



# Department of Environmental Protection

Jeb Bush  
Governor

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

David B. Struhs  
Secretary

March 9, 2000

Mr. Jeffrey Walker  
Environmental Manager  
Cedar Bay Generating Company, L.P.  
P.O. Box 26324  
Jacksonville, Florida 32226

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

Dear Mr. Walker:

The applicant, Cedar Bay Generating Company, L.P., applied on March 22, 1999, to the Department for a modification to PSD permit number PSD-FL-137 for its Cedar Bay Generating Plant located in Duval County. The modification is to allow the three fluidized bed circulating boilers (A, B and C) to operate with changes to their method of compliance for startup and shutdown, SO<sub>2</sub> emissions, mercury testing, heat input and stack testing methodology. The Department has reviewed the modification request. The referenced permit is hereby modified as follows:

## Specific Condition No. II.A.3:

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

| Pollutant                           | Emission Limitations                |                                     | TPY                             | TPY for 3 CFBs |
|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------|
|                                     | lbs/MMBtu                           | lbs/hr.                             |                                 |                |
| CO <sup>1</sup>                     | 0.175 <sup>1</sup>                  | 186 <sup>1</sup>                    | <del>758</del> 758 <sup>1</sup> | 2273           |
| NO <sub>x</sub>                     | 0.17 <sup>2</sup>                   | 180.7 <sup>2</sup>                  | 736.1                           | 2208           |
| SO <sub>2</sub>                     | 0.24 <sup>3</sup> 0.30 <sup>2</sup> | <del>255.4</del> 318.9 <sup>3</sup> | --                              | --             |
|                                     | <del>0.20</del> 0.20 <sup>2</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> SO <sub>4</sub> mist | 4.66 x 10 <sup>-4</sup>             | 0.50                                | 2.0                             | 6.1            |
| Fluorides                           | 7.44 x 10 <sup>-4</sup>             | 0.79                                | 3.2                             | 9.7            |
| Lead                                | 6.03 x 10 <sup>-5</sup>             | 0.06                                | 0.26                            | 0.78           |
| Mercury                             | 2.89 x 10 <sup>-5</sup>             | 0.03                                | 0.13                            | 0.38           |
| Beryllium                           | 8.70 x 10 <sup>-6</sup>             | 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.
- 5 See Specific Condition II.A.9.e. for alternative CO emission limits during specific operating modes.

"More Protection, Less Process"

Printed on recycled paper.

**Specific Condition No. II.A.1.c.:**

- c. The maximum heat input to each CFB shall not exceed 110% of 1063 MMBtu/hr (1169 MMBtu/hr). Additionally, the facility shall not exceed ~~This reflects~~ a combined total of 3189 MMBtu/hr. for all three units. The facility heat input limit shall be based upon the number of operating boilers at the facility. Specifically, the combined maximum heat input shall not exceed:  
1063 MMBtu/hr if only one boiler is operating.  
2126 MMBtu/hr if only two boilers are operating and  
3189 MMBtu/hr if all three boilers are operating.

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

**Specific Condition No. II.A.1.h.:**

- h. To the extent that it is consistent with Specific Condition No. II.A.1.b., the SETTLEMENT AND RELEASE AGREEMENT made on July 24, 1998, by and between Smurfit Stone Container Corporation and Cedar Bay Generating Company, L.P., and the following, CBCP shall may burn all or a portion of the short fiber rejects generated by SKC in processing recycled paper. Prior to burning the rejects as a supplemental fuel however, CBCP shall conduct a test burn to determine the effects of burning the rejects. No less than At least ninety (90) days prior to completion of construction any proposed test burn. CBCP shall submit a plan to the Department 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 No. 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 Department and the Regulatory and Environmental Services Department (RESO) 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 Department and to the RESO within forty-five (45) days of completion of the test burn. The Department 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.

**Specific Condition No. II.A.2.c.:**

- 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 Department, RESO and EPRI, CBCP shall submit a mercury control test protocol to the Department for approval by December 1, 1993. Results of the test shall be submitted to the Department within 90 days of completion. Mercury testing shall not be routinely required. However, should the Department have reason to believe that a change in mercury emissions has occurred (e.g. via a change in fuel quality, particulate removal equipment, etc.) mercury testing shall be required.

