

# ENVIRONMENTAL CONSULTING SERVICES, CO.

ROBERT G. HAINES, Ph.D.

President

September 18, 1991

PO. Box 733  
Orange Park, FL 32067-0733  
(904) 282-7788

Dan Thompson, Esq.  
Office of General Counsel  
FL Dept. of Environmental Regulation  
2000 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: AES - Cogeneration

Dear Dan:

Attached is a letter from the National Park Service Air Quality Division dated April 17, 1991 to Clair Fancy, DARM. Please supply: (1) the official response by FDER to this letter; (2) a full and complete reason why the Preliminary Determination document dated October 29, 1990 "arrived in the NPS office on March 15, 1991;" (3) who gave NPS assurance on March 20, 1991 that 30 days would be allowed for comment when the "final agency action" occurred on February 11, 1991; (4) a copy of the NPS comment letter that was belatedly filed; (5) was the public properly apprised of the permitting authority's response; (6) a complete explanation of why this procedure was not appropriately followed; (7) what was the response, if any, from Jellell Harper, EPA; (8) does the Power Plant Siting Act also preempt the involvement of the Federal Land Manager in PSD notification and permitting procedures; (9) a copy of that information that was supplied to NPS; (10) was the siting board informed on this obvious failure on part of the DER and if not, why not; (11) was the NPS and FLM notified of the existence of the 47,000 acre Timucuan Preserve established in 1988, of which Rep. Charles Bennett informed Gov. Martinez on 6/13/90, that is 3 km from the projected AES site and is a Class I area that has had no evaluation by the FLM or the Department; (12) what is the impact on the failure of DER to properly follow the procedures required by law on the validity of the "final agency action."

Your immediate response to these queries is important as the people in the Jacksonville Area are gravely concerned about this entire matter.

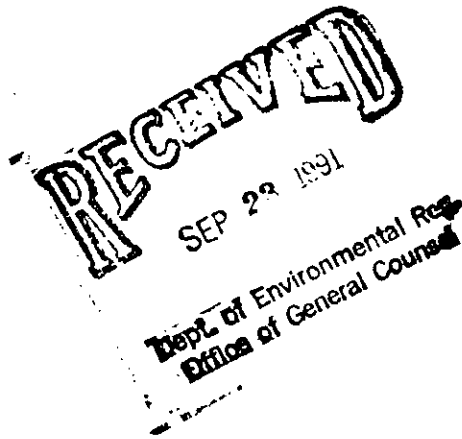
Sincerely,



R. G. Haines, Ph.D.  
President

ejh

cc Steve Smallwood, DARM  
David Maloney, Governor's Office  
Congressman Charles Bennett  
Diana Sawaya-Crane, Attorney General's Office  
Mayor Ed Austin, Jacksonville



April 17, 1991

N3615(475)

Mr. C.H. Fancy, P.E., Deputy Chief  
Bureau of Air Quality Management  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

As you know, the National Park Service (NPS) Air Quality Division has been involved in the review of a number of Prevention of Significant Deterioration (PSD) permit applications submitted to the Florida Department of Environmental Regulation (FDER). For the most part, the FDER has been diligent in its efforts to inform us of projects with the potential to impact class I areas under the jurisdiction of the NPS and the U.S. Fish and Wildlife Service, and has been receptive to our comments on permit applications. We appreciate your continued cooperation in this regard. However, the process of Power Plant Site Certification (PPSC) appears to bypass Federal Land Manager (FLM) involvement in the permitting process. We understand that the PSD review is included as part of the PPSC process, and in these cases, the normal PSD notification and permitting procedures apparently are not followed. For example, in recent months, there have been two instances in which we did not receive a copy of your Technical Evaluation and Preliminary Determination (Preliminary Determination) document for a proposed project until long after the public comment period had ended.

The first case involves the Florida Power and Light Lauderdale Repowering Project. Although we received the original application in December of 1989, our office was not notified when the application was deemed complete by the FDER in May of 1990, nor were we notified when the public comment period began in August of 1990. On January 31, 1991, we received a copy of the Preliminary Determination document dated September 24, 1990. In this case, we were able to supply comments to the FDER in time for them to be considered.

