



**PG&E National Energy Group**

Cedar Bay  
Generating Plant  
Owner: Cedar Bay Generating Company, L.P.

**RECEIVED**

OCT 26 2001

BUREAU OF AIR REGULATION

POB 26324  
Jacksonville, FL 32226-6324

904.751.4000  
Fax: 904.751.7320

October 25, 2001

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

RE: Request to Modify PSD Permit (PSD-FL-137) To Allow Installation of Pug Mill for Ash Loading at Cedar Bay Cogeneration Facility

Dear Mr. Fancy:

On behalf of Cedar Bay Generating Company, L.P. (Cedar Bay), I have enclosed an original and three copies of an Application for Air Permit – Title V Source (Form 62-210.900(1)) and supporting documentation for Cedar Bay’s request for approval to install and operate a pug mill associated with ash handling and to amend the monthly and annual throughput for coal and limestone.

Pug Mill Installation

Cedar Bay wishes to improve the flexibility for fly ash handling at, and transportation from, the site with the installation of a pug mill. The pug mill is an apparatus that will mix water with the ash to improve handling and ultimately reduce fugitive emissions. The equipment mixes ash with water in an enclosed system and will be located beneath the existing fly ash silo.

Cedar Bay has previously informed the Department that the coal supplier, Lodestar, has filed for protection under Chapter 11 of the Bankruptcy Code. Under Chapter 11 of the Bankruptcy Code, Lodestar petitioned the court to terminate its contract with Cedar Bay for economic reasons and the petition has been granted. Lodestar also provided ash disposal as part of its contract. Installation of the pug mill will facilitate disposal of ash in a Class I landfill as a backup to Lodestar. Cedar Bay has a contract in place that would allow approximately 50% of the ash to be processed for beneficial uses. Cedar Bay also has negotiated a contract for the disposal of ash in a Class I landfill, and negotiations continue for other beneficial use options.

*Sonathan,*

*How about processing this as non-PSD.*

PG&E National Energy Group and any other Company, the California utility. These companies in order to continue to re

*Logged 11/1  
Compl. Rev. by 11/25 check + fugitive PM.*

*SAH  
10/29*

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Coal and Limestone Throughput

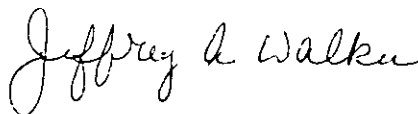
Cedar Bay has recognized that the current throughput limitations for coal and limestone do not allow sufficient material handling capacity to allow the facility to weather catastrophic events or business interruptions. Cedar Bay previously requested the Department to modify the PSD permit to alter the throughput limits for coal and limestone, along with other permit conditions. At that time, however, the focus was on the changes to the SO<sub>2</sub> limits, and throughput limits for coal and limestone were not accomplished in the issuance of PSD-FL-137D. However, the Conditions of Certification were modified to reflect the changes requested.

Request for Expeditious Review

With respect to the pug mill installation, we would greatly appreciate an expedited review and permit modification to support continued operation of Cedar Bay due to the termination of the Lodestar contract. We would be happy to answer any questions that the Department may have about the Facility or this application. If you have questions about the Facility, please contact Mr. Jeff Walker, our Environmental Manager, at 904-751-4000 x22. If you have questions about the application, you may wish to contact Mr. Ken Kosky, our consultant, at 352-336-5600 or Mr. David Dee, our environmental counsel, at 850-681-0311.

We look forward to working with you and the other members of the Department on this project.

Sincerely,



for. Bruce Smith, General Manager  
Cedar Bay Generating Company, LP

Cc: A.A Linero, DEP (w/o enclosures)  
Scott Gorland, DEP (w/o enclosures)  
Ernest Frye, DEP NE District (w/o enclosures)  
Steve Pace, Jacksonville RESD (w/ enclosures)  
Hamilton S. Oven, Jr. (w/o enclosures)  
Ken Kosky (w/ enclosures)  
David Dee (w/ enclosures)

Bc: W/o enclosures:  
J. Gasbarro  
S. Sorrentino

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J. Tanselle  
P. Hartwell  
M. Carney  
V. Gill  
F. Stallwood

W/ enclosures:  
B. DeHart  
M. Golden  
J. Walker

**APPLICATION FOR INCREASE  
IN ANNUAL/MONTHLY  
COAL AND LIMESTONE PRODUCTION RATES  
AND INSTALLATION OF PUG MILL FOR  
ASH HANDLING FACILITIES**

