



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

November 12, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gene L. Ussery, Jr., Vice President of Power Generation  
Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520

Re: Draft Air Permit No. 0330045-004-AC  
Crist Plant, Existing Units 4 and 5  
Field-Testing Carbonaceous Fuels as a NOx Reduction Technique

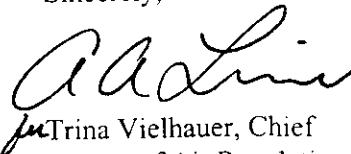
Dear Mr. Ussery:

Enclosed is one copy of the draft permit that authorizes field-testing of carbonaceous fuels (wood chips, sawdust, sander dust, and switchgrass) in Units 4 and 5 at the existing Crist Plant to determine feasibility as a NOx reduction technique. The Department's "Technical Evaluation and Preliminary Determination", "Intent to Issue Permit", and the "Public Notice of Intent to Issue Permit" are also included.

The "Public Notice of Intent to Issue Permit" must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, Administrator of the New Source Review Section, at the above letterhead address. If you have any other questions, please contact Jeff Koerner at 850/921-9536.

Sincerely,

  
Trina Vielhauer, Chief  
Bureau of Air Regulation

TLV/aal/jfk

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Received by (Please Print Clearly)   B. Date of Delivery:  <b>Rollanda Cothran</b>   <b>11-13-02</b></p> <p>C. Signature: <b>X Rollanda Cothran</b> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p>
<p>1. Article Addressed to:</p> <p>Gene L. Ussery, Jr.  V.P. of Power Generation  Gulf Power Company  One Energy Place  Pensacola, FL 32520</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. <b>7001 0320 0003 3692 7690</b></p>	
<p>PS Form 3811, July 1999</p>	<p>Domestic Return Receipt <span style="float: right;">102535-00-M-0952</span></p>

**U.S. Postal Service**  
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Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>S</b>	

Sent To: **Gene L. Ussery, Jr.**

Street, Apt., Box, or PO Box: **One Energy Place**

City, State, ZIP: **Pensacola, FL 32520**

PS Form 3800, January 2001

See Reverse for Instructions

In the Matter of an  
Application for Air Permit by:

Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520

Crist Electric Generating Plant  
Air Permit No. 0330045-004-AC  
Facility ID No. 0330045  
SIC No. 4911

*Authorized Representative:*

Mr. Gene L. Ussery, Jr., Vice President of Power Generation

### **INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of Draft Permit attached) for the proposed project as detailed in the application and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below. The applicant, Gulf Power Company, applied on October 24, 2002 to the Department for a permit to conduct field-testing of carbonaceous fuels (wood chips, sawdust, sander dust, and switchgrass) in Units 4 and 5 at the Crist Plant to determine feasibility as a NOx reduction technique. The existing plant is located in Escambia County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to perform proposed work. The Department intends to issue this air construction permit based on the belief that the applicant has provided reasonable assurances to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. 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. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) and (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

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

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

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

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

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

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

In addition to the above, a person subject to regulation has a right to apply 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. Mediation is not available in this proceeding. 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.

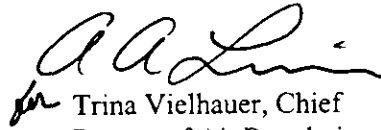
The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number 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 EPA 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.

Executed in Tallahassee, Florida.

  
Trina Vielhauer, Chief  
Bureau of Air Regulation

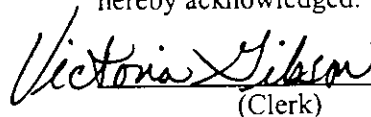
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit package (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 11/12/02 to the persons listed:

Mr. Gene L. Ussery, Jr., Gulf Power Co.\*  
Mr. G. Duane Waters, Gulf Power Co.  
Mr. Gregory N. Terry, Gulf Power Co.  
Ms. Sandra Veazey, NWD

Clerk Stamp

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

 November 12, 2002  
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 0330045-004-AC

Gulf Power Company  
Crist Electrical Generating Plant  
Field-Testing Carbonaceous Fuels as a NOx Reduction Technique

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Gulf Power Company that authorizes the temporary field-testing of carbonaceous fuels in Units 4 and 5 at the Crist Electrical Generating Plant to determine feasibility as a NOx reduction technique. The existing plant is located in Escambia County, Florida. The applicant's authorized representative is Mr. Gene L. Ussery, Jr., Vice President of Power Generation. The applicant's mailing address is Gulf Power Company, One Energy Place, Pensacola, Florida 32520.

The applicant, Gulf Power Company, proposes to conduct a series of field-tests designed to evaluate the feasibility of adding carbonaceous fuels as a NOx reduction technique. Carbonaceous fuels include the following untreated materials: wood chips, sawdust, sander dust, and switchgrass. These fuels will be co-fired at with coal in existing Units 4 and 5 at a rate not to exceed approximately 10% of the total maximum heat input rate. The field-testing of these fuels is contemplated as part of the "Agreement for the Purpose of Ensuring Compliance with Ozone Ambient Air Quality Standards" that was entered into on August 28, 2002 between the Florida Department of Environmental Protection and the Gulf Power Company.