The second case involves the AES/Cedar Bay Cogeneration Project. The Preliminary Determination document dated October 29, 1990, arrived in our office on March 15, 1991. We were assured by telephone on March 20 that we would have 30 days to comment; we later discovered that the final permit had been issued on March 28. In this instance, we were not able to supply comments in time for them to be considered by the FDER. We will forward a comment letter to you in the near future so that it may be included in the project file.

Mr. Campbell,  
Enclosed is a copy  
of the document  
you requested. Please  
call me if you  
have questions.

Sandra  
Silva  
(303)969-2814

Generally, for projects with potential visibility impacts, the FLM is allowed a minimum of 60 days to review all information relevant to the permit application in order to evaluate potential impacts on a class I area and consult with the permitting authority on these potential impacts. If the FLM believes that the proposed facility may have an adverse impact on visibility, and so notifies the permitting authority within 30 days of receiving all relevant information (i.e., a complete application), then the public hearing notice must include certain information so that the public is fully apprised of the permitting authority's response to the FLM's information and can provide relevant comments at the hearing. For future applications that involve PPSC, we ask that you follow the same notification procedures that you use in other PSD projects, i.e., that you provide us with a copy of the application as soon as you receive it, and also notify our office when the application is deemed complete. We also ask that you forward copies of any supplemental information provided by the applicant, as well as your Preliminary Determination document. Additionally, we would like to be notified when the public comment period begins so that we can be assured of having ample time to provide comments to the FDER.

On a related matter, during a recent telephone conversation with FDER staff, we learned that members of your staff are in the process of reviewing a PPSC for Florida Power and Light's 1600 MW Martin Coal Gasification Project. We were told that we had not been notified of this project because the FDER was under the impression that we are only concerned about facilities proposed within a 100 km radius of a class I area. We wish to clarify that FLM notification should not be limited to this 100 km distance. Guidance provided by the Environmental Protection Agency (EPA) regarding FLM notification also recognizes the possible impacts of sources located more than 100 km from a class I area. In a March 19, 1979, policy memorandum, EPA states:

".....notice should be provided (to the FLM) for any facility which will be located within 100 km of a Class I area. Very large sources, however, may be expected to affect air quality related values at distances greater than 100 kilometers. The appropriate Federal Land Manager should be notified if such impacts are expected on a case-by-case basis".

Therefore, we suggest that you consult with us in the future on our need to review applications received on large projects located more than 100 km from a class I area. We are in the process of reviewing the Martin Coal Gasification Project application at this time and will submit our comments to the FDER shortly.

If you have any questions regarding these issues, please contact Tonnie Maniero in our office at (303) 969-2071.

Sincerely,

Erik R. Hauge *er*

Christine L. Shaver  
Chief, Policy, Planning  
and Permit Review Branch

cc:

Jellell Harper, Chief  
Air Enforcement Branch  
Air, Pesticides and Toxics  
Management Division  
U.S. EPA, Region 4  
345 Courtland St., NE  
Atlanta, Georgia 30365

bcc:

WASO: 475  
SERO: AQC  
EVER: Supt.  
WOIS: Refuge Manager  
CHAS: Refuge Manager  
SAMA: Refuge Manager  
OKEF: Refuge Manager  
FWS-REG. 4: AQC  
FWS-REG. 6: Ty Berry  
AQD-DEN: Reading and Project Files, Bunyak, Notar, Shaver, Silva  
AQD-DEN:TManiero:tm:4/11/91:x2071:Florida.ltr

File Copy

PMA  
3-28-91  
Atlanta, Ga.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

4APT-AEB

MAR 27 1991

RECEIVED  
APR 1 1991  
DER-BAQM

Mr. Clair H. Fancy, P.E., Chief  
Bureau of Air Regulation  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Preliminary Determination for AES/Cedar Bay (PSD-FL-137)

Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the above referenced facility dated March 11, 1991. We have reviewed the package as requested and have the following comments.