**CEDAR BAY COGENERATION FACILITY  
JACKSONVILLE, FLORIDA**

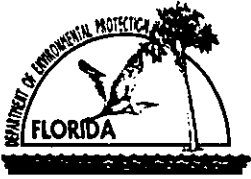
**Prepared For:  
Cedar Bay Generating Company, L.P.  
9640 Eastport Road  
Jacksonville, Florida 32218**

**Prepared By:  
Golder Associates Inc.  
6241 NW 23rd Street, Suite 500  
Gainesville, Florida 32653-1500**

**October 2001  
0137573**

**DISTRIBUTION:  
6 Copies - Cedar Bay  
1 Copy - Golder Associates Inc.**

**PART I**



# Department of Environmental Protection

## Division of Air Resources Management

### APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

#### I. APPLICATION INFORMATION

##### Identification of Facility

1. Facility Owner/Company Name: <b>Cedar Bay Generating Company, L.P.</b>	
2. Site Name: <b>Cedar Bay Cogeneration Facility</b>	
3. Facility Identification Number: <b>0310337</b>	<input type="checkbox"/> Unknown
4. Facility Location: <b>U.S. Generating Cedar Bay Facility</b> Street Address or Other Locator: <b>9640 Eastport Road</b> City: <b>Jacksonville</b> County: <b>Duval</b> Zip Code: <b>32226</b>	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

##### Application Contact

1. Name and Title of Application Contact: <b>Jeffery Walker, Environmental Manager</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>U.S. Generating Company</b> Street Address: <b>9640 Eastport Road (PO Box 26324 Zip Code: 32226-6324)</b> City: <b>Jacksonville</b> State: <b>FL</b> Zip Code: <b>32218</b>	
3. Application Contact Telephone Numbers: Telephone: <b>( 904 ) 751-4000, Ext. 22</b> Fax: <b>( 904 ) 751-7320</b>	

##### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

**Purpose of Application**

**Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: \_\_\_\_\_

- Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: \_\_\_\_\_

Operation permit number to be revised: \_\_\_\_\_

- Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: \_\_\_\_\_

- Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: \_\_\_\_\_

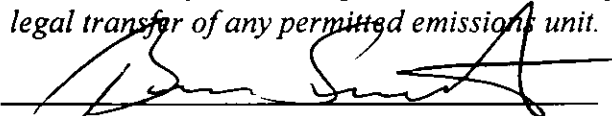
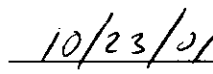
Reason for revision: \_\_\_\_\_

**Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Bruce Smith, General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Cedar Bay Generating Company</b> Street Address: <b>P.O. Box 26324</b> City: <b>Jacksonville</b> State: <b>FL</b> Zip Code: <b>32226-6324</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>( 904 ) 751-4000, Ext. 18</b> Fax: <b>( 904 ) 751-7320</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ X ], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature  Date

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Kennard F. Kosky</b> Registration Number: <b>14996</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Golder Associates Inc.</b> Street Address: <b>6241 NW 23rd Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653-1500</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>( 352 ) 336 - 5600</b> Fax: <b>( 352 ) 336 - 6603</b>



4. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*


*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

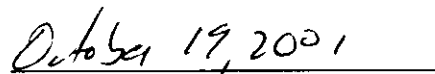
*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*


*If the purpose of this application is to obtain a Title V source air operation permit (check here [  ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [  ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [  ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

  
Signature

  
Date

(seal) 

\* Attach any exception to certification statement.



**Construction/Modification Information**

1. Description of Proposed Project or Alterations:

**Applicant is seeking authorization to install a pug mill as part of the existing ash handling system. Refer to Part II.**

2. Projected or Actual Date of Commencement of Construction **1 DEC 2001**

3. Projected Date of Completion of Construction: **1 DEC 2002**

**Application Comment**

**This application is a request to increase the monthly and annual amounts of coal and limestone/aragonite currently authorized for the facility in PSD-FL-137.**





## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
PM	A				Particulate Matter – Total
PM <sub>10</sub>	A				Particulate Matter – PM <sub>10</sub>
NO <sub>x</sub>	A				Nitrogen Oxides
SO <sub>2</sub>	A				Sulfur Dioxide
CO	A				Carbon Monoxide
VOC	A				Volatile Organic Compounds
SAM	B				Sulfuric Acid Mist



