

Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

July 31, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Bruce Smith
General Manager
Cedar Bay Cogeneration Facility
P.O. Box 26324
Jacksonville, FL 32226

Re: Co-firing Petroleum Coke with Coal
File No. PA 88-24 (PSD-FL-137)


Dear Mr. Smith:

Enclosed is one copy of the Draft PSD Permit Modification relative to Cedar Bay's request to be permitted for the co-firing of limited amounts of petcoke with coal in the three circulating fluidized bed boilers. The facility is located at 9640 Eastport Road, Jacksonville, Duval County.

The Public Notice of Intent to Issue PSD Permit Modification 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, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Michael P. Halpin at 850/921-9519.

Sincerely,


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

CHF/mph
Enclosures

"More Protection, Less Process"

Printed on recycled paper.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Received by (Please Print Clearly) Shelly Arnold B. Date of Delivery 8/5/02</p> <p>C. Signature [Signature] <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p>
<p>1. Article Addressed to:</p> <p>Mr. Bruce Smith General Manager Cedar Bay Cogeneration Facility P. O. Box 26324 Jacksonville, FL 32226</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:</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. Article Number (Copy from service) 7001 0320 0001 3692 8178</p>	
<p>PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952</p>	

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To
Bruce Smith
 Street, Apt. No.,
 or P.O. Box **26324**
 City, State, ZIP+4
Jacksonville, FL 32226

PS Form 3800, January 2001 See Reverse for Instructions

7001 0320 0001 3692 8178

In the Matter of an
Application for Permit by:

Bruce Smith, General Manager
Cedar Bay Cogeneration Facility
PO Box 26324
Jacksonville, Florida 32226-6324

DEP File No. PSD-FL-137 (PA 88-24)

INTENT TO ISSUE PSD PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD Permit Modification (copy of Draft permit attached) for the proposed project, detailed in the application specified above and for the reasons stated below.

The applicant, Bruce Smith, General Manager, U.S. Generating Company, applied on August 29, 2001, to the Department for a PSD Permit Modification for its Cedar Bay Cogeneration Facility, located at 9640 Eastport Road, Jacksonville, Duval County. The request is to revise the permit to allow for the limited co-firing of petroleum coke with coal in its three circulating fluidized bed boilers.

The Department 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, 62-212 and 40 CFR 52.21. The above actions are not exempt from permitting procedures. The Department has determined that a PSD Permit Modification is required to revise the permit with respect to changes in fuel.

The Department intends to issue this PSD Permit Modification based on the belief that reasonable assurances have been provided 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. and 40 CFR 52.21.

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 PSD Permit Modification. 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 (Telephone: 850/488-0114; Fax 850/ 922-6979). 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) & (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 30 (thirty) days from the date of publication of Public Notice of Intent to Issue PSD Permit Modification. 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.

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 of the Florida Statutes. 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 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) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen 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 of the Florida Administrative Code.

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.

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.

Mediation is not available in this proceeding.

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. 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.


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 PSD Permit Modification (including the Public Notice of Intent to Issue PSD Permit Modification and the Draft PSD Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 8/1/02 to the person(s) listed:

Bruce Smith, Cedar Bay *
Jeff Walker, Cedar Bay
Ken Kosky, P.E. Golder Associates
Hamilton S. Oven, P.E. PPSO
James L. Manning, P.E. RESD
Chris Kirts, DEP-NED
Stafford Campbell, Greater Arlington Civic Council

Clerk Stamp

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


(Clerk) August 1, 2002
(Date)

PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. PSD-FL-137 (PA 88-24)

U.S. Generating Company
Cedar Bay Cogeneration Facility
Duval County

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD Permit Modification to Cedar Bay Cogeneration Facility, located at 9640 Eastport Road, Jacksonville, Duval County. The permit is to revise the conditions so as to allow for limited co-firing of petroleum coke (petcoke) with coal. This is an existing facility, which currently combusts coal as its primary fuel. A new determination of Best Available Control Technology (BACT) was not required. The applicant's mailing address is: U. S. Generating Company, P.O. Box 26324, Jacksonville FL 32226-6324.

Typically petroleum coke has greater sulfur content than coal, but less ash. Accordingly, absent proper controls its usage presents the possibility of increased SO₂ emissions. The existing facility has adequate air pollution control equipment, consisting of a CFB (including limestone injection) for SO₂ control, in addition to a selective non-catalytic reduction system for control of nitrogen oxides and baghouses for control of particulate matter. This equipment is sufficient to provide reasonable assurance that no significant increases of the mentioned pollutants will occur.

This modification will revise the permit to allow for the co-firing of up to 35% petroleum coke (petcoke) by weight, with coal in the three circulating fluidized bed boilers. The Department has determined that co-firing can occur, provided that the equivalent SO₂ inlet loading to the boilers is less than 3.2 lb/MMBtu, yielding an emission rate of 0.16 lb/MMBtu. Additionally, the Department will require improved measurements of bed ash throughput and require reporting of facility emissions for five (5) years. These measures are sufficient to ensure that only decreases, or less than significant increases of the emissions of PSD pollutants will occur as a result of this modification. The Significant Emission Rates for pollutants of interest (for which this project will not exceed) are defined by the Florida Administrative Code, Chapter 62-212, Table 212.400-2 as follows:

POLLUTANT	SIGNIFICANT EMISSION RATES
Sulfur dioxide	40 Tons Per Year
Nitrogen oxides	40 Tons Per Year
PM ₁₀	15 Tons Per Year
Sulfuric acid mist	7 Tons Per Year
Ozone (Volatile Organic Compounds)	40 Tons Per Year
Carbon monoxide	100 Tons Per Year

An air quality impact analysis was not required. 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 30 (thirty) days from the date of publication of this Public Notice of Intent to Issue PSD Permit Modification. 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.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

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 of the Florida Statutes. 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 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) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen 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 of the Florida Administrative Code.

