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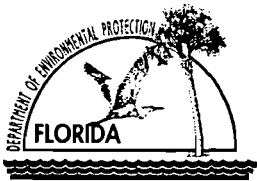
BUREAU OF AIR REGULATION

**POLK POWER PARTNERS, L.P.  
MULBERRY COGENERATION FACILITY**

**RENEWAL APPLICATION  
TITLE V OPERATING PERMIT**

Prepared By:  
Foster Wheeler Environmental Corporation  
759 South Federal Highway, Suite 100  
Stuart, FL 34994-2396

Prepared For:  
CSW Energy, Inc. Operations  
Mulberry Cogeneration Facility  
3600 Highway 555  
Bartow, FL 33830



# Department of Environmental Protection

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## Division of Air Resource Management RESPONSIBLE OFFICIAL NOTIFICATION FORM

BUREAU OF AIR REGULATION

Note: A responsible official is not necessarily a designated representative under the Acid-Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

### Identification of Facility

1. Facility Owner/Company Name: <b>Polk Power Partners, Limited Partnership</b>	
2. Site Name: <b>Mulberry Cogeneration Facility</b>	3. County: <b>Polk</b>
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications): <b>1050217-001-AV</b>	

### Notification Type (Check one or more)

<input type="checkbox"/> INITIAL:	Notification of responsible officials for an initial Title V application.
<input checked="" type="checkbox"/> RENEWAL:	Notification of responsible officials for a renewal Title V application.
<input type="checkbox"/> CHANGE:	Notification of change in responsible official(s).
	Effective date of change in responsible official(s) _____

### Primary Responsible Official

1. Name and Position Title of Responsible Official: <b>Allen Wade Smith, General Manager</b>
2. Responsible Official Mailing Address: Organization/Firm: <b>Polk Power Partners, L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>
3. Responsible Official Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</b>
4. Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input checked="" type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
5. Responsible Official Statement: <i>I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.</i>  <b>Allen Wade Smith</b> _____ <b>7/1/02</b> _____ Signature Date

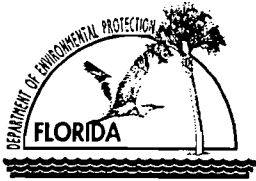
**Additional Responsible Official**

1. Name and Position Title of Responsible Official: <b>Mr. Don Walters, Plant Manager</b>
2. Responsible Official Mailing Address: Organization/Firm: <b>CSW Energy, Inc., Operations</b> Street Address: <b>3600 County Road 555</b> City: <b>Bartow</b> State: <b>FL</b> Zip Code: <b>33831</b>
3. Responsible Official Telephone Numbers: Telephone: <b>(863) 533 - 9073</b> Fax: <b>(863) 533 - 4092</b>
4. Responsible Official Qualification ( <i>Check one or more of the following options, as applicable</i> ): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input checked="" type="checkbox"/> The designated representative at an Acid Rain source.

**Additional Responsible Official**

1. Name and Position Title of Responsible Official:
2. Responsible Official Mailing Address: Organization/Firm: Street Address: City: State: Zip Code:
3. Responsible Official Telephone Numbers: Telephone: ( ) - Fax: ( ) -
4. Responsible Official Qualification ( <i>Check one or more of the following options, as applicable</i> ): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.

**SECTION I. APPLICATION INFORMATION**



# 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>Polk Power Partners, L.P.</b>	
2. Site Name: <b>Mulberry Cogeneration Facility</b>	
3. Facility Identification Number: <b>1050217</b>	<input type="checkbox"/> Unknown
4. Facility Location: <b>Cogeneration Facility</b> Street Address or Other Locator: <b>3600 County Road 555</b> City: <b>Bartow</b> County: <b>Polk</b> Zip Code: <b>33831-0824</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>Allan Wade Smith, General Manager</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>Polk Power L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>	
3. Application Contact Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</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):	

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**Purpose of Application**

**Air Operation Permit Application**

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

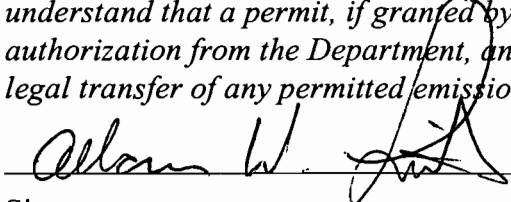
- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a 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: 1050217-001-AV  
Reason for revision: Permit Renewal

**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>Allen Wade Smith, General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Polk Power L.P., Inc.</b> Street Address: <b>1125 US 98 South, Suite 100</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(863) 682 - 6338</b> Fax: <b>(863) 683 - 8257</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 [ X ], 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 <u>7/1/02</u>

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

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Darrel James Graziani</b> Registration Number: <b>44685</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Foster Wheeler Environmental Corporation</b> Street Address: <b>749 South Federal Highway, Suite 100</b> City: <b>Stuart</b> State: <b>FL</b> Zip Code: <b>34994-2936</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(772) 781 - 3413</b> Fax: <b>(772) 781 - 3411</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 [ X ], 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 [ X ], 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*

*No. 44685  
(seal)*

*June 22, 2002*  
Date

Attach any exception to certification statement.



**Scope of Application**

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
001	Combustion Turbine	AO Renewal ACM1	N/A
002	Secondary Boiler	AO Renewal	N/A
003	Unregulated Activities	AO Renewal	N/A

**Application Processing Fee**

Check one: [  ] Attached - Amount: \$ \_\_\_\_\_ [  ] Not Applicable

**Construction/Modification Information**

1. Description of Proposed Project or Alterations:

**The applicant is requesting a minor modification related to the Test Methods and Procedures specified in the initial PSD/Construction and Title V permits. The requested changes are discussed in Attachment MB-FI-006.**

2. Projected or Actual Date of Commencement of Construction: N/A

3. Projected Date of Completion of Construction: N/A

**Application Comment**

**This application includes a minor modification of PSD-FL-187/AC53-211670 and renewal of the Title V Operating and Acid Rain permits.**

**SECTION II. FACILITY INFORMATION**

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

1. Facility UTM Coordinates: Zone: <b>17</b> East (km): <b>413.6</b> North (km): <b>3080.6</b>			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): <b>27° 50' 56"</b> Longitude (DD/MM/SS): <b>81° 52' 39"</b>			
3. Governmental Facility Code: <b>0</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>49</b>	6. Facility SIC(s): <b>4911</b>
7. Facility Comment (limit to 500 characters):  <p><b>The source includes a 126 MW combined cycle cogeneration unit (Combustion Turbine and Heat Recovery Steam Generator (HRSG)), a Secondary Boiler, and other miscellaneous unregulated and/or insignificant emissions units/activities. The CT can be fired with either natural gas or No. 2 fuel oil.</b></p> <p><b>Based on the current emission estimates, this facility is not a major source of hazardous air pollutants (HAPs).</b></p>			

#### Facility Contact

1. Name and Title of Facility Contact: <b>Don Walters, Plant Manager</b>			
2. Facility Contact Mailing Address: Organization/Firm: <b>CSW Energy, Inc. Operations</b> Street Address: <b>3600 County Road 555</b> City: <b>Bartow</b> State: <b>FL</b> Zip Code: <b>33831-0824</b>			
3. Facility Contact Telephone Numbers: Telephone: <b>(863) 533 - 9073</b> Fax: <b>(863) 533 - 4092</b>			

**Facility Regulatory Classifications**

Check all that apply:

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters): <b>The source can be categorized under a listed major source category and is a new major source with allowable emissions of carbon monoxide and oxides of nitrogen greater than 100 tons per year. The CT is subject to 40 CFR 60 Subpart GG and BACT for NOx, SO2, CO, VOC and visible emissions. The secondary boiler is a 40 CFR 60 Subpart DC unit but not subject to any of the emission limiting standards because it fires only natural gas.</b>	

**List of Applicable Regulations**

Rule 62-4.020, F.A.C.	Rule 62-4.030, F.A.C.
Rule 62-4.040(1), F.A.C.	Rule 62-4.050(1), (2), (3), (4)(a)1., (4)(v), F.A.C.
Rule 62-4.050(5) – (8), F.A.C.	Rule 62-4.055(1) – (5), F.A.C.
Rule 62-4.070, F.A.C.	Rule 62-4.090, F.A.C.
Rule 62-4.100, F.A.C.	Rule 62-4.120(1) & (5), F.A.C.
Rule 62-4.130, F.A.C.	Rule 62-4.150, F.A.C.
Rule 62-4.160, F.A.C.	Rule 62-4.210, F.A.C.
Rule 62-4.220, F.A.C.	Rule 62-204.200, F.A.C.
Rule 62-204.800(2), F.A.C.	Rule 62-204.800(7)(a), (c), (d), & (e), F.A.C.
Rule 62-204.800(9)(a), (b)8., (c), (d), & (e), F.A.C.	Rule 62-204.800(10)(a), (b)9., (c) & (e), F.A.C.
Rule 62-204.800(13), F.A.C.	Rule 62-204.800(13), F.A.C.
Rule 62-204.800(15), F.A.C.	Rule 62-204.800(16), F.A.C.
Rule 62-204.800(17), F.A.C.	Rule 62-204.800(19), F.A.C.
Rule 62-204.800(22)(e), F.A.C.	Rule 62-210.200, F.A.C.
Rule 62-210.300(1), (2), (2)(a), F.A.C.	Rule 62-210.300(3)(a), (a)9, 10, 11, 12, 15, 20, 21, F.A.C.

**List of Applicable Regulations**

Rule 62-210.300(3)(a)22, 26, 30, 31, 32, F.A.C.	Rule 62-210.300(3)(b)1., F.A.C.
Rule 62-210.350(1), (2), (3), F.A.C.	Rule 62-210.360(1), F.A.C.
Rule 62-210.370(3)(a) & (c), F.A.C.	Rule 62-210.550, F.A.C.
Rule 62-210.650, F.A.C.	Rule 62-210.700, F.A.C., except (2) & (3)
Rule 62-210.900(1), (1)(a), (5) & (7), F.A.C.	Rule 62-212.300, F.A.C.
Rule 62-212.400, F.A.C.	Rule 62-213.205(1) & (4), F.A.C.
Rule 62-213.400, F.A.C.	Rule 62-213.410, F.A.C.
Rule 62-213.412, F.A.C., except (3)	Rule 62-213.413(1), (2) & (3) F.A.C.
Rule 62-213.420, F.A.C.	Rule 62-213.430(3), (4) & (6), F.A.C.
Rule 62-213.440, F.A.C.	Rule 62-213.460, F.A.C.
Rule 62-213.900(1), (6) & (7), F.A.C.	Rule 62-214.300, F.A.C.
Rule 62-214.320(1)(I) & (2), F.A.C.	Rule 62-214.330(1), (1)(a), F.A.C.
Rule 62-214.350, F.A.C., except (4)	Rule 62-214.370(1), (3) & (4), F.A.C.
Rule 62-214.420, F.A.C.	Rule 62-214.430(1), (2)(a) & (3), F.A.C.
Rule 62-296.320(1), (2), (3), (4)(b) & (4)(c), F.A.C.	Rule 62-256.200, F.A.C.
Rule 62-256.300, F.A.C.	Rule 21-256.600, F.A.C.
Rule 62-256.700(3), (4) & (5), F.A.C.	Rule 62-257.200, F.A.C.
Rule 62-257.301, F.A.C.	Rule 62-257.400, F.A.C.
Rule 62-257.900, F.A.C.	40 CFR 52.21
40 CFR 52.27	40 CFR 60.1 (a), (b) & (c)
40 CFR 60.2	40 CFR 60.3
40 CFR 60.4(a) & (b)(K)	40 CFR 60.7
40 CFR 60.8	40 CFR 60.11
40 CFR 60.12	40 CFR 60.13
40 CFR 60.14	40 CFR 60.15
40 CFR 60.17	40 CFR 60.19
40 CFR Part 61, Subpart M	40 CFR 64.1
40 CFR 64.2	40 CFR Part 70
40 CFR Part 68	40 CFR Part 73
40 CFR Part 72	40 CFR Part 77
40 CFR Part 75	

**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		
NOx	A				
CO	A				
SO <sub>2</sub>	B				
VOC	B				

### C. FACILITY SUPPLEMENTAL INFORMATION

#### Supplemental Requirements

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-FI-001</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-FI-002</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-FI-003</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-FI-004</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-FI-006</u> <input type="checkbox"/> Not Applicable
7. Supplemental Requirements Comment:  <b>Item 5, Fugitive Emissions Identification. Emissions Unit 003 addresses the unregulated activities including fugitive emissions activities that are not classified as insignificant.</b>  <b>Item 6, Supplemental Information for Construction Permit Application. Document MB-FI-006 addresses the applicant's requests for changes in the test methods and procedures. These changes will not result in any increase in potential emissions.</b>