**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input checked="" type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable



**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Coal unloading and conveyors associated with unloading and storage.</b>			
4. Emissions Unit Identification Number:			
ID: <b>020</b>		<input type="checkbox"/> No ID	<input type="checkbox"/> ID Unknown
5. Emissions Unit Status Code: <b>C</b>	6. Initial Startup Date: <b>25 JAN 1994</b>	7. Emissions Unit Major Group SIC Code: <b>49</b>	8. Acid Rain Unit? [ ]
9. Emissions Unit Comment: (Limit to 500 Characters)  <b>Emission unit consists of coal unloading, stock-out conveyors, and storage.</b>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

**Water spraying as needed to reduce fugitive dust emissions.**

**Coal unloading by rail and conveyors are enclosed.**

2. Control Device or Method Code(s): **054, 061**

**Emissions Unit Details**

1. Package Unit: <b>NA</b>	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	<b>MW</b>
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	<b>1,287,000 tons/yr</b>	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	<b>24</b> hours/day	<b>7</b> days/week
	<b>52</b> weeks/year	<b>8,760</b> hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	<p><b>Maximum throughput rate requested. Monthly throughput rate is 234,000 tons/month. See Part II.</b></p>	



**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>See Part II</b>		2. Emission Point Type Code: <b>4</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>Fugitive emissions from coal unloading, associated conveyors, and storage.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>F</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature:  °F	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  feet	
13. Emission Point UTM Coordinates:  Zone:                      East (km):                      North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Points of emission include coal unloading, stock-out conveyors, and storage. See Part II.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Coal, Mineral Products -- Bulk materials unloading operation</b>		
2. Source Classification Code (SCC): <b>3-05-104-03</b>		3. SCC Units: <b>Tons processed</b>
4. Maximum Hourly Rate: <b>NA</b>	5. Maximum Annual Rate: <b>1,287,000</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>NA</b>	8. Maximum % Ash: <b>NA</b>	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):  <b>No change in hourly rates. Monthly maximum is 234,000 tons. See Part II.</b>		

**Segment Description and Rate:** Segment      of     

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM (TSP)</b>		2. Total Percent Efficiency of Control: <b>70</b>	
3. Potential Emissions: lb/hour <b>0.3</b> tons/year		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>See Part II</b> Reference:		7. Emissions Method Code: <b>3</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Part II.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>Work Practice</b>		4. Equivalent Allowable Emissions: lb/hour <b>0.3</b> tons/year	
5. Method of Compliance (limit to 60 characters):  <b>Enclosures and water spraying as needed.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control: <b>70</b>	
3. Potential Emissions: lb/hour <b>0.166</b> tons/year		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>See Part II</b> Reference:		7. Emissions Method Code: <b>3</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Part II</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>Work Practice</b>		4. Equivalent Allowable Emissions: lb/hour <b>0.166</b> tons/year	
5. Method of Compliance (limit to 60 characters):  <b>Water spraying as needed.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)****Supplemental Requirements**

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>See Part II</u> <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input checked="" type="checkbox"/> Attached, Document ID: <u>See Part II</u> <input type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ ] Attached, Document ID: _____ [ X ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID: _____ [ X ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ X ] Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION  
(All Emissions Units)**

**Emissions Unit Description and Status**

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.</p> <p><input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Limestone unloading and storage.</b></p>			
<p>4. Emissions Unit Identification Number: ID:</p>		<p><input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code: <b>C</b></p>	<p>6. Initial Startup Date: <b>25 JAN 1994</b></p>	<p>7. Emissions Unit Major Group SIC Code: <b>49</b></p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters)</p> <p><b>Emission unit consists of limestone unloading and storage.</b></p>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

**Watering of paved and unpaved roads.**

2. Control Device or Method Code(s): **061**

**Emissions Unit Details**

1. Package Unit: <b>NA</b>	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	<b>MW</b>
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
**(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	<b>347,000 tons/hr</b>	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	<b>24</b> hours/day	<b>7</b> days/week
	<b>52</b> weeks/year	<b>8,760</b> hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	<p><b>Maximum throughput rate requested. Monthly throughput rate is 54,000 tons. See Part II.</b></p>	