**Specific Condition No. II.A.8.e.:**

- e. The following test methods and procedures pursuant to Chapter 17-297, F.A.C., and 40 CFR 60 and 61, or by equivalent methods after obtaining prior written Department approval, shall be used for compliance testing:
- (5) Method 29, Method 5 or Method 17 for particulate matter.
  - (11) Method 29, Method 12 for lead.
  - (15) Method 29, Method 101A for mercury.
  - (16) Method 29, Method 104 for beryllium.

**Specific Condition No. II.A.9.e.:**

- 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 No. II.A.11., herein, which exceeds the applicable emission limit in Specific Condition No. II.A.3 with the following exceptions. For the specific periods defined below, the emission limits of Carbon Monoxide (CO) shall be as follows:

Warm startup – emissions up to 186 lb/hr (no lb/MMBtu limit) with sufficient documentation

Cold startup – up to 10 hours (per cold startup) of CO data may be eliminated from the data used to determine compliance with the 8-hour rolling average limit with sufficient documentation

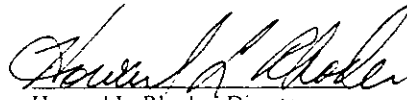
Refractory Curing – Must notify agency at least 24 hours prior to commencing; CO data may be eliminated from the data used to determine compliance with the 8-hour rolling average limit with sufficient documentation

The CO emissions limit of 758 TPY per boiler via 12-month rolling average is inclusive of all periods of operation including those noted above.

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

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

Executed in Tallahassee, Florida.



Howard L. Rhodes, Director  
Division of Air Resources  
Management

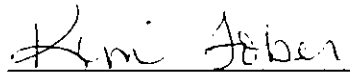
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 3-9-00 to the person(s) listed:

J. A. Walker, Cedar Bay Cogenerating Company, L.P. \*  
Hamilton S. Oven, P.E.  
James L. Manning, P.E., RESD  
Doug Neeley, EPA  
John Bunyak, NPS  
Chris Kirts, DEP-NED

Clerk Stamp

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

  
(Clerk)

3-9-00  
(Date)

**FINAL DETERMINATION  
CEDAR BAY GENERATING COMPANY, L.P.  
CEDAR BAY GENERATING PLANT  
PSD PERMIT MODIFICATIONS**

The Department distributed a Public Notice package on December 8, 1999 for the project allowing for the three fluidized bed circulating boilers (A, B and C) to operate with changes to their method of compliance for startup and shutdown, SO<sub>2</sub> emissions, mercury testing, heat input and stack testing methodology. The subject facility is the Cedar Bay Generating Plant located at 9640 East Port Road, Jacksonville, Duval County. The Public Notice of Intent to Issue was published on December 23 in The Florida Times Union.

No comments were received by the Department from the public or the Fish and Wildlife Service pursuant to the Notice.

Comments were received from the U.S. Environmental Protection Agency (EPA) in a letter dated January 21, 2000. No comments were received from Cedar Bay, however comments in response to EPA's letter of January 21 were received.

There were six comments from the EPA, mostly dealing with modeling considerations and these are addressed below.

1. *As indicated in Specific Condition No. II.A.9.e. of the draft permit, FDEP is proposing to allow excess emissions of CO due to startup, shutdown or malfunction for up to 10 hours per cold startup as well as allowing excess emissions during warm startups and refractory curing. It is the U.S. Environmental Protection Agency's policy that BACT applies during all operations and that automatic exemptions should not be granted for excess emissions. Startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the planning, design and implementation of operating procedures for the process and control equipment. Accordingly, it is reasonable to expect that careful and prudent planning and design will eliminate violations of emission limitations during such periods.*

RESPONSE: The Department understands the issue raised by the EPA and largely agrees with it, noting that the startup and shutdown emissions are not being permitted as new emissions. Historically, these emissions (as well as emissions due to refractory curing) have occurred and *were being reported as excess emissions* with no limit. The applicant and the Department have intended to ensure by this permitting action that excess emissions as a result of startup and shutdown do not occur by reviewing and defining permissible emission limits and time frames for each of these operating modes. Restated, the emissions are being accounted for in the planning, design and implementation of operating procedures for the process and control equipment. To contrast, a separate (but recent) permitting action for a Fluidized Bed repowering of JEA's Northside facility (PSD-265) granted up to 12 hours in 24 of excess emissions for all pollutants and any startups. The action herein more closely defines emissions for startup and shutdown, ensuring that there is no net annual increase over those emissions contemplated in the original PSD permit by imposing an annual CO cap, which includes emissions during all operating modes.