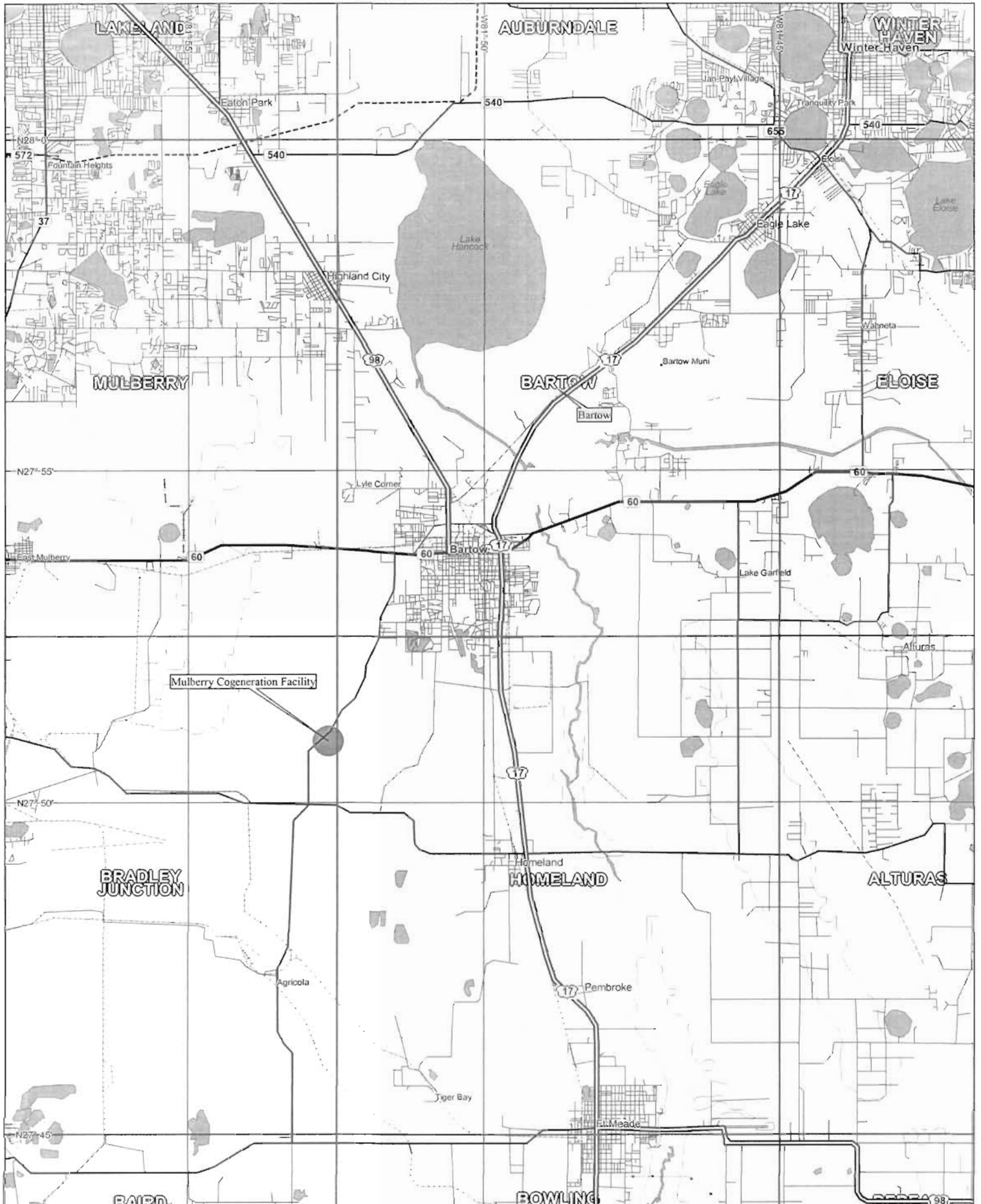


**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

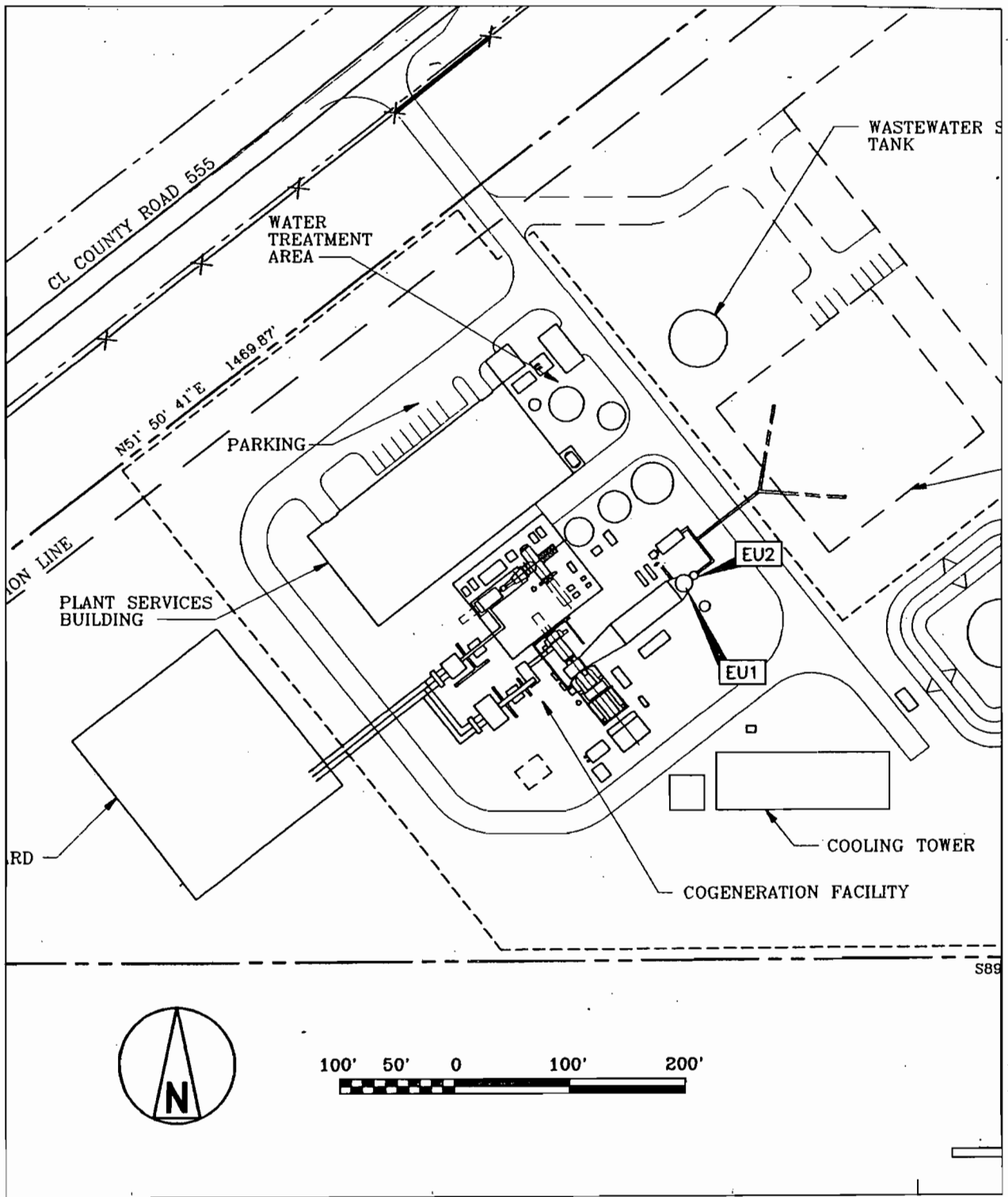
8. List of Proposed Insignificant Activities: <input checked="" type="checkbox"/> Attached, Document ID: <b><u>MB-FI-008</u></b> <input type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input checked="" type="checkbox"/> Attached, Document ID: <b><u>MB-FI-010</u></b> <input 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 checked="" type="checkbox"/> Attached, Document ID: <b><u>MB-FI-012</u></b> <input type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input checked="" type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: <b><u>MB-FI-013</u></b> ) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input checked="" type="checkbox"/> Attached, Document ID: <b><u>MB-FI-014</u></b> <input type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input checked="" type="checkbox"/> Attached, Document ID: <b><u>MB-FI-015</u></b> <input type="checkbox"/> Not Applicable

**Section I.E. Facility Supplemental  
Information**

**Document ID MB-FI-001**  
**Area Map**



**Document ID MB-FI-002**  
**Facility Plot Plan**



Source: 1996 Title V Permit Application. Attachment MB-FI-E2

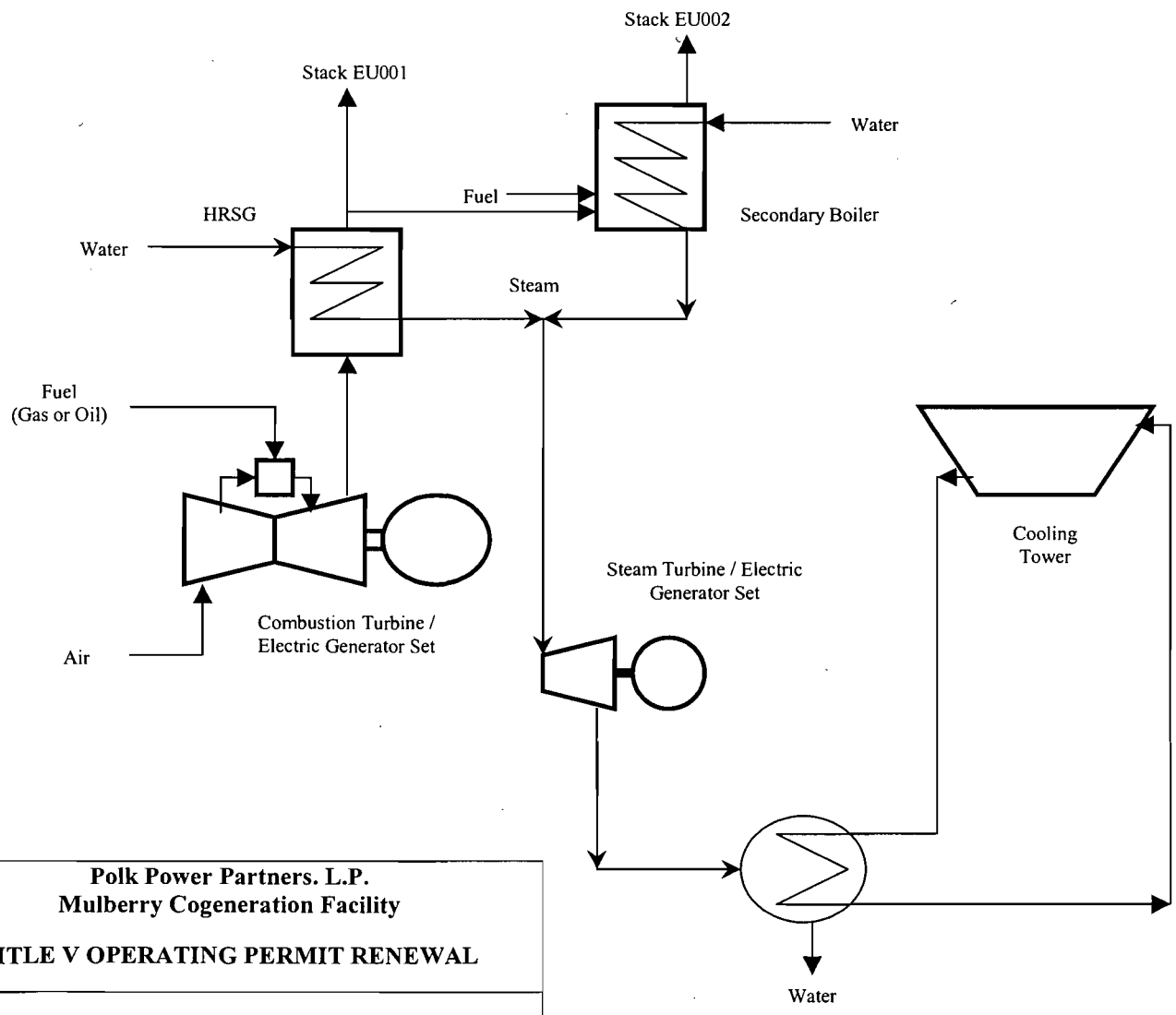
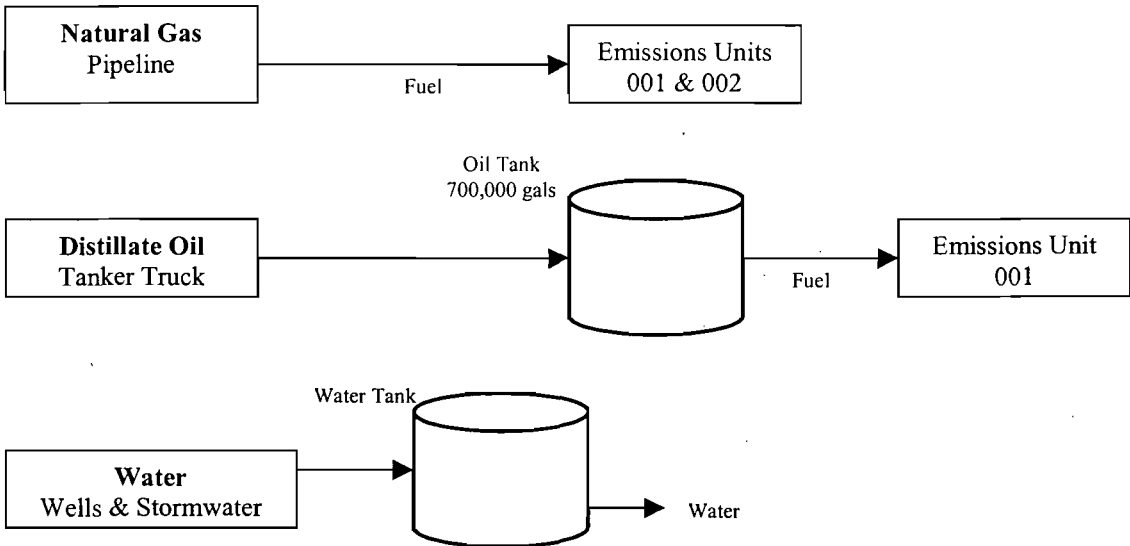
**Polk Power Partners. L.P.  
Mulberry Cogeneration Facility**

**TITLE V OPERATING PERMIT RENEWAL**

**Foster Wheeler Environmental Corporation**

Scale: As Shown	Prepared: MI	File: MB-FI-002.doc
Date: 4/5/02	Approved: <i>[Signature]</i>	Document ID: MB-FI-002

**Document ID MB-FI-003**  
**Process Flow Diagram**



**Polk Power Partners. L.P.**  
**Mulberry Cogeneration Facility**

**TITLE V OPERATING PERMIT RENEWAL**

**Foster Wheeler Environmental Corporation**

Scale: N/A	Prepared: D/G	File: MB-FI-003.doc
Date: 6/15/02	Approved:	Document ID: MB-FI-003

Reference: 1996 Title V Permit Application, Attachment MB-FI-E3  
 Title V Operating Permit



**Document ID MB-FI-004**  
**Reasonable Precautions**

## MB-FI-004

### PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Unconfined particulate matter emissions associated with the operation and maintenance of the Mulberry Cogeneration Facility include the following sources and activities:

- ◆ Cooling Tower Drift Losses;
- ◆ Abrasive Blast Activities;
- ◆ Surface Coating Activities (Spray Painting);
- ◆ Dry Chemical Handling & Storage;
- ◆ Lawn & Ground Maintenance;
- ◆ Parking Areas; and
- ◆ Paved & Unpaved Roads.

Reasonable precautions to prevent and/or control unconfined particulate matter emissions include the following:

- ◆ Cooling Tower Drift Losses – Maintain proper water chemistry (pH & TDS) and equipment in accordance with the manufacturer's design specifications.
- ◆ Abrasive Blast Activities – When practical, use of partial or total enclosures and use of grit materials versus sand. Limit annual activities
- ◆ Surface Coating Activities – When practical, use of partial or total enclosures and limiting outdoor activities to times of favorable weather conditions to avoid off site impacts.
- ◆ Dry Chemical Handling & Storage – Clean-up spills immediately, good-house keeping practices.
- ◆ Lawn & Ground Maintenance – Application of water to non-vegetative areas as needed, landscaping and grass in other areas as necessary.
- ◆ Parking Areas – Application of water as needed.
- ◆ Paved and Unpaved Roads – As needed, application of water, the removal of particulate matter from paved roads, limited site access to vehicles, and vehicle speed limitations.

**Document ID MB-FI-006**  
**Supplemental Information**

**MB-FI-006**

**SUPPLEMENTAL INFORMATION FOR CONSTRUCTION PERMIT APPLICATION**

As part of the Title V Permit renewal, the following minor modifications are requested to the BACT Determination and the construction permits:

**VOC Emission Limitations**

It is requested that the PSD permit be revised to remove the annual VOC test requirements (Specific Condition 4). Specific Condition 4 of the PSD permit appears to have caused some confusion in the drafting of the Initial Title V Operating Permit. As noted in Specific Condition 2 of the PSD permit there is no applicable VOC emissions limitation.

**Visible Emissions Limitations**

It is requested that the visible emissions limitation be removed from the BACT Determination and the PSD Permit (Specific Condition 2). Upon removal the General 20% opacity standard of Rule 62-296.320, F.A.C. would apply. The basis of the request seeks relief from conducting an annual EPA Method 9 on a natural gas fired combustion turbine.

**NOx Continuous Emissions Monitoring System (CEMS)**

It is requested that the PSD permit be revised to include a condition that specifies compliance with the Acid Rain Monitoring requirements of 40 CFR Part 75 for the NOx and oxygen monitors. It is also requested that the NOx CEMS be specified as the reference method for NOx and that the annual testing (EPA Method 20) requirement (Specific Condition 4) be removed. This is consistent with current FDEP Guidance (DARM-OGG-08, Guidance Document).