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

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:

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

Florida Department of
Environmental Protection
Northeast District
Suite 200B, 7825 Baymeadows Way
Jacksonville, Florida 32256
Telephone: (904) 448-4300

The complete project file includes the application, Draft permit, and the information submitted by the Responsible Official, exclusive of confidential records under Section 403.111, F.S. Interested persons may review specific details of this project at <http://www.dep.state.fl.us/air/permitting/construct.htm> or contact the Administrator, New Source Review Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

Cedar Bay Generating Company, LP

Co-Firing of Petroleum Coke

U.S. Generating Company / Cedar Bay Cogeneration Facility

Duval County

0310337-005-AC



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

July 15, 2002

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Cedar Bay Generating Company, L.P.
Cedar Bay Cogeneration Facility
9640 Eastport Road
Jacksonville, Florida 32218

Authorized Representative: Bruce Smith, General Manager

1.2 REVIEWING AND PROCESS SCHEDULE

August 29, 2001 Received permit application and fee
September 28, 2001 Request For Additional Information
April 2, 2002 Second Request For Additional Information
July 1, 2002 Application complete

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

The facility is located in Jacksonville, Duval County. The UTM coordinates are Zone 17; 441.61 km E; 3365.552 km N. This site is approximately 54 kilometers from the Okefenokee National Wildlife Refuge and 98 kilometers from the Wolf Island National Wildlife Refuge, both Class I PSD Areas.

2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

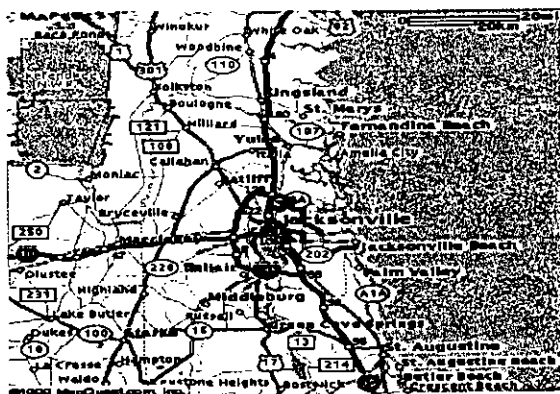
Industry Group No.	49	Electric, Gas and Sanitary Services
Industry No.	4911	Electric Services

2.3 FACILITY CATEGORY

This facility consists of three circulating fluidized bed (CFB) steam generators (boilers) designated as Boilers A, B, and C, a coal handling area, a limestone handling area, and an ash handling area. Crushed coal is the primary fuel for Boilers A, B and C. The fuel for Boilers B and C can also be supplemented with short fiber recycle rejects received from Stone Container Corporation. No. 2 fuel oil is used as supplemental fuel in all three boilers normally only for start-ups.

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Based upon the Title V permit, this facility is a major source of hazardous air pollutants (HAPs). See Figures 1 and 2 below.



Cedar Bay Generating Company, L.P.
Cedar Bay Cogeneration Facility

DEP File No. 0310337-005-AC

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

3. PROJECT DESCRIPTION

This project primarily addresses the following emissions unit(s):

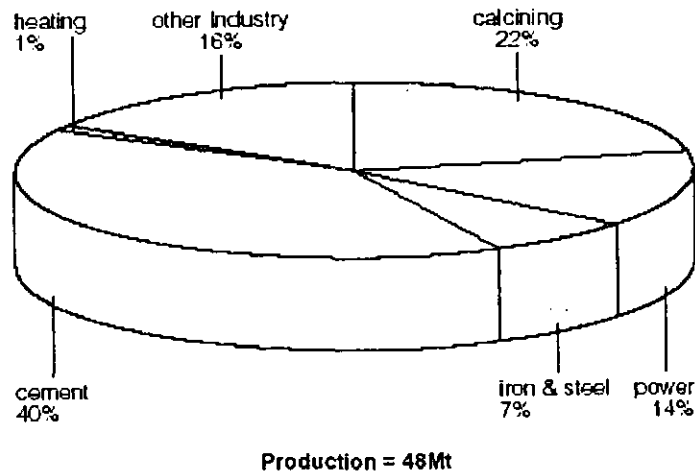
Emissions Unit No.	Emissions Unit Description
001	Pyroflow [®] Circulating Fluidized Bed (CFB) dry bottom boiler designated as "CFB Boiler A"
002	Pyroflow [®] Circulating Fluidized Bed (CFB) dry bottom boiler designated as "CFB Boiler B"
003	Pyroflow [®] Circulating Fluidized Bed (CFB) dry bottom boiler designated as "CFB Boiler C"

The applicant proposes to combust up to 35% of its fuel (on a weight basis) as petroleum coke (petcoke). The facility currently combusts coal as its primary fuel. The applicant indicates that this permit modification can be made in such a way that air emissions will not increase beyond historical levels, thus a PSD Review will not be triggered. The applicant further proposes to maintain and submit to the Department (FDEP) and the Regulatory and Environmental Services Department of Jacksonville (RESA) on an annual basis for a period of 5-years from the date each emission unit begins firing petroleum coke, data demonstrating in accordance with 40 CFR 52.21(b)(21)(v) and 40 CFR 52.21(b)(33) that the operational change associated with the use of petroleum coke did not result in significant emission increases for CO, NO_x, PM, SO₂, SAM and VOC. A general review of petcoke, CFB Boilers, a review of the future actual emissions and related emission analyses follow.

3.1 PETCOKE DISCUSSION

Much of this review was obtained from The Clean Coal Centre of the United Kingdom, in an article entitled "The use of petroleum coke in a coal-fired plant". Petroleum coke is a by-product from oil refineries and is composed mainly of carbon though it also contains high levels of sulfur and some heavy metals such as vanadium and nickel. There has been considerable interest in petcoke for several years, where it is available, as it is generally significantly cheaper than coal. The price does vary depending on the volumes produced and worldwide demand. The world production of petcoke grew by 50% from 1987 to 1998. It reached nearly 50 Million Tons (Mt) in 1999 and is expected to reach 100 Mt by 2010. The USA is the world's largest producer, producing three-quarters of world supplies. There are three types of petroleum coke, which can be produced depending on the process of production. The three processes are delayed, fluid and flexicoking with delayed coking producing over 90%. All three types of petcoke have higher calorific values than coal and contain less volatile matter and ash. The main uses of petcoke are as an energy source for power generation, in cement production and iron and steel production (which account for about two thirds of production) and the remainder is used mainly as a carbon source.

