or Activities

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘exempt emissions units’.

E.U. ID No.	Brief Description of Emissions Units and/or Activity
017	Fuel and lube oil tanks and vents ¹
018	Sewage treatment, water treatment, lime storage ²
019	Two 3500 kW diesel generators associated with Unit 3

Notes:

- 1 This unregulated emissions unit consists of the following facilities:

Associated with Units 1 and 2:

Number 2 fuel oil, 210,000 gal capacity, tank # 10, and 20,200 gal capacity, tank # 11.

Lube oil vents, one each at Unit 1 and 2.

Rotoclone with air filter at Unit 1.

Oil vent at Unit 1.

Associated with Unit 3:

Equipment diesel tanks, tanks 2 through 8, 15, 16, 22 and 23, capacities from 30 gallons to 30,118 gallons.

Lube oil tank, 25,000 gallon capacity, tank #9.

Two small cooling towers west of Main Building.

Two lube oil vents.

Associated with Units 4 and 5:

Number 2 fuel oil, 256,200 gal capacity, tank # 1, and 255,318 gal capacity, tank # 2.

Equipment diesel tanks, tanks 3 and 4, capacity of 250 gallons, each.

Lube oil tank, 30,000 gallon capacity, tank #16.

Lube oil vents.

Associated with the Crystal River Site:

Equipment diesel tanks, E.O.F. #01, capacity of 2,000 gallons and E.O.F. # 02, capacity of 25 gallons.

Waste oil tank, Garage # 01, 150 gallon capacity.

Mineral spirits tanks, O.C. # 01, 80 gallon capacity, N. Sub. # 04, 1,100 gallon capacity.

Transmission oil tanks, N. Sub. # 01 through 03, capacity of 1,100 gallons each.

- 2 This unregulated emissions unit consists of the following facilities:

Associated with Units 4 and 5:

Water treatment systems for Units 4 and 5.

Associated with the Crystal River Site:

Sewage treatment plant.

Lime storage.

Appendix E-1, List of Exempt Emissions Units and/or Activities

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Full Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining whether a facility containing such emissions units or activities would be subject to any applicable requirements. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., are also exempt from the permitting requirements of Chapter 62-213, F.A.C., provided such emissions units and activities also meet the exemption criteria of Rule 62-213.430(6)(b), F.A.C. The below listed emissions units and/or activities are hereby exempt pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities

1. Vehicle diesel and gasoline tanks.
2. Diesel fire pump and tank at Unit 1.
3. 260 kW emergency diesel generator at Unit 3 technical support center.
4. Unit 3 diesel generator air compressor.
5. Unit 3 halon fire protection system.
6. Two fire protection tanks at Unit 3.
7. Fire pump house emergency diesel generator units and electric generator units.
8. Laboratory facilities.
9. CEM equipment and calibration gas storage and venting.
10. Surface coating of less than 6.0 gallons per day.
11. Brazing, soldering and welding.

Appendix H-1, Permit History/ID Number Changes

Permit History (for tracking purposes):

E.U. ID No.	Description	Permit No.	Issue Date	Expiration Date	Extended Date ^{1,2}	Revised Date(s)
001	Unit 1	AO 09-169341	12/20/89	12/18/94		2/11/94 2/6/97
002	Unit 2	AO 09-191820	5/21/91	5/21/96		6/24/91 2/11/94 2/6/97
001 & 002	Units 1 and 2 Used Oil Firing	0170004-002-AO (Mod. of above permits)	9/16/96			
004, 003, 015	Units 4 & 5, & Cooling Towers for 4 & 5	PSD Permit PSD-FL-007	3/30/78 2/27/80			11/30/88
004, 003	Power Plant Siting Certification, Units 4 & 5 (Incl. Limits on Sulfur for Units 1 & 2)	PA 77-09	11/21/78			2/22/80 5/22/80 5/6/82 2/2/84 7/3/84 9/12/97
006, 008, 009, 010	Units 1 & 2 Flyash Handling System (Sources 1, 4 & 5)	AC 09-184438 AC 09-256791 (Replaced AC 09-184438)	11/9/90 11/17/94	10/31/91 01/15/96		
008	Units 1 & 2 Flyash Transfer Silo (Source 3)	AO 09-193593	3/26/91	10/31/91		
006, 008, 009, 010	Units 1 & 2 Flyash Handling System (Sources 1, 3, 4 & 5)	AO 09-202440	11/8/91	10/31/96		

Appendix H-1, Permit History/ID Number Changes, Continued

Permit History, Continued:

E.U. ID No.	Description	Permit No.	Issue Date	Expiration Date	Extended Date ^{1, 2}	Revised Date(s)
014	Units 1 & 2 Bottom/Economizer Ash Handling System	AC 09-235915	10/4/93	6/1/94		
014	Units 1 & 2 Bottom Ash Handling	AO 09-248541	7/21/94	7/15/99		
012	Diesel Generators	AO 09-205952	4/27/92	3/31/97		
013	Four Helper Cooling Towers	AC 09-162037 & PSD-FL-139	8/29/90	10/1/93	12/1/93	
013	Four Helper Cooling Towers	AO 09-236827	10/20/93	10/1/98		

ID Number Changes (for tracking purposes):

From: Facility ID No.: 09TPA0004

To: Facility ID No.: 0170004

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
(version dated 02/05/97)

Abbreviations and Acronyms:

°F: Degrees Fahrenheit
BACT: Best Available Control Technology
CFR: Code of Federal Regulations
DEP: State of Florida, Department of Environmental Protection
DARM: Division of Air Resource Management
EPA: United States Environmental Protection Agency
F.A.C.: Florida Administrative Code
F.S.: Florida Statute
ISO: International Standards Organization
LAT: Latitude
LONG: Longitude
MMBtu: million British thermal units
MW: Megawatt
ORIS: Office of Regulatory Information Systems
SOA: Specific Operating Agreement
UTM: Universal Transverse Mercator

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers, and ID numbers.

Code of Federal Regulations:

Example: [40 CFR 60.334]

Where:	40	reference to	Title 40
	CFR	reference to	Code of Federal Regulations
	60	reference to	Part 60
	60.334	reference to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

Example: [Rule 62-213, F.A.C.]

Where:	62	reference to	Title 62
	62-213	reference to	Chapter 62-213
	62-213.205	reference to	Rule 62-213.205, F.A.C.

ISO: International Standards Organization refers to those conditions at 288 degrees K, 60 percent relative humidity, and 101.3 kilopascals pressure.

**Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
(continued)**

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:

105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by state database.

Permit Numbers:

Example: 1050221-002-AV, or
1050221-001-AC

Where:

AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by permit tracking database
001 or 002 = 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185
PA95-01
AC53-208321

Where:

PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC = old Air Construction Permit numbering

Appendix S
Permit Summary Tables

Table 1-1, Summary of Air Pollutant Emission Standards

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
001	Fossil Fuel Steam Generator, Unit No. 1
002	Fossil Fuel Steam Generator, Unit No. 2

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions ¹		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
VE (Unit 1)	Coal No. 2 fuel oil as ignitor ^a	8760	40% opacity					Rule 62-296.405(1)(a), F.A.C.; and Order dated 12/12/86	A.4.a.
VE (Unit 2)	Coal No. 2 fuel oil as ignitor ^a	8760	20% opacity (except for one two-minute period per hour, opacity ≤ 40%)					Rule 62-296.405(1)(a), F.A.C.	A.4.b.
VE Soot Blowing & Load Change	Coal No. 2 fuel oil as ignitor ^a	8760	60% opacity during 3-hours in any 24 hour period of excess emissions					Rule 62-210.700(3), F.A.C.	A.5.

Appendix S
Permit Summary Tables

Table 1-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit		Brief Description							
001		Fossil Fuel Steam Generator, Unit No. 1							
002		Fossil Fuel Steam Generator, Unit No. 2							

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions ¹		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
PM	Coal No. 2 fuel oil as ignitor ^a	8760	0.1 lb/mmBtu			375 (Unit 1) 479.5 (Unit 2)	1642.5 (Unit 1) 2100.2 (Unit 2)	Rule 62-296.405(1)(b), F.A.C.	A.6.
PM Soot Blowing & Load Change	Coal No. 2 fuel oil as ignitor ^a	8760	0.3 lb/mmBtu during the 3-hours in any 24-hour period of excess emissions.			1125 (Unit 1) 1438.5 (Unit 2)	4927.5 (Unit 1) 6300.6 (Unit 2)	Rule 62-210.700(3), F.A.C.	A.7.
SO ₂	Coal No. 2 fuel oil as ignitor ^a	8760	2.1 lb/mmBtu heat input			7875 (Unit 1) 10,069.5 (Unit 2)	34,492.5 (Unit 1) 44,104.4 (Unit 2)	Rules 62-213.440, F.A.C. and PPSC PA 77-09	A.8.
Lead	Used oil (Unit 2)	8760	1200 pounds in any consecutive 12-month period				0.6	Rules 62-4.070(3) and 62-213.440, F.A.C.	A.15

Note for Units 1 and 2:

a Used oil may be used as a fuel for Unit 2 pursuant to specific condition A.15 and other conditions of this permit.