2. *Class I Area Impact Assessment - The Class I air quality assessment does not provide significant impact assessments for the CBG emissions in the Class I areas. Only cumulative increment impact analyses are addressed in the air quality analysis report. The maximum impacts from CBG in the Class I area would be of value in this assessment.*

RESPONSE: Significant impact modeling for the Class I area was done by the applicant. The maximum predicted 3-hour SO<sub>2</sub> impact in the Class I area from the Cedar Bay facility is 7.4 ug/m<sup>3</sup>.

3. *Class I and Class II Emission Inventories – The specific procedures used to develop the emission source inventories used in the cumulative impact assessment for both PSD increment and National Ambient Air Quality Standard (NAAQS) compliance (Tables 1-3 through 1-5 of the November 1999 Air Quality Analysis Report) were not provided. It appears that the inventories used were from other air modeling studies. For Class II cumulative impact assessments, emission sources within at least 50 km of the significant impact area must be considered in the modeling assessment. For the Class I impact analysis, emission sources within 100 km to 150 km with a potential significant impact in the Class I area must be considered in the modeling. These distances may include sources located in Georgia. Confirmation is needed that the proper emission inventories were used in the cumulative impact modeling.*

RESPONSE: The emission inventory used in the modeling is consistent with emission inventories used and accepted by FDEP for other recent projects [Jacksonville Electric Authority's Northside Repowering Project (February 1999), Jefferson Smurfit's Cluster Rule Compliance Demonstration (August 1999), and Georgia-Pacific Corporation's (Palatka, FL) Cluster Rule Compliance Demonstration (July 1999)] in the Jacksonville area. This emissions inventory was also used and accepted by FDEP for this project for demonstrating compliance with annual and 24-hour AAQS and PSD increments.

For the PSD Class II increment analysis, the North Carolina Screening Technique was used to eliminate sources from consideration that were unlikely to have significant interaction with the project based on their magnitude of emissions and distance from the project's significant impact area. The significant impact distance of the Cedar Bay facility is 19 km. As a result, facilities within 69 km [the significant impact distance of the entire facility (19 km) plus 50 km] were considered in the PSD Class II increment and AAQS analysis.

The PSD Class I inventory was expanded to include Georgia PSD sources, and the applicant performed revised modeling with the expanded inventory. Tables 2-6 and 2-7 of the application were updated by the applicant to include the revised results. The revised modeling results showed that Cedar Bay's contribution to any predicted Class I exceedances is less than significant; therefore, the modification is permissible by Florida air permitting rules.

4. *Operational Configuration Worst Case – The impact analysis indicates a single stack for the three CBG boilers. All impact assessments were performed, assuming all three boilers at 110 percent of full load, with an SO<sub>2</sub> emission rate of 0.36 lb/MMBtu. (Note: Assuming 110 percent heat rate, the emission rate modeled is associated with 0.36 lb/MMBtu not the 0.40 lb/MMBtu indicated in the report.) This is not a realistic assumption and may not provide the operating scenario producing the worst case ambient impacts.*

RESPONSE: The modeling analysis did assume that all three CFBs were operating at 100% capacity, not 110%. However, specific condition II.A.1.c of the permit limits the heat input of all

three boilers to 100% (3189 MMBtu/hr). To verify that this operating scenario produced the highest predicted impacts, the CFBs were modeled at 33, 66, and 100 percent of operating capacity. The stack parameters and total maximum predicted 3-hour impacts for these operating scenarios are presented below. In all cases, operation of the CFBs at 100% capacity resulted in the maximum predicted impacts.