**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>See Part II</b>		2. Emission Point Type Code: <b>4</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>Fugitive emissions from limestone unloading and storage.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>F</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature:  °F	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  feet	
13. Emission Point UTM Coordinates:  Zone:                      East (km):                      North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Points of emission include limestone unloading and storage. See Part II.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Limestone, Mineral Products -- Bulk materials unloading operation</b>		
2. Source Classification Code (SCC): <b>3-05-104-05</b>		3. SCC Units: <b>Tons processed</b>
4. Maximum Hourly Rate:	5. Maximum Annual Rate: <b>347,000</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):  <b>No change in hourly rates. Monthly maximum is 54,000 tons. See Part II.</b>		

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		



**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM (TSP)</b>		2. Total Percent Efficiency of Control: <b>70</b>	
3. Potential Emissions: <p align="center">lb/hour                      <b>0.047</b>    tons/year</p>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>See Part II</b>  Reference:		7. Emissions Method Code: <b>3</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Part II.</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>Work Practice</b>		4. Equivalent Allowable Emissions: <p align="center">lb/hour                      <b>0.047</b>    tons/year</p>	
5. Method of Compliance (limit to 60 characters):  <b>Water spraying as needed.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control: <b>70</b>	
3. Potential Emissions: lb/hour <b>0.022</b> tons/year		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>See Part II</b> Reference:		7. Emissions Method Code: <b>3</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Part II</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>Work Practice</b>		4. Equivalent Allowable Emissions: lb/hour <b>0.022</b> tons/year	
5. Method of Compliance (limit to 60 characters):  <b>Water spraying as needed.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements**

1. Process Flow Diagram [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID: _____ [ ] Previously submitted, Date: _____ [ X ] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ X ] Attached, Document ID: <u>See Part II</u> [ ] Not Applicable
9. Other Information Required by Rule or Statute [ X ] Attached, Document ID: <u>See Part II</u> [ ] Not Applicable
10. Supplemental Requirements Comment:

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable



### III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

#### A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

##### Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)			
[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
[ X ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
[ X ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Pug Mill associated with Ash Handling.</b>			
4. Emissions Unit Identification Number:		[ ] No ID	
ID:		[ X ] ID Unknown	
5. Emissions Unit Status Code: C	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emission unit consists of Pug Mill.



**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		<b>6,000 ft<sup>3</sup>/hr</b>
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	<b>24</b> hours/day	<b>7</b> days/week
	<b>52</b> weeks/year	<b>8,760</b> hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	<p><b>Maximum throughput rate based on manufacturer design capacity. See Part II.</b></p>	



**D. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>See Part II</b>		2. Emission Point Type Code: <b>4</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>Fugitive emissions from Pug Mill discharge.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>F</b>	6. Stack Height:  feet	7. Exit Diameter:  feet	
8. Exit Temperature:  °F	9. Actual Volumetric Flow Rate:  acfm	10. Water Vapor:  %	
11. Maximum Dry Standard Flow Rate:  dscfm		12. Nonstack Emission Point Height:  feet	
13. Emission Point UTM Coordinates:  Zone:                      East (km):                      North (km):			
14. Emission Point Comment (limit to 200 characters):  <b>Points of emission include Pug Mill discharge to trucks. See Part II.</b>			

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(All Emissions Units)**

**Segment Description and Rate:** Segment  1  of  1

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Ash, Mineral Products -- Fugitive Emissions</b>		
2. Source Classification Code (SCC): <b>3-05-999-99</b>		3. SCC Units: <b>Tons processed</b>
4. Maximum Hourly Rate: <b>216</b>	5. Maximum Annual Rate: <b>336,000</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly based on 6,000 ft<sup>3</sup>/hr and 72 lb/ft<sup>3</sup> density of ash. See Part II.</b>		

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		





**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: <b>PM (TSP)</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>0.054</b> lb/hour <b>0.042</b> tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>See Part II</b> Reference:	7. Emissions Method Code: <b>3</b>
8. Calculation of Emissions (limit to 600 characters):  <b>See Part II.</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>Work Practice</b>	4. Equivalent Allowable Emissions: <b>0.054</b> lb/hour <b>0.042</b> tons/year
5. Method of Compliance (limit to 60 characters):  <b>Water spraying as needed.</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>PM<sub>10</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>0.026 lb/hour                      0.020 tons/year</b>		4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year			
6. Emission Factor: <b>See Part II</b> Reference:		7. Emissions Method Code: <b>3</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>See Part II</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>Work Practice</b>		4. Equivalent Allowable Emissions: <b>0.026 lb/hour                      0.020 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>Water spraying as needed.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):			