Appendix S
Permit Summary Tables

Table 1-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
004	Fossil Fuel Steam Generator, Unit No. 4
003	Fossil Fuel Steam Generator, Unit No. 5

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions ^{1, b}		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
PM	Coal ^a	8760	0.10 lb/mmBtu			666.5	2919.3	40 CFR 60.42(a)(1) & (2)	B.4.
VE	Coal ^a	8760	20% opacity (except for one six-minute period per hour of 27% opacity)					40 CFR 60.42(a)(1) & (2)	B.4.
SO ₂	Coal ^a	8760	0.80 lb/mmBtu for liquid fossil fuel 1.2 lb/mmBtu for solid fossil fuel			5332 (liquid) 7998 (solid)	23,354.2 (liquid) 35,031.2 (solid)	40 CFR 60.43(a), (b) and (c), and PPSC PA 77-09	B.5.
NO _x	Coal ^a	8760	0.30 lb/mmBtu for liquid fossil fuel 0.70 lb/mmBtu for solid fossil fuel			1999.5 (liquid) 4665.5 (solid)	8757.8 (liquid) 20,434.9 (solid)	40 CFR 60.44(a)(2) and (3), and (b), and PPSC PA 77-09	B.6.

Notes for Units 4 and 5:

a Number 2 fuel oil allowed as a startup fuel and natural gas allowed as a startup and low-load flame stabilization fuel.

b Equivalent emissions are for each emission unit.

Appendix S
Permit Summary Tables

Table 1-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
006	Fly ash transfer (Source 1) from Fossil Fuel Steam Generator (FFSG) Unit 1.
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2.
009	Fly ash transfer (Source 4) from FFSG Unit 2.
010	Fly ash transfer (Source 5) from FFSG Unit 2.

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions ¹		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
Fly Ash for Unit 006		8760		3.5	15.4			BACT, AC 09-256791	C.2.
Fly Ash for Unit 008		8760		0.6	2.6			BACT, AC 09-256791	C.2.
Fly Ash for Unit 009		8760		2.2	9.6			BACT, AC 09-256791	C.2.
Fly Ash for Unit 010		8760		2.2	9.6			BACT, AC 09-256791	C.2.
VE for Units 006, 008, 009 & 010		8760	5% opacity					Rule 62-297.620(4), F.A.C., AC 09-256791	C.2. & C.3.

Appendix S
Permit Summary Tables

Table 1-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
014	Bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points).

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
VE		8760	20% opacity					Rule 62-296.320(4)(b)1, F.A.C.	D.2.

Appendix S
Permit Summary Tables

Table 1-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
012	Three Relocatable Diesel Fired Generators.

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
VE	Number 2 fuel oil, max. 0.5 wt. % S	2970	20% opacity					Rule 62-296.320(4)(b)1., F.A.C.; and AO 09-205952	E.5.
SO ₂	Number 2 fuel oil, max. 0.5 wt. % S	2970	Maximum 0.5% S by weight			13.2	19.8	Rule 62-213.410, F.A.C.	E.3

Note for emissions unit 012:

Equivalent emissions are for all three diesel generators combined.

Appendix S
Permit Summary Tables

Table 1-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
013	Cooling towers for FFSG Units 1, 2, and 3, used to reduce plant discharge water temperature.

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
PM		4320		11.9, each cell		428, all cells	925, all cells	Rule 62-213.440, F.A.C., AC 09-162037 (PSD-FL-139)]	F.3.

Emissions Unit	Brief Description
015	Cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature.

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
PM		8760		175, each tower			766.5, each tower	Rule 62-213.440, F.A.C.; Modified PSD permit, PSD-FL-007	G.2.

Appendix S
Permit Summary Tables

Table 1-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit		Brief Description							
016		Material handling activities for coal-fired steam units.							
Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions ¹		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb./hour	TPY	lb./hour	TPY		
VE		8760	20 % opacity					40 CFR 60.252 (Units 4 and 5) and PPSC PA77-09 (Units 1, 2, 4 and 5)]	H.1 & H.2
PM		8760	Practices described in the Best Management Plan					AC 09-162037, PSD-FL-139 specific condition 3	H.3

Notes for all tables:

¹ The "Equivalent Emissions" listed are for informational purposes only.

NA = not applicable

Appendix S
Permit Summary Tables

Table 2-1, Summary of Compliance Requirements

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
001	Fossil Fuel Steam Generator, Unit No. 1
002	Fossil Fuel Steam Generator, Unit No. 2

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
PM VE	Coal No. 2 fuel oil as ignitor ^a	EPA Methods 17 or 5 EPA Method 9	Annual Annual	June 1st June 1st	3 hours 1 hour	-- Yes	A.9, A.13
SO ₂	Coal No. 2 fuel oil as ignitor ^a	EPA Methods 6, 6A, 6B, or 6C.	Each year fuel sampling not performed	June 1st, if required	3 hours	No	A.10
SO ₂	Coal No. 2 fuel oil as ignitor ^a	Fuel sampling and analysis	As fired			--	A.11, A.12
Lead	Used oil (Unit 2)	Sampling and analysis	As fired			--	A.15

Note for Units 1 and 2:

a Used oil may be used as a fuel for Unit 2 pursuant to specific condition A.15 and other conditions of this permit.

Appendix S
Permit Summary Tables

Table 2-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
004	Fossil Fuel Steam Generator, Unit No. 4
003	Fossil Fuel Steam Generator, Unit No. 5

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
VE	Coal ^a	EPA Method 9	Annual	June 1st	1 hour	Yes	B.8, B.12
PM	Coal ^a	EPA Methods 5 and 17	Annual	June 1st	3 hours	--	B.8, B.12
SO ₂	Coal ^a	EPA Methods 6, 6A, 6C	Annual	June 1st	3 hours	Yes	B.8, B.12
NO _x	Coal ^a	EPA Methods 7, 7A, 7C, 7D, 7E	Annual	June 1st	3 hours	Yes	B.8, B.12

Note for Units 4 and 5:

a Number 2 fuel oil allowed as a startup fuel and natural gas allowed as a startup and low-load flame stabilization fuel.

Appendix S
Permit Summary Tables

Table 2-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
006	Fly ash transfer (Source 1) from Fossil Fuel Steam Generator (FFSG) Unit 1.
008	Fly ash storage silo (Source 3) for FFSG Units 1 and 2.
009	Fly ash transfer (Source 4) from FFSG Unit 2.
010	Fly ash transfer (Source 5) from FFSG Unit 2.

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
VE	NA	EPA Method 9	Annual	June 1st	Thirty minutes	No	C.5.

Emissions Unit	Brief Description
014	Bottom ash storage silo for FFSG Units 1 and 2, with associated vacuum blower exhausts and bin vent filter (total of three emission points).

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
VE	NA	EPA Method 9	Annual	June 1st	Thirty minutes	No	D.4.

Appendix S
Permit Summary Tables

Table 2-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit		Brief Description					
012		Three Relocatable Diesel Fired Generators					
Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
SO ₂	Number 2 Fuel Oil	Fuel Sulfur Analysis, ASTM D2622-94, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s)	Upon each fuel delivery			--	E.6, E.8
VE	Number 2 Fuel Oil	EPA Method 9	Annual Not required when burned liquid fuels for less than 400 hours in the previous year	October 25th	Thirty minutes	No	E.7, E.10
VE & SO ₂	Number 2 Fuel Oil	After each relocation, each generator shall be tested within 30 days of startup for opacity and the fuel shall be analyzed for the sulfur content	After relocation				E.11

Appendix S
Permit Summary Tables

Table 2-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit		Brief Description					
013		Cooling towers for FFSG Units 1, 2, and 3, used to reduce plant discharge water temperature.					
Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
PM	NA	EPA Method 5	See note (a) of this table	See note (a) of this table	3 hours	No	F.5.

Note for Emissions Unit 013:

(a) Testing frequency is on June 30, 1998 and every five years thereafter, unless actual emissions exceed 80% of allowable, in which case compliance testing is required every 30 months until actual emissions are less than 80% of allowable.

Appendix S
Permit Summary Tables

Table 2-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
015	Cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature.

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
PM	NA	Sensitive paper method	See note (a) of this table	See note (a) of this table		No	G.3.
Inspection of the drift eliminators	NA	By Florida Power Corporation staff or representatives	not less than every three months				G.5.
Inspection of the towers	NA	By a manufacturer of drift eliminators or by a consultant with recognized expertise in the field	Not less than annually				G.5.

