



# Florida Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

September 24, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED (Fed X<sup>®</sup>)  
9-23-93

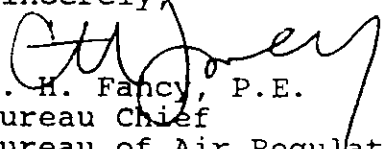
Ms. Jewell Harper  
Air Enforcement Branch  
U.S. Environmental Protection Agency  
Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30065

Re: Amendment/Revision of Permit No. PSD-FL-137

Dear Ms. Harper:

Cedar Bay Cogeneration, Inc. has requested that the referenced permit for the Cedar Bay Cogeneration Project (Project) be amended/ revised to include the reduced emission limitations recently adopted by the Siting Board of the State of Florida when it modified the Project's certification under Florida's Power Plant Siting Act. These emission reductions and related changes are associated with improvements in the air quality around the Project. This request is consistent with the Settlement Stipulation agreed to by all parties to the modification proceeding convened by Florida.

The Department finds the proposed revisions acceptable and has drafted the enclosed revised permit, No. PSD-FL-137A. Also enclosed for your review is a summary of and the record in the proceeding to modify the certification for the Project and a marked-up version of the previous permit, No. PSD-FL-137. Because this facility is subject to Florida's Power Plant Certification regulations, we request that EPA review and approve the enclosed draft and revised permit.

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

CHF/BM/rbm

Enclosures

cc: S. Pace, RESD  
E. Frey, NED  
R. Donelan, Esq., OGC  
B. Owen, PPS  
K. Fickett, C&CI  
9-23-93  
Fed X<sup>®</sup>:  
9-23-93 PA  
RFM

Enclosures

**Final Determination**

**Cedar Bay Cogeneration Inc.  
Cedar Bay Cogeneration Project  
Duval County, Florida**

**Permit No. PSD-FL-137A**

**Florida Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation**

**September 24, 1993**

## Final Determination

Air Permit PSD-FL-137 was issued to the Cedar Bay Cogeneration Project (the Project) of AES/Cedar Bay, Inc. on March 28, 1991, following review by the Division of Air Resources Management of the permit application (part of the Power Plant Siting application) and following certification by the Governor and Cabinet siting as the Siting Board under the Power Plant Siting Act. That permit was issued based on a demonstration by the applicant that the Project would satisfy the requirements of all applicable air regulations.

After questions were raised about the applicant's intention to construct and operate the Project in conformance with the conditions of certification (and of the Air Permit) and appropriate findings were made, the Siting Board instituted proceedings under the Power Plant Siting Act to modify the conditions of certification for the Project. AES Cedar Bay, Inc., and Seminole Kraft Corporation v. State of Florida Department of Environmental Regulation, DOAH Case No. 88-5740. Those proceedings culminated in the execution of a Settlement Stipulation on April 13, 1993, by the Parties in the modification proceedings which included the Florida Department of Environmental Protection (DEP). In that Settlement Stipulation (Attachment 4 to the revised Air Permit), the Parties agreed to recommend to the Siting Board that it modify the Conditions of Certification for the Project to include, among other things, more stringent emission limitations. On May 11, 1993, the Siting Board followed that recommendation and adopted an order modifying the conditions of certification.

Paragraph 23 of that Settlement Stipulation calls for amendment of the Air Permit for the Project to reflect the modifications that are applicable to the Project's Air Permit. According to paragraph 23 of the Settlement Stipulation, only the modifications recommended for the Conditions of Certification in paragraphs 4 and 6 of the Settlement Stipulation should not be included in the amended Air Permit for the CBCP, since those conditions are not applicable to that Permit.

Consistent with the terms of the Settlement Stipulation and in response to a request by the permittee, the CBC, Inc. (the new corporate name for the permittee), DEP has determined that the Air Permit should be revised to reflect the changes noted in the Settlement Stipulation. Accordingly, DEP is recommending to EPA that it officially revise the Air Permit to incorporate these changes.

The key technical changes to the Air Permit, which will result in substantial emission reductions from the Project, are as follows:

- A. Lower the limitations applicable to the emissions from the circulating fluidized bed boilers (CFBs) of SO<sub>2</sub>, NO<sub>x</sub>, CO, PM, PM-10, H<sub>2</sub>SO<sub>4</sub>, fluorides, lead, mercury, and beryllium consistent with the Conditions of Certification.

1. The restrictions on the sulfur content of the coal fired in the CFBs have been tightened, and the CBC will make operational changes in the limestone injection system to comply with the lower emission limitations for SO<sub>2</sub> and other acid gases.
  2. SNCR will be added to the CBCP to augment the low NO<sub>x</sub> performance of the CFBs, and an emission limitation for ammonia has been added.
  3. Enhanced combustion management will achieve lower CO emissions.
  4. Operational changes have been incorporated for the flue gas fabric filters to achieve lower PM emission limitations.
  5. Lower emission limitations are now possible for trace elements with this improved baghouse performance and revised emission factors.
  6. New technologies will be tested for additional mercury removal.
- B. Provide for compliance with the CFBs' opacity requirements and emission limitations for SO<sub>2</sub>, CO, and NO<sub>x</sub> to be determined using Continuous Emission Monitors as well as stack tests.
- C. Include permission for --
1. Two of the CFBs to burn short fiber recycle rejects from Seminole Kraft Corporation (SKC).
  2. The CFBs to operate at a furnace heat load below 70%.
  3. An increase in the use of fuel oil during the CFBs' start-ups from 0.16 million gpy to 1.9 million gpy.
  4. Reduce the allowable sulfur content of the fuel oil used in the CFBs during start-up to 0.05% by weight.
- D. For the limestone dryers --
1. Decrease their allowable hours of operation.
  2. Reduce the allowable sulfur content of the fuel oil used in them to 0.05% by weight.

- E. For other sources in the material handling and treatment area --
1. Reduce the allowable grain loadings by a factor of 10 for the point sources controlled with baghouses and by a factor of 3 for the point sources controlled with wet control systems.
  2. Rely on compliance tests based on visible emissions and grain loadings.

This recommendation is also based on the DEP findings that these emission reductions will in turn reduce the air quality impacts from the Project. In February of this year, ENSR submitted to DEP its "CBCP Air Quality Analysis;" and in March of this year, a number of replacement pages for this report were filed with DEP. ENSR's work shows (1) regional improvements in air quality with respect to the CBCP as originally certified and with respect to SKC's existing power and bark boilers, and (2) some increment expansions in the CBCP's significant impact area. These comparisons hold even when SKC's new package boilers are added to the impacts of the CBCP.

Accordingly, and as DEP reported in its March 25, 1993 staff report on the Project, the Project complies with all air quality requirements. Specifically, the CBCP will continue to comply with applicable PSD requirements: (1) the control technology planned for the CBCP will satisfy BACT requirements for all pollutants subject to new source review; (2) the emissions from the CBCP will not cause or contribute to a violation of the ambient standards or the PSD increments; (3) the CBCP will not have an adverse impact on the air quality related values of any class I area; (4) the CBCP will not adversely affect visibility, soils, or vegetation having significant commercial or recreational value; and (5) analyses show that any growth associated with the CBCP will not have significant air quality impacts.

Similarly, ENSR's Report indicates that the Project clearly continues to comply with applicable ozone nonattainment requirements: (1) the Project will satisfy the LAER requirement for VOCs; (2) the Project's VOC emissions will be more than offset by the shutdown of SKC's bark and power boilers; and (3) these offsets will result in a net air quality benefit. Finally, CBC, Inc. does not have any sources in Florida that are out of compliance with their air quality requirements; and Florida has an effective SIP for ozone.

That the Project satisfies all applicable requirements is also reflected in paragraph 2 of the Settlement Stipulation and in the final action taken by the Siting Board on the Conditions of Certification for the CBCP on May 11, 1993.

Under EPA's guidance on permit modifications, changes that do not involve increases in source emissions or in air quality impacts may be considered permit "amendments," which may be accomplished through simple administrative action without further public review or proceedings. (United States Environmental Protection Agency, Office of Air Quality Planning

and Standards, Revised Draft Policy on Permit Modifications and Extensions (July 5, 1985) at p. 11.) No increases in emissions or air quality impacts will occur for the Project. Accordingly, DEP finds that there is no need for public notice or comment prior to DEP's recommendation or to EPA's revising the Project's Air Permit consistent with the final determination.

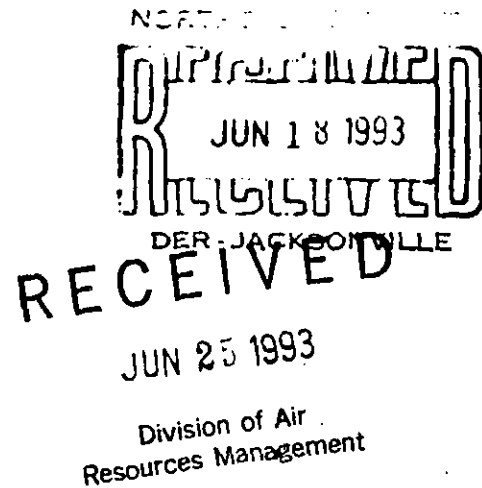
**Cedar Bay Generating Company,  
Limited Partnership**

June 11, 1993

**VIA CERTIFIED MAIL**  
**Receipt No. P 210 277 885**

Mr. Patrick Tobin  
Acting Regional Administrator  
United States Environmental Protection Agency  
Region IV  
345 Courtland Street, NE  
Atlanta, GA 30365

Re: Cedar Bay Cogeneration Project  
Duval County, Florida



Dear Mr. Tobin:

I am writing to update you regarding the air quality and other improvements recently ordered by the State of Florida for the Cedar Bay Cogeneration Project (the Project). This facility was originally certified pursuant to the Florida Power Plant Siting Act (PPSA) in February 1991 and permitted pursuant to the State of Florida's approved air program in March 1991. This letter is to inform EPA of certain modifications to the Project's Site Certification, such as reduced air emissions and air quality impacts.