| <b>Stack Parameters Used in the Load Analysis for the CFBs</b> |                         |                     |                  |                       |                            |                                                                 |                                                                  |
|----------------------------------------------------------------|-------------------------|---------------------|------------------|-----------------------|----------------------------|-----------------------------------------------------------------|------------------------------------------------------------------|
| <b>Source Description</b>                                      | <b>Stack Parameters</b> |                     |                  |                       |                            | <b>Maximum Predicted Impact Class I Area (ug/m<sup>3</sup>)</b> | <b>Maximum Predicted Impact Class II Area (ug/m<sup>3</sup>)</b> |
|                                                                | <b>Height (m)</b>       | <b>Diameter (m)</b> | <b>Temp. (K)</b> | <b>Velocity (m/s)</b> | <b>Emission Rate (g/s)</b> |                                                                 |                                                                  |
| CFBs Operating at 33% Capacity                                 | 122.8                   | 4.05                | 328              | 12.23                 | 40.11                      | 3.3                                                             | 64.3                                                             |
| CFBs Operating at 66% Capacity                                 | 122.8                   | 4.05                | 328              | 24.47                 | 80.22                      | 4.8                                                             | 87.2                                                             |
| CFBs Operating at 100% Capacity                                | 122.8                   | 4.05                | 328              | 36.70                 | 120.33                     | 7.0                                                             | 102.1                                                            |

5. *Modeled PSD Increment Violations – Since CBG does not significantly impact modeled Class I and II PSD increment violations, these violations will not affect the permitting of CBG. The modeled violations must be addressed and resolved by the Florida Department of Environmental Protection.*

RESPONSE: FDEP will address this issue separately from this action.

6. *Class I Area FLM – The U.S. Fish and Wildlife Service federal land manager for the Wolf Island and Okefenokee PSD Class I areas should be notified of this PSD permit modification and given the opportunity to comment.*

RESPONSE: A copy of the Draft permit was forwarded to the Federal Land Manager (the U.S. Fish and Wildlife Service) on December 8, 1999.

## CONCLUSION

The project will not cause or significantly contribute to a violation of any National Ambient Air Quality Standard or applicable increment.

The final action is to issue the permit as proposed.

**APPENDIX GC**  
**GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]**

---

- G.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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.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 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.
- G.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.
- G.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.
- G.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.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the conditions of the permit;
  - b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.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.

**APPENDIX GC**  
**GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]**

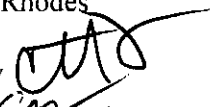
---

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology (X)
  - b) Determination of Prevention of Significant Deterioration (X); and
  - c) Compliance with New Source Performance Standards (X).
- G.14 The permittee shall comply with the following:
- a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c) Records of monitoring information shall include:
    - 1. The date, exact place, and time of sampling or measurements;
    - 2. The person responsible for performing the sampling or measurements;
    - 3. The dates analyses were performed;
    - 4. The person responsible for performing the analyses;
    - 5. The analytical techniques or methods used; and
    - 6. The results of such analyses.
- G.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.

Florida Department of  
Environmental Protection

Memorandum

B.A.R

TO: Howard L. Rhodes  
THRU: Clair Fancy   
Al Linero   
FROM: Mike Halpin   
DATE: March 3, 2000  
SUBJECT: Cedar Bay Generation, L.P. PSD Permit Modifications

(9)

Attached for approval and signature is a modification to the PSD permit for the subject facility. The Public Notice requirements have been met on December 23, 1999 by publishing in the Florida Times-Union.

Comments were received by the US EPA (Region IV) and are addressed within the Final Determination.

I recommend your approval and signature.

Day 90 is 03/17/00.

Attachments

/mph

Florida Department of  
**Environmental Protection**

**Memorandum**

---

**TO:** File

**FROM:** Jonathan Holtom

**DATE:** August 10, 2001

**SUBJECT:** Cedar Bay Cogeneration Permit Numbers  
**Facility ID #: 0310337**

---

The revision to PSD-FL-137 contained in this folder (issued 3/9/00) should have been labeled as PSD-FL-137D, revision to PSD-FL-137A. It was never logged into ARMS, and therefore, should not have been given the permit/project number of 0310337-003-AC, as was typed on the label to this folder.