Note for Emissions Unit 015:

(a) The Unit 4 cooling tower shall be tested every five years from 1989 (the next required year from the effective date of this permit is 1999) between October 1st and December 31st. The Unit 5 cooling tower shall be tested every five years from 1992 (the next required year from the effective date of this permit is 1997) between January 1st and May 1st.

Appendix S
Permit Summary Tables

Table 2-1, Continued

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
016	Material handling activities for coal-fired steam units.

No regular testing of Emissions Unit 016 is required.

Notes for all tables:

¹ Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

² CMS = continuous monitoring system

NA = not applicable

Appendix TV-1, the Title V Core Conditions, has been provided only to the applicant. The most recent version of these conditions may be obtained from the Department's Internet Web site at:

<http://www.dep.state.fl.us/air/>

If you do not have access to the Internet and would like a copy of Appendix TV, please contact Joseph Kahn, P.E., Department of Environmental Protection, Division of Air Resources Management, Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400, 850/488-1344.

An electronic version of this permit is also available from the Department's Internet Web site above.

Phase II Permit Application

Page 1

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is: ☒ New ☐ Revised

STEP 1

Identify the source by plant name, State, and ORIS code from NADB

Crystal River, FL, 628

Compliance Plan

STEP 2
Enter the boiler ID# from NADB for each affected unit, and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e

a	b	c	d	e
Boiler ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
1	Yes	No		
2	Yes	No		
4	Yes	No		
5	Yes	No		
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

STEP 3
Check the box if the response in column c of Step 2 is "Yes" for any unit



For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Plant Name (from Step 1)
Crystal River

STEP 4
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements

Permit Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the permitting authority; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from Step 1)
Crystal River

Recordkeeping and Reporting Requirements (cont.)

- (iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

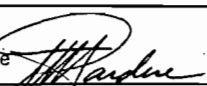
- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name <i>W. Jeffrey Pardue, C.E.P., Director, Environmental Services Dept.</i>	
Signature 	Date <i>12/14/95</i>

STEP 5 (optional)
Enter the source AIRS
and FINDS identification
numbers, if known

AIRS
FINDS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

APR 07 1997

4APT-ARB

RECEIVED

APR 10 1997

BUREAU OF
AIR REGULATION

Mr. W. Jeffrey Pardue
Designated Representative
Florida Power Corporation
3201 Thirty-fourth Street South
P.O. Box 14042
St. Petersburg, Florida 33733

Dear Mr. Pardue:

Enclosed you will find the draft Phase I Acid Rain permit issued by the U.S. Environmental Protection Agency on March 27, 1997, for the affected sources in your nitrogen oxides early election compliance plan. This permitting action will become final 40 days after a notice is published in the Federal Register or local newspaper, whichever is later, unless adverse comment is received within 30 days after publication. Notice of this permitting action is scheduled for publication on April 11, 1997.

Your cooperation has been appreciated. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 562-9127.

Sincerely,


for R. Douglas Neeley
Chief

Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

Enclosure

cc: Mike Kennedy, Florida Power
Tom Cascio, Florida DEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

PHASE I ACID RAIN PERMIT For NO_x Early Election

Issued to: Crystal River Plant
Operated by: Florida Power Corporation
Effective: January 1, 1997 through December 31, 1999

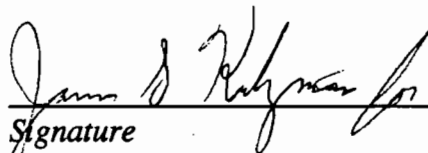
This page will be replaced to document new EPA actions each time a new action is taken by the Agency. This is the initial permitting action:

Summary of Previous Actions

None.

Present Action

1. Permit, including the NO_x early election compliance plan, issued as a direct final permit for Units 2, 4, and 5. This action will become final 40 days after notice in the Federal Register or local newspaper, whichever is later, unless adverse comment is received within 30 days after publication.
(See page 1)


Signature

3/27/97
Date

Winston A. Smith
Director, Air, Pesticides and Toxics Management Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
Telephone: (404) 562-9077 Facsimile: (404) 562-9095



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

**ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104**

PHASE I ACID RAIN PERMIT For NO_x Early Election

Issued to: Crystal River Plant
Operated by: Florida Power Corporation
Effective: January 1, 1997 through December 31, 1999

The Acid Rain Permit comprises the following:

1. The statement of basis containing:

Part A, with references to statutory and regulatory authorities, and comments, notes and justifications that apply to the source in general; and

Part B, for each Early Election unit at this source:

- a NO_x compliance plan; and,
- comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements.

2. The permit application forms that this source submitted, as corrected by EPA. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

Statement of Basis. Part A

Page 2

Plant Name: Crystal River Plant
State: Florida
ORIS Code: 0628

Statutory and Regulatory Authorities. In accordance with Title IV of the Clean Air Act Amendments of 1990, the U. S. Environmental Protection Agency issues this permit pursuant to 40 CFR part 72, subparts E and F, and part 76.

For further information contact:

Scott Davis, Acid Rain Contact
U.S. EPA, Region 4
Air, Pesticides and Toxics Management Division
Telephone: (404) 562-9127
Facsimile: (404) 562-9095

Comments, notes and justifications that apply to the source in general:

None.

R. SCOTT DAVIS

Permit Reviewer

R. Scott Davis

Signature

3/24/97

Date

Plant Name: Crystal River Plant

State: Florida

ORIS Code: 0628

Boiler ID#: 2

NO_x Compliance Plan

EPA approves a nitrogen oxides early election plan for this unit for 1997-2007 under which this unit's annual average NO_x emission rate for each year, determined using the methods and procedures specified in 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.5(a), of 0.45 lbs/mmBtu for tangentially fired units. If this unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to any revised NO_x emission limitation for Group 1 boilers that the Administrator may issue pursuant to section 407(b)(2) of the Act, until January 1, 2008.

Comments, notes and justifications regarding permit decisions, and changes made to the permit application forms during the review process:

None.

R. SCOTT DAVIS

Permit Reviewer



Signature

3/24/97

Date

Statement of Basis. Part B

Page 4

Plant Name: Crystal River Plant

State: Florida

ORIS Code: 0628

Boiler ID#: 4

NO_x Compliance Plan

EPA approves a nitrogen oxides early election plan for this unit for 1997-2007 under which this unit's annual average NO_x emission rate for each year, determined using the methods and procedures specified in 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.5(a), of 0.50 lbs/mmBtu for dry bottom wall-fired units. If this unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to any revised NO_x emission limitation for Group 1 boilers that the Administrator may issue pursuant to section 407(b)(2) of the Act, until January 1, 2008.

Comments, notes and justifications regarding permit decisions, and changes made to the permit application forms during the review process:

None.

R. SCOTT DAVIS

Permit Reviewer



Signature

3/24/97

Date

Plant Name: Crystal River Plant
State: Florida
ORIS Code: 0628
Boiler ID#: 5

NO_x Compliance Plan

EPA approves a nitrogen oxides early election plan for this unit for 1997-2007 under which this unit's annual average NO_x emission rate for each year, determined using the methods and procedures specified in 40 CFR part 75, shall not exceed the applicable emission limitation under 40 CFR 76.5(a), of 0.50 lbs/mmBtu for dry bottom wall-fired units. If this unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to any revised NO_x emission limitation for Group 1 boilers that the Administrator may issue pursuant to section 407(b)(2) of the Act, until January 1, 2008.

Comments, notes and justifications regarding permit decisions, and changes made to the permit application forms during the review process:

None.

R. SCOTT DAVIS
Permit Reviewer

R. Scott Davis
Signature

3/24/07
Date

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of:)
)
Petition for Reduction in)
Semiannual Particulate)
Emissions Compliance Testing,) OGC File No. 86-1576
Crystal River Unit No.1;)
Florida Power Corporation)
)
Petitioner.)
)

ORDER

On February 18, 1986, the Petitioner, Florida Power Corporation, filed a Petition for Reduction in the Frequency of Particulate Emissions Compliance Testing pursuant to Florida Administrative Code Rule 17-2.600(5)(b)1. for the following fossil fuel steam generating unit:

Crystal River Unit No.1

Pursuant to Florida Administrative Code Rule 17-2.600(5)(b)1., and by Order dated November 7, 1982, Petitioner has conducted semiannual particulate emission compliance tests. Florida Administrative Code Rule 17-2.600(5)(b)1. provides that the Department may reduce the frequency of particulate testing upon a demonstration that the particulate standard of 0.1 pound per million Btu heat input has been regularly met. The petition and supporting documentation submitted by Petitioner indicate that, since February 25, 1982, Petitioner has regularly met the particulate standard. It is therefore,

ORDERED that the Petition for Reduction in the Frequency of Particulate Emissions Compliance Testing is GRANTED. Petitioner may immediately commence testing on an annual basis. Test results from the first regularly scheduled compliance test conducted in FY 87 (October 1, 1986 - September 30, 1987), provided the results of that test meet the particulate standard and the 40% opacity standard, shall be accepted as results from

meet either the particulate standard or the 40% opacity standard in the future shall constitute grounds for revocation of this authorization.