In the summer of 1992, a proceeding was initiated to revise the State requirements for the Project. That proceeding recently culminated in a Settlement Stipulation, entered into by all of the parties (Attachment A to this letter) and approved by the Siting Board on May 11, 1993 (Attachment B to this letter). The Siting Board's Order calls for significant reductions to both the Project's air emissions and its air quality impacts. Moreover, in Paragraph 23 of the Settlement Stipulation, the Parties agreed that the Project's air permit should also be revised to reflect the agreed upon emission reductions and other improvements to ensure that they are federally enforceable. The Project is working with Florida's Department of Environmental Regulation (DER) to effectuate this requirement.

Effective August 7, 1992, EPA revoked DER's authority to implement the federal PSD program with respect to power plants subject to Florida's PPSA because of inconsistencies between the PPSA and EPA's PSD program.<sup>1/</sup> Until EPA returns permitting authority to Florida, EPA is responsible for final approval and issuance of PSD permits for facilities subject to the PPSA. As a result, under currently applicable procedures, DER would conduct the technical and administrative review for, and EPA would issue any revisions to, the air permit for the Project.

<sup>1/</sup> 55 Fed. Reg. 54, 931 (Nov. 23, 1992).





June 11, 1993

Page 2

In April 1993, after the Settlement Stipulation was signed, the Florida Legislature amended the PPSA in a way that should harmonize Florida's PPSA regulatory program with EPA's PSD guidelines. We understand that Florida plans to petition EPA for a return of its PSD authority in due course. However, given the uncertainty when the Settlement Stipulation was signed as to who would issue the revisions to the Project's air permit and when it would be revised, Paragraph 21 was included in the Settlement Stipulation. That Paragraph provides that "[w]ithin 30 days following final action by the Siting Board approving the modifications of the site certification," the project would alert EPA to the fact that the Project will be operated as though the applicable "provisions [of the new conditions of certification] were [already] incorporated into the existing air permit and accepts them as federally enforceable." (See Paragraphs 21 and 23.)

This letter is in satisfaction of the requirements set forth in Paragraphs 21 and 23 of the Settlement Stipulation. Thus, the Project hereby notifies EPA that the Project will be operated in compliance with the current provisions of the Conditions of Certification and of the Settlement Stipulation "as though they were incorporated into the air permit and accepts them as federally enforceable."

We look forward to working with EPA on these and other air quality matters as they may arise. If you have any questions, please do not hesitate to call Mark Carney at (301) 718-6899.

Sincerely,



Bernard E. Seals  
President and CEO

Attachments

cc: Parties of Record, w/o attachments  
Kent Fickett, w/o attachments  
Mark Carney, w/o attachments  
Clair Fancy, DER. w/o attachments

BES/dbr



**Cedar Bay Generating Company,  
Limited Partnership**

August 13, 1993

RECEIVED

AUG 16 1993

Division of Air  
Resources Management

C. H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**Cedar Bay Cogeneration Project**  
**Permit No.: PSD-FL-137**

Dear Mr. Fancy:

In response to our recent telephone conversation, I write to provide the materials that you need to support your recommendations to EPA that it revise Permit No.: PSD-FL-137 (the Air Permit) for Cedar Bay Cogeneration, Inc.'s (CBC's) Cedar Bay Cogeneration Project (the Project). Because the Project is subject to Florida's Power Plant Siting Act and because EPA wants to make final decisions on PSD permits for such facilities, a copy of this letter is being forward to Region IV.

As you recall, on April 13, 1993, the Parties to AES Cedar Bay, Inc., and Seminole Kraft Corporation v. State of Florida Department of Environmental Regulation, DOAH Case No. 88-5740, including the Florida Department of Environmental Protection (DEP) and CBC, filed a Settlement Stipulation with the Hearing Officer. In that Stipulation, the Parties agreed to recommend to the Siting Board that it modify the Conditions of Certification for the Project to include, among other things, more stringent emission limitations. On May 11, 1993, the Siting Board followed that recommendation and adopted an order modifying the conditions of certification.

Because Paragraph 23 of that Settlement Stipulation expressed the Parties' view that the Air Permit for the Project needed to be amended to include the recommended modifications that are applicable to the Project's Air Permit, we appreciate your focusing on revising the Air Permit. The needed changes are summarized in Enclosure 1.

As you can see from this summary, the changes ordered by the Siting Board, in accordance with the Settlement Stipulation, will result in substantial emission reductions from the Project. These emission reductions will in turn reduce the air quality impacts from the Project.



August 13, 1993

Page 2

Under EPA's guidance on permit modifications, changes that do not involve increases in source emissions or in air quality impacts may be considered permit "amendments," which may be accomplished through simple administrative action without further public review or proceedings. (United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Revised Draft Policy on Permit Modifications and Extensions (July 5, 1985) at p. 11.) In any event, the Air Permit amendments that are the subject of this letter have already been fully disclosed, debated, and resolved as part of the Site Certification process; and the Settlement Stipulation suggests no further formal proceedings are desired by the parties.

To facilitate your processing of our request, we have also enclosed three other documents:

Enclosure #	Contents
2	A marked-up version of the current Air Permit
3	A clean version of the Air Permit as we would recommend that it be revised
4	A draft package for you to send to EPA should you accept our recommendations

If you have any questions, please do not hesitate to call me at 301/718-6899.

Sincerely,

*Mark V. Carney*  
Mark V. Carney

Enclosures

cc: Patrick M. Tobin  
Jewell Harper  
Gregory Worley  
Richard Donelan



**SUMMARY OF CHANGES TO THE PROJECT'S AIR PERMIT**

## **SUMMARY OF CHANGES TO THE PROJECT'S AIR PERMIT**

CBC recommends the following changes in the Air Permit for the Project to reflect the May 11, 1993 Order of the Siting Board that was entered following settlement consistent with the recommendations of the DEP and with the evolving designing and construction of the Project:

### **ADMINISTRATIVE CHANGES IN OWNER**

1. Cedar Bay Cogeneration, Inc., is a general partner and the sole limited partner of Cedar Bay Generating Company, Limited Partnership. The other general partner of Cedar Bay Generating Company, Limited Partnership is Cedar II Power Corporation, which is indirectly partially owned by a subsidiary of Bechtel Enterprises, Inc. Cedar Bay Cogeneration, Inc. was formerly known as AES Cedar Bay, Inc. Cedar Bay Cogeneration, Inc. is indirectly partially owned by a subsidiary of PG&E Enterprises. The change in the name of the permit from AES Cedar Bay, Inc. to Cedar Bay Cogeneration, Inc. is to reflect the change in project ownership, as described above.

### **REDUCTION IN STACK EMISSIONS FROM THE CFBs**

2. The Project's circulating fluidized bed boilers ("CFBs") will be operated with the emissions summarized in Table 1, which are substantially lower than those in the current Air Permit. As indicated in that table, the Project will achieve lower emissions of (a) SO<sub>2</sub> and acid gases with further restrictions on the sulfur content of the coal to be burned and by feeding to its CFBs limestone of the requisite quality and quantity; (b) NO<sub>x</sub> by installing a selective non-catalytic reduction system; (c) particulate matter (and trace metals) by enhancing maintenance of the fabric filter; and (d) CO by properly managing combustion. The sulfur content of the Project's start-up oil is also being reduced to 0.05%. These parameters that are associated with lower emissions should be reflected in the first page of the Air Permit and in Permit Conditions II.A.1.d. and e., A.2., A.3.-9., C.5., and C.6. and a new provision A.4.

3. An innovative technique for possible further reductions in mercury emissions is to be tested on one of the Project's CFBs. Language to reflect this test program should be added to Specific Condition II.A.2.

### **REFINEMENTS IN DESIGN AND OPERATION OF THE LIMESTONE DRYERS AND OTHER MATERIALS HANDLING EQUIPMENT**

4. The limestone dryers can produce the limestone needed for input to the CFBs by operating 11 hours per day and 2920 hours per year. This change has the effect of, for example, reducing the annual emissions of SO<sub>2</sub>, NO<sub>x</sub>, PM, CO, and VOCs from the dryers by two thirds. The sulfur content of the limestone dryers' fuel oil can also be reduced to 0.05%. For certain other materials handling equipment, additional emission controls have been

incorporated into the design of the Project as has a more conservative method for characterizing aggregate emissions from materials handling equipment controlled with fabric filters. Language to reflect these refinements should be added to Specific Conditions II.B.1.-8., and new B.6 should be inserted.