Based on information provided by the applicant, the proposed project will not result in any increases in emissions. Therefore, the project is not subject to preconstruction review for the Prevention of Significant Deterioration (PSD). The draft permit requires stack sampling, fuel sampling, and continuous monitoring to gather the information necessary to evaluate the operational and environmental impacts from these fuels. Information from the field-testing project may later be used to request the firing of these fuels on a permanent basis. Upon expiration of the permit, authorization to fire carbonaceous fuels is withdrawn.

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

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

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

**NOTICE TO BE PUBLISHED IN THE NEWSPAPER**

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

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

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

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

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

Department of Environmental Protection  
Northwest District Office  
Air Resources  
160 Governmental Center  
Pensacola, FL 32501-5794  
Telephone: 850/595-8300

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

**TECHNICAL EVALUATION  
&  
PRELIMINARY DETERMINATION**

**PROJECT**

Draft Air Construction Permit No. 0330045-004-AC  
Field-Testing Carbonaceous Fuels as a NOx Reduction Technique

**COUNTY**

Escambia

**APPLICANT**

Gulf Power Company  
Crist Electric Generating Plant  
ARMS Facility ID No. 0330045

**PERMITTING  
AUTHORITY**

Florida Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation  
New Source Review Section



November 12, 2002

*{Filename: Crist CF TEPD.doc}*



## 1. GENERAL PROJECT INFORMATION

### Applicant Name and Address

Gulf Power  
One Energy Place  
Pensacola, Florida 32520

### Authorized Representative:

Mr. Gene L. Ussery, Jr., Vice President of Power Generation

### Processing Schedule

10/24/02 Received the application for a minor source air pollution construction permit.  
10/28/02 Department requested additional information.  
11/01/02 Department received additional information (faxed); application complete.

### Facility Description and Location

The existing facility consists of seven fossil fuel fired steam generators and two fly ash silos. Natural gas is the primary fuel for Units 1, 2 and 3. Pulverized coal is the primary fuel for Units 4, 5, 6 and 7. Fuel oil is used as supplemental fuel in all seven of the units. This project only affects existing Units 4 and 5. The existing plant is located in Escambia County, Florida. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

### Standard Industrial Classification Code (SIC)

SIC No. 4911 – Electrical Generation

### Regulatory Categories

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

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

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

PSD: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

### Project Description

The applicant, Gulf Power, requests the authority to conduct field-testing of carbonaceous fuels (wood chips, sawdust, sander dust, and switchgrass) to determine the feasibility for use in a NOx reduction program for the existing Crist Units 4 and 5. During the 10-month field testing program, the applicant estimates that no more than the following maximum amounts will be fired: 7816 tons of wood chips, 4836 tons of switchgrass, 6288 tons of sawdust, and 6288 tons of sander dust. The applicant does not believe that this request will result in increased emissions. The field-testing of carbonaceous fuels ("biomass") is contemplated as a possible engineering feasibility study for NOx reduction in the "Agreement for the Purpose of Ensuring Compliance with Ozone Ambient Air Quality Standards" that was entered into on August 28, 2002 between the Florida Department of Environmental Protection and the Gulf Power Company.

## 2. APPLICABLE REGULATIONS

### State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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<u>Chapter</u>	<u>Description</u>
62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference
62-210	Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms
62-212	Preconstruction Review, PSD Requirements, and BACT Determinations
62-213	Operation Permits for Major Sources of Air Pollution
62-296	Emission Limiting Standards
62-297	Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures

### Federal Regulations

Subparts D and Da of 40 CFR 60 establishes New Source Performance Standards (NSPS) for boilers. These Subparts were reviewed for applicability to this project due to specific regulatory requirements related to wood firing. The following are excerpts regarding the NSPS applicability of these Subparts for changes to accommodate the use of combustible materials other than fossil fuels.

From 40 CFR 60.40(b), "Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels as defined in this subpart, shall not bring that unit under the applicability of this subpart."

From 40 CFR 60.40a(c), "Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels, shall not bring that unit under the applicability of this subpart."

Therefore, the field-testing of carbonaceous fuels does not impose any new NSPS requirements. In addition, these units are not considered "municipal waste combustors" and will fire carbonaceous fuels at a rate much less than 30% by weight on a calendar quarter basis.

### General PSD Applicability

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as delegated by the EPA for electrical power plant projects. A PSD review is required only in areas currently in attainment with the National Ambient Air Quality Standard (AAQS) or areas designated as "unclassifiable" for a given pollutant. A new facility is considered "major" with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant, or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories (Table 62-212.400-1, F.A.C.), or
- 5 tons per year of lead.

For new projects at PSD-major sources, each regulated pollutant is reviewed for PSD applicability based on emissions thresholds known as the Significant Emission Rates listed in Table 62-212.400-2, F.A.C. Pollutant emissions from the project exceeding these rates are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be "major" with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

## 3. PROJECT REVIEW

### Fuel Characteristics

The requested carbonaceous fuels include wood chips, sawdust, sander dust, and switchgrass. The term "biomass" is sometimes used to describe these types of fuels; however, this term is avoided for the project because "biomass" may also include other less well-defined solid and liquid fuel sources. Several plants

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

throughout the country fire wood materials and plant residues to provide steam and electrical needs.