Persons whose substantial interests are affected by the above proposed agency action have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on the proposed action. The Petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Persons whose substantial interests will be affected by any decision of the Department have the right to intervene in the proceeding. A petition for the intervention must be filed pursuant to Model Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the Hearing Officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no Hearing Officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a

Best Available Copy

waiver of any right such person has to an administrative determination (hearing) under Section 120.57, Florida Statutes.

DONE AND ORDERED this 11th day of Dec, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

C. Hutchins

Clerk

12-12-86

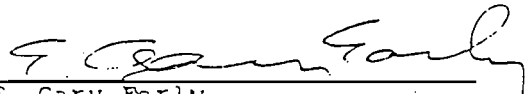
Date

VICTORIA J. TSCHINKEL
Secretary

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida
32399-2400
Telephone (904)488-9730

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing ORDER has been furnished by United States Mail to J.A. Hancock, Vice President, Fossil Operations, Florida Power Corporation, Post Office Box 14042, St. Petersburg, Florida 33733; on this 12 day of December, 1986, in Tallahassee, Florida.


E. Gary Early
Assistant General Counsel

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida
32399-2400
Telephone (904)488-9730

Best Available Control Technology (BACT) Determination
Helper Cooling Towers
Florida Power Corporation
Citrus County

The applicant proposes to install four helper cooling towers at the Crystal River power plant located eight miles northwest of Crystal River, Florida. The cooling towers will be constructed to maintain the discharge water temperature at the plant site to a level which complies with the facility's National Pollutant Discharge Elimination System (NPDES) permit limitations. Prior difficulties with complying with the NPDES outflow temperature limitation have initiated this requirement by the Environmental Protection Agency (EPA) that the cooling towers be constructed to maintain the proper temperature.

The applicant has indicated the maximum total annual tonnage of regulated air pollutants emitted from the four cooling towers based on 4,320 hours per year operation to be as follows:

Pollutant	Maximum Emissions		PSD Significant Emission Rate tons/yr
	lbs/hr Per cell	tons/yr All 36 cells	
Particulate Matter	11.89	925	25
PM ₁₀	5.94	214 (estimate)	15

Rule 17-2.500(2)(f)2. of the Florida Administrative Code requires a BACT review for all regulated pollutants emitted from major facilities in an amount equal to or greater than the significant emission rates listed in the previous table.

BACT Determination Requested by the Applicant

The BACT Determination requested by the applicant is given below:

<u>Pollutant</u>	<u>Determination</u>
Particulate Matter (includes PM ₁₀)	Drift Eliminators (99.8% efficient)

Date of Receipt of a BACT Application

March 9, 1989

Review Group Members

This determination was based upon comments received from the applicant and the Permitting and Standards Section.

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, this BACT determination will be based on the maximum degree of reduction of each pollutant emitted which the Department, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination, the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Analysis

A review of the BACT/LAER Clearinghouse does not indicate that BACT determinations have previously been completed for cooling towers.

Evaporative cooling towers are used to provide waste heat rejection at electric power stations in order to improve efficiency and to lower cooling water discharge temperatures to environmentally safe levels. When brackish or saline water is used for cooling purposes there is typically drift emitted from the cooling tower. Drift is defined as the current of water droplets which are mechanically entrained in the cooling tower exhaust flow. Thus, it has a chemical composition similar to the circulating water in the cooling tower.

The Crystal River power units (1-3) use water obtained from the Gulf of Mexico for cooling purposes. In order to minimize the drift emitted from the towers, drift eliminators capable of controlling drift to 0.004 percent of the circulating water have been proposed.

Drift eliminators operate on the principle of centrifugal separation by causing the cooling tower exhaust stream to pass through curved ducts, with the heavy water droplets becoming trapped on the duct walls. Although vendors have guaranteed tower drift rates as low as 0.001 percent, consideration must be given to the test methods that support these guarantees.

There are several test methods that have been used or have been proposed for use to quantify drift rates. These methods are listed as follows:

- 1) Sensitized Paper
- 2) EPA Method 13A
- 3) EPA Method 5
- 4) Heated Glass Beads Isokinetic Method

The applicant has indicated that each of the mist eliminator vendors who submitted proposals guaranteed a drift rate of 0.001 percent based on the sensitive paper testing method. The sensitized paper method essentially uses the same principal to capture particulates as the mist eliminators themselves. In this method droplet collection is achieved by inertial impaction on water sensitive paper. The paper, which is chemically treated, is suspended above the mist eliminators such that droplets from the cooling tower will impinge upon the paper and generate a well-defined stain. The size and shape of the stain are functions of the impingement dynamics, i.e., speed and angle, and of the original droplet diameter. Based on simulation, a relationship between the stain and the droplet size has been developed.

Although the sensitized paper method has been widely used for drift measurements, it does have a major drawback. Testing has indicated that the sensitized paper method cannot provide data on droplet sizes below about 20-30 microns. Droplets with sizes below this range do not have the mass necessary to be captured by inertial impaction. These droplets tend to exhibit the same characteristic as the gaseous portion of the cooling tower exhaust and pass around the sensitive paper without being captured. This situation can be avoided to some degree by using methods which utilize isokinetic sampling.

Isokinetic sampling methods utilize equipment which allow samples to be drawn from a gas stream with a sampling velocity which is essentially equivalent to the velocity of the gas stream itself, and consequently the tendency for small particles to pass around the sampling device is minimized, thereby allowing the smallest particles to be captured. EPA Methods 13A and 5 and the heated glass beads method utilize the equipment necessary to perform sampling isokinetically.

A review of the isokinetic sampling methods used for sampling cooling towers indicates much variability. Testing results from one cooling tower indicates drift rates ranging from 0.0039 to 0.344 percent using repeated EPA Method 13A testing. This variability suggests that a drift limitation backed by EPA Method 13A testing may result in compliance problems which originate from faults with the test method itself.

Previous testing with the heated glass bead method indicates a testing variability which is much less than that which has been demonstrated by EPA Method 13A. The majority of the testing that has been conducted on cooling tower drift has been completed with either the heated glass bead or sensitized paper method. Based on the amount of data and the level of variability experienced, the heated glass bead method may have a stronger basis for backing a given drift limitation.

EPA Method 5 is another testing method that should be considered. Although EPA Method 5 has not been used previously for cooling tower drift measurement, the EPA believes that this method would yield results which are less variable than EPA Method 13A and would be more in line with the heated glass bead method.

Based on EPA's recommendation, the applicant has conducted recent testing using EPA Methods 5, 13A, and the Hot Bead Isokinetic Test Procedure. The study confirmed EPA's notion and established Method 5 as the preferred test method.

The Method 5 testing indicated that a test cell drift rate of 0.0004% can be achieved under the optimum configuration. This drift rate is based on a limited number of tests. Factors, affecting drift rate when scaling up from a test cell to full scale application, indicate that the drift rate will increase 5 fold. In addition, when comparing any two test results achieved with a specific design configuration, the results between tests varied by a factor of 2. To allow an adequate margin for the test uncertainty, scale-up factors, and operation/maintenance margin, FPC proposes that the permitted drift limit be 0.004%.

Environmental Impact Analysis

A review of the proposed cooling tower installations should account for the uniqueness of this particular project from an environmental standpoint. There are two factors that need to be considered:

- 1) The overall benefit of constructing the cooling towers
- 2) The existing background concentrations

As noted in the introduction of this determination, the proposal to construct the helper cooling towers is directed at complying with the EPA's request to reduce the outlet temperature of the cooling water used for units 1, 2, and 3. As this is the case, the proposal should be evaluated from the standpoint of providing an overall benefit to the environment and not the potential air impacts only.

It should be noted that although the cooling towers will emit particulates in the form of salt, the overall contribution to the area from the towers will be minimal. The Crystal River Power Facility is located approximately one mile from the Gulf of Mexico. It is expected that the natural contributions of salt deposition from wave action to this area will be substantially greater than that which would be emitted from the cooling towers.