For scanning purposes, and for all future references, the permitting action contained herein should be referred to as PSD-FL-137D.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

JAN 21 2000

4 APT-ARB

Mr. A. A. Linero, P.E.  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

SUBJ: Preliminary Determination and Draft Permit for Cedar Bay Generating Plant  
(PSD-FL-137) located in Duval County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft prevention of significant deterioration (PSD) permit for Cedar Bay Generating Plant dated December 8, 1999. The preliminary determination is for the proposed modification of the operation of three circulating fluidized bed steam generators (boilers) and associated coal, limestone and ash handling areas. The boilers primarily combust crushed coal with No. 2 fuel oil combusted as backup fuel. As proposed, the permit allows several changes in permit conditions, including the following: an increase in excess emissions of carbon monoxide (CO), an increase in the 3-hour sulfur dioxide (SO<sub>2</sub>) emissions rate and a 10% increase in maximum heat input limits. Total emissions from the proposed project are not above the thresholds requiring PSD review for any regulated pollutants; however, some air quality impact modeling may be required for SO<sub>2</sub>.

Based on our review of the preliminary determination and draft PSD permit, we have the following comments on topics other than the air impact assessment. Air impact comments are provided at the end of this letter.

1. As indicated in Specific Condition No. II.A.9.e of the draft permit, FDEP is proposing to allow excess emissions of CO due to startup, shutdown or malfunction for up to 10 hours per cold startup as well as allowing excess emissions during warm startups and refractory curing. It is the U.S. Environmental Protection Agency's policy that BACT applies during all normal operations and that automatic exemptions should not be granted for excess emissions. Startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the planning, design, and implementation of operating procedures for the process and control equipment. Accordingly, it is reasonable to expect that careful and prudent planning and design will eliminate violations of emission limitations during such periods.

In terms of the air quality impact assessment, our comments regarding the modifications to the Cedar Bay Generating Plant (CBG) preliminary determination and draft PSD permit are as follows:

2. Class I Area Impact Assessment - The Class I air quality assessment does not provide significant impact assessments for the CBG emissions in the Class I areas. Only cumulative increment impact analyses are addressed in the air quality analysis report. The maximum impacts from CBG in the Class I area would be of value in this assessment.
3. Class I and Class II Emission Inventories - The specific procedures used to develop the emission source inventories used in the cumulative impact assessment for both PSD increment and National Ambient Air Quality Standard (NAAQS) compliance (Tables 1-3 through 1-5 of the November 1999 Air Quality Analysis Report) were not provided. It appears that the inventories used were from other air modeling studies. For Class II cumulative impact assessments, emission sources within at least 50 km of the significant impact area must be considered in the modeling assessment. For the Class I impact analysis, emission sources within 100 km to 150 km with a potential significant impact in the Class I area must be considered in the modeling. These distances may include sources located in Georgia. Confirmation is needed that the proper emission inventories were used in the cumulative impact modeling.
4. Operational Configuration Worst Case - The impact analysis indicates a single stack for the three CBG boilers. All impact assessments were performed, assuming all three boilers at 110 percent of full load, with an SO<sub>2</sub> emission rate of 3.6 lb/MMBtu. (Note: Assuming 110 percent heat rate, the emission rate modeled is associated with 0.36 lb/MMBtu not the 0.40 lb/MMBtu indicated in the report.) This is not a realistic assumption and may not provide the operating scenario producing the worst case ambient impacts.
5. Modeled PSD Increment Violations - Since CBG does not significantly impact the modeled Class I and II PSD increment violations, these violations will not affect the permitting of CBG. The modeled violations must be addressed and resolved by the Florida Department of Environmental Protection.
6. Class I Area FLM - The U.S. Fish and Wildlife Service federal land manager for the Wolf Island and Okefenokee PSD Class I areas should be notified of this PSD permit modification and given the opportunity to comment.

Thank you for the opportunity to comment on the Cedar Bay Generating Plant preliminary determination and draft PSD permit. If you have any questions regarding these comments, please direct them to either Katy Forney at 404-562-9130 or Stan Krivo at 404-562-9123.

Sincerely,



R. Douglas Neeley

Chief

Air and Radiation Technology Branch

Air, Pesticides and Toxics

Management Division

cc: J. Walker, CB  
B. Olen, PPS  
Duval Co.  
NED  
NPS  
C. Holladay, BAR