Figure 1. Wood chips

Wood materials can consist of wood chips (commonly referred to as “hogged fuel”), sawdust, and sander dust. The materials can be provided from a variety sources such as forest residues, land clearing operations, lumber mills, sawmills, cabinetry shops, nurseries, tree trimming services, etc. Figure 1 shows a typical sample of chipped raw wood. Switchgrass is fast-growing grass that reaches 3 to 5 feet in height. Figure 2 shows an example of switchgrass before harvesting. Numerous factors can affect the fuel characteristics and content of carbonaceous fuels such as crop type, soil, and location. This can result in a wide variation of these properties. As provided by Gulf Power, Table 3A summarizes the expected characteristics of the carbonaceous fuels.



Figure 2. Switchgrass

**Table 3A. Characteristics of Carbonaceous Fuels**

Fuel	Heating Value Btu/lb	Moisture % by wt	Ash % by wt	Sulfur % by wt	Nitrogen % by wt	Fluorides ppm by wt	Lead ppm by wt	Mercury ppm by wt
Coal	11,992	11.34%	6.68%	1.35%	1.51%	78	57.6	0.09
Wood Chips	4500	50.00%	0.5%	0.05%	0.03%	≈ 0	7.5	≈ 0
Switchgrass	7273	11.47%	3.94%	0.12%	0.73%	35	0.4	0.01
Sawdust	5593	35.65%	1.85%	0.02%	0.03%	1	≈ 0	0.02
Sander Dust	5593	35.65%	1.85%	0.02%	0.03%	1	≈ 0	0.02

The nitrogen and ash content of wood materials can be much higher than indicated above. In addition, measurable amounts of mercury and fluorides can be present in wood. However, these values are within the ranges expected for these types of materials. Based on the information provided by the applicant, the carbonaceous fuels contain less sulfur, nitrogen, fluorides, lead, and mercury than coal. However, due to the lower heating values, much more of these fuels must be fired to provide an equivalent heat input. The Department believes that firing carbonaceous fuels could cause slight increases in one or more of the following: CO, PM, VOC, and opacity.

### Carbonaceous Fuel Firing as a NOx Reduction Technique

Gulf Power expects NOx emissions to be reduced entirely due to the lower nitrogen contents of carbonaceous fuels as compared to coal. Their data suggests a theoretical 9.5% NOx reduction when firing a 10% heat input rate contribution from carbonaceous fuels. However, Gulf Power believes a conservative estimate of the actual expected NOx reduction is closer to 3%-5%. The purpose of the temporary project is to gather the information necessary to determine whether firing carbonaceous fuels can be a viable NOx reduction technique.

### Project Emissions and PSD Applicability

The combustion of carbonaceous fuels will result in emissions of carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM/PM10), sulfuric acid mist (SAM), sulfur dioxide (SO2), and volatile organic compounds (VOC) as well as very small amounts of fluorides, lead, and mercury. Emissions of these pollutants currently result from the existing boilers when firing coal. During the 10-month field testing period, carbonaceous fuel will be co-fired with coal to replace an equivalent amount of heat input. To a certain extent, the emissions from firing carbonaceous fuels are offset by the amount of coal that is displaced.

The applicant contends that the project is exempt from PSD preconstruction review because the affected units are “capable of accommodating” carbonaceous fuels [Rule 62-212.400(2)(c), F.A.C.]. The Department does not believe that Gulf Power has made a compelling argument to support this claim. If necessary, any such

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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determination on this basis is deferred until the field-testing project is complete and Gulf Power makes a formal request to fire one or more carbonaceous fuels on a permanent basis.

However, based on the applicant's request, the conditions of the draft permit, and the available information, the Department does not believe that the field-testing project triggers PSD preconstruction review. Due to the temporary nature and specific details of this project, estimated emissions for the 10-month period were determined to be the difference between emissions from carbonaceous fuel firing and the equivalent amount of coal firing on a heat input basis. No increase in capacity or utilization is expected. As summarized in Attachment A, the project emissions are expected to be well below the PSD significant emission rates.

Although similar tests have been performed with these fuels in coal-fired boilers, the actual configuration of each unit can uniquely affect emissions, feed rates, ESP performance, and problems related to handling carbonaceous fuels. Field-testing can play an important role in discovering unanticipated problems related to storage, crushing, and ash generation due to the lower heating values, higher moisture contents, varying fuel densities, hardness, etc. In addition, ambient conditions may also adversely impact operations. As summarized below, the Department has conditioned the permit to provide the details necessary to evaluate the overall impacts from co-firing carbonaceous fuels.