### OPERATIONAL PARAMETERS

5. Though the existing limitations on the Project's total heat input and coal usage are still current, changes to three operational parameters that could affect coal usage are warranted:

A. The Air Permit currently requires the Project to maintain boiler load between 70% and 100% of the design rated heat capacity. Because the Project can be dispatched by the Florida Power and Light Company and since the Project can meet its environmental requirements at lower loads, Specific Condition II.A.9.b. was revised in order to allow operation of the Project at lower loads, in response to swings in load demand.

B. Given recent experience with the type of CFBs to be used at the Project, a greater number of start-ups and shutdowns are anticipated in the first two years of operation as the Project completes its shake-down period. As a result, an increase in the total amount of low sulfur oil burned during facility start-up is anticipated. An amendment to Specific Conditions II.A.1.e. and B.7. is needed to allow for an increase in the use of low sulfur oil for start-ups of the Project.

C. The CFBs at the Project are currently permitted to derive as much as 4% of their heat input from the firing of waste bark from Seminole Kraft Corporation's (SKC's) pulping operation. However, with SKC's conversion of its pulping operation to a recycling system, short fiber recycle rejects and not bark waste will be available for the Project's use. Because the carbonaceous material in the recycle rejects can replace some of the Project's coal and because the recycle rejects would have to be land-filled if not burned, the Project proposes a test to ascertain whether it is technically feasible to burn recycle rejects in two of its CFBs and whether they can burn recycle rejects in compliance with proposed emission limitations and other legal requirements. The Project is seeking approval to burn as much as 420 cubic yards per day of recycle rejects as an alternative boiler fuel for two of the CFBs if these two conditions are satisfied. Revision of the first page of the Air Permit and Specific Conditions II.A.1.b., A.1.h., and A.9.c. would permit this process to proceed.

6. Since the Project does not expect to utilize natural gas as a start-up fuel for the CFBs or as a fuel for the limestone dryers, the provision for this alternative fuel in Specific Conditions II.A.1.e., A.9.c., B.6., and B.7. can be deleted from the Air Permit.

## MISCELLANEOUS REVISIONS

7. Also needed are a number of ministerial revisions: changes throughout the Air Permit to reflect renumbering of applicable regulations; changes on the first page of the Air Permit to reflect recent PSC orders; clarifying changes in the wording of General Permit Condition 13 to confirm that the Project's terms and conditions satisfy all requirements of the applicable preconstruction permit programs; and changes to language in Specific Conditions II.1., A.1.f. and g., A.6., A.8.f., A.10., B.2. (Note), B.4, B.5, C.1, C.3, and D. of the Air Permit to enable it to better describe the Project, as modified, and to maintain consistency with the conditions of certification. In addition, new provisions II.A.13.-16., C.10. and E. need to be added. Finally, changes throughout the Air Permit are needed to make it internally consistent.

**TABLE 1: COMPARISON OF CFB EMISSIONS, AS PERMITTED VERSUS AS MODIFIED**

**Annual Emissions (tons per year) of the Project's CFBs**

<u>Emissions</u>	<u>As Permitted</u>	<u>As Modified</u>	<u>Method</u>
<b>Particulates</b>			
PM-10	257	234	Enhanced Maintenance for the Fabric Filtration of PM-10 and Trace Metals
Lead	91	0.78a	
Beryllium	1.5	0.11a	
Hg	3.4	0.38a	
<b>Acid Gases</b>			
SO <sub>2</sub>	4,015	2,598	Lower Sulfur Coal and Higher Ca/S Ratio Supplied to the CFBs
Fluorides	1,122	9.7a	
H <sub>2</sub> SO <sub>4</sub> Mist	308	6.1	
NO <sub>x</sub>	3,767	2,208	Add SNCR
<b>Products of Incomplete Combustion</b>			
CO	2,468	2,273	Improved Combustion Controls
VOCs	195	195	
Totals	12,227.9	7,525.07	

a These reductions are due in part to revised emission factors for the Project's coal supply.



MARKED-UP VERSION OF THE AIR PERMIT



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carmel M. Browner, Secretary

March 28, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jeff Swain  
AES/Cedar Bay Inc.  
1001 North 19th Street  
Arlington, Virginia 22209

Dear Mr. Swain:

Re: AES/Cedar Bay Inc.  
Cogeneration Project, PSD-FL-137

Please find enclosed the above referenced permit. You have the right to petition for an administrative hearing pursuant to Section 120.57, Florida Statutes, within 14 days of receipt of this permit or file a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, within 30 days from the date this permit is filed with the Clerk of the Department. Further, you may request a public hearing. Such request must be submitted within 30 days of receipt of this permit.

If you have any questions, please call Barry Andrews at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/kt

enclosure

cc: J. Harper, EPA  
A. Kutyna, NE District  
K. Kurts, BESD  
T. Cole, Oertel & Hoffman

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 3-29-91.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(9), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

Lyni Saben  
Clerk

3-29-91  
Date

**Final Determination**

**AES/Cedar Bay Inc.  
Cogeneration Project  
Duval County, Florida**

**Permit No: PSD-FL-137**

**Florida Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation**

**March 28, 1991**

GEN. BY REGIONAL ADMIN.      STATE OF FLORIDA      8TH FLOOR      202 716 2707 B 6

**Final Determination**

AES/Cedar Bay, Inc.'s PSD permit application (part of the Power Plant Siting application), has been reviewed by the Division of Air Resources Management. Comments received from EPA Region IV dated March 27, 1991 (see attachment 2) are addressed below.

**Public Notice**

The EPA questioned why the notice was published on the same date that the Site Certification Hearing was scheduled to begin, thereby not providing a 30 day notice and comment period.

Notice was published originally on December 8, 1989, for a January 8, 1990 hearing. A copy of the proposed Notice was sent to Region IV on December 1, 1989 for review. No comments were received regarding the increment consumptions reflected in the Notice sent to EPA. The hearing was then postponed from January 8, 1990 to February 5, 1990. The hearing then had to be continued on February 20, 1990 for which the Notice was published on February 12, 1990. In addition, public access hearings were held on February 7, 1990 and February 21, 1990 for nonparty members of the public. The public always has the right to speak. Only if they intervene as a formal party do they need an attorney as required by Florida law.

**EACT Analysis**

The Department agrees with EPA that add-on NOx controls are technically feasible for the AES/Cedar Bay project. The decision to establish the NOx limitation at 0.29 lb/MMBtu was based on the overall benefits that would be obtained from the construction of the cogeneration facility (the additional cost of SNCR would cause the project to become financially unfeasible). The circulating fluidized bed (CFB) boilers will replace older boilers which have higher emissions per heat input. In addition, the 0.29 lb/MMBtu limitation was judged to be the most stringent limitation placed on a coal fired boiler which does not have add-on NOx controls.

For sulfur dioxide, the Department evaluated the cost of switching to a lower sulfur coal and determined that such a cost was prohibitive. It should be noted that the decision to limit the average annual sulfur content to 1.7 percent is well below the initial proposal of 3.3 percent by the applicant. With regard to the control efficiency, the Department believes that 90 percent efficiency is reasonable for the CFB design.



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lynn Chiles, Governor

Carol M. Brownell, Secretary

Cedar Bay Cogeneration, Inc  
7475 Wisconsin Avenue  
Bethesda, MD 20814-7422

**PERMITTEE:**  
S/Cedar Bay, Inc.  
81 North 19th Street  
Arlington, VA 22209

Permit Number: PSD-FL-137  
County: Duval  
Latitude/Longitude: 30°25'21"W  
81°36'23"W

Project: Cogeneration Project

for the Cedar Bay Cogeneration Project (CBCP) (FAC)

This permit is issued under the provisions of Chapter 403, Florida Statutes (FS), and Florida Administrative Code Chapters 17-20 and 17-4. The above named permittee is hereby authorized to perform the work to operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

This permit is for the installation of an integrated cogeneration power plant complex at the Seminole Kraft Corporation facility located in Jacksonville, Florida. The power complex will consist of three oil/bark-fired circulating fluidized bed (CFB) boilers, the respective coal-handling equipment, and limestone dryers, to be owned and operated by ~~SES~~ Cedar Bay, Inc. *and operated under contract with the U.S. Operating Service Company.*

The three CFB boilers, <sup>4</sup> rated at 3,189 MMBtu/hr, will burn fuel made up of approximately 96 percent coal and 4 percent bark. The boilers will generate steam to produce power from a turbine generator set. The cogeneration facility will generate 225 MW of electricity for sale to Florida Power & Light as well as low-pressure process steam for the Seminole Kraft Corporation.

Nitrogen oxides will be controlled by the good combustion characteristics which are an inherent part of the CFB technology. Sulfur dioxide will be controlled by limiting the average annual sulfur content to 1.7% and the inherent limestone scrubbing provided by the CFB technology. Particulates will be controlled with fabric filters. *> 1.2%*

Construction shall be in accordance with the permit application and additional information submitted except as otherwise noted in the specific Conditions.