**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)****Supplemental Requirements**

1. Process Flow Diagram [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID: _____ [ ] Previously submitted, Date: _____ [ X ] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ X ] Attached, Document ID: <u>See Part II</u> [ ] Not Applicable
9. Other Information Required by Rule or Statute [ X ] Attached, Document ID: <u>See Part II</u> [ ] Not Applicable
10. Supplemental Requirements Comment:

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**PART II**

## 1.0 INTRODUCTION

Cedar Bay Generating Company, L.P., is seeking authorization from the Florida Department of Environmental Protection (FDEP) to change the monthly and annual throughput of coal and limestone, and for the installation of a pug mill that is associated with ash handling. The authorization being sought is for change in the Prevention of Significant Deterioration (PSD) approval (PSD-FL-137). The requested change to the PSD permit will not triggered PSD review.

## 2.0 MATERIAL HANDLING AND TREATMENT

The previous PSD modification that became effective in March 2000 is now identified as PSD-FL-137D. One of the items in the original modification request was a request to modify the material handling and usage rates of the coal and limestone/aragonite. Due to the modification's intensive focus on SO<sub>2</sub> limits and supporting air dispersion modeling, this particular item was not accomplished during the draft and final permit issuance.

Coal and limestone are staged in lined storage piles. Coal is supplied via rail and limestone/aragonite is supplied via ship, then truck. Cedar Bay Generating Company, L.P. has recognized that the current PSD permit conditions do not allow sufficient material handling capacity to allow the facility to weather catastrophic events or business interruptions. Therefore, an increase the amount of coal and limestone "handled" at the facility is requested. There is no physical change to the facilities.

The request is appropriate given that:

- Coal unloading and storage, as well as limestone/aragonite unloading and storage, represent fugitive particulate emissions for which no emission rate limits have been established;
- Control of fugitive emissions from unloading and storage is based on work practices only;
- There is no federal or state regulation limiting the quantities of these material or emissions on a monthly basis; and
- Compliance with a rigorous interpretation of the current monthly conditions would, in theory, render the storage piles to be eventually depleted if the boilers ran at full capacity for an extended period with even intermittent cessation of supply periods.

Cedar Bay therefore requests doubling the monthly limitations for coal and limestone/aragonite unloading and storage, and increasing the annual usage rate by one month's capacity. This would require separating the limits for these sources from the other material handling sources.

Thus, Cedar Bay proposes to modify Conditions II.B.2 as follows:

**2. Material Handling and Usage Rate**

- a. The material handling/usage rates for coal unloading and storage and for limestone/aragonite unloading and storage shall not exceed the following:

Material	Handling/Usage Rate	
	TPM	TPY
Coal	234,000	1,287,000
Limestone/Aragonite	54,000	347,000

- b. For fly ash and bed ash handling sources, the handling/usage rates shall not exceed the following:

Material	Handling/Usage Rate	
	TPM	TPY
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

It is important to note that the latest version of Cedar Bay's Conditions of Certification reflect these changes as requested in the PSD modification application although the material handling changes were not part of the proposed changes in the draft PSD permit.

**3.0 INSTALLATION OF A PUG MILL**

To improve the flexibility for ash handling and transportation from the site, Cedar Bay Generating Company, L.P. seeks approval from the Department to install a pug mill associated with ash handling. The pug mill will mix ash and water in an enclosed system and enable the removal of ash by other than sealed trucks. This process will enable the ash to be loaded, transported, and disposed in a Class 1 landfill while minimizing fugitive emissions. The installation of the pug mill provides multiple means (rail, sealed trucks, and standard trucks) for ash use or disposal in an environmentally acceptable manner. There is no change in the amount of ash handled by the facility associated with this request.



While the PSD Modification Application in 1994 explicitly detailed "Dry Ash Unloading in Sealed Trucks," the resulting modification, PSD-FL-137(B), did not specifically reference the use of trucks as a means to remove ash from the site. Instead, Section II.B.4. added a stipulation that requires the Project site to obtain prior approval of the DEP and RESD for removal of bottom and fly ash by any other means other than rail. Cedar Bay has since obtained such permission once it was clear that long-term beneficial re-use opportunities were available.