- Carbonaceous fuels are limited to untreated wood chips, sawdust, sander dust, and switchgrass. For a ten-month field testing period, these fuels may be co-fired with coal in Units 4 and 5 up to approximately 10% of the maximum heat input rate. For the project, each carbonaceous fuel is also limited by total charging rate to 4836 tons of switchgrass, 6288 tons of sawdust, and 6288 tons of sander dust. This is equivalent to approximately 30 days of co-firing at about 10% of the permitted capacity.
- Prior to co-firing any carbonaceous fuels, initial testing for each boiler shall be performed to determine CO and VOC emissions from Units 4 and 5 when firing coal to establish baseline levels. NO<sub>x</sub>, opacity, and SO<sub>2</sub> emissions data collected by the existing continuous monitors shall be reported for each test run. In addition, critical ESP parameters shall be monitored and recorded. Representative samples of coal and ESP ash shall be analyzed for fuel characteristics and resistivity, respectively. Baseline NO<sub>x</sub>, opacity, and SO<sub>2</sub> emissions shall be determined from continuous monitor data. Baseline PM emissions shall be determined from recent annual compliance tests. Tests shall be performed at permitted capacity.
- Testing shall be conducted to determine emissions of CO, PM and VOC when co-firing each carbonaceous fuel with coal. NO<sub>x</sub>, opacity, and SO<sub>2</sub> emissions data collected by the existing continuous monitors shall be reported for each test run. In addition, critical ESP parameters shall be monitored and recorded. Representative samples of each fuel and ESP ash shall be analyzed for fuel characteristics and resistivity, respectively. Tests shall be performed while co-firing the highest percentage of carbonaceous fuel that will be requested on a permanent basis. At a minimum, two series of tests are required for each fuel, one of which shall be conducted during the final week of co-firing that fuel.
- When co-firing carbonaceous fuels, the charging rate of each fuel shall be continuously monitored and recorded. NO<sub>x</sub> emissions shall be summarized for each period of co-firing based on data collected from the existing continuous monitors.
- During each required test, a representative fuel sample shall be taken and analyzed for the following fuel properties: heating value (Btu/lb), moisture (% by weight), nitrogen (% by weight), sulfur (% by weight), ash (% by weight), fluorides (ppm by weight), lead (ppm by weight), and mercury (ppm by weight). This includes coal samples for the baseline tests. Representative samples of each carbonaceous fuel shall also be taken and analyzed for these properties upon initial receipt and once each month when stored on site. At least three samples of each carbonaceous fuel shall be analyzed for these properties.
- A report of the following information shall be submitted: a summary of the entire project; baseline emissions when firing coal; emissions when firing each carbonaceous fuel; ambient conditions during each test; characteristics of each carbonaceous fuel compared to coal; fuel feed rates; heat input rates; critical ESP parameters; and ash resistivity of each carbonaceous fuel compared to coal. The report shall note and

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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discuss any adjustments to the boiler or ESP that were made to accommodate the co-firing of carbonaceous fuels. It shall also detail any operational concerns related to the following items: storage, handling, pulverizing, and charging carbonaceous fuels; co-firing carbonaceous fuels with coal; ash generation; boiler combustion efficiency; and opacity. All stack test data shall be submitted for review. Finally, the report shall discuss the feasibility of co-firing carbonaceous fuels as a NO<sub>x</sub> reduction technique.

- Units 4 and 5 shall remain in compliance with the conditions of all valid air construction and operation permits during the ten-month field-testing period.

#### 4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Jeff Koerner is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

### Attachment A. Emissions Summary Based on Applicant's Estimates

Pollutant	Wood	Sawdust	Sander Dust	Switchgrass	Total	Coal	Difference	PSD SERs	PSD?
CO	0.73	0.73	0.73	0.73	2.94	2.94	0	100	No
NO <sub>x</sub>	0.76	0.61	0.61	11.30	13.28	56.30	-43	40	No
PM	0.15	0.46	0.46	0.76	1.85	3.14	-1	25	No
PM <sub>10</sub>	0.10	0.29	0.29	0.48	1.16	1.96	-1	15	No
SAM	0.02	0.01	0.01	0.03	0.07	0.88	-1	7	No
SO <sub>2</sub>	7.06	2.27	2.27	10.48	22.07	285.84	-264	40	No
VOC	1.34	1.34	1.34	1.34	5.34	8.44	-3	40	No
Fluorides	≈ 0	0.01	0.01	0.16	0.18	0.86	-1	3	No
Lead	0.01	≈ 0	≈ 0	≈ 0	0.007	0.01	≈ 0	0.60	No
Mercury	≈ 0	≈ 0	≈ 0	≈ 0	≈ 0	≈ 0	≈ 0	0.10	No

Notes:

1. "SER" means the significant emission rates as defined in Table 62-212.400-2, F.A.C.
2. Emissions are based on the applicant's hourly emissions estimates and the permit restrictions on carbonaceous fuel firing (approximately 30 day of firing each fuel for the project). VOC emissions based on Department estimates using AP-42 emission factors for coal (Table 1.1-19) and for wood (Table 1.6-3).
3. For this specific project, the change in emissions due to the project is evaluated as the difference in emissions from carbonaceous fuels that would displace an equivalent amount of coal based on heat input.