### Attachments:

- Power plant site certification package PA 88-24 and its associated attachments, dated January 19, 1990.
- Letter from EPA dated March 27, 1991.
- DER's Final Determination dated March 28, 1991. (see back of page)

whose principal fuel will be coal; <sup>3</sup> a cooling tower; ash, and other material <sup>4</sup> permitted to input heat at the rate of

- 5 largely or exclusively coal
- 6 with the possibility that two CFBs will fire some short fiber recycle



**GENERAL CONDITIONS:**

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 any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of 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 therefor; 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.

PERMITTEE: <sup>Cogeneration</sup>  
~~ABC~~ Cedar Bay Inc.

Permit No. AC PSD-FL-137  
County: Duval

**GENERAL CONDITIONS:**

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 any 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 proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance,



PERMITTEE:  
A&S/Cedar Bay Inc.

Permit No. AC PSD-FL-137  
County: Duval

*Cogeneration*  
**GENERAL CONDITIONS:**

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 17-4.120 and 17-30.300, 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 (BACT)
- b.  Determination of Prevention of Significant Deterioration (PSD)
- c.  Compliance with New Source Performance Standards and with *New Source Review for Non-attachment*

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 for 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:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

Correction:

PERMITTEE:  
AES/Cedar Bay/Inc.

Permit No. AC PSD-FL-137  
County: Duval

General Conditions:

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.

II SPECIFIC CONDITIONS:

1. The construction and operation of AESCB shall be in accordance with all applicable provisions of Chapters 17-2, F.A.C.. In addition to the foregoing, AESCB shall comply with the following conditions of certification as indicated.

A. Emission Limitations for AES 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.

~~b. The maximum wood waste (primarily bark) charging rate to the No. 1 and No. 2 CFBs each shall neither exceed 15,653 lbs/hr, nor 63,760 TPY. This reflects a combined total of 31,306 lbs/hr, and 127,521 TPY for the No. 1 and No. 2 CFBs. The No. 3 CFB will not utilize wood waste, nor will it be equipped with wood waste handling and firing equipment.~~

c. The maximum heat input to each CFB shall not exceed 1063 MMBtu/hr. This reflects a combined total of 3189 MMBtu/hr for all three units.

d. The sulfur content of the coal shall not exceed 1.7% by weight on an annual basis. The sulfur content shall not exceed 2.3% by weight on a shipment (train load) basis.

e. Auxiliary fuel burners shall be fueled only with natural gas or No. 2 fuel oil with a maximum sulfur content of 0.3% by weight. The fuel oil or natural gas shall be used only for startups. The maximum annual oil usage shall not exceed 1,900,000 gals/year, nor shall the maximum annual natural gas usage exceed 22 MCF per year. The maximum heat input from the fuel oil or gas shall not exceed 1120 MMBtu/hr for the CFBs.

\* normally only be used for

380

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During commercial operation the

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210-297

CBCP

CBCP

CBCP

see back of page

1,900,000

Note: ~~condition~~ Conditions 1.h, 2.c, 2.d, 2.e, and 4 on back side of page

PERMITTEE: <sup>Cogeneration</sup>  
 MS/Cedar Bay Inc.

Permit No: AC PSD-YL-137  
 County: Duval

f. The CFBs shall be fueled only with the fuels permitted in Conditions 1a, 1b, and 1c above. Other fuels or wastes shall not be burned without prior specific written approval of the Secretary of DER pursuant to ~~condition 1d, Modification of Condition~~ II.A.12 and B.11.

SK  
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g. The CFBs may operate continuously, i.e., 8760 hrs/yr., but shall not exceed  $25.98 \times 10^6$  MMBtu/yr total annual heat input.

2. Coal Fired Boiler Controls  
 The emissions from each CFB shall be controlled using the following systems:

- a. Limestone injection <sup>and fuel sulfur limitations,</sup> for control of sulfur dioxide and acid gases.
- b. Baghouse, for control of particulate matter.

3. Flue gas emissions from each CFB shall not exceed the following:

Pollutant	lbs/MMBtu		Emission Limitations					
			lbs/hr	TPY	TPY for 3 CFBs			
CO	0.15	0.175 <sup>1</sup>	202	186	823	758	2468	2273
NOx	0.29	0.17 <sup>2</sup>	308.3	180.7	1256	736.1	3767	2208
SO <sub>2</sub>	0.24 <sup>3</sup>	0.60 (1-hr aver)	637.8	255.1	--	--	--	--
	0.20 <sup>4</sup>	0.31 (12-MRA)	328.5	133.8	86.6	4015	2598	
VOC	0.015		16.0		65		195	
PM	0.020	0.018	21.3	19.1	87	78	260	234
PM <sub>10</sub>	0.020	0.018	21.3	19.1	86	78	257	234
H <sub>2</sub> SO <sub>4</sub> mist	0.024	4.66 e-04	25.5	0.50	103	2	308	6.1
Fluorides	0.086	7.44 e-04	21.4	0.79	124	3.2	1122	9.7
Lead	0.007	6.03 e-05	7.4	0.06	30	0.26	91	0.78
Mercury	0.00028	2.89 e-05	0.276	0.03	1.13	0.13	3.4	0.38
Beryllium	0.00011	8.70 e-06	0.117	0.01	0.5	0.04	1.5	0.11

[Note: TPY represents a 93% capacity factor.] ~~MRA refers to a twelve month rolling average.~~

5. A. Visible emissions (VE) shall not exceed 20% opacity (6 min. average), except for one 6 minute period per hour when VE shall not exceed 27% opacity pursuant to 40 CFR 60.42a.

6. Compliance with the emission limits shall be determined by EPA reference method tests included in the July 1, 1992 ~~1988~~ version of 40 CFR Parts 60 and 61, and ~~listed in Condition No. 7 of this permit or by equivalent methods after prior DER approval.~~ (see top of next page)

- (1) Eight hour rolling average, except for initial and annual compliance tests and the CEM certification, when 1-hour standard applies.
- (2) Thirty-day rolling average
- (3) Three-hour rolling average
- (4) Twelve-Month rolling average (Page 6 of 13 (MRA))

Rule 17-297, F.A.C., and listed in Condition No. II.A.8 of this permit or by equivalent methods after prior written DEP approval. In addition, compliance with the emission limitations in Condition No. II.A.3 for CO, NO<sub>x</sub> and SO<sub>2</sub> and with the capacity requirements in Condition No. II.A.5 shall be determined with the Continuous Emission Monitoring Systems (CEMS) identified in Condition No. II.A.9.

PERMITTEE:

~~ABC~~ Cedar Bay Inc. <sup>Logeneration</sup>

Permit No. AC PSD-FL-137

County: Duval

7. The CFBs are subject to 40 CFR Part 60, Subpart D<sup>A and Dg;</sup>; except that where requirements within this Certification are more restrictive, the requirements of this certification shall apply. <sup>permit</sup>

8. Compliance Tests for each CFB <sup>permit</sup>

a. Initial <sup>and subsequent</sup> compliance tests for PM/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, lead, fluorides, mercury, beryllium and H<sub>2</sub>SO<sub>4</sub> mist shall be conducted in accordance with 40 CFR 60.8 (a), (b), (d), (e), and (f). <sup>ammonia;</sup>

b. Annual compliance tests shall be performed for PM, SO<sub>2</sub> and NO<sub>x</sub>, commencing no later than 12 months from the initial test. <sup>CO,</sup>

c. Initial and annual visible emissions compliance tests shall be determined in accordance with 40 CFR 60.11(b) and (e).

d. The compliance tests shall be conducted between 90-100% of the maximum licensed capacity and firing rate of each permitted fuel.

e. The following test methods and procedures of <sup>DEP</sup> 40 CFR Parts 60 and 61 or other DEP approved methods with prior DEP approval shall be used for compliance testing: <sup>Rule 17-297, F.A.C., and</sup> <sup>DEP</sup>

- (1) Method 1 for selection of sample site and sample traverses.
- (2) Method 2 for determining stack gas flow rate.
- (3) Method 3 or 3A for gas analysis for calculation of percent O<sub>2</sub> and CO<sub>2</sub>.
- (4) Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet.
- (5) Method 5 or Method 17 for particulate matter.
- (6) Method 6, 6C, or 8 for SO<sub>2</sub>.
- (7) Method 7, 7A, 7E, 7C, 7D, or 7F for nitrogen oxides.
- (8) Method 8 for sulfuric acid mist.
- (9) Method 9 for visible emissions, in accordance with 40 CFR 60.11 and Appendix A.
- (10) Method 10 for CO.
- (11) Method 12 for lead. <sup>13A or</sup>
- (12) Method 13B for fluorides.
- 14 (13) Method 25A for VOCs. <sup>18 or</sup>
- 15 (14) Method 101A for mercury. <sup>or EPA Method 29</sup>
- 6 (15) Method 104 for beryllium.
- (13) Method 19 for sulphur dioxide removal efficiency pursuant to 40 CFR 60.48a.
- (17) Method 201 or 201A for PM<sub>10</sub> emissions.
- (18) Ammonia (NH<sub>3</sub>) Method to be determined by the DEP.

Note: see back of page for content of 9 and 9f

PERMITTEE: <sup>Cogeneration</sup>  
AES/Cedar Bay Inc.