The use of the pug mill will alter the process of loading the trucks but will enable the project to meet the visible emission limitation (VE) of five per cent (5%) opacity in accordance with rule 62-296.711, F.A.C. By wetting and blending the ash, the pug mill will produce a more uniform ash with less opportunity for dusting. There are no new vents or other air emission sources associated with the pug mill itself.

Therefore, Cedar Bay requests to modify PSD-FL-137 (in conjunction with the retirement of the pelletizer emission units, pending final permit issuance following public comment period) as follows:

**From**

II.1.B.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  
 Limestone Pulverizer (2)/Conveyor  
 Coal Silo Conveyor  
 Limestone Storage Bins(2)  
 Bed Ash Hopper  
 Fly Ash Silo Vent  
 Bed Ash Separator  
 Fly Ash Separators(2)  
 Bed Ash Silo Vent  
 Bed Ash Receiver Bin  
 Pellet Recycle tank  
 Fly Ash Receiver Bin  
 Cured Pellet Screening Conveyor System  
 Pellet Recycle System  
 Pelletizing Rail Loadout

The emissions from the above listed sources are subject to the particulate emission limitation requirement of 0.003 gr./disc (applicant requested limitation which is more stringent than what is allowed by Rule 62-296.711, F.A.C. Since these

**To**

II.1.B.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 ✓  
 Limestone Pulverizer (2)/Conveyor ✓  
 Coal Silo Conveyor ✓  
 Limestone Storage Bins(2) ✓  
 Bed Ash Hopper ✓  
 Fly Ash Silo Vent ✓  
 Bed Ash Separator ✓  
 Fly Ash Separators(2) ✓  
 Bed Ash Silo Vent ✓

The emissions from the above listed sources are subject to the particulate emission limitation requirement of 0.003 gr./disc (applicant requested limitation which is more stringent than what is allowed by Rule 62-296.711, F.A.C. Since these

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 Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.

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

Ash Pellet Hydrator	<u>Scrubber</u>
Ash Pellet Curing Silos	<u>Scrubber</u>
Ash Pelletizing Pan	<u>Scrubber</u>

The above listed sources are subject to a visible emissions (VE) and a particulate matter (PM) emissions limitation requirement of 5 percent opacity and a 0.01 gr/dscf (applicant requested limitation, which is more stringent than what is allowed by rule), respectively, in accordance with Rule 62-296.711, 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 Rule 62-297, D=F.A.C. and 40 CFR 60, Appendix A.

c. Fugitive emissions from the following material handling and transport sources shall be controlled as follows:

Coal Car Unloading

Wet Suppression using continuous water sprays during unloading

Dry Ash Rail Car Loadout

Using closed or covered containers under negative air pressures during ash loadout; and using water sprays prior to removal of railcar loadout cap when loading open rail cars.

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 Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.

b. Fugitive emissions from the following material handling and transport sources shall be controlled as follows:

Coal Car Unloading

Wet Suppression using continuous water sprays during unloading

Dry Ash Rail Car Loadout

Using closed or covered containers under negative air pressures during ash loadout; and using water sprays prior to removal of railcar loadout cap when loading open rail cars

Dry Ash Truck Loadout

Using sealed trailers under negative air

Wet Ash Truck Loadout

Using a pug mill to mix water with ash

The above listed sources are subject to a visible emission (VE) limitation requirement of five percent (5%) opacity in accordance with Rule 62-296.711, F.A.C. Initial and subsequent compliance test shall be conducted for VE using EPA Method 9 or other FDEP approved methods in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A (July, 1992 version). Initial visible emission testing shall be conducted within 90 days after final DEP approval of these facilities or within 90 days after completion of construction of the source, whichever occurs last. Ash shipped in open rail cars will ~~either be pelletized or be sprayed with water to create a crust on the top layer of non-pelletized ash.~~

The above listed sources are subject to a visible emission (VE) limitation requirement of five percent (5%) opacity in accordance with Rule 62-296.711, F.A.C. Initial and subsequent compliance test shall be conducted for VE using EPA Method 9 or other FDEP approved methods in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A (July, 1992 version). Initial visible emission testing shall be conducted within 90 days after final DEP approval of these facilities or within 90 days after completion of construction of the source, whichever occurs last. Ash shipped in open rail cars will either be pelletized or be sprayed with water to create a crust on the top layer of non-pelletized ash. Removal of bottom and fly ash from the Project site by any means other than by rail shall require the prior approval of DEP and RESD of the method(s) of fugitive emissions control.