FIGURE 3 - 1999 WORLD PETROLEUM COKE MARKET PROFILE



TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The following additional information was compiled for the Year 2000. The source of this data is FERC Form 423, although the Energy Information Administration (EIA) summarized it in a report entitled "Cost and Quality of Fuels for Electric Utility Plants 2000 Tables", dated August 2001. This data was accumulated for electric generating plants with nameplate capacity of 50 megawatts or more. Tables 25 and 28 from that report are shown below:

Table 25. The Top 20 Electric Utilities, Ranked by Receipts of Coal, 2000

Electric Utility	Receipts (thousand short tons)	Average Delivered Cost		Total Coal Bill (million dollars)
		cents per million Btu)	(dollars per short ton)	
1. Tennessee Valley Authority.....	41,992	110.2	25.44	1,068.1
2. Georgia Power Co.....	14,743	154.5	35.65	1,238.7
3. TXU Electric Co.....	12,508	105.5	14.11	458.8
4. PacificCorp.....	28,068	85.5	16.80	471.6
5. Alabama Power Co.....	25,634	147.0	31.37	804.2
6. Detroit Edison Co.....	19,582	129.6	26.90	526.8
7. Roham III & P.....	18,150	113.4	22.17	406.9
8. Basin Electric Power Corp.....	15,981	59.2	8.70	139.0
9. Ameren UE.....	15,675	93.6	16.46	258.0
10. Duke Power Co.....	15,089	135.9	31.78	500.7
11. PSI Energy Inc.....	11,643	106.6	24.52	350.0
12. Ohio Power Co.....	14,618	213.1	50.70	741.1
13. Virginia Electric & Power.....	13,945	126.5	32.05	447.0
14. Northern States Power Co.....	13,147	108.6	19.22	252.7
15. Arkansas Power & Light Co.....	12,383	142.9	24.88	308.1
16. Appalachian Power Co.....	11,868	132.2	32.25	382.8
17. Southwestern Electric Power.....	11,705	140.5	22.40	262.1
18. Salt River Proj. Ag. I. & P. Dist.....	11,556	116.8	24.54	283.5
19. Wisconsin Electric Power.....	11,362	100.0	18.96	215.4
20. Cincinnati Gas & Electric Co.....	11,210	105.9	25.66	287.7

Notes: Data are for electric generating plants with a total steam-electric and combined-cycle nameplate capacity of 50 or more megawatts.
Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 28. Receipts of Petroleum Coke by Electric Utility, 2000

Electric Utility	Receipts (thousand short tons)	Average Quality			Average Delivered Cost	
		Btu (per pound)	Sulfur (percent by weight)	Ash (percent by weight)	cents per million Btu)	(dollars per short ton)
Central Illinois Pub Serv. Co.....	26	14,419	3.44	0.32	90.8	26.18
Jacksonville Electric Authority.....	444	14,398	5.90	.32	60.8	17.51
Lakeland Dept. of Water and Elec.....	2	14,068	6.43	.20	12.7	12.01
Manitowish Public Utilities.....	36	14,405	5.88	.53	16.5	13.40
Michigan South Central Power.....	2	14,073	4.90	.40	106.0	39.08
Northern Indiana Pub Serv. Co.....	174	14,406	4.11	.24	65.2	18.40
Northern States Power Co.....	220	14,085	5.34	.54	33.4	9.46
Ohio Edison Co.....	8	13,729	3.71	.40	73.0	20.29
Owensboro City of.....	9	13,884	5.24	.86	53.7	14.91
Pennsylvania Power Co.....	203	14,200	5.62	.42	74.3	21.09
San Antonio City of.....	9	14,500	4.00	.50	42.0	12.18
Tampa Electric Co.....	211	14,021	4.49	.40	51.2	14.35
Union Electric Co.....	124	14,306	3.74	.40	60.5	17.31
Wisconsin Electric Power Co.....	147	14,142	5.01	.34	70.3	19.89
Wisconsin Power & Light Co.....	69	14,213	5.62	.48	46.7	13.28
Total.....	1,683	14,214	5.14	.39	58.5	16.62

Notes: * Totals may not equal sum of components because of independent rounding. * Data are for electric generating plants with a total steam-electric and combined-cycle nameplate capacity of 50 or more megawatts.
Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Of interest, no Florida utilities show up in the top 20 listing of coal users, even though Florida is one of the most populous states. It is observed that the cost of petroleum coke in year 2000 was approximately 1/2 that of coal. According to Table 28, Florida had 3 users of petcoke out of 15 listed users. The tables also show that receipts of petcoke totaled 1683 thousand short tons, or less than 0.5% of the sum of coal receipts of the top 20 coal users. Only 3 utilities are listed on both tables: Northern States Power, Wisconsin Electric Power and Wisconsin Power & Light Company (Northern States Power is now known as XCEL Energy, headquartered in Minnesota). Jacksonville Electric Authority (JEA) is indicated as the largest utility user of petcoke during year 2000 for electrical generation.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