**Document ID MB-FI-008**  
**Insignificant Activities**

**MB-FI-008**  
**List of Proposed Insignificant Activities**

EU ID No.	Description	Category	Regulatory Status	Compliance Status
	Internal Combustion Engines - Vehicles	A	I - (3)(a)	In
	Laboratory Vacuum Pumps	P	I - (3)(a)	In
	Steam Cleaning Equipment	F	I - (3)(a)	In
	Belt & Drum Sanders	F	I - (3)(a)	In
	Laboratory Equipment	F	I - (3)(a)	In
	Brazing, Soldering or Welding Equipment	F	I - (3)(a)	In
	Emergency Generators	P	I - (3)(a)	In
	Heating Units, General Purpose IC Engines and Other Combustion Sources	F	I - (3)(a)	In
	Surface Coating Operations	F	I - (3)(a)	In
	Degreasing Units (non-HAP Solvents)	F	I - (3)(a)	In
	Petroleum Lubrication Systems	F	I - (3)(a)	In
	Fungicide, Herbicide, & Pesticide Applications	F	I - (3)(a)	In
	Asbestos Renovation & Demolition Activities	F	I - (3)(a)	In
	Non-Halogenated Solvent Storage & Cleaning	F	I - (3)(a)	In
	Abrasive Blasting Activities	F	I - (3)(b)	In
	Non-Halogenated Solvent Storage & Cleaning	F	I - (3)(b)	In
	Lime Storage Hopper	P	I - (3)(b)	In
	Soda Ash Storage Hopper	P	I - (3)(b)	In
	Main Cooling Tower	F	UR	In
	Inlet Air Cooling Tower	F	UR	In
	Fuel Oil Storage Tank (700,000 gal)	P	I - (3)(b)	In
	Fuel Oil Drain Tank (2,500 gal)	P	I - (3)(b)	In
	Fuel Oil Piping System	F	I - (3)(b)	In
	Natural Gas Piping System	F	I - (3)(b)	In
	Water Treatment, Storage, and Handling	F	I - (3)(b)	In
	Lawn & Ground Maintenance	F	UR	In
	Paved & Unpaved Roads	F	UR	In
<b>Notes:</b> Category: P - Point, F - Fugitive, & A - Area Regulatory Status: I - Insignificant (Rule 62-210.(300(3)(a) or (b)) or UR - Unregulated Compliance Status: In or Out				

**Document ID MB-FI-010**  
**Alternative Methods of Operation**

**MB-FI-010**

**ALTERNATIVE METHODS OF OPERATION**

The alternative methods of operation include the following:

- ◆ Natural Gas Firing in the Combustion Turbine with emissions directed through Emission Point EU001.
- ◆ Natural Gas Firing in the Combustion Turbine with a portion of the emissions directed through Secondary Boiler (firing Natural Gas) and exhausted through Emission Point EU002.
- ◆ Distillate Oil Firing in the Combustion Turbine with emissions directed through Emission Point EU001.
- ◆ Distillate Oil Firing in the Combustion Turbine with a portion of the emissions directed through Secondary Boiler (firing Natural Gas) and exhausted through Emission Point EU002.

The alternative methods of operation have all been addressed within the construction permits and the initial Title V Operating Permit.



**Document ID MB-FI-012**  
**Additional Applicable Requirements**

**MB-FI-012**

**ADDITIONAL APPLICABLE REQUIREMENTS**

The additional applicable requirements include the terms and conditions of the construction permit and Best Available Control Technology (BACT) determination. No additional requirements have been imposed by the Department nor proposed by the Mulberry Cogeneration Facility since issuance of the initial Title V Operating Permit.

Attached: Permit No. PSD-FL-187 (AC 53-211670)

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF PERMIT

Final Determination

In the matter of an  
Application for Permit by:

DEP File No. AC53-211670  
PSD-FL-187  
Polk County

Mr. William R. Malenius  
Polk Power Partners  
23293 South Pointe Drive  
Laguna Hills, CA 92653

Enclosed is Permit Number AC53-211670 to construct a cogeneration facility at County Road 555 approximately 3.7 miles southwest of Bartow, Polk County, Florida, issued pursuant to Section (s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*C. H. Fancy*  
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on Feb 21, 1994 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,  
on this date, pursuant to  
§120.52(11), Florida Statutes,  
with the designated Department  
Clerk, receipt of which is hereby  
acknowledged.

*Charlotte J. Hayes* 2/21/94  
(Clerk) (Date)

Copies furnished to:  
W. Thomas, SMD  
D. Martin, Polk Co.  
J. Harper, EPA  
J. Bunyak, NPS  
K. Kosky, KBN  
D. Roberts, HBGS

Polk Power Partners  
Mulberry Cogeneration Project  
Polk County, Florida

Permit No. AC 53-211670  
PSD-FL-187

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

February 9, 1994

Final Determination

The Revised Technical Evaluation and Preliminary Determination for the permit to construct a cogeneration facility approximately 3.7 miles southwest of Bartow in Polk County, Florida, was distributed on December 29, 1994. The Notice of Intent to Issue was published in the Polk County Democrat on January 5, 1994. Copies of the evaluation were available for public inspection at the Department's Tallahassee and Tampa offices.

Comments were received from the applicant on January 28, 1994 requesting minor modifications of certain specific conditions. The Department made the following changes to the permit:

Specific Condition No. 2 - A statement was added clarifying that if the NO<sub>x</sub> limit of 15 ppmvd is achieved prior to 12/31/97, the CO emission limit prior to 12/31/97 will be based on 25 ppmvd.

Specific Condition No. 4 - A statement was added to emphasize a rule requirement that sampling ports and access platforms be provided.

BACT Determination - Minor revisions were made to the last paragraph of the NO<sub>x</sub> section to clarify that SCR or another technology may be required if the emission limits are not achieved.

The final action of the Department will be to issue construction permit AC53-211670 (PSD-FL-187) as modified.



Lawton Chiles  
Governor

PERMITTEE:  
Polk Power Partners, L.P.  
23293 South Pointe Drive  
Laguna Hills, CA 92653

Florida Department of  
Environmental Protection

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

Virginia H. Wetzel  
Secretary

Permit Number: AC 53-211670  
PSD-FL-187  
Expiration Date: December 31, 1995  
County: Polk  
Latitude/Longitude: 27°50'56"N  
81°52'39"W  
Project: Mulberry Cogeneration  
Project

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-212 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and specifically described as follows:

For the construction of a 126 Megawatt cogeneration unit. The facility will be located off County Road 555 approximately 3.7 miles southwest of Bartow in Polk County, Florida. UTM coordinates of the site are: Zone 17, 413.6 km E and 3080.6 km N.

Particulate emissions shall be controlled by using clean fuels and good combustion practices. CO emissions shall be controlled by proper combustion techniques. NO<sub>x</sub> emissions shall be initially controlled by water injection and Low NO<sub>x</sub> Burners. Future control technology for NO<sub>x</sub> will depend on whether the Low NO<sub>x</sub> Burners can achieve the levels specified by this permit.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. DER letter dated May 5, 1992.
2. KBN letter dated April 15, 1992.
3. KBN letter dated June 2, 1992.
4. EPA letter dated July 1, 1992.
5. KBN submittal dated July 8, 1992.
6. KBN letter dated July 29, 1992.
7. KBN letter dated August 12, 1992.
8. DER letter dated August 13, 1992.
9. KBN letter dated August 26, 1992.
10. KBN letter dated October 12, 1992.
11. KBN letter dated November 2, 1992.

PERMITTEE:  
Polk Power Partners, L.P.

Permit Number: AC 53-211670  
PBD-FL-187  
Expiration Date: December 31, 1995

Attachments are listed below: (Cont'd)

12. EPA letter dated December 16, 1992.
13. KBN letter dated February 19, 1993.
14. DER letter dated March 19, 1993.
15. KBN letter dated August 17, 1993.
16. DER letter dated August 19, 1993.
17. KBN letter dated August 27, 1993.
18. HBG&S letter dated November 16, 1993.
19. DEP letter dated November 18, 1993.
20. HBG&S letter dated December 20, 1993.
21. PPP letter dated December 17, 1993.
22. GECC letter dated December 16, 1993.
23. HBG&S letter dated December 22, 1993.
24. KBN letter dated January 28, 1994.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

PERMITTEE:  
Polk Power Partners, L.P.

Permit Number: AC 53-211670  
PSD-FL-187  
Expiration Date: December 31, 1995

GENERAL CONDITIONS:

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy any records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and

PERMITTEE:  
Polk Power Partners, L.P.

Permit Number: AC 53-211670  
PSD-FL-187  
Expiration Date: December 31, 1995

GENERAL CONDITIONS:

- b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is 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.

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.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

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

PERMITTEE:  
Polk Power Partners, L.P.

Permit Number: AC 53-211670  
PSD-FL-187  
Expiration Date: December 31, 1995

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

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

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. This permit supersedes the initial permit issued on November 24, 1992. Unless otherwise indicated, the construction and operation of the subject facilities shall be in accordance with the capacities and specifications stated in the application and subsequent submittals by the permittee.

PERMITTEE:  
Polk Power Partners, L.P.

Permit Number: AC 53-211670  
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Expiration Date: December 31, 1995

**SPECIFIC CONDITIONS:**

2. Emissions from the facility shall not exceed the limits listed below based on operation at 59°F and 60% relative humidity (ISO conditions):

Pollutant	Source	Fuel	Through 12/31/97		After 12/31/97 (See notes)	
			lbs/hr	tons/yr	lbs/hr	tons/yr
NOx	HRSG Stack 1	Gas	87.8	384.5	52.7	230.7
	HRSG Stack 2	Gas	19.9	87.1	18.3	80.0
	HRSG Stack 1	Oil	164.0	718.2	164.0	59.0
	HRSG Stack 2	Oil	23.4	102.4	23.4	8.4
SO2	HRSG Stack 1	Oil	0.1% Sulfur Max.		0.1% Sulfur Max.	
	HRSG Stack 2	Oil	0.1% Sulfur Max.		0.1% Sulfur Max.	
VE	HRSG Stack 1	Gas	10% Opacity		10% Opacity	
	HRSG Stack 2	Gas	10% Opacity		10% Opacity	
	HRSG Stack 1	Oil	20% Opacity		20% Opacity	
	HRSG Stack 2	Oil	20% Opacity		20% Opacity	
VOC	HRSG Stack 1	Oil	9.2	40.4	--	--
CO	HRSG Stack 1	Gas	42.9	187.8	53.0	232.0
	HRSG Stack 2	Gas	11.9	52.0	12.6	55.2
	HRSG Stack 1	Oil	75.3	329.9	75.3	27.1
	HRSG Stack 2	Oil	13.4	58.5	13.4	4.8

- Notes:
- (1) NO<sub>x</sub> limits for turbine after 12/31/97 based on 15 ppwvd (gas firing) achievable by 4/30/97 but not effective until after 12/31/97.
  - (2) CO limits for turbine after 12/31/97 based on 25 ppwvd (gas firing). Should the NO<sub>x</sub> emission limit for the turbine based on 15 ppwvd (gas firing) be achieved prior to 12/31/97, the CO emission limit prior to 12/31/97 will be based on 25 ppwvd.
  - (3) Opacity limit will allow one 6-minute period per hour of not more than 27% opacity.
  - (4) HRSG Stack 1 = primary; HRSG Stack 2 = secondary (portion of exhaust from combustion turbine is vented through secondary stack along with exhaust from gas-fired duct burner).

3. The cogeneration facility shall be permitted to fire natural gas and No. 2 fuel oil until December 31, 1997, after which the primary fuel will be natural gas. Fuel consumption rates (based on operation at 20°F) and hours of operation for the turbine and duct burner shall not exceed those listed below:

	Natural Gas			No. 2 Fuel Oil		
	M ft <sup>3</sup> /hr	MM ft <sup>3</sup> /yr	hrs/yr	M lb/hr	MM lb/yr	hrs/yr
Turbine	1013.4	8877.4	8760	55.6	379.9	6833(1)
Duct Burner	104.2	450.2(2)	8760	0	0	0

PERMITTEE:  
Polk Power Partners, L.P.

Permit Number: AC 53-211670  
PSD-FL-187  
Expiration Date: December 31, 1995

**SPECIFIC CONDITIONS:**

- (1) After December 31, 1997, fuel oil can be used permanently as backup fuel for no more than 720 hours per year.
- (2) Based on maximum firing rate for 4,320 hours per year.

4. Before this construction permit expires, the cogeneration facility stack and secondary HRSG stack shall be sampled or tested as applicable according to the emission limits in Specific Condition No. 2. Annual compliance tests shall be conducted each year thereafter. Compliance tests shall be run at 95% to 100% of the maximum capacity achievable for the average ambient temperature during the compliance tests. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results. Tests shall be conducted using the following reference methods:

NO<sub>x</sub>: EPA Method 20  
SO<sub>2</sub>: Fuel supplier's sulfur analysis  
VE: EPA Method 9  
CO: EPA Method 10  
VOC: EPA Method 25A

The Permittee shall provide sampling ports in the air pollution control equipment outlet duct or stack and shall provide access to the sampling ports in accordance with Rule 17-297, F.A.C. Detailed drawings of the stacks showing testing facilities and sampling port locations as required by Rule 17-297.345 shall be submitted to the Southwest District Office for approval at least 60 days prior to construction of the duct and stack.

5. The Southwest District office shall be notified at least 30 days prior to the compliance tests. Compliance test results shall be submitted to the Southwest District office in Tampa and the Bureau of Air Regulation office in Tallahassee (third annual compliance test only) within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

6. A continuous operations monitoring system shall be installed, operated, and maintained in accordance with 40 CFR 60.334. The natural gas, fuel oil and water injection flows to the cogeneration turbine along with the power output of the generators shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to DEP upon request.

7. The permittee shall have the option of including, in the initial construction, adequate modules and other provisions necessary for future installation of state-of-the-art catalytic abatement or equivalent NO<sub>x</sub> control systems. The Bureau of Air Regulation shall, if NO<sub>x</sub> emission limits are not met, review the

PERMITTEE:  
Polk Power Partners, L.P.

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PSD-FL-187  
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**SPECIFIC CONDITIONS:**

need for making a revised determination of Best Available Control Technology. If test results show that it is unlikely that NO<sub>x</sub> limits can be met, a revised BACT determination shall be made. The Department may revise the BACT determination to require installation of such technology if so indicated by the revised BACT cost/benefit analysis. The retrofit costs associated with not making provisions for such technology initially shall not be considered by the Department in the retrofit cost analysis.

8. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

9. An application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 21st day  
of February, 1994

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*Virginia B. Wetherall*  
Virginia B. Wetherall, Secretary

Best Available Control Technology (BACT) Determination  
Mulberry Cogeneration Project  
Polk County

The applicant proposes to install a 126 MW combined cycle cogeneration unit. The Polk County facility will consist of a General Electric PG7111EA Gas Turbine Generator exhausting through a primary heat recovery steam generator which will produce steam for the steam-electric cycle. Initially, the turbine will be fired by natural gas and No. 2 fuel oil, with natural gas becoming the permanent fuel after December 31, 1997. A secondary heat recovery steam generator will be auxiliary-fired by natural gas.