#### **4.0 POTENTIAL FUGITIVE EMISSIONS**

Potential increases in fugitive emissions may occur as a result of increasing the potential monthly capacities of coal and limestone handling operations. Fugitive emissions from coal and limestone storage will not change since the aerial extent of the storage areas will not change. The amounts transported to the CFB Boiler areas will not change. The annual emission increases associated with increased coal throughput are 0.046 and 0.022 tons/year of PM and PM<sub>10</sub>, respectively. The annual emission increases associated with increased limestone throughput are 0.004 and 0.002 tons/year for PM and PM<sub>10</sub>, respectively.

In the pug mill, ash is wetted using specially configured nozzles located above the mixing paddles that form a curtain of water spray. The conditioning begins moistening the incoming ash while still airborne and uniformly wets the ash as it travels through the mixer. The pug mill will have a design capacity of 6,000 cubic feet (ft<sup>3</sup>) per hour using up to 120 gallons per minute (gpm) of water to mix with ash (15-percent moisture by weight). The maximum potential increase in PM and PM<sub>10</sub> associated with the pug mill are 0.042 and 0.020 tons/year, respectively.

The maximum potential estimated emissions for the increases in the potential throughput of coal and limestone and the installation of the pug mill are 0.092 tons/year for PM and 0.044 tons/year for PM<sub>10</sub>.

Water spraying was assumed as the method reasonably available to control fugitive emissions for coal and limestone handling. Fugitive emissions from the pug mill were based on 15 percent moisture. The calculations of fugitive emissions are presented in Appendix A. As noted in this appendix, the methods used were the same as used in the original PSD permit application and Title V permit application.

No additional fugitive PM emissions will result for other operations. Control devices (i.e., baghouses or bag filters) control fugitive PM in the crusher house, storage silos and other limestone handling and storage operations.

## **5.0 RULE APPLICABILITY**

Under Federal and State of Florida PSD review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a pre-construction permit issued. EPA has approved Florida's State Implementation Plan (SIP), which contains PSD regulations, therefore, PSD approval authority has been granted to the FDEP. For projects approved under the Florida PPSA the PSD program is delegated.

A "major facility" is defined as any one of 28 named source categories that have the potential to emit 100 TPY or more or any other stationary facility that has the potential to emit 250 TPY or more of any pollutant regulated under CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment. Once a new source is determined to be a "major facility" for a particular pollutant, any pollutant emitted in amounts greater than the PSD significant emission rates is subject to PSD review. For an existing source for which a modification is proposed, the modification is subject to PSD review if the net increase in emissions due to the modification is greater than the PSD significant emission rates.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Federal PSD requirements are contained in 40 CFR 52.21, Prevention of Significant Deterioration of Air Quality. The State of Florida has adopted the federal PSD regulations by reference (Rule 62-212.400, F.A.C.). Major facilities and major modifications are required to undergo the following analysis related to PSD for each pollutant emitted in significant amounts:

1. Control technology review,
2. Source impact analysis,
3. Air quality analysis (monitoring),

4. Source information, and
5. Additional impact analyses.

Cedar Bay Cogeneration Facility is a major source and increasing the potential coal and limestone throughputs and the addition of the pug mill are operational and physical changes. The proposed change in the potential throughput of coal and limestone and the addition of the pug mill will have potential emission increases of less than 1 ton/year and significantly less than the PSD significant emission rates for PM and PM<sub>10</sub>. Therefore, PSD review is not applicable.