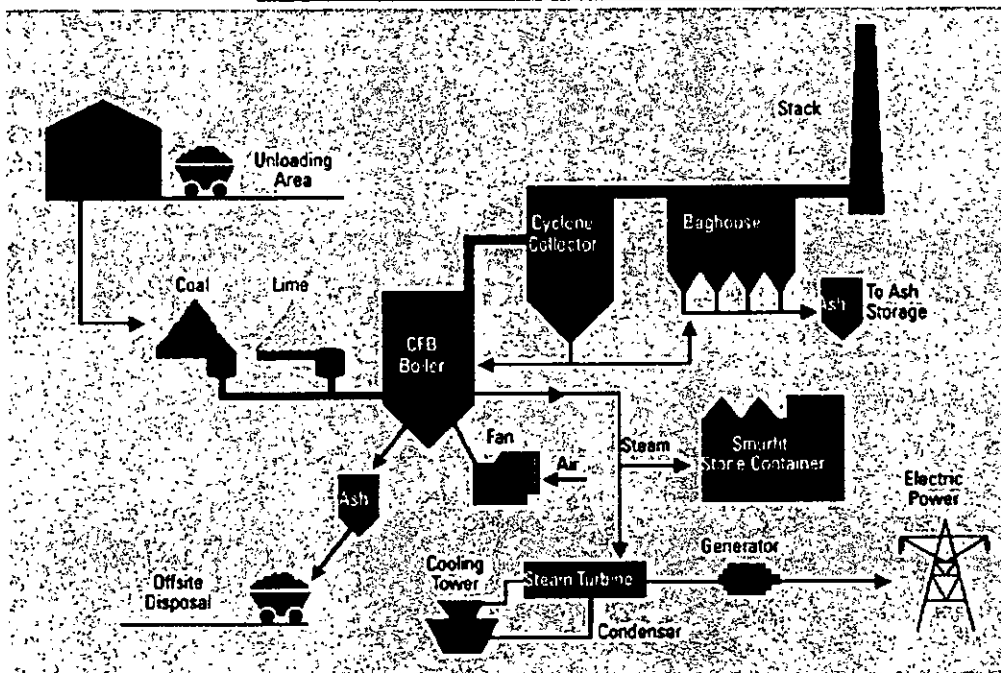
3.2 FLUIDIZED BED COMBUSTION

In a circulating fluidized-bed boiler, a portion of air is introduced through the bottom of the bed. The bed material normally consists of fuel, limestone and ash. Water-cooled membrane walls with specially designed air nozzles support the bottom of the bed, which distributes the air uniformly. The fuel and limestone (for sulfur capture) are fed into the lower bed. In the presence of fluidizing air, the fuel and limestone quickly and uniformly mix under the turbulent environment and behave like a fluid. Carbon particles in the fuel are exposed to the combustion air. The balance of combustion air is introduced at the top of the lower, dense bed. This staged combustion limits the formation of nitrogen oxides (NO_x). The captured solids, including any unburned carbon and unutilized calcium oxide (CaO), are re-injected directly back into the combustion chamber without passing through an external recirculation. This internal solids circulation provides longer residence time for fuel and limestone, resulting in good combustion and improved sulfur capture.

CFB plants are particularly suited for firing petcoke as the long residence times promote high burnout. The low combustion temperature allows SO_2 capture via limestone injection, while minimizing NO_x emissions. In fact, according to Foster Wheeler, CFB boilers are generally capable of removing over 98% of SO_2 . The technology is flexible enough to handle a wide range of coals plus petroleum coke as well as blends of coal and coke. Furthermore, the low volatile content of the petcoke is compensated by the substantial amount of hot solids within the boiler providing a constant source of ignition. Petroleum coke has been fired successfully since the 1980s in a wide variety of CFB plants. In the early years, plants tended to be smaller, generating tens of MW whereas more recently plant generating hundreds of MW are common.

The 135 MW AES Deepwater cogeneration plant has been firing 100% petcoke in an arch-type furnace since 1986. The 1344 MW St Johns River Power Park in Florida has been co-firing coal and up to 20% petroleum coke in two wall-fired units and the plant has not experienced any significant problems with corrosion, slagging or fouling and the increased operational costs have been more than offset by the lower fuel costs. The U.S. Department of Energy (DOE) and JEA have entered into an agreement to repower the JEA Northside Generating Station with CFB technology from Foster Wheeler. When operational, the plant will demonstrate CFB technology for coal firing in large-scale applications while providing increased plant electric output, reduced emissions and broad fuel flexibility. The Mt. Poso cogeneration plant in Southern California is permitted to combust petcoke, various coals and tire-derived fuel (TDF) in the CFB unit owned by Millennium Energy Partners, LLC.

FIGURE 4 – CEDAR BAY PLANT GRAPHIC



TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

4. PROJECT EMISSIONS

4.1 FUTURE ACTUAL EMISSION PROJECTIONS

The following table summarizes the future actual emissions increases/decreases at the facility, based upon the applicant's submittals:

Pollutant	1999 Actual Emissions (TPY)	2000 Actual Emissions (TPY)	1999-2000 Average (TPY)	Projected Emissions Co-firing Petcoke ¹	Projected Emissions Change	PSD Significant Emission Rates (TPY)	Subject To PSD Review?
NO _x	1741.5	1779.0	1760.2	1718.1	-42.1	40	NO
CO	582.3	516.0	549.1	400.9	-148.2	100	NO
VOC	17.89	17.25	17.57	34.65	17.08	40	NO
SO ₂	1926.2	1965.1	1945.6	1941.3	-4.3	40	NO
SAM	0.359	0.346	0.35	0.61	0.26	7	NO
PM ₁₀	193.7	165.2	179.4	169.9	-9.5	15	NO

¹ Based upon heat inputs from years 1999 and 2000.

4.2 BOTTLE-NECKING ISSUES

The existing permit provides certain limitations to the throughputs of raw and spent materials. As can be seen from Figure 4 above, there are two primary raw material inputs (coal and limestone) and two primary spent material streams (fly ash from the baghouse, and bed ash from the boiler bottom). A review of data reported to FDEP by Cedar Bay during years 1999 and 2000 shows the following actual annual throughputs along with their respective limits, each in tons per year (TPY).

	COAL	LIMESTONE	FLYASH	BED ASH
<i>ANNUAL LIMIT</i>	<i>1,170,000</i>	<i>320,000</i>	<i>336,000</i>	<i>88,000</i>
1999	962,569	122,835	138,306	69,153
2000	954,391	110,534	138,280	71,235

4.2.1 COAL (FUEL) THROUGHPUT

Co-firing of petcoke will result in a lower amount of coal being fired. Additionally, since petcoke has a higher BTU content per ton of fuel than does coal, the combined throughput of petcoke and coal should decrease. Therefore, it is improbable that the commencement of co-firing will cause the facility to approach the coal throughput limit.

4.2.2 LIMESTONE THROUGHPUT

Concerning limestone, the Department estimates that the facility will need to (approximately) double the throughput, in order to achieve the necessary SO₂ scrubbing required to ensure that the PSD significance level is not exceeded. As can be seen from the above table, limestone throughputs can nearly triple before the permitted limit is exceeded.