Permit No. AC 75D-PL-137  
County: Duval

9 ~~f. Continuous Emission Monitoring for each CFB AFSCB shall use Continuous Emission Monitors (CEMS) to determine compliance. CEMS for opacity, SO<sub>2</sub>, NOx, CO, and O<sub>2</sub> or CO<sub>2</sub>, shall be installed, calibrated, maintained and operated for each unit, in accordance with 40 CFR 60.17a and 40 CFR 60 Appendix F.~~

~~a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B.~~

a ~~b. CEMS data shall be recorded and reported in accordance with Chapter 17-2, F.A.C., and 40 CFR 60. A record shall be kept for periods of startup, shutdown and malfunction.~~

b ~~c. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.~~

c ~~d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.~~

d ~~e. Opacity monitoring system data shall be reduced to 6-minute averages, based on 36 or more data points, and gaseous CEMS data shall be reduced to 1-hour averages, based on 4 or more data points, in accordance with 40 CFR 60.13(h).~~

e ~~f. For purposes of reports required under this <sup>permy</sup> certification, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Condition No. 10 herein, which exceeds the applicable emission limit in Condition No. 3.~~

10 ~~g. Operations Monitoring for each CFB~~

a. Devices shall be installed to continuously monitor and record steam production, and flue gas temperature at the exit of the control equipment.

~~b. The furnace heat load shall be maintained between 70% and 100% of the design rated capacity during normal operations.~~

b ~~c. The coal, bark, natural gas 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.~~

Note: See back of page for A.13., A.14., A.15, and A.16.

PERMITTEE: <sup>Loganathan</sup>  
AES/Cedar Bay Inc.

Permit No. AC PSD-FL-137  
County: Duval

11 ~~10~~. Reporting for each CFB

testing

a. A minimum of thirty (30) days prior <sup>DEP</sup> notification of compliance <sup>written</sup> test shall be given to DER's N.E. District office and to the BESD (Bio-Environmental Services Division) office, in accordance with 40 CFR 60.8. ←

b. <sup>In accordance with Rule 17-297.570, F.A.C., the</sup> results of compliance test shall be submitted to the BESD office within 45 days after completion of the test <sup>last</sup> run. ←

c. The owner or operator shall submit excess emission reports to BESD <sup>RESD</sup> in accordance with ~~40 CFR 60~~ <sup>Rule 17-210.700, F.A.C., and 40 CFR 60.7(c) and (d).</sup> The reports shall include the following: ←

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions <sup>(40 CFR §60.7(c)(1)).</sup> ←

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measured adopted <sup>(40 CFR §60.7(c)(2)).</sup> ←

(3) The date and time identifying each period during which the ~~continuous monitoring system~~ was inoperative except for zero and span checks, and the nature of the system repairs or adjustments <sup>(40 CFR §60.7(c)(3)).</sup> ←

(4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report <sup>(60.7(c)(4)).</sup> <sup>(40 CFR</sup> ←

(5) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection ~~(60.7(d))~~ <sup>(40 CFR 60.7(e)).</sup> ←

d. Annual and quarterly reports shall be submitted to BESD <sup>RESD</sup> as per F.A.C. Rule ~~17-2-700(7)~~ <sup>297.500, F.A.C.</sup> ←

12 ~~11~~. Any change in the method of operation, fuels utilized, equipment, or operating hours or any other changes pursuant to F.A.C. Rule ~~17-2-100~~ defining modification, shall be submitted for approval to DER's Bureau of Air Regulation. ←

<sup>212.200, F.A.C.</sup>  
↓  
DEP

Nok: 4b. on back of page

PERMITTEE: *Cogeneration*  
 220/Cedar Bay Inc.  
 CBCP

Permit No. AC PSD-PL-117  
 County: Duval

3. ~~ARS~~ - Material Handling and Treatment

1. The material handling and treatment operations may be continuous, i.e. ~~2700 hrs/yr~~ *see back of previous page* ←
2. The material handling/usage rates shall not exceed the following: *for coal, limestone, fly ash, and lead ash* ←

Material	Handling/Usage Rate	
	TPM	TPY
Coal	117,000	1,170,000
Limestone	27,000	320,000
Fly Ash	28,000	336,000
Red Ash	8,000	88,000

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

3. The VOC emissions from the maximum No. 2 fuel oil utilization rate of 240 gals/hr, ~~2,100,000~~ *and 700,800* gals/year for the limestone dryers; and 8000 gals/hr, ~~150,000~~ gals/year for the three boilers are not expected to be significant.

4. Material handling sources shall be regulated as follows:

a. ~~The maximum emissions from the material handling and treatment area, where baghouses are used as controls for specific sources, shall not exceed those listed below (based on AP-43 factors):~~ *and 1,900,000* sources with either fabric filter or baghouse controls are as follows: (see back of page for list)

Source	Particulate Emissions	
	lbs/hr	TPY
<del>Coal Rail Unloading</del>	<del>neg</del>	<del>neg</del>
<del>Coal Belt Feeder</del>	<del>neg</del>	<del>neg</del>
<del>Coal Crusher</del>	<del>0.41</del>	<del>1.78</del>
<del>Coal Belt Transfer</del>	<del>neg</del>	<del>neg</del>
<del>Coal Silo</del>	<del>neg</del>	<del>neg</del>
<del>Limestone Crusher</del>	<del>0.06</del>	<del>0.28</del>
<del>Limestone Hopper</del>	<del>0.01</del>	<del>0.03</del>
<del>Fly Ash Bin</del>	<del>0.03</del>	<del>0.10</del>
<del>Red Ash Hopper</del>	<del>0.06</del>	<del>0.25</del>
<del>Ash Silo</del>	<del>0.06</del>	<del>0.25</del>
<del>Cannon Feed Hopper</del>	<del>0.03</del>	<del>0.13</del>
<del>Ash Unloader</del>	<del>0.01</del>	<del>0.06</del>

The emissions from the above listed sources and the limestone dryers are subject to the particulate emission limitation requirement of 0.03 gr/dscf. However, neither DER nor DESD will require particulate tests in accordance with EPA Method 5 unless the

0.003

(Applicant requested limitation which is more stringent than what is allowed by Rule 17.296.711, F.A.C.). Since these sources are RACT standard type, then a one-time verification test on each source shall be required for PM mass emissions to demonstrate that the baghouse control systems can achieve the 0.003 gr/dscf. The performance tests shall be conducted using EPA Method 5 pursuant to Rule 17-217, F.A.C., and 40 CFR 60, Appendix A (July, 1991) version.

PERMITTEE: <sup>Co-generation</sup>  
ABS/Cedar Bay Inc.

Permit No. AC PSD-FL-137  
County: Duval

~~VE limit of 5% opacity is exceeded for a given source, or unless DER or RESD, based on other information, has reason to believe the particulate emission limits are being violated.~~

5. Visible Emissions (VE) shall not exceed 5% opacity from any source in the material handling and treatment area, ~~in accordance with F.A.C. Chapter 17-2.~~ (see back of page)

7.8. The maximum emissions from each of the limestone dryers while using oil shall not exceed the following (based on AP-42 factors, Table 1, 3-1, Industrial Distillate, 10/86):

Pollutant	Estimated Limitations					
	lbs/hr		TPY		TPY for 2 dryers	
PM/PM <sub>10</sub>	0.23	0.24	1.1	0.32	2.2	0.64
SO <sub>2</sub>	5.00	0.85	21.9	1.15	43.8	2.3
CO	0.60		2.8	0.81	5.2	1.62
NOx	2.40		10.3	3.25	21.0	6.5
VOC	0.05		0.2	0.06	0.4	0.12

Visible emissions from the dryers shall not exceed 5% opacity. ~~If natural gas is used, emissions limits shall be determined by factors contained in AP-42 Table 1, 4-1, Industrial 10/86.~~

<sup>sulfur content of</sup> ~~shall not exceed 0.05% by weight.~~ <sup>the maximum</sup> of No. 2 fuel

8.7. The maximum<sup>PM and</sup> No. 2 fuel oil firing rate for each limestone dryer shall not exceed 120 gals/hr, or ~~2,050,000~~ gals/year. This reflects a combined total fuel oil firing rate of 240 gals/hr, and ~~2,100,000~~ gals/year, for the two dryers. <sup>350,400</sup> <sup>700,800</sup>

~~The maximum natural gas firing rate for each limestone dryer shall not exceed 16,800 CF per hour, or 147 MCF per year.~~

9.8. Initial and annual<sup>PM and</sup> Visible Emission compliance tests for all the emission points in the material handling and treatment area, including but not limited to the sources specified in this permit, shall be conducted in accordance with the July 1, 1988 version of 40 CFR 60, using EPA Methods, <sup>Appendix A,</sup> <sup>and 9,</sup> respectively. <sup>1991</sup> RESD

10.8. Compliance test reports shall be submitted to RESD within 45 days of test completion in accordance with ~~Chapter 17-2.700(7) of the F.A.C.~~ Rule 17-297.570 of the F.A.C.

11.10. Any changes in the method of operation, raw materials processed, equipment, or operating hours or any other changes pursuant to F.A.C. Rule 17-2.100, defining modification, shall be submitted for approval to DER's Bureau of Air Regulation (BAR).

DEP 212.200



PERMITTEE: *Logan Station*  
AES/Cedar Bay Inc.