BACT Determination Requested by Applicant

NO<sub>x</sub> - Dry Low NO<sub>x</sub> Combustion  
CO - Combustion Design  
H<sub>2</sub>SO<sub>4</sub>/SO<sub>2</sub> - Low Sulfur Fuel Oil (0.1%S)  
PM/PM<sub>10</sub> - Combustion Design/Clean Fuel  
VOC - Combustion Design

BACT Determination by the Department

NO<sub>x</sub> - Dry Low NO<sub>x</sub> Combustion with potential future SCR capability  
CO - Combustion Design  
H<sub>2</sub>SO<sub>4</sub>/SO<sub>2</sub> - Low Sulfur Fuel Oil (0.1%S)  
PM/PM<sub>10</sub> - Combustion Design/Clean Fuel  
VOC - Combustion Design

Proposed Emissions (tons per year)

	Through 12/31/97 (22% Gas/78% Oil)			After 12/31/97 (100% Gas)			PSD
	HRSG	Secondary HRSG	Total	HRSG	Secondary HRSG	Total	
NO <sub>x</sub>	644.8	99.1	743.9	230.7	80.0	310.7	40.0
SO <sub>2</sub>	327.4	16.4	343.8	11.4	1.8	13.2	40.0
PM/PM <sub>10</sub>	58.0	28.9	86.9	30.7	27.7	58.4	25/15
CO	298.6	57.1	355.7	232.0	55.2	287.2	100.0
VOC	37.7	-	37.7*	28.2	-	28.2	40.0
H <sub>2</sub> SO <sub>4</sub>	26.4	1.3	27.7	0.9	0.1	1.0	7.0
Be	.008	-	.008	-	-	-	0.0004
As	0.13	-	.013	-	-	-	0.0

\*Would be 40.4 TPY at 100% oil firing



Emissions after December 31, 1997, are based on firing only natural gas at 868.8 MMbtu/hr. Turbine performance under natural gas firing is based on NOx emissions of 25 ppm (corrected to 15 percent O<sub>2</sub>) through December 31, 1997 and 15 ppm thereafter. Performance on oil firing is based on NO<sub>x</sub> emissions of 42 ppmvd (corrected to 15 percent O<sub>2</sub>). SO<sub>2</sub> emissions are based on 0.1 percent sulfur.

#### BACT Determination Procedure

In accordance with Florida Administrative Code Chapter 17-212, Air Pollution, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

#### BACT Determination Rationale

##### Particulate Matter (PM/PM<sub>10</sub>)

Particulate emissions will be minimized by combustion control and the use of clean fuels. The particulate emissions from the combustion turbine when burning natural gas and fuel oil will not cause visible emissions to exceed 10% and 20% opacity, respectively.

##### Arsenic and Beryllium (As, Be)

The Department agrees that there are no feasible methods to control beryllium and arsenic except by specifying the quality of the fuel.

##### Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

The majority of BACT emissions limitations have been based on controlling carbon monoxide and volatile organic compounds through efficient combustion. Advanced control is achievable through the use of catalytic oxidation. Catalytic oxidation is a postcombustion control that has been employed in CO nonattainment areas where regulations have required CO emission levels to be less than those associated with wet injection. These installations have been required to use LAER technology and typically have CO limits in the 10-ppm range (corrected to dry conditions).

In an oxidation catalyst control system, CO emissions are reduced by allowing unburned CO to react with oxygen at the surface of a precious metal catalyst such as platinum. Combustion of CO starts at about 300°F, with efficiencies above 90 percent occurring at temperatures above 600°F. Catalytic oxidation occurs at temperatures 50 percent lower than that of thermal oxidation, which reduces the amount of thermal energy required. For CT/HRSO combinations, the oxidation catalyst can be located directly after the CT or in the HRSO. Catalyst size depends upon the exhaust flow, temperature, and desired efficiency.

Due to the oxidation of sulfur compounds and excessive formation of H<sub>2</sub>SO<sub>4</sub> mist emissions, oxidation catalyst systems are not considered to be technically feasible for gas turbines fired with fuel oil. Catalytic oxidation has not been demonstrated on a continuous basis when using fuel oil.

Use of oxidation catalyst technology would be feasible for a natural gas-fired unit; however, the cost effectiveness of over \$6,000 per ton of CO removed will have a significant economic impact on this project. Therefore, efficient combustion will be the control method for CO and VOC.

##### Nitrogen Oxides (NO<sub>x</sub>)

The applicant requested that BACT for nitrogen oxides through December 31, 1997, be water injection and Low NO<sub>x</sub> Burners. This would limit emissions to 25 ppmvd when burning natural gas and 42 ppmvd when burning fuel oil.

A review of the EPA's BACT/LAER Clearinghouse indicates that the lowest emission limit established to date for a combustion turbine is 4.5 ppmvd (corrected to 15% O<sub>2</sub>). This level of control was accomplished through the use of water injection and a selective catalytic reduction (SCR) system.

Selective catalytic reduction is a post-combustion method for control of NO<sub>x</sub> emissions. The SCR process combines vaporized ammonia with NO<sub>x</sub> in the presence of a catalyst to form nitrogen and water. The vaporized ammonia is injected into the exhaust gases prior to passage through the catalyst bed. The SCR process can achieve up to 90% reduction of NO<sub>x</sub> with a new catalyst. As the catalyst ages, the maximum NO<sub>x</sub> reduction will decrease to approximately 86 percent.

Although feasible, the applicant rejected using SCR because of economic, energy, and environmental impacts. The following factors were considered in the decision not to propose SCR:

- a) Disposal of hazardous waste generated (spent catalyst).
- b) An energy penalty of \$0.05/KWH due to back pressure from the catalyst bed.
- c) A power loss penalty based on lost capacity.
- d) Potential for public exposure to high concentrations from ammonia storage and handling leaks and ammonia slip.
- e) Ammonium bisulfate and ammonium sulfate particulate emissions (ammonium salts) due to the reaction of NH<sub>3</sub> with SO<sub>2</sub> present in the exhaust gases.
- f) Cost effectiveness for SCR technology was determined to be in the range of \$6,000 per ton of NO<sub>x</sub> removed.

A concern associated with the use of SCR on combined cycle projects is the formation of ammonium bisulfate which can be formed by reaction of sulfur in the fuel and the ammonia injected. The ammonium bisulfate has a tendency to plug the tubes of the heat recovery steam generator leading to operational problems. The latest information available indicates that SCR can be used for oil firing provided that adjustments are made in the ammonia to NO<sub>x</sub> injection ratio. For natural gas firing, NO<sub>x</sub> emissions can be controlled with up to a 90 percent efficiency using a 1 to 1 or greater injection ratio. By lowering the injection ratio for oil firing, testing has indicated that NO<sub>x</sub> can be controlled with efficiencies ranging from 60 to 75 percent. When the injection ratio is lowered there is not a problem with ammonium bisulfate formation since essentially all of the ammonia is able to react with the nitrogen oxides present in the combustion gases. SCR has been established as BACT for oil fired combined cycle facilities with NO<sub>x</sub> emission limits ranging from 11.7 to 25 ppmvd depending on the efficiency of control.

The applicant determined that the total annual cost of SCR for this project is \$1,957,700 with an average cost effectiveness in the range of \$6,000 to \$7,000 per ton of NO<sub>x</sub> removed. The maximum annual NO<sub>x</sub> emissions using water injection and Low NO<sub>x</sub> combustor design will be 744 tons/year through December 31, 1997. Assuming that SCR would reduce the NO<sub>x</sub> emissions by 65%, about 484 tons/year of NO<sub>x</sub> would be removed initially followed by 200 tons/year thereafter. When this reduction is factored into the total annual cost, the cost per ton of controlling NO<sub>x</sub> is in the range of \$6,000

to \$6,500. This calculated cost is higher than has previously been approved as BACT.

The latest DEP BACT determinations have a NO<sub>x</sub> limit of 15 ppmvd (natural gas) using Low-NO<sub>x</sub> burner technology. Although the turbine manufacturer does not presently guarantee this limit, they have agreed to lower NO<sub>x</sub> to 15 ppm by April 30, 1997. If the 15 (gas)/42 (oil) ppmvd emission rates cannot be met, SCR or another technology will be required no later than December 31, 1997.

#### Sulfur Dioxide (SO<sub>2</sub>) and Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

In accordance with "top down" BACT review, only two alternatives exist that would result in stringent SO<sub>2</sub> emissions; using low sulfur content fuel oil or flue gas desulfurization (FGD). EPA has recognized that FGD technology is inappropriate to apply to these combustion units due to negative environmental, economic and energy impacts. Sludge would be generated that would have to be disposed of properly, and there would be increased utility (electricity and water) costs associated with the operation of a FGD system. Finally, there is no information in the literature to indicate that FGD has ever been applied to stationary gas turbines burning distillate oil.

This leaves the use of low sulfur fuel oil as the best option. The Department accepts the use of No. 2 fuel oil with a 0.1% sulfur by weight as BACT for this project.

#### Details of the Analysis May be Obtained by Contacting:

Douglas Outlaw, BACT Coordinator  
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended by:

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

Approved by:

Virginia B. Wetherell  
Virginia B. Wetherell,  
Secretary  
Dept. of Environmental Protection

February 16, 1994  
Date

February 21, 1994  
Date



Department of  
Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

August 3, 1994

RECEIVED

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William R. Malenius  
Polk Power Partners  
23293 South Pointe Drive  
Laguna Hills, CA 92653

AUG 16 1994

Bureau of  
Air Regulation

RECEIVED

AUG 19 1994

Dear Mr. Malenius:

Re: Amendment to Construction Permit  
AC53-211670 (PSD-FL-187)  
Custom Fuel Monitoring Schedule  
Mulberry Cogeneration Project

ARK ENERGY, INC.

This is in response to your March 7, 1994, letter, requesting a Custom Fuel Monitoring Schedule for sulfur at the subject facility. The permit amendment fee was received on June 28, 1994. The facility is required to comply with Section 60.334(b) of Subpart GG of the New Source Performance Standards, which states that sources may apply for a custom fuel monitoring schedule. Therefore, the permit specific conditions are amended as follows:

New Specific Condition No. 10

A custom fuel monitoring schedule shall be followed for natural gas fired at this facility, as follows:

Custom Fuel Monitoring Schedule for Natural Gas

1. Monitoring of fuel nitrogen content shall not be required since natural gas is the only fuel being fired in the gas turbines.
2. Sulfur Monitoring
  - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).
  - b. This custom fuel monitoring schedule shall become effective on the date this permit becomes valid. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and

Mr. William R. Malenius  
Polk Power Partners  
Page Two

indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters. If monitoring data is provided by the applicant which demonstrates consistent compliance with the requirements herein, the applicant may begin monitoring as per the requirements of 2(c).

- c. If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
  - d. Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
  4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

Attachments to be Incorporated

KRM letter received March 9, 1994.  
(Permit Amendment Fee Received June 28, 1994)

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the applicant of the amendment request/application and the parties listed below must be filed within 14 days of receipt of this

Mr. William R. Malenius  
Polk Power Partners  
Page Three

amendment. Petitions filed by other persons must be filed within 14 days of the amendment issuance or within 14 days of their receipt of this amendment, whichever occurs first. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action;
- (g) A statement of the relief sought by petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the request/application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this amendment in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Mr. William R. Malenius  
Polk Power Partners  
Page Four

This letter amendment must be attached to Construction Permit No. AC53-211670 (PSD-FL-187), and shall become part of the permit.

Sincerely,



Howard L. Rhodes  
Director  
Division of Air Resources  
Management

HLR/JR/pm

Attachments

cc: B. Thomas, SWD  
J. Harper, EPA  
J. Bunyak, NPS  
K. Kosky, KBN

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this AMENDMENT and all copies were mailed by certified mail before the close of business on 8/24/94 to the listed persons.

Clerk Stamp

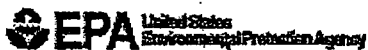
FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Sandra J. Boutwell 8/24/94  
(Clerk) (Date)

**Document ID MB-FI-013**  
**RMP Verification**

Facility Name: Mulberry Cogeneration Facility  
EPA ID: 1000 0008 2741

*Needs to be on  
time line.*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460  
OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

Don Walters  
CSW Energy - Mulberry Operations  
3600 Highway 555  
Bartow, FL 33830

April 16, 2002

EPA Facility ID#: 1000 0008 2741  
Postmark Date: 04/05/2002  
Anniversary Date: 04/05/2007

NOTIFICATION LETTER: COMPLETE RMP.

The U.S. Environmental Protection Agency (EPA) received your Risk Management Plan (RMP) dated with the above postmark date. **This letter notifies you that your RMP is "complete" according to EPA's completion check.** The completion check is a program implemented by EPA to determine whether a submitted RMP includes the minimum amount of information every RMP must provide. The completion check does not assess whether a submitted RMP should have provided additional information or whether the information it provides is accurate or appropriate. In other words, it does not indicate that the RMP meets the requirements of 40 CFR Part 68.

Please note the anniversary date indicated above. Your RMP must be revised and updated by this date or earlier as required by 40 CFR §68.190. Please also note your EPA Facility ID number as identified at the top of this letter; all future Risk Management Plan submissions, corrections and other correspondence must include this number.

Your RMP (excluding the Offsite Consequence Analysis data) can be viewed on RMP\*Info™, a national database on the Internet at <http://www.epa.gov/enviro>.

If you have any questions, please call one of the following numbers:

(1) For RMP rule interpretation questions, call the EPCRA Hotline at (800) 424-9346 or (703) 412-9810 (in the D.C. Metro area).

(2) For RMP\*Submit installation and software questions, or information on the status of your RMP, contact the RMP Reporting Center at (703) 816-4434, or write to the:

RMP Reporting Center  
P.O. Box 3346  
Merrifield, VA 22116-3346

(3) For more information on the Risk Management Program, you can contact your Implementing Agency. Your Implementing Agency is **Florida Department of Community Affairs, 2555 Shumard Oak Boulevard, Tallahassee, FL, 32399, Phone: 850-413-9970.**

Thank you for your cooperation in this matter.

Sincerely,

RMP Reporting Center

Enclosure:

Risk Management Plan (if submitted on paper)

**Document ID MB-FI-014**  
**Compliance Report and Plan**



**POLK POWER PARTNERS, L.P.**  
**MULBERRY COGENERATION FACILITY**

**TITLE V OPERATING PERMIT RENEWAL APPLICATION**  
**DOCUMENT ID MB-FI-014**

**COMPLIANCE REPORT & PLAN**  
**MAY 24, 2002**

## COMPLIANCE REPORT & PLAN

### INTRODUCTION

The Mulberry Cogeneration Facility consists of a Combustion Turbine (CT) equipped with a Heat Recovery Steam Generator (HRSG), a Secondary Boiler, and various exempt and unregulated emissions units and activities. The facility is classified as a major source based on potential emissions of carbon monoxide and oxides of nitrogen that are greater than 100 tons per year. Emissions of these pollutants are generated during the combustion of natural gas and low sulfur distillate oil in accordance with the current air permits. It is located on County Road 555, south of Bartow in Polk County, Florida in an area designated as attainment for ozone, sulfur dioxide, carbon monoxide, and nitrogen dioxide, and unclassifiable for lead and PM-10.

In early April of 2002, CSW Energy contracted Foster Wheeler Environmental Corporation to develop the renewal application for the Mulberry Cogeneration Facility. As part of the application development process, Foster Wheeler Environmental reviewed the existing emissions inventory and completed a regulatory compliance assessment of the facility. Foster Wheeler's assessment focused on the following applicable requirement areas:

- ◆ Current Title V Operating Permit requirements; and
- ◆ New Federal and State Regulations.

The requirement to develop a Compliance Report is contained within Rule 62-210.900(1), F.A.C. as part of the instructions for completing the application form. In accordance with the instructions, the Compliance Report must address the compliance status of each emissions unit with respect to each applicable requirement and provide a description of the activities taken to achieve compliance. The Compliance Report forms the basis of the Compliance Certification, which must be signed by the Responsible Official. The signed Compliance Certification certifies the truth, accuracy, and completeness of the Compliance Report and the renewal application.

Based on the available information, the facility was found to be in compliance with the permitting requirements, the emission limiting standards, and the monitoring and reporting requirements contained in the current Title V Operating Permit.

### SOURCE DESCRIPTION

The Mulberry Cogeneration Facility can produce approximately 126 mega-Watts (MW) of electrical power. The facility includes a combustion turbine (CT) equipped with a heat recover steam generator (HRSG). A secondary boiler, operated as a duct burner, is also included within the facility. The CT is authorized to fire either natural gas or low sulfur distillate oil. The secondary boiler fires only natural gas. The facility is located at 3600 County Road 555, south of Bartow in Polk County, Florida. The facility is located within an area designated as attainment for ozone, sulfur dioxide, carbon monoxide, and nitrogen dioxide, and unclassifiable for lead and PM-10.