BACT Determination by DER

Based on the information presented by the applicant and the Department's subsequent review, the Department believes that BACT is represented by using state-of-the-art drift eliminators and by limiting the drift rate to 0.004 percent, with EPA Method 5 or a departmental approved equivalent using the Alternate Sampling Procedure to be used as the basis for compliance.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

C. H. Fancy
C. H. Fancy, P.E., Chief
Bureau of Air Regulation

August 21 1990
Date

Approved by:

Dale Twachtman
Dale Twachtman, Secretary
Dept. of Environmental Regulation

29 August 1990
Date

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices
And/Or To Other Than The Addressee

To: _____	Locn.: _____
To: _____	Locn.: _____
To: _____	Locn.: _____
From: _____	Date: _____

TO: Victoria J. Tschinkel
FROM: Victoria Martinez *Victoria Martinez*
DATE: January 26, 1979
SUBJECT: BACT Determination, Florida Power Corporation
Units 1 and 2 Fly Ash Handling System,
Crystal River Plant, Citrus County

Facility: A fly ash handling system modifying the existing hydraulic system such that the fly ash generated by coal fired operation of Units #1 and #2 can be conveyed in a dry state to a storage silo providing for truck disposal. Currently, ash from unit #2 is hydraulically sluiced to an ash holding pond. The modification to handle fly ash as a dry material will include unit #1, to be converted from oil to coal in March, 1979. Fly ash particulate emission from the facilities are controlled by the following:

Source 1: Bag filter for unit 1 conveying line
Source 2: Bag filter for transfer silo vent
Source 3: Bag filter for storage silo vent

BACT Determination Requested by the Applicant:

Particulate*	lbs/hr.	tons/yr.**
Source 1	3.52	15.4
Source 2	0.03	0.13
Source 3	0.59	2.58

*Emission levels to be attained with 99.9+% efficient bag dust collectors

**Based on 100% continuous load

Date of Receipt of a Complete BACT Application:

November 16, 1978

Victoria J. Tschinkel
Page Two
January 26, 1979

Date of Publication in the Florida Administrative Weekly:

December 1, 1978

Date of Publication in a Newspaper of General Circulation:

May 5, 1978

Study Group Members:

Frank Darabi, DER St. Johns River Subdistrict, Gainesville;
Mike Harley, DER Bureau of Air Quality Management, Tallahassee;
George Layman, Gulf Power Company, Pensacola;
Dave Puchaty/
William Brown, DER Southwest District, Tampa

Study Group Recommendations:

	Particulate			Opacity
	Source 1	Source 2	Source 3	
Frank Darabi	Baghouse with 99.9+% efficiency/filter velocities should be checked when permit is issued to insure it is within acceptable limits; alarm system for bag blinding or bag tearing should be considered			N.R.*
Mike Harley	3.52 lbs/hr baghouse	0.03 lbs/hr baghouse	0.59 lbs/hr baghouse	N.R.*
George Layman	Baghouse is "State of the Art"			N.R.*
William Brown	3.52 lbs/hr baghouse	0.03 lbs/hr baghouse	0.59 lbs/hr baghouse	5%

*N.R. No response

Victoria Tschinkel

Page Three

January 26, 1979

BACT Determination by Florida Department of Environmental Regulation:

Particulate lbs/hr.

Source 1 3.52 Attainable with 99.9+% efficient bag dust collector

Source 2 0.03 Attainable with 99.9+% efficient bag dust collector

Source 3 0.59 Attainable with 99.9+% efficient bag dust collector

Opacity Less than 5%

Test Method: EPA's methods 1 - 5 as described in the August 17, 1977 Federal Register

Justification of DER Determination:

The low emission limitation determined as BACT for this fly ash handling system represents 99.9+% efficiency of control with the applicant's proposed bag dust collector. The reliability of the bag dust collector is well established and its efficiency is not surpassed by any other particulate pollution control device for the service proposed.

Details of Analysis May be Obtained by Contacting:

Victoria Martinez, BACT Coordinator
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Recommendation from: Bureau of Air Quality Management

by: J. P. Subramani
J. P. Subramani

Date: JANUARY 30, 1979

Approved by: Victoria J. Tschinkel
Victoria J. Tschinkel

Date: February 5, 1979

VJT:es

Attachment

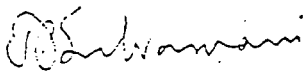
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices
And/Or To Other Than The Addressee

To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Jacob D. Varn
Secretary

FROM: J. P. Subramani, Chief 
Bureau of Air Quality Management

DATE: August 16, 1979

SUBJECT: BACT Determination - Florida Power Corporation
Unit #2 Fly Ash Handling and Storage System,
Crystal River Plant, Citrus County

Facility: The existing Unit #2 electrostatic precipitator will be modified to include thirteen new fields. Along with this modification, the existing Unit #2 fly ash handling system will be changed to allow for storage of the ash in dry state. Currently ash from Unit #2 precipitator is hydraulically sluiced to an ash holding pond. In the modified system, the vacuum required to draw ash from the precipitator will be produced by vacuum blowers rather than by the existing hydroveyors. The two lines conveying the ash from the Unit #2 precipitator to the transfer silo will be vented to the atmosphere after each going through bag filters (sources #4 and #5).

BACT Determination Requested by the Applicant:

	Lbs/Er.	Tons/Year
Source #4	2.2	9.6
Source #5	2.2	9.6

Date of Receipt of a Complete BACT Application:

June 25, 1979

Date of Publication in the Florida Administrative Weekly:

August 3, 1979

Jacob D. Varn
Page Two
August 16, 1979

Date of Publication in a Newspaper of General Circulation:

August 5, 1979, St. Petersburg Times

Study Group Members:

A BACT determination on Unit #1 conveying line was completed January 30, 1979. There have been no significant technological improvements since that date. Thus we apply the same BACT, which obviates the need for a study group.

BACT Determination by the Department of Environmental Regulation:

Particulate	Lbs/Hr.	
Source #4	2.2	Attainable with a 99.9+% efficient bag dust collector
Source #5	2.2	Attainable with a 99.9% efficient bag dust collector
Test Method:		Methods 1 through 5, Title 40, Part 60 of the Code of Federal Regulations.

Justification of DER Determination:

A BACT determination on a Florida Power Unit #1, Fly Ash Handling system was completed in January 1979. There has been no significant improvement in technology since that date, and the low emission limitation determined as BACT for the fly ash conveying lines for Unit #2 represent 99.9% efficiency.

Details of the Analysis May be Obtained by Contacting:

Victoria Martinez, BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Jacob D. Varn
Page Three
August 16, 1979

Recommendation from: Bureau of Air Quality Management

by: J. P. Subramani
J. P. Subramani

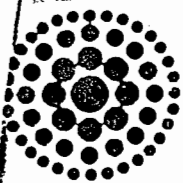
Date: AUGUST 20 1979

Approved by: Jacob D. Varn
Jacob D. Varn

Date: 21st AUGUST 1979

JDV/es

Attachment



Florida
Power
CORPORATION

INTEROFFICE CORRESPONDENCE

Environmental & Licensing AffairsH2G231-4491

Office

MAC

Telephone

SUBJECT: See Below

TO: J. H. Lander
Ed Carnahan
W. E. Dudley
H. D. Douglas

DATE: November 21, 1990

Attached is a copy of the final Best Management Plan for fugitive emissions at the Crystal River site. This plan was developed to provide guidance to site management with respect to controlling fugitive emissions. Control of fugitive emissions is required as part of the PSD Air Construction permit for the helper cooling towers (ACO9-162037).

Implementation of the plan including any administrative procedures which are necessary is the responsibility of site management. Please contact me at 231-4387 if you have any questions.

W. Jeffrey Pardue

Attachment

cc: P. K. Blizzard - w/o attachment
R. C. Bonner - w/o attachment
D. A. Shantz - w/o attachment
S. H. Osbourn - w/attachment
R. O. Frazee - w/attachment

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File: CRSA.1.2
CRNA.1.2

**BEST MANAGEMENT PLAN
FOR CONTROL OF FUGITIVE DUST
AT FPC'S CRYSTAL RIVER PLANT**

Prepared For:

**Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33711**

Prepared By:

**KBN Engineering and Applied Sciences, Inc.
1034 NW 57th Street
Gainesville, Florida 32605**

**November 1990
90062B1**

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SUMMARY OF BEST MANAGEMENT PLAN (Page 1 of 2)

Plant Area	Control Method		
	Level 1	Level 2	Level 3
<u>CR 1/2 Coal Storage Pile</u>			
Active Coal Pile	Water once per hour	Water twice per hour	Apply chemical dust control agent
Inactive Coal Pile	Water with natural drying to form crust	Apply chemical binder, sealer, or crusting agent	- -
<u>CR 1/2 Ash Storage Areas</u>			
Active Ash Area	Water as needed	Apply chemical dust control agent	Cease all activities
Inactive Ash Area	Water with natural drying to form crust	Apply chemical binder, sealer, or crusting agent	- -
<u>CR 4/5 Coal Storage Pile</u>			
Active Coal Pile	Water once per hour	Water twice per hour	Apply chemical dust control agent
Inactive Coal Pile	Water with natural drying to form crust	Apply chemical binder, sealer, or crusting agent	- -
<u>CR 4/5 Ash Storage Area</u>			
Active Ash Area	Water as needed	Apply chemical dust control agent	- -
Inactive Ash Area	Water with natural drying to form crust	Apply chemical binder, sealer, or crusting agent	- -

SUMMARY OF BEST MANAGEMENT PLAN (Page 2 of 2)

Plant Area	Control Method		
	Level 1	Level 2	Level 3
<u>Site Haul Roads</u>			
Unpaved Haul Road	Water as needed	Apply chemical dust control agent	Reduce or eliminate traffic on haul road
Paved Haul Road	Water as needed	Use street vacuum to remove particulate matter from roadway cover trucks to prevent dust emissions	Reduce or eliminate traffic on haul road
<u>Coal Transfer Points</u>			
CR 1/2, CR 4/5	Operate baghouses on transfer points	Apply water at transfer points	Apply chemical dust control agent
<u>Ash Transfer Silos</u>			
CR 1/2, CR 4/5	Evaluate and implement maintenance measures to achieve control if necessary	Apply water at transfer point	Apply chemical dust control agent at transfer point
<u>Aardelite Plant</u>			
Product Loadout, Storage and Loading	Operate water spray system	Manually apply additional water as needed	Apply chemical dust control agent at transfer points.