Permit No. AC PSD-PL-137  
County: Duval

C. Requirements For the Permittees

CBCP

RESID

DEP 1. Beginning one month after certification, ~~AESCB~~ shall submit to ~~AESD~~ and ~~DEP~~'s BAR, a quarterly status report briefly outlining progress made on engineering design and purchase of major equipment, including copies of technical data pertaining to the selected emission control devices. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of any such device. Such disapproval shall be issued within 30 days of receipt of the technical data.

CBCP 2. ~~The permittees~~ shall report any delays in construction and completion of the project which would delay commercial operation by more than 90 days to the ~~AESD~~ office. RESID

3. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating of roads and construction sites used by contractors, regrassing or watering areas of disturbed soils, will be taken by the permittees. CBCP: CBCP is subject to all applicable provisions of Rule 17-246.310(3), F.A.C., Unconfined Emissions of Particulate Matter.

4. Fuel shall not be burned in any unit unless the control devices are operating properly, pursuant to 40 CFR Part 60 Subpart Da.

5. The maximum sulfur content of the No. 2 fuel oil utilized in the CFBS and the two unit limestone dryers shall not exceed ~~0.3~~ <sup>0.05</sup> percent by weight. Samples shall be taken of each fuel oil shipment received and shall be analyzed for sulfur content and heating value. Records of the analyses shall be kept a minimum of ~~two~~ <sup>three</sup> years to be available for ~~DER~~ and ~~AESD~~ inspection. RESID

1.7 6. Coal fired in the CFBS shall have a sulfur content not to exceed ~~3.3~~ <sup>3.3</sup> percent by weight. Coal sulfur content shall be determined and recorded in accordance with 40 CFR 60.47a. *on a shipment (train load) basis.*

CBCP 7. ~~AESCB~~ shall maintain a daily log of the amounts and types of fuel used and copies of fuel analyses containing information on sulfur content and heating values.

CBCP 8. ~~The permittees~~ shall provide stack sampling facilities as required by Rule ~~17-2-700(4)~~ F.A.C. 17-297.345 F.A.C.

9. Prior to commercial operation of each source, the permittees shall each submit to the BAR a standardized plan or procedure that will allow that permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

10. All CBCP records of documentation shall be kept on file for a minimum of three years pursuant to Rule 17-4.160(14), F.A.C.

PERMITTEE: *Co-generation*  
ABC Cedar Bay Inc.

Permit No. AC PSD-FL-137  
County: Duval

D. Contemporaneous Emission Reductions

~~This certification and any individual air permits issued subsequent to the final order of the Board certifying the power plant site under 403.509, F.S., shall require, that~~ *shall* ~~the following Seminole Kraft Corporation sources be permanently shut down and made incapable of operation, and shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation,\* upon completion of the initial compliance tests on the AESCB boilers: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB.~~ *CRCP*  
~~BESD~~ shall be specifically informed in writing within thirty *ESD* days after each individual shut down of the above referenced equipment. This requirement shall operate as a joint and individual requirement to assure common control for purpose of ensuring that all commitments relied on are in fact fulfilled.

Issued this 28th day  
of March, 1992 3

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION  
PROTECTION

*Carol M. Browner*  
\_\_\_\_\_  
Carol M. Browner, Secretary

\* within 30 days of written confirmation by DEP of the successful

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Kent L. Fickett  
Cedar Bay Cogeneration, Inc.  
7500 Old Georgetown Road  
Bethesda, Maryland 20814

RE: Cedar Bay Cogeneration Project  
Revised Permit: PSD-FL-137A

Dear Mr. Fickett:

The U.S. EPA Region IV has completed its review of the summary of and the record in the proceeding to modify the certification for the Cedar Bay Cogeneration Project (Project) issued under Florida's Power Plant Siting Act, which were enclosures to Mr. C. H. Fancy's letter dated September 23, 1993; and, also reviewed was your request for administrative changes to the conditions of the air permit, No. PSD-FL-137, issued to Cedar Bay Cogeneration, Inc. -- the current name of AES/Cedar Bay, Inc., the original permittee for the Project -- on March 28, 1991, for the Project. You presented an array of changes to the original permit's (PSD-FL-137) Specific Conditions to account for the improvements in ambient air quality associated with the emission reductions now required by the Project's modified certification. The basis of your request for amendments/revisions are that -- based on changes in fuels, control technologies, operational parameters, and related equipment and procedures -- the Project will be required to and can achieve lower emission rates and that the Settlement Stipulation entered into by the parties to the modification proceeding commits the Project to requesting the proposed amended/revised permit, No. PSD-FL-137A.

Based on the foregoing, it is determined that the proposed revision (PSD-FL-137A) to permit No. PSD-FL-137 is acceptable and will not result in the increase of any pollutant emissions subject to the PSD regulations or of ambient impacts. As a result, the proposed revisions to the permit qualify as an administrative change and will not require additional public participation procedures.

Authority to construct a stationary source was granted for the Project, subject to the conditions contained in the permit to construct, No. PSD-FL-137, on March 28, 1991. The administrative change (PSD-FL-137A) does not alter the commence construction deadline for the Project. This authority to construct is based solely on the requirements of 40 CFR 52.21, the federal regulations governing significant deterioration of air quality, and in no way affects approvals under Federal or State regulatory authorities.

Please be advised that a violation of any condition issued as part of this approval, as well as any construction which proceeds in material variance with information submitted in your application, may subject Cedar Bay Cogeneration, Inc. to enforcement action.

Any questions concerning this administrative permit revision may be directed to Mr. Winston A. Smith, Director, Air, Pesticides, and Toxics Management Division at (404) 347-3043.

Sincerely yours,

Patrick M. Tobin  
Acting Regional Administrator

Enclosures

cc: Mr. C. H. Fancy  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

PSD-FL-137A

PERMIT TO CONSTRUCT UNDER THE RULES FOR THE  
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

Pursuant to and in accordance with the provisions of Part C, Subpart 1 of the Clean Air Act, as amended, 42 U.S.C. 7470 et seq., and the regulations promulgated thereunder at 40 C.F.R. 52.21, 40 CFR 24, and 40 CFR 51, Appendix S, as amended,

Cedar Bay Cogeneration, Inc.  
7500 Old Georgetown Road  
Bethesda, Maryland 20814

is hereby authorized to construct/modify a stationary source, specifically the Cedar Bay Cogeneration Project, at the following location:

Cedar Bay Cogeneration, Inc.  
Cedar Bay Cogeneration Project  
Duval County  
9640 Eastport Road  
Jacksonville, Florida

UTM Coordinates: Zone 17 - 441.76 km E, 3365.58 km N

Upon completion of this authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements and other conditions set forth in the attached General Conditions (Part I) and Specific Conditions (Part II).

The revisions to this permit shall become effective on the date signed below.

If construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this permit shall expire and authorization to construct shall become invalid.

This authorization to construct/modify shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of Federal, State, and Local law.

Date Signed

Patrick M. Tobin  
Acting Regional Administrator

**I. GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of 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 acknowledgement 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 F.S. 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 any 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 F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. 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 F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 17-4.120 and 17-730.300, 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:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration and Nonattainment Areas NSR
- (x) Compliance with New Source Performance Standards (NSPS; Subpart Da)

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 for 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:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the dates analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and,
  - 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.

## II. SPECIFIC CONDITIONS:

1. The construction and operation of Cedar Bay Cogeneration Project (CBCP or Project) shall be in accordance with all applicable provisions of Chapters 17-210 through 17-297, F.A.C. In addition to the foregoing, CBCP shall comply with the following conditions as indicated, which reflect the conditions of the Modification of Certification dated May 11, 1993:

### 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.

b. The maximum charging rate to each of two CFBs of short fiber recycle rejects from the SKC recycling process shall not exceed 210 yd<sup>3</sup>/day wet and 69,588 yd<sup>3</sup>/yr wet. This reflects a combined total of 420 yd<sup>3</sup>/day wet and 139,176 yd<sup>3</sup>/yr wet for the two CFBs that fire recycle rejects. The third CFB will not utilize recycle rejects, nor will it be equipped with handling and firing equipment for recycle rejects.

c. The maximum heat input to each CFB shall not exceed 1063 MMBtu/hr. This reflects a combined total of 3189 MMBtu/hr. for all three units.