The facility is considered a new major source under the federal and State preconstruction review regulations (40 CFR 52.21, Chapters 62-210.300, 62-212.300, and 62-212.400, F.A.C.). The facility is also classified as a major source under the Title V operating permit program (40 CFR Part 70 and Chapter 62-210.200, F.A.C.), an affected source under the Acid Rain Program (40 CFR Part 72 and Rule 62-214, F.A.C.) and a minor source under the Title III or hazardous air pollutant program (Title III of the 1990 CAAA).

The regulated emissions units include the following:

- ◆ Combustion Turbine (EU001)
- ◆ Fossil-fuel Fired Steam Generator (EU002)

In addition to the regulated emissions units, the facility includes insignificant and/or exempt emissions units and/or activities as listed in Document MB-FI-008 of the Title V Operating Permit Renewal Application. Document MB-FI-008 provides a description of each emissions unit or activity, its category (i.e., point, area or fugitive, its regulatory status (insignificant, exempt or unregulated) and its compliance status (in or out).

### REGULATORY APPLICABILITY AND COMPLIANCE

The Title V Renewal Application contains the comprehensive list of air pollution regulations applicable to the Mulberry Cogeneration Facility. For purposes of the assessment, Foster Wheeler reviewed the existing regulations as of May 20, 2002 for purposes of assessing applicability and compliance. In addition, applicability and compliance were assessed against the following:

- ◆ Current Title V Operating Permit and
- ◆ New Federal and State Regulations

The compliance assessment included contact with the FDEP Enforcement Coordinator in Tampa, a site visit on May 22, 2002, and the review and evaluation of the permit requirements, emission limitations, and other requirements as noted below.

### PERMITS

Chapter 403.061(14) of the Florida Statutes (FS) provides the FDEP with the authority to establish a permit system for the operation, construction or expansion of any air pollution source. Permits issued under this authorization are subject to the processing requirements of the Administrative Procedures Act, Chapter 120, F.S. The FDEP's permitting program begins in Chapter 62-4, F.A.C., which establishes the general requirements of the program including a prohibition on the construction, modification, or operation of a stationary installation without the appropriate and valid permits. Chapters 62-210, 62-212, 62-213 and 62-214, F.A.C. establish specific requirements of the FDEP's permitting programs.

Within Rule 62-210.300, F.A.C., the FDEP has established a requirement for all emissions units to obtain air pollution permits unless specifically exempted under 62-210.300(3) or exempted under the provisions of Chapter 62-4.040, F.A.C. The FDEP's specific permitting requirements for air pollution sources include the following:

- ◆ Rule 62-210.300(1) - Requires air construction permits for new or modified emissions units;
- ◆ Rule 62-210.300(2) - Requires air operation permits for all emissions units; and
- ◆ Rule 62-210.300(3) - Categorical and generic emission unit exemptions.

The requirement for construction or modification permits includes major source permitting under the Prevention of Significant Deterioration (PSD) and New Sources Review for Nonattainment Areas (NSR-NAA) as specified in Rule 62-212, F.A.C. The requirement for operation permits includes major source permitting under Title V as specified in Rule 62-213, F.A.C. The Acid Rain permit requirements are contained within Rule 62-214, F.A.C.

### EMISSION LIMITATIONS

Chapter 403.061(7) of the Florida Statutes (FS) provides the FDEP with the authority to establish rules and regulations establishing emission limitations. The FDEP's emission limiting standards include both the general and specific requirements of Chapter 62-296, F.A.C. and the federal requirements adopted within Rule 62-204.800, F.A.C. In addition, Chapter 62-212, F.A.C., establishes Best Available Control Technology (BACT) and Lowest Achievable Emission Rate (LAER) requirements for new or modified major sources.

Within Chapter 62-296, F.A.C., the FDEP has adopted regulations that limit emissions and establish performance standards for a variety of emissions units. In addition, the FDEP has established emission limitation in the current operating permits. The regulations reviewed included the following:

- ◆ Rule 62-296.320, F.A.C. - General Pollutant Emission Limiting Standards
- ◆ Rule 62-296.401-17, F.A.C. - Specific Emission Limiting and Performance Standards
- ◆ Rule 62-296.500, F.A.C. - Reasonably Available Control Technology (RACT) for Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) Emitting Facilities
- ◆ Rule 62-296.570, F.A.C. - Reasonably Available Control Technology (RACT) for major VOC and NOx Emitting Facilities
- ◆ Rule 62-296.600, F.A.C. - Reasonably Available Control Technology (RACT) for Lead
- ◆ Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (RACT) for Particulate Matter
- ◆ Rule 62-204.800(7), F.A.C. - New Source Performance Standards (NSPS)
- ◆ Rule 62-204.800(8), F.A.C. - National Emission Standards for Hazardous Air Pollutants (NESHAP) - Part 61
- ◆ Rule 62-204.800(9), F.A.C. - National Emission Standards for Hazardous Air Pollutants for Source Categories - Part 63

### OTHER REQUIREMENTS

In addition to the requirements for permits and the emission limitations and performance standards presented above, compliance was also assessed versus the other federal and state requirements. These other requirements include any

testing, recordkeeping, reporting, and/or notification requirements. These requirements can be specified either by regulation or contained within a specific condition of an air pollution permit.

The regulations and permits reviewed included the following:

### Regulations

- ◆ Chapter 62-4, F.A.C. - Permits
- ◆ Chapter 62-102, F.A.C. - Rules of Administrative Procedures - Rulemaking
- ◆ Chapter 62-103, F.A.C. - Rules of Administrative Procedures - Final Agency Action (Non-Rulemaking) and Appeal
- ◆ Chapter 62-150, F.A.C. - Hazardous Substance Release Notification
- ◆ Chapter 62-210, F.A.C. - Stationary Sources - General Requirements
- ◆ Chapter 62-212, F.A.C. - Stationary Sources - Preconstruction Review
- ◆ Chapter 62-213, F.A.C. - Operation Permits for Major Sources of Air Pollution
- ◆ Chapter 62-214, F.A.C. - Requirements for Sources Subject to the Federal Acid Rain Program
- ◆ Chapter 62-252, F.A.C. - Gasoline Vapor Control
- ◆ Chapter 62-256, F.A.C. - Open Burning and Frost Protection Fires
- ◆ Chapter 62-257, F.A.C. - Asbestos Removal
- ◆ Chapter 62-296, F.A.C. - Stationary Sources - Emission Standards
- ◆ Chapter 62-297, F.A.C. - Stationary Sources - Emissions Monitoring
- ◆ Chapter 120, F.S. - Administrative Procedures Act
- ◆ Chapter 403, F.S. - Environmental Control

### Permits

- ◆ PSD-FL-187 & AC 53-211670
- ◆ 1050217-001-AV

The review examined the applicable regulations including procedural requirements and rights established under the regulations. The compliance assessment focused on specific requirements within the regulations that could be evaluated and a compliance status reported. These requirements included renewing permits, annual testing schedules, recordkeeping, and reporting requirements.

### OBSERVATIONS AND FINDINGS

Foster Wheeler Environmental assessed compliance based on the emissions unit inventory, the regulations, and the current Title V Operating Permit. Foster Wheeler's findings included the following:

#### Combustion Turbine (CT)

**Permitting Requirements:** No activities were noted that would have triggered the requirements for a permit modification or new permit at the facility. As a result, the emissions unit was reported to be in compliance with the preconstruction review permitting requirements of the Rules 62-4, 62-210.300 and 62-212.300, F.A.C. Foster Wheeler Environmental also noted that the facility was in compliance with the requirement to have a Title IV Acid Rain Permit and a Title V Operating Permit. During the site visit the emissions unit was not in operation.

**Emission Limitations:** During the site visit, the CT was not in operation. As a result the compliance status was based on the most recent test data available. For natural gas firing the testing was completed in February 2002. For distillate oil firing the last test was conducted in 1994 and the unit has not fired fuel for more than 400 hours per year since then. Based on the test data the emissions unit was reported as in compliance with the emission limitations.

**Other Requirements:** Other requirements include testing, monitoring, reporting and recordkeeping as specified in the Title IV Acid Rain Permit and the Title V Operating Permit. The compliance evaluation on these requirements was based on an interview with the Plant Engineer and discussions with the FDEP's District Office. Based on these activities, the emissions unit was found to be in compliance with the applicable requirements.

## Secondary Boiler

**Permitting Requirements:** No activities were noted that would have triggered the requirements for a permit modification or new permit at the facility. As a result, the emissions unit was reported to be in compliance with the preconstruction review permitting requirements of the Rules 62-4, 62-210.300 and 62-212.300, F.A.C. Foster Wheeler Environmental as noted that the facility was in compliance with the requirements to have a Title IV Acid Rain Permit and a Title V Operating Permit.

**Emission Limitations:** During the site visit the emissions unit was not in operations. As a result the compliance status was based on the most recent test data available. For natural gas firing the testing was completed in 2001. During 2001 the secondary boiler did not operate for more than 400 hours. Based on the available test data, the emissions unit was in compliance with the emission limiting standards contained in the current Title V Operating Permit

**Other Requirements:** Other requirements include testing, monitoring, reporting and recordkeeping as specified in the Title IV Acid Rain Permit and the Title V Operating Permit. The compliance evaluation on these requirements was based on an interview with the Plant Engineer and discussions with the FDEP's District Office. Based on these activities, the facility was found to be in compliance with the applicable requirements.

Foster Wheeler also noted that the facility is not under any current enforcement actions by the FDEP or U.S. EPA at the time of the evaluation. The evaluation found the source and emissions units to be in compliance with applicable requirements. Foster Wheeler also evaluated applicability of the following regulations for purposes of renewing the Title V Operating Permit:

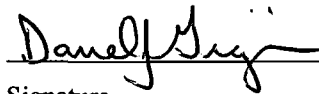
- ◆ **Compliance Assurance Monitoring (CAM) Plan Requirements** – Based on review of the regulations (40 CFR Part 64) Foster Wheeler Environmental determined that the regulation and associated requirements are not applicable to the CT or the Secondary Boiler. This finding is based on the applicability of the regulation, which addresses the use of add-on air pollution control systems.
- ◆ **Proposed MACT and MACT Hammer for Combustion Turbines** – Based on the minor source status under the Title III Hazardous Air Pollutant Program, these requirements will not apply to the Mulberry Cogeneration Facility.

## COMPLIANCE PLAN

None.

Prepared By: Darrel J. Graziani, P.E., Foster Wheeler Environmental Corporation

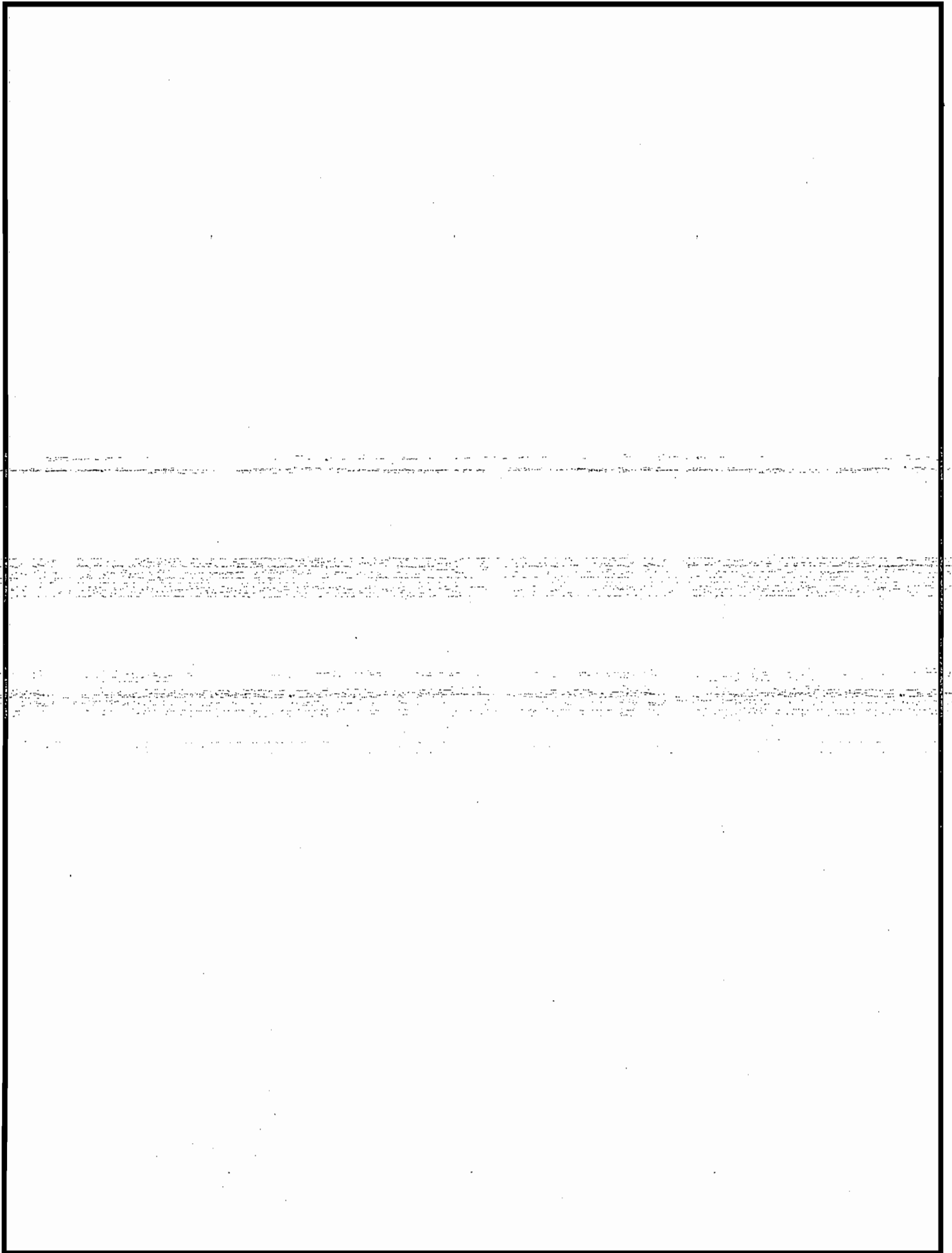
Prepared For: Mulberry Cogeneration Facility



Signature

June 22, 2002

Date



**Document ID MB-FI-015**  
**Compliance Certification**

MB-FI-015

COMPLIANCE CERTIFICATION

In accordance with the instructions for the Florida Department of Environmental Protection's Form No. 62-210.900(1), F.A.C., and Rule 62-213.420(3)(j), F.A.C., a compliance statement must be included in each application for an air pollution permit (i.e., Construction, Modification, State Operating or Title V Operating Permit). This Compliance Certification is intended to meet the requirements of the instructions and the regulation.

CERTIFICATION STATEMENT

"I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V Source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate and complete.