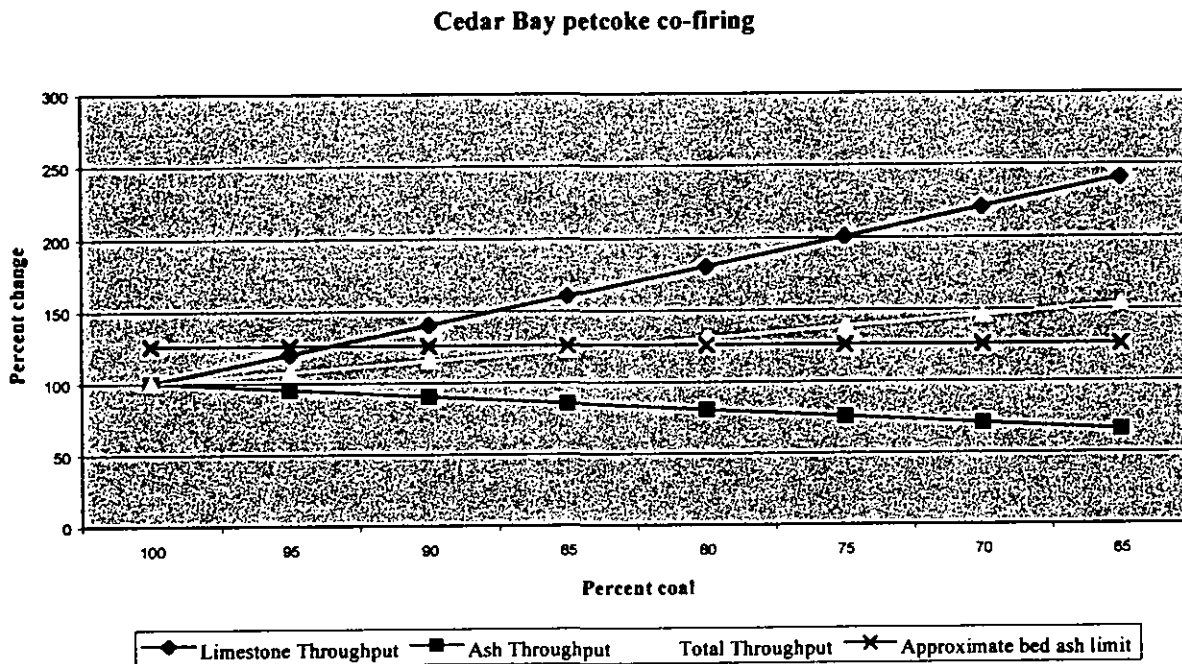
4.2.3 FLYASH THROUGHPUT

Like limestone, the past actual throughputs of flyash are well below permitted levels (approximately 40%). Since the ash content of petcoke is lower than that of coal, it is also unlikely that permitted throughputs of flyash will be exceeded, and Department calculations bear this out. However, the Department estimates that the throughput limit associated with bed ash could be problematic for the facility during the co-firing of petcoke, depending upon the amount and properties of the petcoke.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

4.2.4 BED ASH THROUGHPUT

It can be observed from the above table that historically, the flyash to bed ash ratio has been approximately 2:1. Simply stated, for each 1,000 ton of combined limestone and ash entering the boilers, around 667 tons will end up as fly ash and 333 tons will become bed ash. Accordingly, at an increased (combined) limestone and ash throughput of approximately 54,000 TPY, the flyash would be expected to increase by about 36,000 TPY whereas the bed ash would increase by about 18,000 TPY (assuming unchanged fuel quality). This increased throughput of bed ash is roughly equivalent to the permit limit, as the historical average (of approximately 70,000 TPY) is 18,000 TPY less than the limit. In summary, the 88,000 TPY bed ash limit likely becomes an upper bound for the amount of co-firing, which the facility can accommodate. What follows is a Department approximation of the equivalent amount of high sulfur petcoke, which corresponds to the 88,000 TPY bed ash limit (125% of the past actual).



4.2.5 BOTTLE-NECKING SUMMARY

Based upon the graph above and a number of conservative assumptions (e.g. coal quality, petcoke quality, limestone utilization rate, etc.) a practical co-firing limit for the highest sulfur-laden petcoke is approximately 20% (80% coal), as this is about the point at which it is anticipated that the bed ash limit may be reached. Of course, as the sulfur content of the petcoke is reduced, this practical limit begins to disappear (e.g. as the sulfur level of the petcoke approaches that of the coal). For example, at a petcoke sulfur content of 4%, the practical co-firing limit (based upon bed ash throughput) is approximately 35%. Accordingly, in order for the Department to have reasonable assurance that this facility can be permitted for the co-firing of petcoke without exceeding the existing permit limits, a limit on the petcoke throughput as well as the equivalent coal/petcoke blended sulfur content will be established.

5. RULE APPLICABILITY

This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment for all pollutants. Rule 62-4.030, F.A.C., prohibits modification of any existing emissions unit without first receiving a permit. It further specifies that a permitted installation may only be modified in a manner that is consistent with

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

the terms of such a permit. Rule 62-210.200, F.A.C., defines "modification" to mean generally a physical change or change in the method of operation that results in an increase in actual emissions of regulated air pollutants. Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C., also reiterate the requirement for construction permits. Additionally, Rule 62-210.300 requires an Air Construction permit for all new sources of air pollution unless specifically exempt.

FDEP deems that burning of petcoke is a change in the method of operation. Given that the source is major with regard to PSD, an analysis must be performed to verify that the burning of petcoke will not result in a significant net emissions increase and that, consequently, use of petcoke is not a major modification subject to PSD review. The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein).

6. PSD POLLUTANT ANALYSIS

The following excerpt from a 1998 publication of *Heat Engineering*, entitled *Firing Refinery By-products in Circulating Fluidized-Bed Steam Generators* is used as a preface to the Department's analysis of each PSD pollutant. It is noted that the emissions at this facility have been relatively steady over the past several years with consistently high capacity factors. FDEP data for years 1999 and 2000 is utilized as the 2-year baseline period.