References

- [1] EPA's Emission Factor Document "AP-42", Section 1.1 - Coal Combustion; September 1998
- [2] EPA's Emission Factor Document "AP-42", Section 1.6 - Wood Combustion; July 2001
- [3] Test data and fuel characteristics for wood-fired boilers at New Hope Power Partnership (Project No. 0990332-014-AC); 2002
- [4] Title V Air Operating Permit No. 0330045-001-AV, Effective January 1, 2000
- [5] Annual Operating Report data in DEP's ARMS database for Crist Units 4 and 5
- [6] Data from EPA's Acid Rain database
- [7] Air Pollution Engineering Manual, Second Edition, 2000; Chapter 7 - Combustion Sources (See Coal and Wood Waste)

# DRAFT PERMIT

## PERMITTEE:

Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520

*Authorized Representative:*  
Mr. Gene L. Ussery, Jr.  
Vice President of Power Generation

Crist Electric Generating Plant Air Permit No. 0330045-004-AC Facility ID No. 0330045 SIC No. 4911 Permit Expires: October 1, 2003
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## PROJECT AND LOCATION

This permit authorizes a temporary period to conduct field-testing of carbonaceous fuels (wood chips, sawdust, sander dust, and switchgrass) to determine the feasibility of use in a NOx reduction program for Units 4 and 5 at the Crist Plant. This existing plant is located on Pate Road, off of 10 Mile Road on Governors Bayou in Escambia County, Florida. The map coordinates are: Zone 16, 478.50 km East and 3381.30 km North (Latitude: 30° 33' 58" North and Longitude: 87° 13' 44" West).

## STATEMENT OF BASIS

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

## CONTENTS

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

(DRAFT)

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Howard L. Rhodes, Director  
Division of Air Resources Management

(Date)

**SECTION 1. GENERAL INFORMATION (DRAFT)**

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**FACILITY AND PROJECT DESCRIPTION**

The existing plant consists of seven fossil fuel fired steam generators and two fly ash silos. Natural gas is the primary fuel for Units 1, 2 and 3. Pulverized coal is the primary fuel for Units 4, 5, 6 and 7. Fuel oil is used as supplemental fuel in all seven of the units. Only the following units are affected by this air construction permit.

ID	Emission Unit Description
004	Unit 4 is a utility boiler with a maximum heat input rate of 1096.7 MMBtu/hour.
005	Unit 5 is a utility boiler with a maximum heat input rate of 1096.7 MMBtu/hour.

**REGULATORY CLASSIFICATION**

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

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

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

PSD: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

**RELEVANT DOCUMENTS**

The permit application and additional information received to make it complete are not a part of this permit; however, the information is specifically related to this permitting action and is on file with the Department. In addition, the field-testing of carbonaceous fuels ("biomass") is contemplated as a possible engineering feasibility study for NOx reduction in the "Agreement for the Purpose of Ensuring Compliance with Ozone Ambient Air Quality Standards" that was entered into on August 28, 2002 between the Florida Department of Environmental Protection and the Gulf Power Company.



## SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

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1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate the emissions units regulated by this permit shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Northwest District Office at 160 Governmental Center, Pensacola, Florida 32501-5794.
3. Appendices: The following Appendices are attached as part of this permit: Appendix CF (Citation Format); Appendix GC (General Conditions); and Appendix SC (Standard Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Title V Permit: The scope of this temporary project is to develop information in support of a permanent project. A future request for permanent authorization to fire carbonaceous fuels would then require a revision to the Title V air operation permit.

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### A. EU-004 and 005 – Existing Units 4 and 5

This section of the permit addresses the following emissions units.

#### Emissions Unit Nos. 004 and 005

*Description:* Each unit is a tangentially fired, dry-bottom boiler manufactured by Combustion Engineering.

*Capacity and Fuels:* Each unit is rated at a maximum heat input of 1,096.7 MMBtu per hour when firing pulverized coal, natural gas or distillate No. 2 fuel oil (used as back-up fuel).

*Controls:* Particulate matter emissions from each unit are controlled by hot side (Buell Model # Bal. 2x34n333-4-3p) and cold side (Buell Model # 1.1x48k33-1p) electrostatic precipitators.

*Monitors:* Each unit is continuously monitored for opacity, carbon dioxide, nitrogen oxides, and sulfur dioxide.

*Stack Parameters:* Units 4 and 5 share a common stack with units 1, 2 and 3 having the following characteristics: stack height is 450 feet; exit diameter is 18.0 feet; exit temperature is 290° F; actual volumetric flow rate is approximately 802,500 acfm.

#### AUTHORIZATION

1. Relation to Other Permits: The conditions of this permit are in addition to those of any other air construction or operation permits. [Rule 62-4.210, F.A.C.]
2. Field-Testing of Carbonaceous Fuels: Subject to the conditions of this permit, the permittee is temporarily authorized to conduct a ten-month field-testing program to determine the feasibility of co-firing carbonaceous fuels with coal in existing Units 4 and 5 as a NO<sub>x</sub> reduction technique. Carbonaceous fuels shall only include the following untreated materials: wood chips, sawdust, sander dust, and switchgrass. For each unit, these materials may be co-fired with coal at a maximum heat input rate of 97.7 MMBtu per hour. The permittee shall implement the field-testing program to determine and report operational and environmental impacts that will result from co-firing carbonaceous fuels. This information may be used to support a future request for permanent authorization of one or more of these fuels. Units 4 and 5 shall remain subject to the conditions of all existing permits related to air pollution and control equipment during the field-testing program. *{Permitting Note: Rule 62-210.200(55), F.A.C. defines "carbonaceous fuel" as, "Solid materials composed primarily of vegetative matter such as tree bark, wood waste, or bagasse." This permit further limits carbonaceous fuels to untreated wood chips, sawdust, sander dust, and switchgrass.}* [Applicant Request]
3. Expiration: Upon the expiration of this permit, the authority to fire carbonaceous fuels is withdrawn.