  
Signed

7/1/02  
Date



**EMISSIONS UNIT 001**  
**COMBUSTION TURBINE WITH HRSG**

**Emissions Unit Information Section 1 of 3**

**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 checked="" 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 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):</p> <p style="text-align: center;"><b>Combustion Turbine (CT) with HRSG</b></p>			
<p>4. Emissions Unit Identification Number: <b>001</b> <span style="float: right;"><input type="checkbox"/> No ID</span></p> <p>ID: <span style="float: right;"><input type="checkbox"/> ID Unknown</span></p>			
<p>5. Emissions Unit Status Code:</p> <p style="text-align: center;"><b>A</b></p>	<p>6. Initial Startup Date:</p> <p style="text-align: center;"><b>8/10/1994</b></p>	<p>7. Emissions Unit Major Group SIC Code:</p> <p style="text-align: center;"><b>49</b></p>	<p>8. Acid Rain Unit?</p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters)</p> <p><b>The CT is a GE PG711EA model with a nameplate rating of 82 MW at ISO. The CT is authorized to burn natural gas or new No. 2 fuel oil. The CT uses Dry low-NOx combustors and water-injection control NOx emissions while firing natural gas or distillate oil, respectively. The HRSG provides steam to a 44 MW steam turbine/generator set and the steam host.</b></p>			

**Emissions Unit Control Equipment**

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

**Control Methods:**

***Natural Gas Firing*** – Emissions control strategy includes the use of Dry Low NOx Combustors for NOx emissions coupled with good combustion practices for VOC, CO, and PM/PM10 emissions, and Clean Pipeline Quality Natural Gas for SO<sub>2</sub> emissions. The control strategy ensures compliance with the BACT emission limitations.

***Distillate Oil Firing*** - Emissions control strategy includes oil firing as a back-up fuel, use of water injection for NOx emissions coupled with good combustion practices for VOC, CO, and PM/PM10 emissions, and low sulfur distillate oil (0.1% Sulfur by weight) for SO<sub>2</sub> emissions. The control strategy ensures compliance with the BACT emission limitations.

2. Control Device or Method Code(s): **024, 025, 028 and 030**

**Emissions Unit Details**

1. Package Unit: <b>Combustion Turbine</b>	
Manufacturer: <b>GE</b>	Model Number: <b>PG7111EA</b>
2. Generator Nameplate Rating: <b>82</b>	<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:	1,017 mmBtu/hr								
2. Maximum Incineration Rate:	lb/hr	tons/day							
3. Maximum Process or Throughput Rate:									
4. Maximum Production Rate:									
5. Requested Maximum Operating Schedule:	24 hours/day	7 days/week							
	52 weeks/year	8,760 hours/year							
6. Operating Capacity/Schedule Comment (limit to 200 characters):	<p><b>The reported maximum heat input rate is based on firing low sulfur distillate oil at 55,600 lb/hr (Specific Condition 3 of the PSD/Construction Permit and Condition III.A.2. of the initial Title V Operating Permit). Condition III.A.1. of the initial Title V Operating Permit is not federally enforceable since the Department limited heat input through the limitations on natural gas and fuel oil firing within the referenced PSD/Construction permit applications. It is requested that the reference to the maximum heat input rate be eliminated (Title V Permit Condition III.A.1) based on the federally-enforceable permit restrictions on fuel consumption rates (Title V Permit Condition III.A.2) as follows:</b></p> <table border="0"> <tr> <td><u>Natural Gas</u></td> <td><u>Distillate Oil</u></td> </tr> <tr> <td>1,013.4 X 10<sup>3</sup> FT<sup>3</sup>/hr</td> <td>55.6 X 10<sup>3</sup> lb/hr</td> </tr> <tr> <td>8,877.4 X 10<sup>6</sup> FT<sup>3</sup>/yr</td> <td>40.0 X 10<sup>6</sup> lb/yr</td> </tr> </table>			<u>Natural Gas</u>	<u>Distillate Oil</u>	1,013.4 X 10 <sup>3</sup> FT <sup>3</sup> /hr	55.6 X 10 <sup>3</sup> lb/hr	8,877.4 X 10 <sup>6</sup> FT <sup>3</sup> /yr	40.0 X 10 <sup>6</sup> lb/yr
<u>Natural Gas</u>	<u>Distillate Oil</u>								
1,013.4 X 10 <sup>3</sup> FT <sup>3</sup> /hr	55.6 X 10 <sup>3</sup> lb/hr								
8,877.4 X 10 <sup>6</sup> FT <sup>3</sup> /yr	40.0 X 10 <sup>6</sup> lb/yr								

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

<b>List of Applicable Regulations</b>	
Rule 62-204.800(7)(b)39., F.A.C.	Rule 62-204.800(15), F.A.C
Rule 62-204.800(16), F.A.C.	Rule 62-204.800(17), F.A.C.
Rule 62-204.800(19), F.A.C.	Rule 62-210.700, F.A.C., except (2) & (3)
Rule 62-214, F.A.C.	Rule 62-297.310(1), (2), (3), F.A.C.
Rule 62-297.310(4)(a), (b) and (d), F.A.C.	Rule 62-297.310(5), (6), F.A.C.
Rule 62-297.310(7)(a)3., 4., 8. & 9. F.A.C.	Rule 62-297.310(7)(b) & (c), F.A.C.
Rule 62-297.310(8), F.A.C.	Rule 62-297.401(1), (2), (3), (4), (5) & (9), F.A.C.
Rule 62-297.401(10) & (20), F.A.C.	Rule 62-297.520(2) & (3), F.A.C.
40 CFR 60.330	40 CFR 60.331
40 CFR 60.332(a)(1) & (f)	40 CFR 60.333
40 CFR 60.334	40 CFR 60.335
40 CFR Part 60 Appendix B	40 CFR Part 60 Appendix F
40 CFR 72.2	40 CFR 72.6(a)(3)(i) and/or (iv)
40 CFR 72.9(a), (b), (c)(1), (2), (3)(iv), (4), (5), (e)	40 CFR 72.9(f) & (g)
40 CFR 72.11	40 CFR 72.20((c)
40 CFR 72.21	40 CFR 72.22
40 CFR 72.23	40 CFR 72.24(a)
40 CFR 72.25(a) & (b)	40 CFR 72.30(a), (c), (d) & (e)
40 CFR 72.31	40 CFR 72.32
40 CFR 72.33(a), (b), (c) & (d)	40 CFR 72.40
40 CFR 72.50	40 CFR 72.51
40 CFR 72(b)(2)	40 CFR 72.80
40 CFR 72.81	40 CFR 72.82
40 CFR 72.83	40 CFR 72.84
40 CFR 72.85	40 CFR 72.90
40 CFR Part 72, Appendices A, B & D	40 CFR 73.2(a)
40 CFR 73.12	40 CFR 73.13(a)
40 CFR 73.31(b)	40 CFR 73.33(c)
40 CFR 73.35	40 CFR 73.36(a)
40 CFR 73.37(a), (c) & (e)	40 CFR 73.50(b)
40 CFR 73.71, except (e)	40 CFR 75.2(a)
40 CFR 75.4(b)(2), (e) & (g)	40 CFR 75.5

**Emissions Unit Information Section 1 of 3**

<b>List of Applicable Regulations</b>	
40 CFR 75.10	40 CFR 75.11(d)(2) & (e)(1)
40 CFR 75.12(b), (c) & (f)	40 CFR 75.13(a) & (b)
40 CFR 75.16(b)(1) & (e)(2)	40 CFR 75.17(a)
40 CFR 75.20(a)(1), (2), (3), (5)	40 CFR 75.20(b), (c), (d) & (g)
40 CFR 75.21(a), (c), (d) & (e)	40 CFR 75.22(a), (b), (c) & (d)
40 CFR 75.30(a), (b), (c) & (d)	40 CFR 75.31 (a) & (b)
40 CFR 75.32	40 CFR 75.33
40 CFR 75.35	40 CFR 75.36
40 CFR 75.53	40 CFR 75.54, except (f)
40 CFR 75.55(c) & (e)	40 CFR 75.56(a) & (b)
40 CFR 5757, except (f)	40 CFR 75.58(c) & (e)
40 CFR 75.59(a) & (b)	40 CFR 75.60
40 CFR 75.61	40 CFR 75.62
40 CFR 75.63	40 CFR 75.64, except (e)
40 CFR Part 75, Appendix A	40 CFR Part 75, Appendix B
40 CFR Part 75, Appendix C	40 CFR Part 75, Appendix D
40 CFR Part 75, Appendix F	40 CFR Part 75, Appendix G
40 CFR 77.3	40 CFR 77.5(b)
40 CFR 75.6(a)(1) & (3), (b), (c) & (d)	

**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>Stack - EU1</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>Stack – EU01 is the primary exhaust point. A portion of the exhaust gases can also be directed to the Secondary Boiler and exhausted through Stack – EU2 (Emissions Unit 002).</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>Stack – EU2</b> <b>Stack Parameters are provided in Emissions Unit Section 2.</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>125</b>	7. Exit Diameter: <b>15 feet</b>	
8. Exit Temperature: <b>220 °F</b>	9. Actual Volumetric Flow Rate: <b>679,324 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>feet</b>	
13. Emission Point UTM Coordinates: <b>Zone: 17                      East (km): 413.6                      North (km): 3080.6</b>			
14. Emission Point Comment (limit to 200 characters):  <b>Stack temperature and flow based on design data at 100% load at 59°F for Natural Gas Firing.</b>			

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

**Segment Description and Rate: Segment 1 of 2**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Internal Combustion Engines; Electric Generation; Natural Gas Turbine</b>		
2. Source Classification Code (SCC): <b>2-01-002-01</b>		3. SCC Units: <b>million cubic feet burned</b>
4. Maximum Hourly Rate: <b>1.0134</b>	5. Maximum Annual Rate: <b>8,877.4</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>946</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly and annual rates based on operation at 20°F and the limits within the Title V Operating Permit (Condition III.A.2.).</b>		

**Segment Description and Rate: Segment 2 of 2**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Internal Combustion Engines; Electric Generation; Distillate Oil, Turbine</b>		
2. Source Classification Code (SCC): <b>2-01-001-01</b>		3. SCC Units: <b>Thousand Gallons</b>
4. Maximum Hourly Rate: <b>8.05</b>	5. Maximum Annual Rate: <b>5,797</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>0.1</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>132</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly and annual rates based on operation at 20°F and the limits within the Title V Operating Permit (Condition III.A.2.). Volumetric flow rate was estimated based on a distillate oil density of 6.9 lbs/gal.</b>		



**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>NOx</b>	<b>025</b>	<b>028</b>	<b>EL</b>
<b>CO</b>			<b>EL</b>
<b>VOC</b>			<b>EL</b>
<b>SO<sub>2</sub></b>			<b>EL</b>
<b>PM</b>			<b>NS</b>
<b>PM10</b>			<b>NS</b>
<b>H095 Formaldehyde</b>			<b>NS</b>
<b>H169 Toluene</b>			<b>NS</b>
<b>THAPs Total HAPs</b>			<b>NS</b>

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

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NOx</b>	2. Total Percent Efficiency of Control: <b>90%+</b>
3. Potential Emissions: <b>164.0 lb/hour</b>	4. Synthetically Limited? <input checked="" type="checkbox"/> <b>[X]</b> <b>270.89 tons/year</b>
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: <b>See Comment</b> Reference: <b>BACT Determination</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>Worst-Case Emissions Scenario: Distillate Oil Firing 720 hours/yr &amp; Natural Gas firing 8,040 hr/yr.</b>  <b>Annual NOx = 164 lb/hr X 720 hr/yr / 2000lb/ton + 52.7 lb/hr X 8,040 hr/yr / 2000 lb/ton</b> <b>= 59.04 TPY + 211.85 TPY</b> <b>= 270.89 TPY</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions based on allowables as specified in the Title V Operating Permit (Condition Nos. III.A.4., III.A.5. and III.A.6.). The reported rates reflect operation at ISO conditions.</b>	

**Allowable Emissions** Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Requested Allowable Emissions and Units: <b>15 ppmvd @ 15% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>52.7 lb/hour</b> <b>230.7 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous Emissions Monitor System (CEMS)</b> <b>(EPA Method 20 if Requested by the Department)</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. as determined by the Department (February 21, 1994).</b>  <b>Excess emissions allowed per Condition III.C.3. of the Title V Operating Permit and Rule 62-210.700(1), F.A.C.</b>	

**Emissions Unit Information Section 1 of 3**

**Allowable Emissions Allowable Emissions 2 of 2**

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: N/A
3. Requested Allowable Emissions and Units: <b>42 ppmvd @ 15% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>164.0 lb/hour                      59.0 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous Emissions Monitor (EPA Method 20 if Requested by the Department)</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. as determined by the Department (February 21, 1994).</b>  <b>Excess emissions allowed per Condition III.C.3. of the Title V Operating Permit and Rule 62-210.700(1), F.A.C.</b>	

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: <b>111.2 lb/hour                      40.0 tons/year</b>	4. Synthetically Limited? <b>[X]</b>
5. Range of Estimated Fugitive Emissions: [ ] 1                      [ ] 2                      [ ] 3                      to                      tons/year	
6. Emission Factor: <b>See Comment</b> <b>Reference: BACT Determination</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>Worst-Case Emissions Scenario: Distillate Oil Firing at a rate of 55,600 lb/hr and 720 hours/yr.</b>  <b>SO<sub>2</sub> (lb/hr)    = 55,600 lb/hr X 0.1/100 X 64/32</b> <b>                     = 111.2 lb/hr</b>  <b>Annual SO<sub>2</sub>    = 55,600 lb/hr X 720 hr/yr X 0.1/100 X 64/32 / 2000lb/ton</b> <b>                     = 40.03 TPY</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions based on allowables as specified in the Title V Operating Permit (Condition Nos. III.A.2.). The reported rates reflect operation at 20°F. No SO<sub>2</sub> limit established for Natural Gas Firing.</b>	

**Emissions Unit Information Section 1 of 3**

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Requested Allowable Emissions and Units: <b>0.1% Sulfur by Weight</b>	4. Equivalent Allowable Emissions: <b>111.2 lb/hour      40.0 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>Custom Fuel Monitoring Schedule</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. and determined by the Department (February 21, 1994).</b>	

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>CO</b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: <b>75.3 lb/hour      240.2 tons/year</b>	4. Synthetically Limited? <b>[X]</b>
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>See Comment</b>  <b>Reference: BACT Determination</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>Worst-Case Emissions Scenario: Distillate Oil Firing 720 hours/yr &amp; Natural Gas firing 8,040 hr/yr.</b>  <b>Annual CO = 75.3 lb/hr X 720 hr/yr / 2000lb/ton + 53.0 lb/hr X 8,040 hr/yr / 2000 lb/ton</b> <b>= 27.1 TPY + 213.1 TPY</b> <b>= 240.2 TPY</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>Emissions based on allowables as specified in the Title V Operating Permit (Condition Nos. III.A.4., III.A.9. and III.A.10.). The reported rates reflect operation at ISO conditions.</b>	

**Emissions Unit Information Section 1 of 3**

**Allowable Emissions Allowable Emissions 1 of 2**

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: N/A
3. Requested Allowable Emissions and Units: <b>25 ppmvd @ 15% O<sub>2</sub></b>	4. Equivalent Allowable Emissions: <b>53.0 lb/hour                      232.0 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>Annual Compliance Test - EPA Method 10</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Natural Gas Firing - Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. as determined by the Department (February 21, 1994).</b>  <b>Excess emissions allowed per Condition III.C.3. of the Title V Operating Permit and Rule 62-210.700(1), F.A.C.</b>	

**Allowable Emissions Allowable Emissions 2 of 2**

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: N/A
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: <b>75.3 lb/hour                      27.1 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual Compliance Test - EPA Method 10, if distillate oil is fired for more than 400 hours per year.</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Distillate Oil Firing - Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. as determined by the Department (February 21, 1994).</b>  <b>Excess emissions allowed per Condition III.C.3. of the Title V Operating Permit and Rule 62-210.700(1), F.A.C.</b>	

**Emissions Unit Information Section 1 of 3**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>VOC</b>	2. Total Percent Efficiency of Control: N/A
3. Potential Emissions: 9.2 lb/hour                      10.6 tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            to            tons/year	
6. Emission Factor: <b>9.2 lb/hr</b> Reference: <b>BACT Determination</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <p>Allowable Emissions Scenario: Distillate Oil Firing 720 hours/yr.</p> <p>Annual VOC = 9.2 lb/hr X 720 hr/yr / 2000lb/ton  = 10.6 TPY  = 10.6 TPY</p>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