1.0 INTRODUCTION

1.1 NEED FOR A BEST MANAGEMENT PLAN

Florida Power Corporation (FPC) was recently granted a construction permit by the Florida Department of Environmental Regulation (FDER) which allows FPC to construct helper cooling towers at the Crystal River power plant. The construction permit, permit No. AC09-162037, was issued by FDER on August 29, 1990. Specific Condition 3 of the permit requires that fugitive dust emissions generated at the Crystal River power plant be controlled as described in the permit application. The fugitive dust sources identified in the application and the required controls are listed in Table 1-1. This information was contained in reports prepared by KBN Engineering and Applied Sciences, Inc. (KBN) (KBN, 1989a, 1989b, 1990), and submitted as part of the permit application.

In addition, Specific Condition 7 of the permit requires that FPC comply with all applicable provisions of Chapter 17-2, Florida Administrative Code (F.A.C.). One important provision of these rules is that reasonable precautions be taken to prevent emissions of fugitive dust (Chapter 17-2.600, F.A.C.). Reasonable precautions are stated to include such control measures as enclosures, watering, paving, etc. but are not limited to these control measures.

FPC must demonstrate compliance with the above described permit conditions. Because of the general nature of the permit conditions, and the potential uncertainty in determining the extent of controls necessary to comply with the requirements under all possible operating conditions, a plan is needed which defines procedures which plant personnel can follow. The plan should also define recordkeeping requirements, since the air pollution control agencies will desire documentation on specific reasonable precautions which have been implemented to minimize fugitive dust emissions. This plan is referred to as a Best Management Plan (BMP) for the control of fugitive dust emissions at the Crystal River power plant.

Table 1-1. Fugitive Dust Control Methods Presented in Construction Permit Application for FPC Crystal River Helper Cooling Towers

Source	Activity	Control Method	Estimated Control Efficiency (%)
<u>CR 1/2 Coal Storage Pile</u>			
Active Coal Pile	Wind erosion	Water	80
	Vehicular traffic	Water	80
Inactive Coal Pile	Wind erosion	Crusting agent	95
<u>CR 1/2 Ash Storage Areas</u>			
Active Ash Area	Wind erosion	Water	80
	Backhoe to truck transfer	None	0
Inactive Ash Area	Wind erosion	Crusting agent	95
<u>CR 4/5 Coal Storage Pile</u>			
Active Coal Pile	Wind erosion	Water	90
	Vehicular traffic	Water	80
Inactive Coal Pile	Wind erosion	Crusting agent	95
<u>CR 4/5 Ash Storage Area</u>			
Active Ash Area	Wind erosion	Crusting agent	95
	Vehicular traffic	Chemical stabilizer	95
Inactive Ash Area	Wind erosion	Chemical wetting agent	90
<u>Site Haul Roads</u>			
Unpaved Roads	Vehicular traffic	Chemical stabilizer	95
<u>Coal Transfer Points</u>			
CR 1/2, CR 4/5	Transfer points	Enclosure	90
<u>Ash Transfer Silos</u>			
CR 1/2, CR 4/5	Transfer points	Enclosure	90
<u>Aardelite Plant</u>			
	Transfer points/ storage pile	Water spray	90

1.2 OBJECTIVES OF THE BMP

Plant operating personnel at Crystal River will be responsible for implementing measures to comply with the permit conditions related to fugitive dust control. However, these personnel are generally not trained in air pollution control or in identifying air pollution problems. As a result, plant personnel need a simple, straight forward methodology for identifying when action is needed to adequately control fugitive dust emissions. The objective of the BMP is to identify specific indicators plant personnel can utilize to determine the necessity for further control, and to then provide a hierarchy of control options which can be implemented to comply with the intent of the permit conditions.

1.3 CONTENTS OF THE BMP

The BMP is divided into several sections, each of which deals with a specific section within the Crystal River plant. These include the coal and ash storage piles, ash loading system, site haul roads, and coal transfer system. Since these systems for Crystal River Units 1 and 2 are generally separated from the Units 4 and 5 systems, plant sections for each set of units are addressed separately. The Progress Materials Aardelite Plant, which is located on the Crystal River site, is also addressed in the BMP.

For each plant section, air pollution indicators are identified to allow plant personnel to determine if an air emission problem exists. Secondly, several fugitive dust control measures are presented to allow personnel to implement adequate control measures to mitigate the problem. These are presented in order of increasing control effectiveness. This will allow the personnel to first implement the least effective (and least costly) control alternative, but to proceed to more effective control options if necessary to mitigate the problem. Lastly, recordkeeping requirements are identified to provide documentation that FPC is applying reasonable precautions to prevent fugitive dust emissions, and is complying with the intent of the construction permit.

1.4 DEFINITIONS

In order to understand and implement the BMP for fugitive dust control, it is first necessary to define certain terms used in the BMP.

Fugitive dust -- emissions of particulate matter (dust) which originate from an unconfined source, such as a storage pile, roadway, transfer point, etc.

Visible emissions (VE) -- emissions of air pollutants which are visible to the naked eye. Visible emissions may range from slightly perceptible to a very dark, black color. Generally, the level of visible emissions correlates with the level of fugitive dust emissions.

2.0 CR 1/2 COAL STORAGE PILE

2.1 DESCRIPTION OF SOURCES

Sources of fugitive dust emissions associated with the CR 1/2 coal storage area consists of the following:

1. Active coal storage pile
 - a. Emissions due to wind erosion
 - b. Emissions due to mobile traffic
2. Inactive coal storage pile
 - a. Emissions due to wind erosion
 - b. Emissions due to vehicular traffic

Active storage pile areas are considered to be those areas of the pile which have been disturbed within the previous 30 days. These areas are more likely to result in fugitive dust emissions due to wind erosion and can also experience mobile (bulldozer) traffic with associated fugitive dust emissions. Fugitive dust emissions can range from none or little to heavy, depending on weather conditions and activity level in the pile area.

Inactive storage pile areas are those areas of the pile which have not been disturbed during the last 30 days. These areas are likely to develop natural crusting and may exhibit little or no fugitive dust emissions. Heavy dust emissions would only occur under extreme meteorological conditions, i.e., high wind speeds and dry conditions. Rainfall events can cause the inactive storage pile to erode, requiring mobile equipment to rework the pile. This traffic can also generate fugitive dust emissions.

2.2 CONDITIONS REQUIRING ACTION

Action should be taken whenever visible emissions are observed from the active or inactive coal storage piles. Visible emissions will be caused either by wind erosion or due to mobile or vehicular traffic.

2.3 MITIGATIVE MEASURES

The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed coming from the Units

1/2 coal storage pile area. It should first be verified that the emissions are indeed a result of wind erosion or mobile/vehicular traffic in the storage pile area. The control measures are listed in order of implementation. Level 1 control should be implemented first. If Level 1 control does not prevent the visible emissions, then Level 2 control should be implemented, and so on, until adequate control is achieved (i.e., no visible emissions).

Active coal pile

Level 1 - Water once per hour

Level 2 - Water twice per hour

Level 3 - Apply chemical dust control agent (i.e., agglomerating agent, surfactant etc.)

Inactive coal pile

Level 1 - Water followed by natural drying to form crust on pile

Level 2 - Apply chemical binder, sealer, or crusting agent

3.0 CR 1/2 ASH STORAGE AREAS

3.1 DESCRIPTION OF SOURCES

Sources of fugitive dust emissions associated with the CR 1/2 ash storage piles consist of the following:

1. Active bottom ash storage area (north or south)
 - a. Emissions due to wind erosion
 - b. Emissions due to vehicular traffic
2. Inactive bottom ash storage areas (north and south)
 - a. Emissions due to wind erosion

Generally at CR Units 1/2, there is an area within one of the two bottom ash storage areas that is active (i.e., bottom ash is being piled and transferred). These areas are likely to result in fugitive dust emissions due to wind erosion, vehicular traffic and material handling activities. Fugitive emissions can range from none or little to heavy, depending on weather conditions and activity level in the pile area.