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.

e. Auxiliary fuel burners shall be fueled only with No. 2 fuel oil with a maximum sulfur content of 0.05% by weight. The fuel oil shall normally only be used for startups. During commercial operation the maximum annual oil usage shall not exceed 1,900,000 gals./year. The maximum heat input from the fuel oil shall not exceed 380 MMBtu/hr. for each of the CFBs.

f. The CFBS shall be fueled only with the fuels permitted in Specific Conditions II.A.1.a., 1.b., and 1.e. above. Other fuels or wastes shall not be burned without prior specific written approval of the Secretary of the DEP pursuant to Specific Condition II.E., Modification of Conditions.

g. The CFBS may operate continuously, i.e., 8760 hrs/yr, but shall not exceed  $25.98 \times 10^6$  MMBtu/yr. total annual heat input.

h. To the extent that it is consistent with Specific Condition II.A.1.b. and the following, CBCP shall burn all of the short fiber rejects generated by SKC in processing recycled paper. No less than ninety (90) days prior to completion of construction, CBCP shall submit a plan to the DEP for conducting a 30-day test burn within one year after initial compliance testing. That test burn shall be designed to ascertain whether the CFBS can burn the rejects as supplemental fuel without exceeding any of the limitations on emissions and fuel usage contained in Specific Condition II.A. and without causing any operational problems which would affect the reliable operation (with customary maintenance) of the CFBS and without violating any other environmental requirements. CBCP shall notify the DEP and the Regulatory and Environmental Services Department (RESD) at least thirty (30) days prior to initiation of the test burn. The results of the test burn and CBCP's analysis shall be reported to the DEP and to the RESD within forty-five (45) days of completion of the test burn. The DEP shall notify CBCP within thirty (30) days thereafter of its approval or disapproval of any conclusion by CBCP that the test burn demonstrated that the rejects can be burned in compliance with this condition.

## 2. Coal Fired Boiler Controls

The emissions from each CFB shall be controlled using the following systems:

a. Limestone injection and fuel sulfur limitations, for control of sulfur dioxide and acid gases.

b. Baghouse, for control of particulate matter.

c. CBCP shall conduct a test to determine whether substantial additional removal of mercury can be obtained through a carbon injection system for mercury removal, as described in Exhibit 74 of the administrative record for the Lee County Resource Recovery Facility, which feeds carbon reagent into the CFB exhaust stream prior to the baghouse. Within one hundred eighty (180) days after initial compliance testing, CBCP shall conduct a test on one CFB to compare mercury emissions to the atmosphere with and without carbon injection. The test program will include the testing of carbon injection between the boiler and the fabric filter. Carbon forms to

be tested may include activated carbon with or without additives and pulverized coal with or without additives. After consultation with the DEP, RESD, and EPRI, CBC shall submit a mercury control test protocol to the DEP for approval by December 1, 1993. Results of the test shall be submitted to the DEP within 90 days of completion.

d. Selective Non-catalytic Reduction (SNCR) for control of NOx.

e. Good combustion characteristics, which are an inherent part of the CFB technology, for control of carbon monoxide and volatile organic compounds.

3. Flue gas emissions from each CFB shall not exceed the following:

<u>Pollutant</u>	<u>lbs/MMBtu</u>	<u>Emission Limitations</u>		
		<u>lbs/hr.</u>	<u>TPY</u>	<u>TPY for 3 CFBs</u>
CO	0.175 <sup>1</sup>	186 <sup>1</sup>	758	2273
NOx	0.17 <sup>2</sup>	180.7 <sup>2</sup>	736.1	2208
SO <sub>2</sub>	0.24 <sup>3</sup>	255.1 <sup>3</sup>	--	--
	0.20 <sup>4</sup>	<--	866	2598
VOC	0.015	16.0	65	195
PM	0.018	19.1	78	234
PM <sub>10</sub>	0.018	19.1	78	234
H <sub>2</sub> S <sub>04</sub> mist	4.66e-04	0.50	2.0	6.1
Fluorides	7.44e-04	0.79	3.2	9.7
Lead	6.03e-05	0.06	0.26	0.78
Mercury	2.89e-05	0.03	0.13	0.38
Beryllium	8.70e-06	0.01	0.04	0.11

[Note: TPY represents a 93% capacity factor.]

1 Eight-hour rolling average, except for initial and annual compliance tests and the CEM certification, when the 1-hour applies.

2 Thirty-day rolling average.

3 Three-hour rolling average.

4 Twelve-Month rolling average.

4. Ammonia (NH<sub>3</sub>) slip from exhaust gases shall not exceed 10 ppmvd when burning coal at 100% capacity and 30 ppmvd when burning oil.

5. Visible emissions (VE) shall not exceed 20% opacity (6 minute average), except for one 6 minute period per hour when VE shall not exceed 27% opacity pursuant to 40 CFR 60.42a.

6. Compliance with the emission limits shall be determined by EPA reference method tests included in the July 1, 1992 version of 40 CFR Parts 60 and 61, Chapter 17-297, F.A.C., and listed in Specific Condition II.A.8. of this permit or by equivalent methods after prior written DEP approval. In addition, compliance with the

emission limitations in Specific Condition II.A.3. for CO, NOX and SO<sub>2</sub>, and with the opacity requirements in Specific Condition II.A.5., shall be determined with the Continuous Emission Monitoring Systems (CEMs) identified in Specific Condition II.A.9.

7. The CFBs are subject to 40 CFR Part 60, Subparts A and Da, except that where requirements within this permit are more restrictive, the requirements of this permit shall apply.

8. Compliance Tests for each CFB

a. Initial and subsequent compliance tests for PM/PM<sub>10</sub>, SO<sub>2</sub>, NOx, CO, VOC, lead, fluorides, ammonia, mercury, beryllium and H<sub>2</sub>SO<sub>4</sub> mist, shall be conducted in accordance with 40 CFR 60.8 (a), (b), (c), (d), (e) and (f).

b. Annual compliance tests shall be performed for PM, CO, SO<sub>2</sub> and NOx, commencing no later than 12 months from the initial test.

c. Initial and annual visible emissions compliance tests shall be determined in accordance with 40 CFR 60.11(b) and (e).

d. The compliance tests shall be conducted between 90-100% of the maximum licensed capacity and firing rate for each permitted fuel.

e. The following test methods and procedures of Chapter 17-297, F.A.C., and 40 CFR Parts 60 and 61, or other DEP approved methods with prior DEP approval, in writing, shall be used for compliance testing:

- (1) Method 1 for selection of sample site and sample traverses.
- (2) Method 2 for determining stack gas flow rate.
- (3) Method 3 or 3A for gas analysis for calculation of percent O<sub>2</sub> and CO<sub>2</sub>.
- (4) Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet.
- (5) Method 5 or Method 17 for particulate matter.
- (6) Method 6, 6C, or 8 for SO<sub>2</sub>.
- (7) Method 7, 7A, 7B, 7C, 7D, or 7E for nitrogen oxides.
- (8) Method 8 for sulfuric acid mist.
- (9) Method 9 for visible emissions, in accordance with 40 CFR 60.11 and Appendix A.

- (10) Method 10 for CO.
- (11) Method 12 for lead.
- (12) Method 13A or 13B for fluorides.
- (13) Method 19 for sulphur dioxide removal efficiency pursuant to 40 CFR 60.48a.
- (14) Method 18 or 25 for VOCs.
- (15) Method 101A or EPA Method 29 for mercury.
- (16) Method 104 for beryllium.
- (17) Method 201 or 201A for PM10 emissions.
- (18) Ammonia (NH<sub>3</sub>) Method to be determined by the Department.

9. Continuous Emission Monitoring for each CFB

CBCP shall install, certify, calibrate, operate, and maintain continuous emission monitoring systems for opacity, SO<sub>2</sub>, NO<sub>x</sub>, CO, and O<sub>2</sub> or CO<sub>2</sub>, pursuant to all applicable requirements of Rule 17-296.800, F.A.C.; Chapter 17-297, F.A.C.; 40 CFR 60 Subpart A; 40 CFR 60 Subpart Da; 40 CFR 60 Appendix B; and, 40 CFR 60 Appendix F. These CEMs shall be used to determine compliance with the emission limitations in Specific Condition II.A.3. for CO, NO<sub>x</sub>, and SO<sub>2</sub>, and with the opacity requirements in Specific Condition II.A.5. The permittee may elect to install, certify, calibrate, operate, and maintain multiple span continuous emission monitoring systems for sulfur dioxide and nitrogen oxides providing certification tests and calibrations are performed for each span. Each of the continuous emission monitoring systems for sulfur dioxide and nitrogen oxides shall continuously record data on a span that satisfies the requirements of 40 CFR 60.47a. Any exception to the above must be specifically authorized by the DEP in writing and in accordance with state and federal regulations.

a. CEMS data shall be recorded and reported in accordance with Chapter 17-297, F.A.C., and 40 CFR 60.49a and 60.7. A record shall be kept for periods of startup, shutdown and malfunction.

b. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

c. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of all CEMS.

d. Opacity monitoring system data shall be reduced to 6-minute averages, based on 36 or more data points, and gaseous CEMS data shall be reduced to 1-hour averages, based on 4 or more data points, in accordance with 40 CFR 60.13(h).

e. For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Specific Condition II.A.11. herein, which exceeds the applicable emission limit in Specific Condition II.A.3.

f. The permittee is subject to all applicable provisions of Rule 17-4.130, F.A.C., Plant Operation-Problems.

#### 10. Operations Monitoring for each CFB

a. Devices shall be installed to continuously monitor and record steam production and flue gas temperature at the exit of the control equipment.

b. All coal 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.

#### 11. Reporting for each CFB

a. A minimum of thirty (30) days prior written notification of compliance testing shall be given to the DEP's N.E. District office and to the RESD office, in accordance with 40 CFR 60.8.

b. In accordance with Rule 17-297.570, F.A.C., the results of compliance test shall be submitted to the RESD office within 45 days after completion of the last test run.

c. The owner or operator shall submit excess emission reports to the RESD, in accordance with Rule 17-210.700, F.A.C., and 40 CFR 60.7(c) and (d). The reports shall include the following:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions (40 CFR 60.7(c)(1)).