**APPENDIX A**

**FUGITIVE EMISSION CALCULATIONS**

**Calculations of Coal and Limestone Unloading and Storage**

**Coal Fugitive Emissions:**

The same equations as the PSD Approval and Title V Permit Application are used to determine fugitive emissions. AP-42, 4th Edition 11.2.3:

$$EF_{UN} = k \times (0.0032) \times (U/5)^{1.3} / (M/2)^{1.4} \quad (UN=Uncontrolled)$$

where: EF is the emission factor in lb/ton  
 k is particle size factor; 0.74 for PM and 0.35 for PM<sub>10</sub>  
 U is wind speed; 7.8 miles/hour previously used  
 M is percent moisture; 6 percent previously used

$$EF_{CON} = EF \times (1 - \%Removal) \quad (CON=Controlled)$$

Control efficiency = 70% based on water spraying.

$$EF_{PM-UN} = 0.74 \times (0.0032) \times (7.8/5)^{1.3} / (6/2)^{1.4}$$

$$EF_{PM-UN} = 0.0009067 \text{ lb/ton (Uncontrolled)}$$

$$EF_{PM-CON} = 0.000272 \text{ lb/ton (Controlled)}$$

$$EF_{PM10-UN} = 0.35 \times (0.0032) \times (7.8/5)^{1.3} / (6/2)^{1.4}$$

$$EF_{PM10-UN} = 0.0004289 \text{ lb/ton}$$

$$EF_{PM10-CON} = 0.0001287 \text{ lb/ton (Controlled)}$$

Comparison of Specific Condition Section II.B.2. coal limit to requested change:

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	1,117,000 tons/year	1,287,000 tons/year	170,000 tons/year
Monthly	117,000 tons/month	234,000 tons/month	117,000 tons/month

PM Emissions from Coal Unloading:

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.152 tons/year	0.175 tons/year	0.023 tons/year
Monthly	0.016 tons/month	0.032 tons/month	0.016 tons/month

PM<sub>10</sub> Emissions from Coal Unloading:

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.072 tons/year	0.083 tons/year	0.011 tons/year
Monthly	0.008 tons/month	0.015 tons/month	0.008 tons/month

PM Emissions from Conveyor to Pile:

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.152 tons/year	0.175 tons/year	0.023 tons/year
Monthly	0.016 tons/month	0.032 tons/month	0.016 tons/month

PM<sub>10</sub> Emissions from Conveyor to Pile:

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.072 tons/year	0.083 tons/year	0.011 tons/year
Monthly	0.008 tons/month	0.015 tons/month	0.008 tons/month

**Limestone Fugitive Emissions:**

Comparison of Specific Condition Section II.B.2. limestone limit to requested change:

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	320,000 tons/year	347,000 tons/year	27,000 tons/year
Monthly	27,000 tons/month	54,000 tons/month	27,000 tons/month

Same emission factor used as coal.

**PM Emissions from Limestone**

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.044 tons/year	0.047 tons/year	0.004 tons/year
Monthly	0.004 tons/month	0.007 tons/month	0.004 tons/month

**PM<sub>10</sub> Emissions from Limestone**

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.021 tons/year	0.022 tons/year	0.002 tons/year
Monthly	0.002 tons/month	0.003 tons/month	0.002 tons/month

**Ash Pugmill Fugitive Emissions:**

Comparison of Specific Condition Section II.B.2. limestone limit to requested change:

	<u>Current</u>
Annual	336,000 tons/year
Monthly	28,000 tons/month
Hourly	216 tons/hour (based on 6,000 ft <sup>3</sup> /hr and 72 lb/ft <sup>3</sup> )

Use same emission factor except for percent moisture.

M is percent moisture; pugmill design is 15 percent by weight

$$EF_{PM-LN} = 0.74 \times (0.0032) \times (7.8/5)^{1.3} / (15/2)^{1.4} = 0.00025 \text{ lb/ton}$$

$$EF_{PM10-LN} = 0.35 \times (0.0032) \times (7.8/5)^{1.3} / (6/2)^{1.4} = 0.00012 \text{ lb/ton}$$

**PM Emissions from Pug Mill**

	<u>Proposed</u>
Annual	0.042 tons/year
Monthly	0.004 tons/month
Hourly	0.054 lb/hour

**PM<sub>10</sub> Emissions from Pug Mill**

	<u>Proposed</u>
Annual	0.020 tons/year
Monthly	0.002 tons/month
Hourly	0.026 lb/hpur

**Total PM Emissions**

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.347 tons/year	0.440 tons/year	0.092 tons/year
Monthly	0.035 tons/month	0.075 tons/month	0.039 tons/month

**Total PM<sub>10</sub> Emissions**

	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>
Annual	0.164 tons/year	0.208 tons/year	0.044 tons/year
Monthly	0.017 tons/month	0.035 tons/month	0.018 tons/month