**Allowable Emissions Allowable Emissions 1 of 1**

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions: N/A
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: 9.2 lb/hour                      3.3 tons/year
5. Method of Compliance (limit to 60 characters):  <p><b>EPA Method 25A, Renewal Testing Only</b></p>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <p><b>Allowable emissions based on distillate oil firing and the application of BACT as required by Rule 62-212, F.A.C. and determined by the Department (February 21, 1994).</b></p> <p><b>Excess emissions allowed per Condition III.C.3. of the Title V Operating Permit and Rule 62-210.700(1), F.A.C.</b></p>	

**Emissions Unit Information Section 1 of 3**

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE10</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>10</b> %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance: <b>Annual, EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>Natural Gas Firing (Title V Permit Condition III.C.1.) per the BACT Determination (February 21, 1994).</b>  <b>Excess emissions allowed per Condition III.C.3. of the Title V Operating Permit and Rule 62-210.700(1), F.A.C.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>20</b> %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour	
4. Method of Compliance: <b>Annual, EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>Natural Gas Firing (Title V Permit Condition III.C.1.) per the BACT Determination (February 21, 1994).</b>  <b>Excess emissions allowed per Condition III.C.3. of the Title V Operating Permit and Rule 62-210.700(1), F.A.C.</b>	

**Emissions Unit Information Section 1 of 3**

**I. CONTINUOUS MONITOR INFORMATION  
(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor 1 of 2

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NO<sub>x</sub></b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>Rosemont</b> Model Number: <b>951C</b> Serial Number: <b>1000195</b>	
5. Installation Date: <b>12/18/1995</b>	6. Performance Specification Test Date: <b>12/27/1995</b>
7. Continuous Monitor Comment (limit to 200 characters):  <p><b>The NO<sub>x</sub> CEMS is required under 40 CFR Part 75 and provides a direct measurement method versus the surrogate monitoring requirements of 40 CFR 60.334. As currently permitted, the CEMS is not the Reference Method and annual compliance is required to be demonstrated using EPA Method 20. It is requested that the renewed Title V Operating Permit specify the NO<sub>x</sub> CEMS as the Reference Method and that it be operated and maintained in accordance with 40 CFR Part 75.</b></p>	

**Continuous Monitoring System:** Continuous Monitor 2 of 2

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>O<sub>2</sub></b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>Servomex</b> Model Number: <b>1400 B</b> Serial Number: <b>1420B/697</b>	
5. Installation Date: <b>12/18/1995</b>	6. Performance Specification Test Date: <b>12/27/1995</b>
7. Continuous Monitor Comment (limit to 200 characters):  <p><b>The unit is to be operated and maintained in accordance with 40 CFR Part 75.</b></p>	



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

**Supplemental Requirements**

1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU001-001</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU001-002</u> <input 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 checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU001-004</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously submitted, Date: <b>April, 2002</b> <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: <u>MB-EU001-006</u> <input 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>MB-FI-006</u> <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

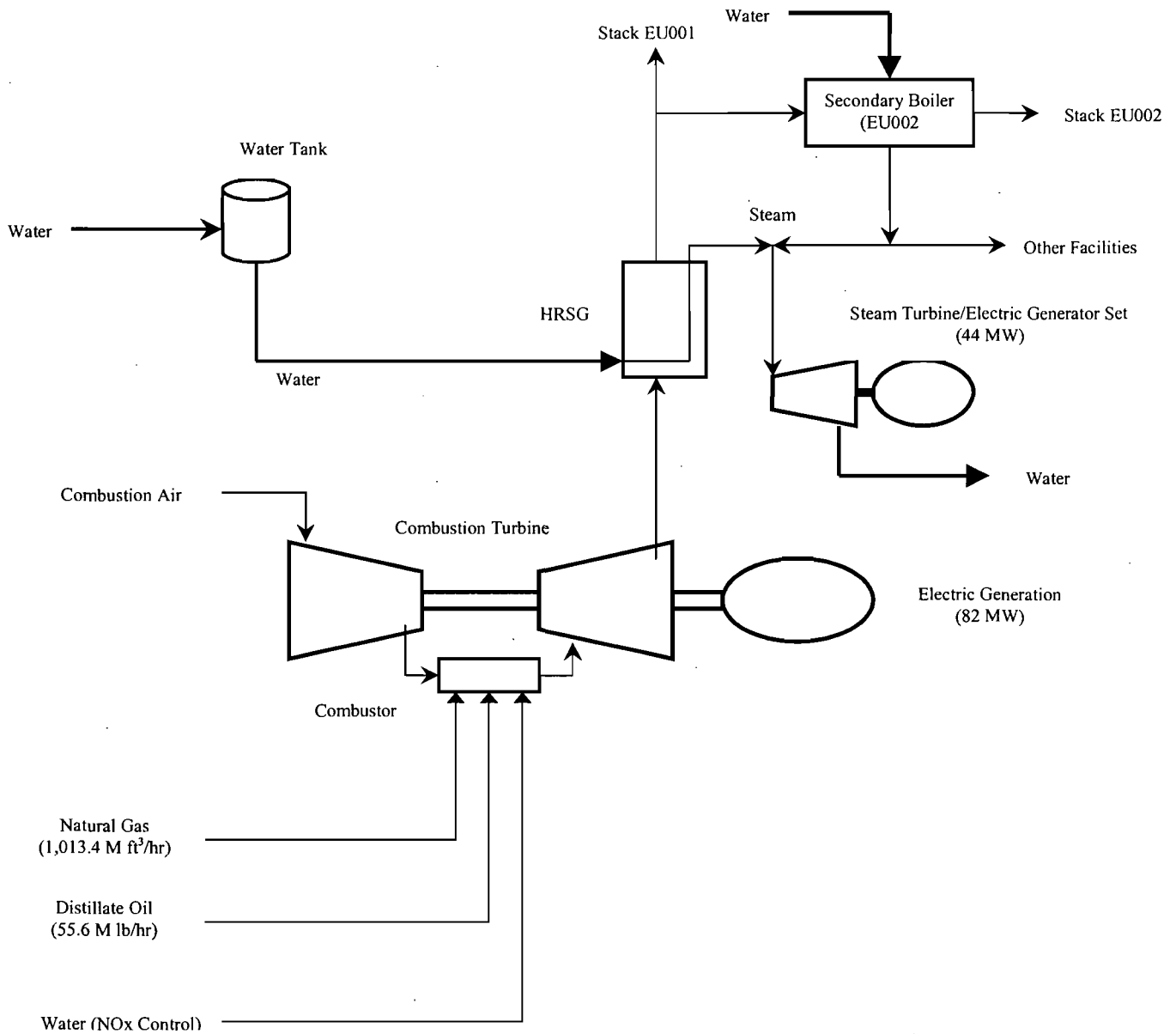
**Emissions Unit Information Section 1 of 3**

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

11. Alternative Methods of Operation [ X ] Attached, Document ID: <u>MB-EU001-011</u> [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ X ] Attached, Document ID: <u>MB-FI-012</u> [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ X ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: <u>MB-EU001-015</u> [ ] 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: _____ [ ] Not Applicable

**Emissions Unit Information Section 1 of 3**


**Document ID MB-EU001-001**  
**Process Flow Diagram**



**Polk Power Partners. L.P.**  
**Mulberry Cogeneration Facility**

**TITLE V OPERATING PERMIT RENEWAL**

---

 **Foster Wheeler Environmental Corporation**

Scale: N/A	Prepared: <i>MW</i>	File: MB-EU001-001.doc
Date: 4/5/02	Approved: <i>[Signature]</i>	Document ID: MB-EU001-001

Source: 1996 Title V Permit Application, Attachment MB-EU01-L1,  
 Title V Operating Permit & AC/PSD Permits

**Document ID MB-EU001-002**  
**Fuel Analyses**

MB-EU001-002

Natural Gas Analysis

Date: April 23, 2002

Station: Perry Stream #1

Source: Florida Gas Transmission Line web site (<http://fgtbiz.enron.com/public/webebb/main.asp>)

Heat Content:	1030 Btu/SCF
Carbon Dioxide:	0.901%
Nitrogen (N <sub>2</sub> ):	0.278%
Methane:	96.183%
Ethane:	2.045%
Propane:	0.353%
Iso-Butane:	0.090%
n-Butane:	0.074%
iso-Pentane:	0.026%
n-Pentane:	0.015%
C <sub>6</sub> :	0.035%

Total Sulfur: 0.173 gr/hcf

The above analysis is subject to the following disclosures from the FGT web site:

The data contained herein is preliminary data and therefore should be used for contemporaneous operational purposes only and may be subject to change at month end. This data is provided to assist our customers in tracking their gas usage as closely as possible on a real-time basis. The information contained on this web page is not to be considered billable information. This data will be subject to additional verification and possible modification prior to billing.

Florida Gas makes no warranty or representation whatsoever as to the accuracy of the information provided. This information is provided on a best efforts basis and is an estimate. The information is not used for billing purposes. Florida Gas is not responsible for any reliance on this information by any party.

Distillate Fuel Oil Analysis: Attached



# Intertek Testing Services

Caleb Brett

## REPORT OF ANALYSIS

Vessel : Submitted Sample  
 Port/Terminal : CSW Energy  
 Client Ref :  
 Our Ref :  
 Date Sample Taken : 09/22/97  
 Date Submitted : 09/23/97  
 Date Tested : 09/23/97  
 Sample Designated As : High Sulfur Diesel Oil  
 Drawn By : Submitted Sample  
 Representing : Submitted Sample  
 Lab Reference : T97-469

TEST	METHOD	RESULT	UNITS
API GRAVITY	ASTM D-1298	34.4	
SULFUR	ASTM D-4294	0.10	% WT.
GROSS HEAT OF COMBUSTION	ASTM D-240	19518	BTU/LB
GROSS HEAT OF COMBUSTION	ASTM D-240	138695	BTU/GAL

  
 \_\_\_\_\_  
 For Caleb Brett U.S.A.



FGT

Last Updated

4/24/02 13:56

	Total Sulfur	Total Sulfur
Previous Day Avg	Previous Day Avg	Previous Day Avg
ppm	Grains/hcf	

Station Name	04/23/02	04/23/02
Perry 36" Stream #1	2.8	0.173
Perry 30" Stream #2	2.5	0.159
Perry 24" Stream #3	2.4	0.148
Brooker 24" Stream	4.2	0.261

Florida Gas makes no warranty or representation whatsoever as to the accuracy of the This information is provided on a best efforts basis and is an estimate.

The information is not used for billing purposes.

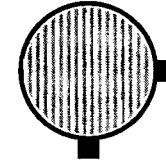
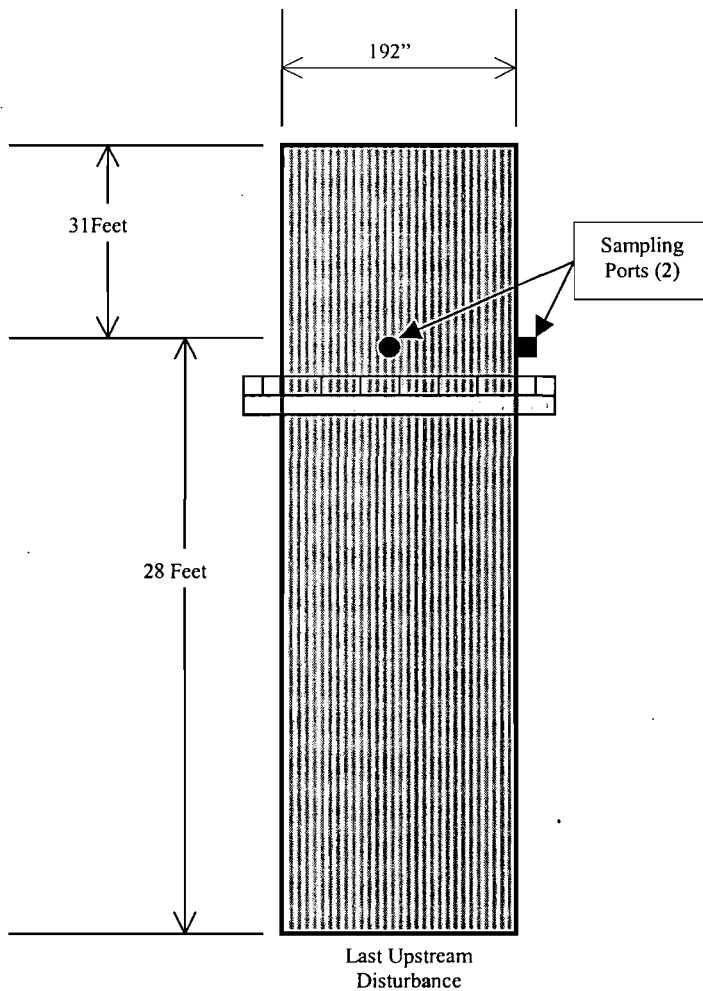
Florida Gas is not responsible for any reliance on this information by any party.

## Stream History

Gas Day	Index	Perry 36" Stream #1 15SA36PSUL.A Avg ppm	Perry 36" Stream #1 Avg Grains/hcf	Perry 30" Stream #2 15SA30PSUL.A Avg ppm	Perry 30" Stream #2 Avg Grains/h
04/22/02	33	2.765	0.173	2.538	0.159
04/21/02	32	2.699	0.169	2.385	0.149
04/20/02	31	2.527	0.158	2.420	0.151
04/19/02	30	2.826	0.177	2.860	0.179
04/18/02	29	3.066	0.192	2.380	0.149
04/17/02	28	2.636	0.165	2.933	0.183
04/16/02	27	3.122	0.195	3.277	0.205
04/15/02	26	2.412	0.151	2.901	0.181
04/14/02	25	2.761	0.173	1.717	0.107
04/13/02	24	2.492	0.156	1.684	0.105
04/12/02	23	2.169	0.136	1.635	0.102
04/11/02	22	2.319	0.145	1.524	0.095
04/10/02	21	2.431	0.152	1.617	0.101
04/09/02	20	2.464	0.154	2.259	0.141
04/08/02	19	1.910	0.119	1.744	0.109
04/07/02	18	1.428	0.089	1.650	0.103
04/06/02	17	1.480	0.093	1.693	0.106
04/05/02	16	1.918	0.120	1.790	0.112
04/04/02	15	1.663	0.104	1.622	0.101
04/03/02	14	2.973	0.186	2.116	0.132
04/02/02	13	2.080	0.130	0.937	0.059
04/01/02	12	1.750	0.109	1.171	0.073
03/31/02	11	1.297	0.081	1.428	0.089
03/30/02	10	1.293	0.081	2.036	0.127
03/29/02	9	1.610	0.101	1.569	0.098
03/28/02	8	1.718	0.107	2.174	0.136
03/27/02	7	2.166	0.135	2.227	0.139
03/26/02	6	2.962	0.185	1.924	0.120
03/25/02	5	3.112	0.194	2.031	0.127
03/24/02	4	2.527	0.158	2.191	0.137
03/23/02	3	2.147	0.134	2.496	0.156
03/22/02	2	2.205	0.138	2.119	0.132
03/21/02	1	2.214	0.138	1.862	0.116

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**Document ID MB-EU001-004**  
**Stack Sampling Facilities**



Traverse Point Number	Inches Inside Stack Wall
1	2.1
2	6.1
3	10.6
4	15.2
5	20.2
6	25.3
7	30.9
8	37.2
9	44.2
10	52.2
11	62.0
12	76.4
13	115.6
14	130.0
15	139.8
16	147.8
17	154.8
18	161.1
19	166.7
20	171.8
21	176.8
22	181.4
23	185.9
24	189.9

**Polk Power Partners. L.P.  
Mulberry Cogeneration Facility**

**TITLE V OPERATING PERMIT RENEWAL**



**Foster Wheeler Environmental Corporation**

Reference: February 2002 Stack Test Report, Air Consulting & Engineering, Inc.