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if

known) and the corrective action taken or preventive measures adopted (40 CFR 60.7(c)(2)).

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments (40 CFR 60.7(c)(3)).

(4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report (40 CFR 60.7(c)(4)).

(5) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by this permit recorded in a permanent form suitable for inspection (40 CFR 60.7)(e)).

d. Annual and quarterly reports shall be submitted to the RESD as per Rule 297.500, F.A.C.

12. Any change in the method of operation, fuels utilized, equipment, or operating hours or any other changes pursuant to Rule 17-212.200, F.A.C., defining modification, shall be submitted for approval to the DEP's Bureau of Air Regulation (BAR).

13. All records of documentation shall be kept on file for a minimum of 3 years pursuant to Rule 17-4.160(4), F.A.C.

14. The permittee is subject to all applicable provisions of Rule 17-210.700, F.A.C., Excess Emissions.

15. The permittee is subject to all applicable provisions of Rule 17-210.650, F.A.C., Circumvention.

16. The permittee is subject to all applicable provisions of Rule 17-4.160, F.A.C., Permit Conditions.

#### B. CBCP - Material Handling and Treatment

1. The material handling and treatment operations, including coal and limestone unloading buildings, coal and limestone reclaim hoppers, coal crusher house, limestone dryers, fly and bed ash silos, ash pelletizer, pellet curing silo, coal and limestone day silos, conveyors, storage areas and related equipment, may be operated continuously, i.e. 8760 hrs/yr, except that the limestone crushers/dryers may be operated for a maximum of 11 hours per day (maximum of 2920 hrs/yr) at maximum capacity.

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
Limestone	27,000	320,000
Fly Ash	28,000	336,000
Bed Ash	8,000	88,000

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

3. The VOC emissions, from the maximum No. 2 fuel oil utilization rate of 240 gals/hr. and 700,800 gals/year for the limestone dryers and 8000 gals/hr. and 1,900,000 gals/year for the three boilers, are not expected to be significant.

4. Material handling sources shall be regulated as follows:

a. The material handling and treatment area sources with either fabric filter or baghouse controls are as follows:

Coal Crusher Building	Bed Ash Bin
Coal Silo Conveyor	Fly Ash Bin
Limestone Pulverizer/Conveyor	Pellet Vibratory Screen
Limestone Storage Bin	Pelletizing Ash Recycle Tank
Bed Ash Hopper	Pelletizing Recycle Hopper
Bed Ash Silo	Cured Pellet Recycle Conveyor
Fly Ash Silo	Pellet Recycle Conveyor

The emissions from the above listed sources are subject to the particulate emission limitation requirement of 0.003 gr/dscf (applicant requested limitation which is more stringent than what is allowed by Rule 17.296.711, F.A.C.). Since these sources are RACT standard type, then a one-time verification test on each source shall be required for PM mass emissions to demonstrate that the baghouse control systems can achieve the 0.003 gr/dscf. The performance tests shall be conducted using EPA Method 5 pursuant to Rule 17-297, F.A.C., and 40 CFR 60, Appendix A (July, 1992 version).

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

Coal Car Unloading
Ash Pellet Hydrator
Ash Pellet Curing Silo
Ash Pelletizing Pan

The above listed sources are subject to a visible emission (VE) and



a particulate matter (PM) emission 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 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).

5. Visible Emissions (VE) shall not exceed 5% opacity from any source in the material handling and treatment area listed in Specific Condition II.B.4., in accordance with Rule 17-296.711(2)(a), F.A.C. After the one-time PM mass verification compliance tests have been performed, neither the DEP nor the RESD will require particulate matter mass tests in accordance with EPA Method 5 unless the VE limit of 5% opacity is exceeded for a given source, or unless the DEP or RESD, based on other information, has reason to believe the PM mass emission limits are being violated in accordance with Rule 17-297.620(4), F.A.C.

6. All sources subject to visible emissions and particulate matter mass emissions performance tests shall conduct them concurrently, except where inclement weather interferes.

7. The maximum emissions from each of the limestone dryers while using oil shall not exceed the following (based on AP-42 factors, Table 1, 3-1, Industrial Distillate, 10/86):

Pollutant	lbs/hr.	Limitations	
		TPY	TPY for 2 dryers
PM/PM <sub>10</sub>	0.24	0.32	0.64
SO <sub>2</sub>	0.85	1.15	2.3
CO	0.60	0.81	1.62
NOx	2.40	3.25	6.5
VOC	0.05	0.06	0.12

Visible emissions from the dryers shall not exceed 5% opacity.

8. The maximum sulfur content of No. 2 fuel oil shall not exceed 0.05% by weight. The maximum firing rate of No. 2 fuel oil for each limestone dryer shall not exceed 120 gals/hr., or 350,400 gals/year. This reflects a combined total fuel oil firing rate of 240 gals/hr., and 700,800 gals/year, for the two dryers.

9. Initial and annual PM and Visible Emission compliance tests for all the emission points in the material handling and treatment area, including but not limited to the sources specified in this permit, shall be conducted in accordance with the July 1, 1992 version of 40 CFR 60, Appendix A, using EPA Methods 5 and 9, respectively.

10. Compliance test reports shall be submitted to the RESD within 45 days of test completion in accordance with Rule 17-297.570, F.A.C.

11. Any changes in the method of operation, raw materials processed, equipment, or operating hours or any other changes pursuant to Rule 17-212.200, F.A.C., defining modification, shall be submitted for approval to the DEP's BAR.

C. Requirements For the Permittees

1. Beginning one month after certification, CBCP shall submit to the RESD and the DEP's BAR, a quarterly status report briefly outlining progress made on engineering design and purchase of major equipment, including copies of technical data pertaining to the selected emission control devices. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of any such device. Such disapproval shall be issued within 30 days after receipt of the technical data.

2. CBCP shall report any delays in construction and completion of the project which would delay commercial operation by more than 90 days to the RESD office.

3. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating of roads and construction sites used by contractors, regrassing or watering areas of disturbed soils, will be taken by CBCP. CBCP is subject to all applicable provisions of Rule 17-296.310(3), F.A.C., Unconfined Emissions of Particulate Matter.

4. Fuel shall not be burned in any CFB unit unless the control devices are operating properly, pursuant to 40 CFR Part 60 Subpart Da.

5. The maximum sulfur content of the No. 2 fuel oil utilized in the CFBs and the two unit limestone dryers shall not exceed 0.05% by weight. Samples shall be taken of each fuel oil shipment received and shall be analyzed for sulfur content and heating value. Records of the analyses shall be kept at a minimum of three years to be available for the DEP and RESD inspection.

6. Coal fired in the CFBs shall have a sulfur content not to exceed 1.7% by weight on a shipment (train load) basis. Coal sulfur content shall be determined and recorded in accordance with 40 CFR 60.47a.

7. CBC shall maintain a daily log of the amounts and types of fuel used and copies of fuel analyses containing information on sulfur content and heating values.

8. CBCP shall provide stack sampling facilities as required by Rule 17-297.345, F.A.C.

9. Prior to commercial operation of each source, the permittee shall submit to the DEP's BAR a standardized plan or procedure that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

10. All CBCP records of documentation shall be kept on file for a minimum of three years pursuant to Rule 17-4.160(14), F.A.C.

D. Contemporaneous Emission Reductions

The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation, and shall turn in their operation permits to the DEP's BAR, within 30 days of written confirmation by the DEP of the successful completion of the initial compliance tests on the CBCP boilers: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB. The RESD shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment. This requirement shall operate as a joint and individual requirement to assure common control for purpose of ensuring that all commitments relied on are in fact fulfilled.

E. Modification of Specific Conditions

The Specific Conditions of this permit may be modified in the following manner:

1. Through the May 11, 1993 Modification of Certification, the Board, which means the Governor and Cabinet, delegated to the Secretary of the DEP the authority to modify, after notice and opportunity for hearing, any conditions pertaining to consumptive use of water, reclaimed water, monitoring, sampling, ground water, surface water, mixing zones, or variances to water quality standards, zones of discharge, leachate control programs, effluent limitations, air emission limitations, fuel, or solid waste disposal, right of entry, railroad spur transmission line, access road, pipelines, or designation of agents for the purpose of enforcing the conditions of this permit.

2. All other modifications shall be made in accordance with Section 403.516, F.S.

### III. Attachments

1. Power Plant Site Certification package PA 88-24 and its associated attachments dated January 19, 1990.
2. Letter from EPA dated March 27, 1991.
3. DER's Final Determination dated March 28, 1991.
4. Letter from DOI dated December 24, 1992.
5. Settlement Stipulation dated April 13, 1993, in re: Power Plant Site Certification of Cedar Bay Cogeneration Project, PA-88-24(A), DOAH Case No. 88-5740, OGC Case No. 88-1089.
6. Final Order approving Modification of Certification dated May 11, 1993, in re: Power Plant Site Certification of Cedar Bay Cogeneration Project, PA-88-24A, DOAH Case No. 88-5740, OGC Case No. 88-1089.
7. DEP's Final Determination dated September 24, 1993.