Public Notice

The public notice submitted in the package was specifically for the Site Certification Process. The notice is dated February 5, 1990, with the Site Certification Hearing scheduled for February 5, 1990. This does not fulfil the 30 day notice and comment period requirement of Florida's PSD regulation which was approved pursuant to 40 CFR §51.162. Item 8 of the public notice requires that persons "wishing to intervene in these proceedings must be represented by an attorney or other person who can be determined to be qualified..." which is not consistent with the PSD regulation. Other notable items in the public notice are as follows:

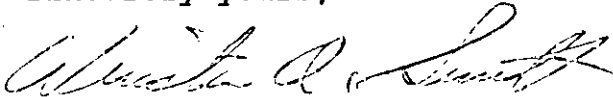
1. The notice states that DER has been granted a delegation by EPA to carry out the PSD review process. As you know, Florida is a SIP approved state rather than a delegated state.
2. The increment consumption given in the notice of 0% for all pollutants and averaging times is misleading since it was based on the erroneous emissions netting between Seminole Kraft and AES/Cedar Bay. As detailed to you in our letter of November 14, 1989, and as acknowledged on page 33 of your preliminary determination, netting of emissions between Seminole Kraft and AESCB is not applicable. Thus, the increment consumption reported in the public notice is not correct.

BACT Analysis

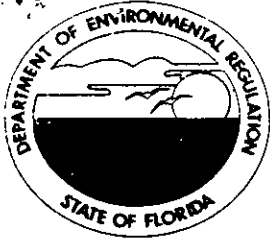
The determination of BACT made by DER included combustion controls to limit NO<sub>x</sub> emissions and a SO<sub>2</sub> removal efficiency of 90% resulting in emission limits of 0.29 lb NO<sub>x</sub>/MMBTU and 0.31 lb SO<sub>2</sub>/MMBTU. These limits are higher than what is currently being permitted even for pulverized coal boilers. We believe that NO<sub>x</sub> add-on controls are technically feasible for this project and that SO<sub>2</sub> emissions could be reduced through the use of lower sulfur coal and through increasing the removal efficiency. However, due to the circumstances involved in this project, we will defer to the decision of DER for this project.

If you have any questions on these comments, please contact Mr. Gregg Worley of my staff at (404) 347-2904.

Sincerely yours,



Winston A. Smith, Director  
Air, Pesticides, and Toxics  
Management Division



# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol 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,

for 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 buisness 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.

Keri Cohen  
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**

## 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

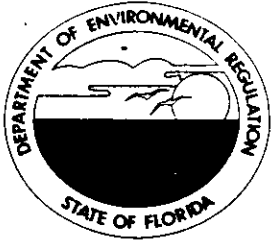
The EPA questioned why the notice was published on the same date that the Site Certification Hearing was scheduled to begin, thereby not providing a 30 day notice and comment period.

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.

### BACT 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

Lawton Chiles, Governor

Carol M. Browner, Secretary

**PERMITTEE:**  
AES/Cedar Bay, Inc.  
1001 North 19th Street  
Arlington, VA 22209

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

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or 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:

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 coal/bark fired circulating fluidized bed (CFB) boilers, the respective coal handling equipment and limestone dryers, to be owned and operated by AES Cedar Bay, Inc.

The CFB boiler, rated at 3,189 MMBtu 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.

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

#### 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.

**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 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 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:  
AES/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:  
AES/Cedar Bay Inc.

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

**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:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards

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.

**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.

**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 woodwaste, 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 3.3% 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 160,000 gals/year, nor shall the maximum annual natural gas usage exceed 22.4 MMCF per year. The maximum heat input from the fuel oil or gas shall not exceed 1120 MMBtu/hr for the CFBs.

PERMITTEE:  
AES/Cedar Bay Inc.

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

f. The CFBs shall be fueled only with the fuels permitted in Conditions 1a, 1b, and 1e above. Other fuels or wastes shall not be burned without prior specific written approval of the Secretary of DER pursuant to condition XXI, Modification of Conditions.

g. The CFBs may operate continuously, i.e., 8760 hrs/yr.

2. Coal Fired Boiler Controls

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

- a. Limestone injection, for control of sulfur dioxide.
- b. Baghouse, for control of particulate.

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	0.19	202	823	2468
NOx	0.29	308.3	1256	3767
SO <sub>2</sub>	0.60 (3-hr avg.)	637.8	--	--
	0.31 (12 MRA)	329.5	1338	4015
VOC	<u>0.015</u>	<u>16.0</u>	<u>65</u>	<u>195</u>
PM	0.020	21.3	87	260
PM <sub>10</sub>	0.020	21.3	86	257
H <sub>2</sub> SO <sub>4</sub> mist	0.024	25.5	103	308
Fluorides	0.086	91.4	374	1122
Lead	0.007	7.4	30	91
Mercury	0.00026	0.276	1.13	3.4
Beryllium	0.00011	0.117	0.5	1.5

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

4. 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.