The largest petcoke-fired CFB steam generators in the world were designed and built by Foster Wheeler for Nelson Industrial Steam Company (NISCO). They are located at the NISCO cogeneration facility in Lake Charles, La. The two 100 MWe CFB boilers at the facility have successfully burned petcoke since 1992 to repower existing

Carbon	75-84% (by wt)
Hydrogen	2.0-2.4%
Nitrogen	1.3-1.9%
Sulfur	3.4-5.3%
Ash	0.0-0.4%
Oxygen	0.0-0.1%
Moisture	5.5-15.0%
Vanadium	500-2000 ppm
Nickel	250-450 ppm
Iron	50-250 ppm
HHV	12,600-14,500 Btu/lb

turbine-generator equipment and to provide steam for an adjacent chemical plant. The project has been a financial success and the CFB plant has operated with high availability and capacity. Each of the NISCO boilers generates 825,000 pounds per hour of main steam at 1005°F and 1625 psig as well as 727,000 pounds per hour of reheat steam. The petcoke design fuel is characterized in Table 3. Boiler efficiency has been greater than 90 percent as measured by the ASME heat-loss method, and combustion efficiency has exceeded 99 percent. The boilers have also demonstrated excellent turndown capability, easily exceeding the guaranteed operating range of 40 to 100 percent maximum continuous rating (MCR) without having to fire auxiliary fuel for combustion stability. Since commissioning, plant availability has consistently been greater than 95 percent. As expected, levels of potential pollutants in the flue gas leaving the furnace have been very low. Sulfur removal has consistently been greater than 90 percent. Nitrogen-oxide emissions have typically been less than 0.15 lb. per Million Btu's (MMBtu) and often less than 0.07 lb/MMBtu. Carbon-monoxide emissions have been less than 0.06 lb/MMBtu at 100 percent

boiler load. Managers of the NISCO project have aggressively pursued beneficial uses of the ash-waste streams to further enhance cost-effectiveness. Virtually all of the environmentally inert ash produced by the two CFB boilers is sold for purposes such as soil conditioning.

6.1 CARBON MONOXIDE (CO) AND VOLATIVE ORGANIC COMPOUNDS (VOC)

The applicant contends that there will be a net emission decrease in CO from the co-firing of petcoke and coal, and no change in VOC emissions. Annual CO emissions averaged 549 TPY and 0.05 lb/MMBtu, while annual VOC emissions averaged 34.7 TPY. The Significant Emission Rate for CO is 100 TPY, and for VOC is 40 TPY. The Department finds it unlikely that the co-firing of petcoke will cause CO emissions to exceed 648 TPY (549 + 99) or VOC emissions to exceed 74 TPY (35 + 39). Accordingly, a BACT review is not required for these pollutants.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

6.2 NITROGEN OXIDE (NO_x)

The applicant indicates that NO_x emissions are likely to decrease, as uncontrolled NO_x will reduce by as much as 25%. Annual NO_x emissions averaged 1760 TPY and 0.15 lb/MMBtu. The Significant Emission Rate for NO_x is 40 TPY. The Department accepts the applicant's assessment and finds it unlikely that co-firing petcoke will cause NO_x emissions to exceed 1799 TPY (1760 + 39). Accordingly, a BACT review is not required.

6.3 SULFUR DIOXIDE (SO₂) AND SULFURIC ACID MIST (SAM)

The applicant recognizes that additional scrubbing will be required in order to maintain SO₂ and SAM emissions at historical levels. The past actual average emissions of SO₂ and SAM were 1945.6 and 0.35 TPY respectively. The average annual emission rate for SO₂ was 0.17 lb/MMBtu. The Significant Emission Rates (SER) are 40 TPY (SO₂) and 7 TPY (SAM). The Department accepts the applicant's proposal that SO₂ and SAM emissions can be maintained below the respective SER by additional scrubbing within the CFB's. However, the Department estimates that the practical limit of scrubbing within a CFB is approximately 95%. Accordingly, the Department will place a limit on the inlet SO₂ loading to the CFB's, which limits the maximum emission rate at the historical 0.17 lb/MMBtu via reasonable scrubbing efficiencies. The applicant proposes to limit the inlet SO₂ loading to 3.2 lb/MMBtu, which at 95% scrubbing results in an emission rate of 0.16 lb/MMBtu. This is acceptable to the Department and should ensure that the annual emission levels of SO₂ and SAM exceed neither 1985 (1945.6 + 39.9) TPY nor 7.34 (0.35 + 6.99) TPY respectively. In addition to this, the Department will place a limit on the throughput of petcoke at 35% input on a weight basis. Accordingly, the SO₂ and SAM emission increases are considered insignificant for PSD purposes and BACT reviews are not required.

6.4 PARTICULATE MATTER (PM₁₀)

According to FDEP data, the historical level of PM₁₀ for the CFB's averaged 180.06 TPY and the PSD Significant Emission Rate is 15 TPY. Given that the ash content of petcoke is significantly less than that of coal, the prime concern for potential increases in PM₁₀ is related to the increased lime throughput required for SO₂ scrubbing. As shown above, the Department estimates that this additional scrubbing can be achieved at removal efficiencies as high as 95%. This additional scrubbing is anticipated to result in total lime throughputs at twice historical levels. As reviewed in Section 4.2, and in order to ensure that the bed ash permitted throughput is not exceeded, the Department will require a monitoring system to accurately measure such throughput. The applicant will propose (to the Department's satisfaction) the system it recommends to utilize, prior to the initial receipt of petcoke. Actual in-service testing (while combusting coal) will be completed prior to the initial firing of petcoke, demonstrating its adequacy to the Department's satisfaction. As an additional means of ensuring compliance, the limestone throughput limit will be reduced to further ensure that the bed ash limit cannot be exceeded. Since no applicant estimate, including those of Foster Wheeler, indicates that the limestone throughput is required to exceed 275,000 TPY (in order to maintain SO₂ emissions at historical levels while co-firing petcoke), this will additionally be established as a reduced permit limit.