Inactive bottom ash storage areas are the two bottom ash ponds designated North and South. These areas are likely to develop natural crusting and may exhibit little or no fugitive dust emissions. Heavy dust emissions would only occur under extreme meteorological conditions, i.e., high wind speeds and dry conditions.

3.2 CONDITIONS REQUIRING ACTION

Action should be taken whenever visible emissions are observed from the active or inactive ash storage areas. Visible emissions will be caused either wind erosion, vehicular traffic, or ash handling activities (i.e., front end loader, shovel, etc).

3.3 MITIGATIVE MEASURES

The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed coming from the Units 1/2 ash storage area. It should first be determined the exact source of the emissions, i.e., wind erosion, vehicular traffic, or material handling

device. The selected control measure should then be applied as appropriate to control the identified source. The control measures are listed in order of implementation. Level 1 control should first be implemented. If Level 1 control does not prevent the visible emissions, then Level 2 control should be implemented, and so on, until adequate control is achieved (i.e., no visible emissions).

Active ash area

Level 1 - Water as needed

Level 2 - Apply chemical dust control agent (i.e., agglomerating agent, surfactant, etc.)

Level 3 - Cease all activities

Inactive ash area

Level 1 - Water followed by natural drying to form crust on pile

Level 2 - Apply chemical binder, sealer, or crusting agent

4.0 CR 4/5 COAL STORAGE PILE

4.1 DESCRIPTION OF SOURCES

Sources of fugitive dust emissions associated with the CR 4/5 coal storage area consists of the following:

1. Active coal storage pile
 - a. Emissions due to wind erosion
 - b. Emissions due to mobile traffic
2. Inactive coal storage pile
 - a. Emissions due to wind erosion
 - b. Emissions due to vehicular traffic

Active storage pile areas are considered to be those areas of the pile which have been disturbed within the previous 30 days. These areas are more likely to result in fugitive dust emissions due to wind erosion, and can also experience vehicular traffic with the associated fugitive emissions. Fugitive emissions can range from none or little to heavy, depending on weather conditions and activity level in the pile area.

Inactive storage pile areas are those areas of the pile which have not been disturbed during the last 30 days. These areas are likely to develop natural crusting and may exhibit little or no fugitive dust emissions. Heavy dust emissions would only occur under extreme meteorological conditions, i.e., high wind speeds and dry conditions. Rainfall events may cause the inactive coal pile to erode, requiring mobile/vehicular traffic on the pile. These activities may also generate fugitive dust emissions.

4.2 CONDITIONS REQUIRING ACTION

Action should be taken whenever visible emissions are observed from the active or inactive coal storage piles. Visible emissions will be caused either by wind erosion or due to mobile/vehicular traffic.

4.3 MITIGATIVE MEASURES

The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed coming from the Units

4/5 coal storage pile area. It should first be verified that the emissions are indeed a result of wind erosion or mobile/vehicular traffic in the storage pile area. The control measures are listed in order of implementation. Level 1 control should be implemented first. If Level 1 control does not prevent the visible emissions, then Level 2 control should be implemented, and so on, until adequate control is achieved (i.e., no visible emissions).

Active coal pile

Level 1 - Water once per hour

Level 2 - Water twice per hour

Level 3 - Apply chemical dust control agent (i.e., agglomerating agent, surfactant, etc.)

Inactive coal pile

Level 1 - Water followed by natural drying to form crust on pile

Level 2 - Apply chemical binder, sealer, or crusting agent

5.0 CR 4/5 ASH STORAGE AREAS

5.1 DESCRIPTION OF SOURCES

Sources of fugitive dust emissions associated with the CR 1/2 ash storage piles consist of the following:

1. Active ash storage area
 - a. Emissions due to wind erosion
 - b. Emissions due to vehicular traffic
2. Inactive ash storage area
 - a. Emissions due to wind erosion
 - b. Emissions due to vehicular traffic

Generally at CR Units 4/5, there is an area of about 10 acres in size where ash is exposed to the atmosphere. The remaining ash storage area has been capped and sealed. Of the exposed area, the majority is in an inactive state (i.e., no active movement of ash). The active area is likely to result in fugitive dust emissions due to wind erosion, vehicular traffic, and material moving activities. Potential fugitive emissions are greater than the coal storage piles because the ash has a smaller particle size and generally contains less moisture compared to coal. Fugitive emissions can range from none or little to heavy, depending on weather conditions and activity level in the pile area.

The inactive portion of the ash storage area remains undisturbed for long periods of time (i.e., several weeks or more). These areas are likely to develop natural crusting and may exhibit little or no fugitive dust emissions. However, vehicular traffic may frequently travel over the inactive ash area, creating fugitive dust emissions. Due to the fine, dry nature of the ash, heavy dust emissions can occur at any time under dry or windy conditions.

5.2 CONDITIONS REQUIRING ACTION

Action should be taken whenever visible emissions are observed from the active or inactive ash storage areas. Visible emissions will be caused by either wind erosion, vehicular traffic, or ash handling activities (i.e., front end loader, shovel, etc.).

5.3 MITIGATIVE MEASURES

The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed emanating from the Units 4/5 ash storage area. It should first be determined the exact source of the emissions, i.e., wind erosion, vehicular traffic, or material handling device. The selected control measure should then be applied as appropriate to control the identified source. The control measures are listed in order of implementation. Level 1 control should be implemented first. If Level 1 control does not prevent the visible emissions, then Level 2 control should be implemented, and so on, until adequate control is achieved (i.e., no visible emissions).

Active ash area

Level 1 - Water as needed

Level 2 - Apply chemical dust control agent (i.e., agglomerating agent, surfactant, etc.)

Inactive ash area

Level 1 - Water followed by natural drying to form crust on pile

Level 2 - Apply chemical binder, sealer, or crusting agent

6.0 SITE HAUL ROADS

6.1 DESCRIPTION OF SOURCE

Crystal River plant haul roads include both unpaved limerock roads and paved roads. Fugitive dust emissions are due to vehicular traffic over these roadways. In the case of unpaved roads, the road surface itself is soil material, which can become airborne due to winds or vehicular traffic. Paved roads can also have soil, coal, or ash deposited on the surface, which then can become airborne. Fugitive emissions can range from none or little to heavy, depending on weather conditions and activity level on the roadway.

6.2 CONDITIONS REQUIRING ACTION

Action should be taken whenever visible emissions are observed from the roadway.

6.3 MITIGATIVE MEASURES

The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed emanating from site haul roads. The control measures are listed in order of implementation. Level 1 control should be implemented first. If Level 1 control does not prevent the visible emissions, then Level 2 control should be implemented, and so on, until adequate control is achieved (i.e., no visible emissions).

Unpaved haul road

Level 1 - Water as needed

Level 2 - Apply chemical dust control agent (i.e., agglomerating agent, surfactant, etc.)

Level 3 - Reduce or eliminate traffic on haul road, where possible

Paved haul road

Level 1 - Water as needed

Level 2 - Apply chemical dust control agent

Level 3 - Use street vacuum to remove particulate matter from roadway. In addition, cover trucks appropriately to prevent dust emissions from trucks

Level 4 - Reduce or eliminate traffic on haul road

7.0 COAL TRANSFER POINTS

7.1 DESCRIPTION OF SOURCES

Sources of fugitive dust emissions associated with the coal transfer points at the Crystal River power plant consist of a clamshell hopper for barge unloading, railcar dump facility, conveyor transfer points, coal crushers, and stacker/reclaimers. Most of the coal transfer points are enclosed and also have vents to baghouses. The baghouses are generally not operated since plant personnel have not observed appreciable visible emissions from these sources. Fugitive dust emissions are normally negligible from these sources due to the wet nature of the coal. However, fugitive emissions could occur due to dry coal and/or windy conditions.

7.2 CONDITIONS REQUIRING ACTION

Action should be taken whenever visible emissions are observed from the coal handling or transfer points.

7.3 MITIGATIVE MEASURES

The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed emanating from the coal transfer points. The control measures are listed in order of implementation. Level 1 control should first be implemented. If Level 1 control does not prevent the visible emissions, then Level 2 control should be implemented, and so on, until adequate control is achieved (i.e., no visible emissions).