#### PERFORMANCE RESTRICTIONS

4. Temporarily Authorized Fuels: Subject to the conditions of this permit, each unit may also fire carbonaceous fuel consisting of the following untreated materials: wood chips, switchgrass, sawdust, and sander dust in addition to currently authorized fuels. These materials shall be substantially free of plastics, metals, paint or other chemicals. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]
5. Permitted Capacity:
  - a. For each unit, the maximum hourly firing rates (tons per hour) for the carbonaceous fuels are: 10.9 tons of wood chips per hour, 6.7 tons of switchgrass per hour, 8.7 tons of sawdust per hour, and 8.7 tons of sander dust per hour. The above limits are not cumulative and only one carbonaceous fuel type may be fired at a time. *{Permitting Note: These restrictions are roughly equivalent to a heat input rate of 97.7 MMBtu per hour.}*

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

#### A. EU-004 and 005 – Existing Units 4 and 5

- b. During the project, no more than the following amounts of carbonaceous fuels shall be fired: 7816 tons of wood chips, 4836 tons of switchgrass, 6288 tons of sawdust, and 6288 tons of sander dust. *{Permitting Note: These restrictions are roughly equivalent to 30 days of firing for each fuel.}*

When firing any carbonaceous fuel, the permittee shall continuously monitor and record the amount of each fuel being fired. [Rule 62-210.200(PTE), F.A.C.]

6. **Schedule:** Within 7 days of receiving the first carbonaceous fuel, the permittee shall submit a preliminary schedule detailing the proposed field-testing protocol to the Bureau of Air Regulation and the Compliance Authority. The Bureau of Air Regulation reserves the right to review and approve or disapprove the proposed schedule and protocol. Updates to the field-testing protocol and schedule shall be submitted as necessary. [Rule 62-4.070(3), F.A.C.]

#### EMISSIONS STANDARDS

7. **Emissions Standards:** This permit does not establish any new emissions standards for these units. Units 4 and 5 shall continue to comply with the requirements of all existing, valid Department permits. [Rule 62-4.070(3), F.A.C.]
8. **Fugitive Dust Emissions:** The permittee shall minimize unconfined particulate matter emissions from the storage and handling of carbonaceous fuels by using dust suppressing techniques such as covering, confining, or applying water to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### TESTING AND MONITORING REQUIREMENTS

9. **Baseline Coal Emissions Tests:** Prior to co-firing any carbonaceous fuels, initial testing for each boiler when firing only coal shall be performed to determine CO and VOC emissions and establish baseline levels. All CO and VOC tests required by this permit shall be conducted in accordance with the procedures normally used for PM compliance tests. CO<sub>2</sub>, NO<sub>x</sub>, opacity, and SO<sub>2</sub> emissions data collected by the existing continuous monitors shall be reported for each test run. Baseline NO<sub>x</sub>, opacity, and SO<sub>2</sub> emissions shall be determined from continuous monitor data. Representative tests for ash resistivity and particle size distribution shall be included. Baseline PM emissions shall be determined from recent annual compliance tests. Tests shall be performed at permitted capacity. [Rule 62-4.070(3), F.A.C.]
10. **Carbonaceous Fuel Emissions Tests:** A series of tests shall be conducted to determine emissions of CO, PM and VOC when co-firing each carbonaceous fuel with coal. At least one PM test for each carbonaceous fuel shall include the particle size distribution. CO<sub>2</sub>, NO<sub>x</sub>, opacity, and SO<sub>2</sub> emissions data collected by the existing continuous monitors shall be reported for each test run. Tests shall be performed while co-firing the highest percentage of carbonaceous fuel that will be requested on a permanent basis. All CO, PM, and VOC tests required by this permit shall be conducted in accordance with the procedures normally used for PM compliance tests. At least two such series of tests are required for each fuel. The first series of tests shall be conducted within 45 days of initial co-firing of that fuel. The second series of tests shall be at least seven days later and shall be conducted during the final week of co-firing that fuel. Any problems related to storage, handling, pulverizing, charging, boiler or ESP performance shall be reported. [Rule 62-4.070(3), F.A.C.]
11. **Continuous Monitoring:** When co-firing any carbonaceous fuels, the following parameters shall be monitored and recorded on an hourly basis: charging rate of each fuel (tons per hour), total heat input rate (MMBtu/hour), flue gas oxygen content, NO<sub>x</sub> emissions (lb/MMBtu), and opacity (percent). [Rule 62-4.070(3), F.A.C.]
12. **ESP Parameters:** For each required PM test run, the critical ESP parameters (field voltages, rapping intensity, and rapping frequency) shall be monitored and recorded at 15-minute intervals. After each

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

#### A. EU-004 and 005 – Existing Units 4 and 5

required PM test run, a representative sample of the ESP ash shall be taken and analyzed for resistivity. Quantities of ash generated and adjustments made to the ESP shall also be reported. For the baseline tests when firing coal, these parameters shall be monitored and recorded at 15-minute intervals during each required CO test run. [Rule 62-4.070(3), F.A.C.]