Concerning the stack emissions of PM₁₀, the facility uses baghouses. The applicant maintains that the emission rate from the baghouse for each CFB can be maintained because PM removal is not a function of loading, particularly given the low loading rates to the baghouse. This information is provided in the ABB Emissions Control System Operations and Maintenance Manual, a portion of which the applicant has provided to the Department. According to the manual, the particulate emission rate can be maintained over a range of grain loading and flow rates. The baghouses are designed for an inlet grain loading of 19.5 grains/acf at 297,700 acfm. The grain loading for coal is provided as 4.5 - 4.7 grains/acf for the baseline years of 1999 - 2000. A calculation of the total loading during co-firing reveals loadings at 5.1 - 5.5 grains/acf, still well below the design of 19.5 grains/acf. Additionally, the maximum grain loading projected in the Foster Wheeler report is 6.7 grains/acf, which is also less than the design condition. Unlike particulate removal devices such as ESP's, it is unlikely that PM emissions will increase through a baghouse, while the inlet loading is well below the design. This conclusion is supported by information available from EPA regarding fabric filters. In the Air Pollution Technology Fact Sheets for fabric filters EPA states that: "the effluent particle concentration from a fabric filter is nearly constant"... and "fabric filters can be considered constant outlet devices rather than constant efficiency devices." Accordingly,

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

the annual PM/PM₁₀ emissions from the stack are likely to be maintained with no increase above the PSD significant emission rate of 25/15 tons/year.

With regard to ancillary (or fugitive) emissions resulting from the increased lime throughput, the applicant estimates an annual PM₁₀ increase of 0.59 TPY. The historical PM₁₀ emission level for the balance of the plant (as reported to the Department) averaged 2.97 TPY. For the facility, total average annual PM₁₀ emissions were 183.03 TPY (180.06 + 2.97). In summary, all PM₁₀ emissions from the facility must remain less than 198 TPY (183 + 15) in order to be underneath the Significant Emission Rates. The applicant maintains that this can be accomplished and the Department accepts the applicant's claim.

6.5 SUMMARY

A preliminary review supports the applicant's contention that PSD is not triggered, eliminating the requirement for a BACT review and related modeling. PSD regulations (under the provisions commonly known as the "WEPCO rule") allow a source undertaking a non-routine change that could affect emissions at an electric utility steam generating unit to lawfully avoid the major source permitting process by using the unit's representative actual annual emissions to calculate emissions following the change, if the source submits information for 5 years following the change to confirm its pre-change projection. Under the WEPCO rule, Cedar Bay must compute baseline actual emissions and must project the future actual emissions from the modified units for a period after the physical change. In addition, Cedar Bay must maintain and submit to the Department on an annual basis for a period of at least 5 years from the date the units resume regular operation, information demonstrating that the change did not result in a significant emissions increase. If Cedar Bay fails to comply with the reporting requirements of the WEPCO rule or if the submitted information indicates that emissions have increased above PSD thresholds as a consequence of the change, it will be required to obtain a PSD permit for petcoke co-firing (meaning that a BACT Review would then be applicable). Finally, even though a PSD review is not triggered due to the co-firing project, Cedar Bay must meet all other applicable federal, state, and local air pollution requirements.

7. ADDITIONAL COMPLIANCE PROCEDURES

Pollutant	Compliance Procedures
NO _x emission limit	Five years of annual reporting by CEMS proving annual emissions do not exceed 1799 TPY
CO emission limit	Five years of annual reporting by CEMS proving annual emissions do not exceed 648 TPY
VOC emission limit	Five years of annual reporting by stack test proving annual emissions do not exceed 74 TPY
SO ₂ emission limit	Five years of annual reporting by CEMS proving annual emissions do not exceed 1985 TPY
SAM emission limit	Five years of annual reporting by stack test proving annual emissions do not exceed 7.3 TPY
PM ₁₀ emission limit	Five years of annual reporting by stack test proving annual facility emissions do not exceed 198 TPY

Specific permit conditions shall further describe these limitations. The reporting procedures are to begin during the first calendar year in which petcoke is fired.

8. CONCLUSION

Based on the foregoing technical evaluation of the application, additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Michael P. Halpin, P.E. Review Engineer
Department of Environmental Protection, Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

August xx, 2002

Mr. Bruce Smith
General Manager
Cedar Bay Generating Company, L.P.
P.O. Box 26324
Jacksonville, Florida 32226-6324

Re: DEP File No. PA 88-24; Modification of Permit No. PSD-FL-137
Cedar Bay Generating Plant / Duval County

The applicant, Cedar Bay Generating Company, L.P., applied on August 29, 2001, to the Department for a modification to PSD permit number PSD-FL-137 for its Cedar Bay Generating Plant located in Duval County. The modification is to allow the facility to co-fire petroleum coke (petcoke) in its three circulating fluidized bed boilers (A, B and C). The Department has reviewed the modification request. The referenced permit is hereby modified as follows:

II.A. Emission Limitations for CBCP Boilers

1. Fluidized Bed Coal Fired Boilers (CFB)

- a. The maximum coal charging rate of each CFB shall neither exceed 104,000 lbs/hr., 39,000 tons per month (30 consecutive days), nor 390,000 tons per year (TPY). This reflects a combined total of 312,000 lbs/hr., 117,000 tons per month, and 1,170,000 TPY for all three CFBs. Petroleum coke (petcoke) may be utilized as a co-firing fuel, and shall not exceed 35% fuel input by weight on a daily basis. {Permitting Note: The limitations on the coal charging rate include both coal and petcoke.}
- d. The sulfur content of the coal shall not exceed 1.2%, by weight, on an annual basis. The sulfur content shall not exceed 1.7%, by weight, on a shipment (train load) basis. When co-firing coal and petcoke, the blended fuel input to the CFBs shall not exceed 3.2 lb/MMBtu equivalent SO₂ content. Compliance shall be determined on a monthly basis via a composite of daily fuel samples.
4. Ammonia (NH₃) slip from the exhaust gases shall not exceed 10 ppmvd when co-firing petcoke or burning coal at 100% capacity and 30 ppmvd when burning oil.
10. Operations Monitoring for each CFB
 - b. All coal, petcoke and No. 2 fuel oil usage shall be recorded on a 24-hr (daily) basis for each CFB. Recycle rejects usage on a volumetric basis shall be estimated and recorded for each 24-hour period in which rejects are burned.
17. The permittee shall submit annual reports to RESD and DEP/BAR summarizing emissions for each calendar year. The reports will commence during the first year in which petcoke is fired and continue for a total of five calendar years. Such reports are required in order to confirm Cedar Bay's projections of future actual emissions and to demonstrate to the Department's

satisfaction that petcoke co-firing did not result in a significant emissions increase. Reporting shall be as follows:

<u>Pollutant</u>	<u>Compliance Procedures</u>
<u>NO_x</u>	Five years of annual reporting by CEMS proving annual facility emissions do not exceed 1799 TPY
<u>CO</u>	Five years of annual reporting by CEMS proving annual facility emissions do not exceed 648 TPY
<u>VOC</u>	Five years of annual reporting by stack test proving annual facility emissions do not exceed 74 TPY
<u>SO₂</u>	Five years of annual reporting by CEMS proving annual facility emissions do not exceed 1985 TPY
<u>SAM</u>	Five years of annual reporting by stack test proving annual facility emissions do not exceed 7.3 TPY
<u>PM₁₀</u>	Five years of annual reporting by stack test proving annual facility emissions do not exceed 198 TPY

II.B. CBCP - Material Handling and Treatment

2. The material handling/usage rates for coal, limestone, fly ash, and bed ash shall not exceed the following:

<u>Material</u>	<u>Handling/Usage Rate</u>	
	<u>TPM</u>	<u>TPY</u>
Coal	117,000	1,170,000
<u>Petcoke</u>	<u>40,950</u>	<u>409,500</u>
Limestone	27,000	320,000 <u>275,000</u>
Fly Ash	28,000	336,000
Bed Ash	8,000 ¹	88,000 ¹

Note: TPM is tons per month based on 30 consecutive days; and, TPY is tons per year.

¹ The Department will require a monitoring system to accurately measure Bed Ash throughput. The applicant will propose (to the Department's satisfaction) the system it recommends to utilize, prior to the initial receipt of petcoke. Actual in-service testing (while combusting coal) will be completed prior to the initial firing of petcoke, demonstrating its adequacy to the Department's satisfaction.

4.b. The PM emissions from the following process and/or equipment, in the material handling and treatment area sources, shall be controlled using wet suppression/removal techniques:

Coal Car Unloading	<u>Petcoke Unloading/Handling Areas</u>
Ash Pellet Hydrator	<u>Petcoke Transfer Areas</u>
Ash Pellet Curing Silo	<u>Petcoke Storage Areas</u>
Ash Pelletizing Pan	

The above listed sources are subject to a VE and a PM emissions limitation requirement of 5% opacity and 0.01 gr/dscf (applicant requested limitation, which is more stringent than what is allowed by rule), respectively, in accordance with Rule 17-296.711, F.A.C. Initial and subsequent compliance tests shall be conducted for VE and PM emissions using EPA Methods 9 and 5, respectively, in accordance with Chapter 17-297, F.A.C., and 40 CFR 60, Appendix A (July, 1992 version).

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

Bruce Smith, Cedar Bay *
J. A. Walker, Cedar Bay
Ken Kosky, P.E. Golder Associates
Hamilton S. Oven, P.E.
James L. Manning, P.E., RESD
Doug Neeley, EPA
John Bunyai, NPS
Chris Kirts, DEP-NED
Stafford Campbell, Greater Arlington Civic Council

Clerk Stamp

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

(Clerk)

(Date)

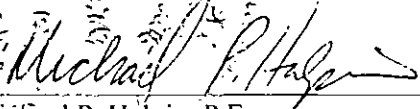
P.E. Certification Statement

Cedar Bay Generating Company, L.P.
Cedar Bay Generating Plant
Duval County

DEP File No.: PA 88-24 (PSD-FL-137)
Facility ID No.: 0310337

Project: Petroleum Coke - PSD Permit Modification

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

(Seal)


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

7-31-02
Date


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


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

Memorandum

Florida Department of Environmental Protection

TO: Clair Fancy

THRU: Al Linero 

FROM: Michael P. Halpin 

DATE: July 16, 2002

SUBJECT: Cedar Bay Generating Company, L.P.
Petroleum Coke - PSD Permit Modification
DEP File No. PP 88-24 (PSD-FL-137)

Attached is the public notice package for Cedar Bay Generating Plant permit modifications. This is an existing facility consisting of three circulating fluidized bed steam generators (boilers) designated as Boilers A, B, and C, a coal handling area, a limestone handling area, and an ash handling area. Crushed coal is the primary fuel for Boilers A, B and C. The fuel for Boilers B and C can also be supplemented with short fiber recycle rejects received from Stone Container Corporation. No. 2 fuel oil is used as supplemental fuel in all three boilers normally only for start-ups. These units have a Title V permit (0310337-002-AV) issued by the State of Florida.

The applicant has requested permission to co-fire petroleum coke (petcoke) up to 35% by weight. The applicant's proposal is intended to ensure that the PSD thresholds are not triggered, i.e. that the "modification" is not major and does not cause the effect of necessitating a BACT review.

A preliminary review supports the applicant's contention that PSD is not triggered, eliminating the requirement for a BACT review and related modeling. PSD regulations (under the provisions commonly known as the "WEPCO rule") allow a source undertaking a non-routine change that could affect emissions at an electric utility steam generating unit to lawfully avoid the major source permitting process by using the unit's representative actual annual emissions to calculate emissions following the change, if the source submits information for 5 years following the change to confirm its pre-change projection. Under the WEPCO rule, Cedar Bay must compute baseline actual emissions and must project the future actual emissions from the modified units for a period after the physical change. In addition, Cedar Bay must maintain and submit to the Department on an annual basis for a period of at least 5 years from the date the units resume regular operation, information demonstrating that the change did not result in a significant emissions increase.

These requirements have been built into the permit, and accordingly I recommend your approval. This is day 46 of the clock.

AAL/mph

Attachments