5. Compliance with the emission limits shall be determined by EPA reference method tests included in the July 1, 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.



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

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

6. The CFBs are subject to 40 CFR Part 60, Subpart Da; except that where requirements within this certification are more restrictive, the requirements of this certification shall apply.

7. Compliance Tests for each CFB

- a. Initial 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).
- 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.
- 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 40 CFR Parts 60 and 61 or other DER approved methods with prior DER approval 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.
  - (10) Method 10 for CO.
  - (11) Method 12 for lead.
  - (12) Method 13B for fluorides.
  - (13) Method 25A for VOCs.
  - (14) Method 101A for mercury.
  - (15) Method 104 for beryllium.

PERMITTEE:  
AES/Cedar Bay Inc.

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8. Continuous Emission Monitoring for each CFB AESCB shall use Continuous Emission Monitors (CEMS) to determine compliance. CEMS for opacity, SO<sub>2</sub>, NO<sub>x</sub>, 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 60.47a and 40 CFR 60 Appendix F.

- a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B.
- 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.
- 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.
- d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.
- 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).
- f. For purposes of reports required under this 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.

9. 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.
- c. The coal, bark, natural gas and No. 2 fuel oil usage shall be recorded on a 24-hr (daily) basis for each CFB.

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10. Reporting for each CFB

a. A minimum of thirty (30) days prior notification of compliance 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.

b. The results of compliance test shall be submitted to the BESD office within 45 days after completion of the test.

c. The owner or operator shall submit excess emission reports to BESD, in accordance with 40 CFR 60. The report 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 (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 (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 (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 (60.7(c)(4)).

(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)).

d. Annual and quarterly reports shall be submitted to BESD as per F.A.C. Rule 17-2.700(7).

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.

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B. AES - Material Handling and Treatment

1. The material handling and treatment operations may be continuous, i.e. 8760 hrs/yr.
2. The material handling/usage rates shall not exceed the following:

Material	Handling/Usage Rate	
	TPM	TPY
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, 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 gals/year for the limestone dryers; and 8000 gals/hr, 160,000 gals/year for the three boilers are not expected to be significant.

4. 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-42 factors):

Source	Particulate Emissions	
	lbs/hr	TPY
Coal Rail Unloading	neg	neg
Coal Belt Feeder	neg	neg
Coal Crusher	0.41	1.78
Coal Belt Transfer	neg	neg
Coal Silo	neg	neg
Limestone Crusher	0.06	0.28
Limestone Hopper	0.01	0.03
Fly Ash Bin	0.02	0.10
Bed Ash Hopper	0.06	0.25
Ash Silo	0.06	0.25
Common Feed Hopper	0.03	0.13
Ash Unloader	0.01	0.06

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 BESD will require particulate tests in accordance with EPA Method 5 unless the

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C. Requirements For the Permittees

1. Beginning one month after certification, AESCB shall submit to BESD and DER'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.
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 BESD 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 the permittees.
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 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 years to be available for DER and BESD inspection.
6. Coal fired in the CFBs shall have a sulfur content not to exceed 3.3 percent by weight. Coal sulfur content shall be determined and recorded in accordance with 40 CFR 60.47a.
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.
8. The permittees shall provide stack sampling facilities as required by Rule 17-2.700(4) FAC.
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.

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VE limit of 5% opacity is exceeded for a given source, or unless DER or BESD, 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.

6. 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	Estimated Limitations	
		TPY	TPY for 2 dryers
PM/PM <sub>10</sub>	0.25	1.1	2.2
SO <sub>2</sub>	5.00	21.9	43.8
CO	0.60	2.6	5.2
NOx	2.40	10.5	21.0
VOC	0.05	0.2	0.4

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.

7. The maximum No. 2 fuel oil firing rate for each limestone dryer shall not exceed 120 gals/hr, or 1,050,000 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.

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

8. Initial and annual 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 Method 9.

9. Compliance test reports shall be submitted to BESD within 45 days of test completion in accordance with Chapter 17-2.700(7) of the F.A.C.

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).

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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 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. BESD 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.

Issued this 28th day  
of March, 1991

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Carol M. Browner, Secretary

Attachment 1,2 and 3  
Available Upon Request