13. **Fuel Sampling:** During each required test, a representative fuel sample shall be taken and analyzed for the following fuel properties: heating value (Btu/lb), moisture (% by weight), nitrogen (% by weight), sulfur (% by weight), ash (% by weight), fluorides (ppm by weight), lead (ppm by weight), and mercury (ppm by weight). This includes coal samples for the baseline tests. Representative samples of each carbonaceous fuel shall also be taken and analyzed for these properties upon initial receipt and once each month when stored on site. At least three samples of each carbonaceous fuel shall be analyzed for these properties. [Rule 62-4.070(3), F.A.C.]
14. **Ash Sampling:** After each required stack test, a representative sample shall be taken from the ESP ash and analyzed for resistivity. [Rule 62-4.070(3), F.A.C.]
15. **Rate During Testing:** All tests shall be performed at permitted capacity, which is defined as 90% to 100% of the maximum operating rate allowed by permit (total heat input rate of coal and carbonaceous fuel). If the co-firing of any carbonaceous fuel results in any emissions that are not in accordance with the existing permits, co-firing shall cease as soon as practicable. Co-firing that fuel shall not resume until appropriate actions are taken to correct the problem. The Compliance Authority shall be notified immediately upon such cessation and resumption of co-firing the carbonaceous fuel. [Rules 62-297.310(7)(a)9 and 62-4.070(3), F.A.C.]
16. **Test Notification:** Within ten days of beginning the field-testing, the permittee shall provide a test schedule that summarizes the proposed program for co-firing carbonaceous fuels and identifies the preliminary dates for conducting stack testing. If unavoidable changes to the proposed schedule occur, the permittee shall provide the Compliance Authority with at least a 5-day advance notice of any rescheduled stack tests. [Rule 62-297.310(7)(a)9, F.A.C.]
17. **Test Methods:** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content <i>{Permitting Note: Tests performed as necessary to support other methods.}</i>
5, 5B, 5F or 17	Particulate Matter <i>{Permitting Note: Testing shall be performed in accordance with the procedures specified in the Title V air operation permit.}</i>
10	Carbon Monoxide
19	Determination of Mass Emission Rates for Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides <i>{Permitting Note: Used as necessary to support other methods.}</i>
18	Organic Compounds <i>{Permitting Note: As an optional supplement to Method 25A, may be performed to determine the fraction of methane and ethane emissions. Otherwise, all compounds measured by Method 25A are assumed to be "volatile organic compounds".}</i>
25A	Volatile Organic Compounds

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. Tests shall also be conducted in accordance with the requirements specified in Appendix SC of this permit. Other equivalent methods may be used only if written approval is obtained from the Bureau of Air Regulation prior to conducting the tests. CO<sub>2</sub>, NO<sub>x</sub>, opacity, and SO<sub>2</sub> emissions shall be determined by data collected with the existing continuous monitoring systems.

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

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#### A. EU-004 and 005 – Existing Units 4 and 5

[Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

#### RECORDS AND REPORTS

18. Stack Test Reports: The permittee shall prepare and submit reports for all required stack tests in accordance with the requirements specified in Rule 62-297.310(8), F.A.C. All stack test data collected during the field-testing program shall be submitted for review. For each test run, the report shall also indicate the information required by this permit. For each required stack test, the permittee shall submit a written report that summarizes the results with 45 days of completing such test. [Rule 62-297.310(8), F.A.C.]
19. Final Report: Within 90 days of completing the field-testing project, the permittee shall submit a report summarizing the following: a description of the entire project; baseline emissions when firing coal; emissions when firing each carbonaceous fuel; ambient conditions during each test; properties of each carbonaceous fuel compared to coal; fuel feed rates; heat input rates; critical ESP parameters (field voltages, rapping intensity, and rapping frequency); and ash resistivity of each carbonaceous fuel compared to coal. The report shall note and discuss any adjustments to the boiler or ESP that were made to accommodate the co-firing of carbonaceous fuels. It shall also detail any operational concerns related to the following items: storage, handling, pulverizing, and charging carbonaceous fuels; co-firing carbonaceous fuels with coal; ash generation; boiler combustion efficiency; and opacity. Finally, the report shall quantify expected NO<sub>x</sub> reductions and discuss the feasibility of co-firing carbonaceous fuels as a NO<sub>x</sub> reduction technique. [Rule 62-4.070(3), F.A.C.]

**SECTION 4. APPENDICES**  
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Appendix CF. Citation Format  
Appendix GC. General Conditions  
Appendix SC. Standard Conditions

**SECTION 4. APPENDIX CF**  
**CITATION FORMATS**

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*The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.*

**REFERENCES TO PREVIOUS PERMITTING ACTIONS**

Old Permit Numbers

*Example:* Permit No. AC50-123456 or Air Permit No. AO50-123456

*Where:* "AC" identifies the permit as an Air Construction Permit  
"AO" identifies the permit as an Air Operation Permit  
"123456" identifies the specific permit project number

New Permit Numbers

*Example:* Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

*Where:* "099" represents the specific county ID number in which the project is located  
"2222" represents the specific facility ID number  
"001" identifies the specific permit project  
"AC" identifies the permit as an air construction permit  
"AF" identifies the permit as a minor federally enforceable state operation permit  
"AO" identifies the permit as a minor source air operation permit  
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

*Example:* Permit No. PSD-FL-317

*Where:* "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality  
"FL" means that the permit was issued by the State of Florida  
"317" identifies the specific permit project

**RULE CITATION FORMATS**

Florida Administrative Code (F.A.C.)