- Level 1 - Operate baghouses already installed on transfer points
- Level 2 - Apply water at transfer points
- Level 3 - Apply chemical dust control agent (i.e., agglomerating agent, surfactant, etc.) at transfer points

8.0 ASH TRANSFER SILOS

8.1 DESCRIPTION OF SOURCES

Sources of fugitive dust emissions associated with the ash transfer points at the Crystal River power plant are the fly ash silo to truck transfer points located at both CR 1/2 and CR 4/5. These transfer points consist of a continuous drop operation which are controlled by wetting the ash and/or applying a surfactant, and utilizing a chute or sock for loading from silo to truck. Fugitive dust emissions are normally negligible from these sources due to the enclosed nature of the operation. However, fugitive emissions could occur due to the dry nature of the fly ash or due to equipment malfunction (i.e., faulty operation of water/surfactant applicator).

8.2 CONDITIONS REQUIRING ACTION

Action should be taken whenever visible emissions are observed from the fly ash coal transfer points.

8.3 MITIGATIVE MEASURES

The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed emanating from the fly ash transfer points. The control measures are listed in order of implementation. Level 1 control should first be implemented. If Level 1 control does not prevent the visible emissions, then Level 2 control should be implemented, and so on, until adequate control is achieved (i.e., no visible emissions).

Level 1 - Evaluate and implement, if necessary, maintenance measures to achieve dust control

Level 2 - Apply water at transfer points

Level 3 - Apply chemical dust control agent (i.e., surfactant, etc.) at transfer points

9.0 PROGRESS MATERIALS AARDELITE PLANT

9.1 DESCRIPTION OF SOURCES

The Progress Materials Aardelite Plant is an independently operated facility located on the Crystal River site. This facility has current air operating permits issued by FDER. The facility receives fly ash from FPC Crystal River Units 1 and 2 fly ash storage silo and mixes the ash with limestone to form solid pellets. These pellets are then transported by truck to offsite facilities. The fugitive dust sources associated with this facility include the following:

1. Conveyor stacker to storage pile,
2. Product storage pile,
3. Vehicular traffic (front-end loader),
4. Front-end loader to hopper transfer point,
5. Hopper to belt transfer point, and
6. Belt to truck transfer point.

A water spray system is installed on the conveyor stacker as a fugitive dust control measure.

9.2 CONDITIONS REQUIRING ACTION

The air operating permit which covers the fugitive dust sources at the Aardelite plant (A009-159886) requires that additional work practices and/or control measures be implemented whenever visible emissions are observed from the sources. The following identifies the fugitive dust control measures which should be implemented whenever visible emissions are observed from the Aardelite fugitive dust sources. Level 1 control should be implemented first, followed by Level 2, etc., until adequate control is achieved (i.e., no visible emissions).

Level 1--Operate water spray system installed on product storage and loading system.

Level 2--Apply additional water on storage pile or transfer points as needed. Water hose with spray head or similar device to be used.

Level 3--Apply chemical dust control agent (i.e., surfactant) at transfer points or on storage pile.

10.0 RECORDKEEPING REQUIREMENTS

A log should be kept of all action taken to control fugitive dust emissions. For each event, the following should be recorded:

Date

Time

Location of visible emissions

Apparent cause of visible emissions

Descriptor of intensity of visible emissions

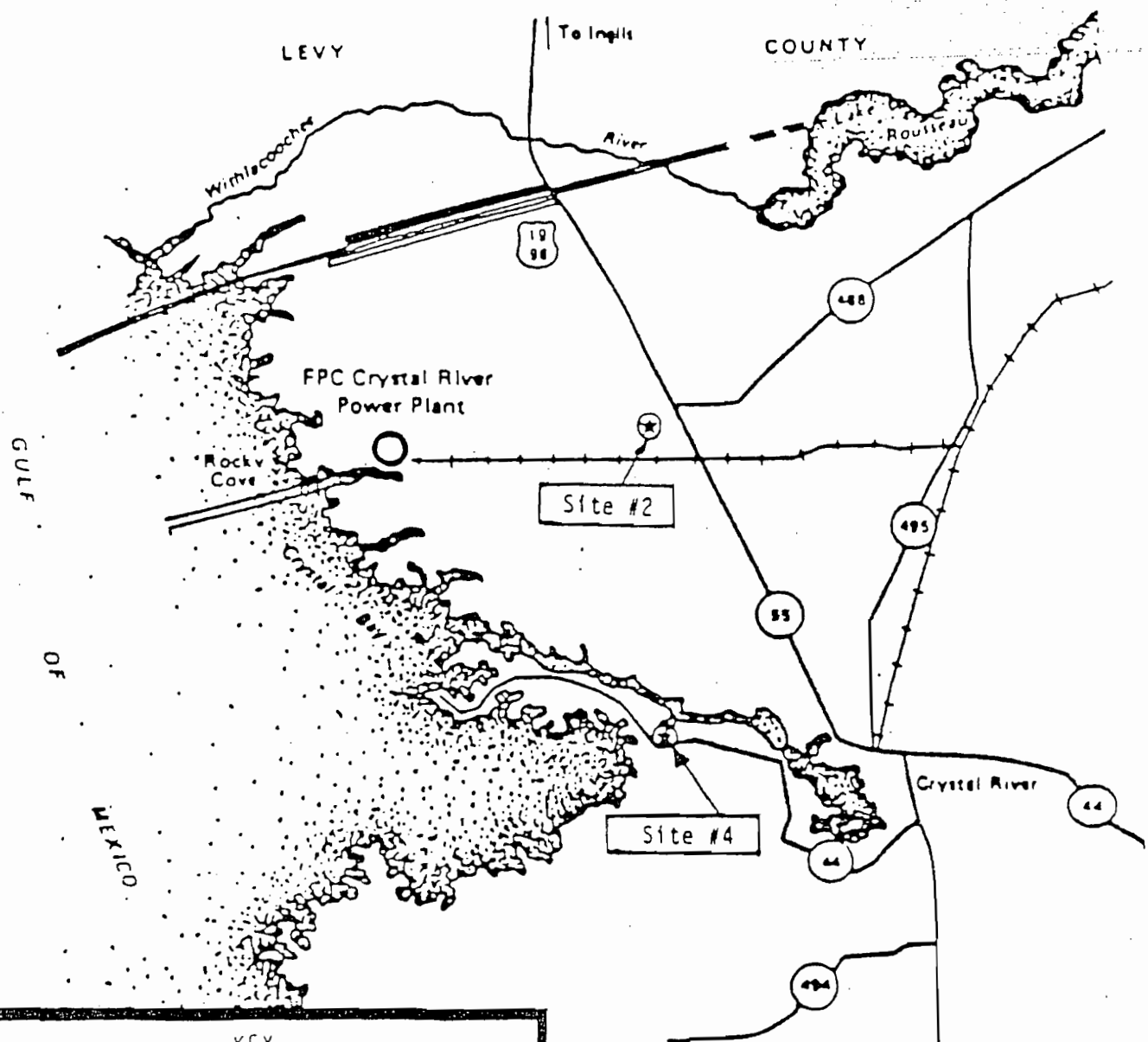
Action taken to mitigate visible emissions

Success of action in reducing/eliminating the visible emission

REFERENCES

- KBN Engineering and Applied Sciences, Inc. (KBN). 1989a. Particulate Matter Air Quality Impact Assessment--Florida Power Corporation Crystal River Plant. Gainesville, Florida.
- KBN Engineering and Applied Sciences, Inc. (KBN). 1989b. Letter to Mr. Eustice Parnelle, Environmental and Licensing Affairs, Florida Power Corporation, April 27, 1989. Gainesville, Florida.
- KBN Engineering and Applied Sciences, Inc. (KBN). 1990. Particulate Matter Air Quality Impact Assessment for Proposed Helper Cooling Towers for Units 1, 2, and 3, Crystal River Plant. Gainesville, Florida.

FIGURE A



SITE	KEY PARAMETERS
2	TSP, SO ₂ Continuous System
4	TSP, SO ₂ Continuous System




0 1 2 MILES

FLORIDA POWER CORPORATION, AMBIENT AIR
MONITORING LOCATIONS, CRYSTAL RIVER, FLORIDA

FLORIDA POWER
CORPORATION

MEMORANDUM

TO: Scott M. Sheplak, P.E.
FROM:  Joseph Kahn, P.E.
DATE: September 15, 1997
RE: Intent package for DRAFT Permit No.: 0170004-004-AV
Florida Power Corporation
Crystal River Plant

This permit is for the initial Title V air operation permit for the subject facility. It is a coal-fired plant with four boilers, associated coal and ash handling facilities, cooling towers, and unregulated emissions units and exempt activities. The nuclear unit, located at this facility, is not a part of this permit; however, the unregulated and exempt units and activities associated with the nuclear unit are included.

This facility reported that each emissions unit was in compliance at the time of the application.

We have limited lead emissions from burning used oil to 1200 pounds in any consecutive 12-month period. There was previously no limitation on lead emissions from used oil.

I recommend that this Intent to Issue be sent out as attached.