*Example:* [Rule 62-213.205, F.A.C.]

*Means:* Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

*Example:* [40 CFR 60.7]

*Means:* Title 40, Part 60, Section 7

## SECTION 4. APPENDIX GC

### GENERAL CONDITIONS

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

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

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

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

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

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



**SECTION 4. APPENDIX GC**  
**GENERAL CONDITIONS**

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Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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*{Permitting Note: Unless otherwise specified by permit, the following conditions apply to all emissions units and activities at this facility.}*

**EMISSIONS AND CONTROLS**

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) 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.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program 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 Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

**TESTING REQUIREMENTS**

10. **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 two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the 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. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
  - a. *Required Sampling Time*. 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. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
  - b. *Minimum Sample Volume*. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. *Calibration of Sampling Equipment*. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.[Rule 62-297.310(4), F.A.C.]
14. 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.]
15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. Test Notification: 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. [Rule 62-297.310(7)(a)9, F.A.C.]
17. 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 shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide

**SECTION 4. APPENDIX SC**  
**STANDARD CONDITIONS**

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sufficient detail on the emissions unit tested and the test procedures used to allow the Department 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.

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

**RECORDS AND REPORTS**

19. **Records Retention:** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. **Annual Operating Report:** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

Florida Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation  
New Source Review Section  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida, 32399-2400

**P.E. CERTIFICATION STATEMENT**

**PERMITTEE**

Gulf Power Company  
One Energy Place  
Pensacola, Florida 32520

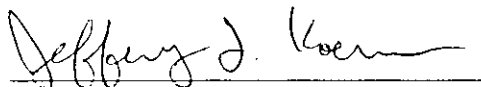
Crist Electric Generating Plant Air Permit No. 0330045-004-AC Project: Field-Testing of Carbonaceous Fuels as a NOx Reduction Technique
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**PROJECT DESCRIPTION**

The applicant, Gulf Power, requests the authority to conduct field-testing of carbonaceous fuels (wood chips, sawdust, sander dust, and switchgrass) to determine feasibility as a NOx reduction technique for the existing Crist Units 4 and 5. During the 10-month field testing program, the applicant estimates that no more than the following maximum amounts will be fired: 7816 tons of wood chips, 4836 tons of switchgrass, 6288 tons of sawdust, and 6288 tons of sander dust. The applicant does not believe that this request will result in increased emissions. The field-testing of carbonaceous fuels ("biomass") is contemplated as a possible engineering feasibility study for NOx reduction in the "Agreement for the Purpose of Ensuring Compliance with Ozone Ambient Air Quality Standards" that was entered into on August 28, 2002 between the Florida Department of Environmental Protection and the Gulf Power Company.

A review of available information suggests that there will be no PSD-significant emissions increases resulting from this temporary project. This is primarily due to the carbonaceous fuels displacing an equivalent amount of coal. It is possible that there may be slight increases in carbon monoxide, particulate matter, and/or volatile organic compounds. Depending on the actual ash content, there may also be increased ash generated from firing these fuels. The draft permit limits each carbonaceous fuel to approximately 30 days of firing at a maximum heat input rate of 97.7 MMBtu per hour. It requires stack sampling, fuel sampling, and continuous monitoring to gather the information necessary to evaluate the operational and environmental impacts from these fuels. Information from the field-testing project may later be used to request the firing of these fuels on a permanent basis. Upon expiration of the permit, authorization to fire carbonaceous fuels is withdrawn.

*I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application 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, geological, and meteorological features).*



Jeffery F. Koerner, P.E.  
Registration Number: 49441

11-12-02

(Date)

# Memorandum

# Florida Department of Environmental Protection

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TO: Trina Vielhauer, Chief *adv for TV*  
Bureau of Air Regulation

THROUGH: Al Linero, Manager *adv*  
New Source Review Section

FROM: Jeff Koerner, New Source Review Section *JK*

DATE: November 12, 2002

SUBJECT: Draft Air Construction Permit No. 0330045-004-AC  
Crist Plant, Units 4 and 5  
Field-Testing Carbonaceous Fuels as a NOx Reduction Technique

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- PE Certification

The draft permit authorizes the construction of a field-testing program to evaluate carbonaceous fuels as a NOx reduction technique for Units 4 and 5 at the Crist Electrical Generating Plant. This was contemplated in the "Agreement for the Purpose of Ensuring Compliance with Ozone Ambient Air Quality Standards" that was entered into on August 28, 2002 between the Florida Department of Environmental Protection and the Gulf Power Company.

The Technical Evaluation and Preliminary Determination provides a detailed description of the project, rule applicability, and emissions standards. The P.E. certification briefly summarizes the proposed project. Day #74 is January 13, 2003. I recommend your approval of the attached Draft Permit for this project.

TTV/AAL/jfk

Attachments