Scale: N/A  
Date: 4/5/02

Prepared: M  
Approved: *[Signature]*

File: MB-EU001-004.doc  
Document ID: MB-EU001-004

**Document ID MB-EU001-006**  
**Startup/Shutdown Procedures**

**MB-EU001-006**

**PROCEDURES FOR START-UP AND SHUTDOWN**

Start-up for the combustion turbine (CT) begins with “lighting off” of the machine on natural gas. A period of from one to several hours is required to allow metal temperatures in the heat recovery steam generator (HRSG) and in the steam turbine to equilibrate without undue metal stress, during this time the unit is placed “on the line” and begins sending electrical power to the grid at reduced loads to allow equipment to come up to pressures and temperatures.

NOx emissions are controlled by use of dry-low NOx combustors during start-up and shutdown and continuously monitored along with O<sub>2</sub> concentrations. If excess emissions occur during start-up or shutdown, the nature and cause of the event are identified and recorded. Corrective actions are taken when necessary to correct problems and preventative measures adopted to avoid future problems. At all times, including start-up and shutdown, Best Operating Practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (Electrical Production) to a minimum level, opening the breaker, which disconnects the unit from the electrical grid, shutting off the fuel and coasting down to a stop.

Reference: 1996 Title V Permit Application, Attachment MB-E01-L6

**Document ID MB-EU001-011**  
**Alternative Methods of Operation**

**MB-EU002-011**

**ALTERNATIVE METHODS OF OPERATION**

The alternative methods of operation include the following:

- ◆ Natural gas firing in the Secondary Boiler.
- ◆ Natural gas firing in the Secondary Boiler with a portion of the exhaust gases from the Combustion Turbine firing natural gas directed through the Secondary Boiler.
- ◆ Natural gas firing in the Secondary Boiler with a portion of the exhaust gases from the Combustion Turbine firing distillate oil directed through the Secondary Boiler.

The alternative methods of operation have all been addressed within the construction permits and the initial Title V Operating Permit.

**Document ID MB-EU001-015**  
**Acid Rain Permit Application**



# Phase II Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is:  New  Revised

**STEP 1**  
Identify the source by plant name, State, and ORIS code from NADB

Plant Name <b>Mulberry Cogeneration Facility</b>	State <b>FL</b>	ORIS Code <b>54426</b>
--	-----------------	------------------------

**STEP 2** Enter the unit ID# for each affected unit and indicate whether a unit is being repowered and the repowering plan being renewed by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

Compliance Plan				
a	b	c	d	e
Unit ID#	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
01	Yes	No	8/10/94	1/1/96
02	Yes	No	8/10/94	1/1/96
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

**STEP 3**  
Check the box if the response in column c of Step 2 is "Yes" for any unit

For each unit that is being repowered, the Repowering Extension Plan form is included.

Plant Name (from Step 1)

**STEP 4**

Read the standard requirements and certification, enter the name of the designated representative, and sign and date

**Standard Requirements**Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
  - (ii) Submit in a timely manner any supplemental information that the Department determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain part;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the Department; and
  - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain part application, the Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the Department:
  - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from Step 1)

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8 or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name <b>Don Walters</b>	
Signature <i>Don Walters</i>	Date <i>7/5/02</i>

# Acid Rain Program

## Instructions for

### Phase II Acid Rain Part Application

(40 CFR 72.30 - 72.31 and Rule 62-214.320, F.A.C.)

*The Acid Rain Program regulations require the designated representative to submit an Acid Rain part application for Phase II for each source with an Acid Rain unit. A complete Phase II part application is binding on the owners and operators of the Acid Rain source and is enforceable in the absence of an Acid Rain part until the permitting authority either issues an Acid Rain part to the source or disapproves the application.*

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the title V permitting authority.

**STEP 1** Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities. If the plant is not owned by a utility but has a 5 digit facility code (also assigned by EIA), use the facility code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 426-1234 (for ORIS codes), or (202) 426-1269 (for facility codes).

**STEP 2** For column "a," identify each Acid Rain unit at the Acid Rain source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation, with unit identification numbers listed in NADB (for units that commenced operation prior to 1993), and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements. NADB is the National Allowance Data Base for the Acid Rain Program, and can be downloaded from the Acid Rain Program Website at "www.epa.gov/acidrain/" or obtained on diskette by calling the Acid Rain Hotline. This data file is in dBase format for use on an IBM-compatible PC and requires 2 megabytes of hard drive memory.

For column "c," enter "yes" only if a repowering technology petition has been approved for the unit by U.S. EPA, an initial repowering extension plan was approved by the title V permitting authority and activated by the designated representative, and a repowering extension plan renewing the original repowering extension plan has been included with the current acid rain part application for that unit.

For columns "d" and "e," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 75.4. If the commence operation date or monitor certification date changes after the Phase II part is issued, the designated representative must submit a request for an administrative correction under Rule 62-214.370(6), F.A.C.

### Submission Deadlines

For new units, an initial Phase II part application must be submitted to the title V permitting authority at least 24 months before the date the unit commences operation. Phase II acid rain renewal applications must be submitted at least 6 months in advance of the expiration of the acid rain portion of a title V permit, or such longer time as provided for under the title V permitting authority's operating permits regulation.

### Submission Instructions

Submit this form and 1 copy to the appropriate title V air permitting authority. If you have questions regarding this form, contact your local, State, or EPA Regional acid rain contact, or call EPA's Acid Rain Hotline at (202) 564-9620.



**CLEAN AIR  
MARKET PROGRAMS**



Issues Programs Progress Trading Business

**ALLOWANCE TRADING**

Trading Basics Allowance Data Allocations Auctions

## ATS - Allowances Held Report

Account ID	Account/Plant Name	Allowance Year	Total	State	Representative	
054365000001	Orange Cogeneration Facility	1999	2	FL	Walters	Donald
054365000002	Orange Cogeneration Facility	1999	2	FL	Walters	Donald
054426000001	Mulberry Cogeneration Facility	1999	2	FL	Walters	Donald

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**EMISSIONS UNIT 002**  
**SECONDARY BOILER**

**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 checked="" 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 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):</p> <p style="text-align: center;"><b>Secondary Boiler</b></p>			
<p>4. Emissions Unit Identification Number: ID: 002</p>		<p><input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code: <b>A</b></p>	<p>6. Initial Startup Date: <b>8/10/1994</b></p>	<p>7. Emissions Unit Major Group SIC Code: <b>49</b></p>	<p>8. Acid Rain Unit? <input checked="" type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters)</p> <p><b>The secondary boiler provides auxiliary steam to the plant and steam host on an as needed basis. It can be operated as a stand-alone unit or in series with the combustion turbine (EU001) in a manner similar to a duct burner. It is limited to firing natural gas and uses low NOx combustion technology.</b></p>			

**Emissions Unit Information Section 2 of 3**

**Emissions Unit Control Equipment**

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

**Control Methods:**

***Natural Gas Firing*** – Emissions control strategy includes the use of a Low NOx Burner for NOx emissions coupled with good combustion practices for VOC, CO, and PM/PM10 emissions, and Clean Pipeline Quality Natural Gas for SO<sub>2</sub> emissions. The control strategy ensures compliance with the BACT emission limitations.

2. Control Device or Method Code(s): 24

**Emissions Unit Details**

1. Package Unit: Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
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:	<b>99</b>	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
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>The emissions unit is authorized to operate continuous at reduced rates. Continuous operation is subject to an annual natural gas usage limit of no more than 104.2 thousand CF/hr.</b></p> <p><b>The maximum heat input rate is based on the lower heating value (LHV) of natural gas (950 Btu/CF).</b></p>		

**Emissions Unit Information Section 2 of 3**

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

<b>List of Applicable Regulations</b>	
Rule 62-204.800(7)(b)39., F.A.C.	Rule 62-204.800(15), F.A.C
Rule 62-204.800(16), F.A.C.	Rule 62-204.800(17), F.A.C.
Rule 62-204.800(19), F.A.C.	Rule 62-210.700, F.A.C., except (2) & (3)
Rule 62-214, F.A.C.	Rule 62-297.310(1), (2), (3), F.A.C.
Rule 62-297.310(4)(a), (b) and (d), F.A.C.	Rule 62-297.310(5), (6), F.A.C.
Rule 62-297.310(7)(a)3., 4., 8. & 9. F.A.C.	Rule 62-297.310(7)(b) & (c), F.A.C.
Rule 62-297.310(8), F.A.C.	Rule 62-297.401(1), (2), (3), (4), (5) & (9), F.A.C.
Rule 62-297.401(10) & (20), F.A.C.	Rule 62-297.520(2) & (3), F.A.C.
40 CFR 60.40c(a)	40 CFR 60.41c
40 CFR Part 60 Appendix B	40 CFR Part 60 Appendix F
40 CFR 72.2	40 CFR 72.6(a)(3)(i) and/or (iv)
40 CFR 72.9(a), (b), (c)(1), (2), (3)(iv), (4), (5), (e)	40 CFR 72.9(f) & (g)
40 CFR 72.11	40 CFR 72.20((c)
40 CFR 72.21	40 CFR 72.22
40 CFR 72.23	40 CFR 72.24(a)
40 CFR 72.25(a) & (b)	40 CFR 72.30(a), (c), (d) & (e)
40 CFR 72.31	40 CFR 72.32
40 CFR 72.33(a), (b), (c) & (d)	40 CFR 72.40
40 CFR 72.50	40 CFR 72.51
40 CFR 72(b)(2)	40 CFR 72.80
40 CFR 72.81	40 CFR 72.82
40 CFR 72.83	40 CFR 72.84
40 CFR 72.85	40 CFR 72.90
40 CFR Part 72, Appendices A, B & D	40 CFR 73.2(a)
40 CFR 73.12	40 CFR 73.13(a)
40 CFR 73.31(b)	40 CFR 73.33(c)
40 CFR 73.35	40 CFR 73.36(a)
40 CFR 73.37(a), (c) & (e)	40 CFR 73.50(b)
40 CFR 73.71, except (e)	40 CFR 75.2(a)
40 CFR 75.4(b)(2), (e) & (g)	40 CFR 75.5
40 CFR 75.10	40 CFR 75.11(d)(2) & (e)(1)
40 CFR 75.12(b), (c) & (f)	40 CFR 75.13(a) & (b)

**Emissions Unit Information Section 2 of 3**

<b>List of Applicable Regulations</b>	
40 CFR 75.16(b)(1) & (e)(2)	40 CFR 75.17(a)
40 CFR 75.20(a)(1), (2), (3), (5)	40 CFR 75.20(b), (c), (d) & (g)
40 CFR 75.21(a), (c), (d) & (e)	40 CFR 75.22(a), (b), (c) & (d)
40 CFR 75.30(a), (b), (c) & (d)	40 CFR 75.31 (a) & (b)
40 CFR 75.32	40 CFR 75.33
40 CFR 75.35	40 CFR 75.36
40 CFR 75.53	40 CFR 75.54, except (f)
40 CFR 75.55(c) & (e)	40 CFR 75.56(a) & (b)
40 CFR 5757, except (f)	40 CFR 75.58(c) & (e)
40 CFR 75.59(a) & (b)	40 CFR 75.60
40 CFR 75.61	40 CFR 75.62
40 CFR 75.63	40 CFR 75.64, except (e)
40 CFR Part 75, Appendix A	40 CFR Part 75, Appendix B
40 CFR Part 75, Appendix C	40 CFR Part 75, Appendix D
40 CFR Part 75, Appendix F	40 CFR Part 75, Appendix G
40 CFR 77.3	40 CFR 77.5(b)
40 CFR 75.6(a)(1) & (3), (b), (c) & (d)	

**Emissions Unit Information Section 2 of 3**

**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>Stack - EU2</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>Stack -EU2 exhausts gases from the secondary boiler and a portion of the CT exhaust gases. The combustion turbine exhaust gases are primarily vented through Stack - EU1 (Emissions Unit 001).</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>Stack - EU1</b> <b>Stack Parameters are provided in Emissions Unit Section 1 of 3.</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>125 feet</b>	7. Exit Diameter: <b>3 feet</b>	
8. Exit Temperature: <b>220 °F</b>	9. Actual Volumetric Flow Rate: <b>28,201 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>feet</b>	
13. Emission Point UTM Coordinates: <b>Zone: 17 East (km): 413.6 North (km): 3080.6</b>			
14. Emission Point Comment (limit to 200 characters):  <b>Stack temperature and flow based on design data at 100% load at 59°F for Natural Gas Firing.</b>			

**Emissions Unit Information Section 2 of 3**

**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>Internal Combustion Boiler; Industrial Natural Gas; 10-100 mmBtu/hr</b>		
2. Source Classification Code (SCC): <b>1-02-006-02</b>		3. SCC Units: <b>Million Cubic Feet Burned</b>
4. Maximum Hourly Rate: <b>0.1042</b>	5. Maximum Annual Rate: <b>450.2</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>950 (LHV)</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum short-term and annual rates are limited by a federally-enforceable permit conditions.</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):		

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>NOx</b>			<b>EL</b>
<b>CO</b>			<b>EL</b>
<b>SO<sub>2</sub></b>			<b>EL</b>
<b>PM/PM10</b>			<b>NS</b>
<b>H104</b>			<b>NS</b>
<b>Hexane</b>			<b>NS</b>
<b>Total HAPs</b>			<b>NS</b>

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

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NOx</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>23.4 lb/hour</b>		<b>82.0 tons/year</b>	4. Synthetically Limited? <input checked="" type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year			
6. Emission Factor: <b>24 lb/hr</b> Reference: <b>PSD Permit</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters): <b>Permit Nos. AC 53-211670 and PSD-FL-187</b>  <b>23.4 lb/hr – Based on a portion of EU001 exhaust flow while firing fuel oil and the products of combustion associated with EU002.</b>  <b>TPY = (23.4 lb/hr X 720 hr/yr + 18.3 lb/hr X 8,040 hr/yr) X ton/2,000 lb</b> <b>= 82.0 TPY</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):			

**Allowable Emissions Allowable Emissions 1 of 2**

1. Basis for Allowable Emissions Code: <b>Rule - BACT</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:		4. Equivalent Allowable Emissions: <b>18.3 lb/hour 80.0 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>EPA Reference Method 20</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Based on firing the duct burner at 100% load and a portion of the exhaust gases from EU001 (Firing Natural Gas) vented through Stack EU002.</b>			

**Emissions Unit Information Section 2 of 3**

**Allowable Emissions Allowable Emissions 2 of 2**

1. Basis for Allowable Emissions Code: <b>Rule - BACT</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: <b>23.4 lb/hour      8.4 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Reference Method 20</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Based on firing the duct burner at 100% load and a portion of the exhaust gases from EU001 (Firing Distillate Oil) vented through Stack EU002. The annual emissions reflect the limit (720 hours/year) on distillate oil firing.</b>	



**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE10</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>10 %</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>(2 hours in any 24-hr period) min/hour</b>	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>Natural Gas Firing (Excess Emissions Rule)</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>(2 hours in any 24-hr period) min/hour</b>	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>Distillate Oil Firing in the Combustion Turbine (Excess Emissions Rule)</b>	

**Emissions Unit Information Section 2 of 3**

**I. CONTINUOUS MONITOR INFORMATION**  
**(Only Regulated Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

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

**Supplemental Requirements**

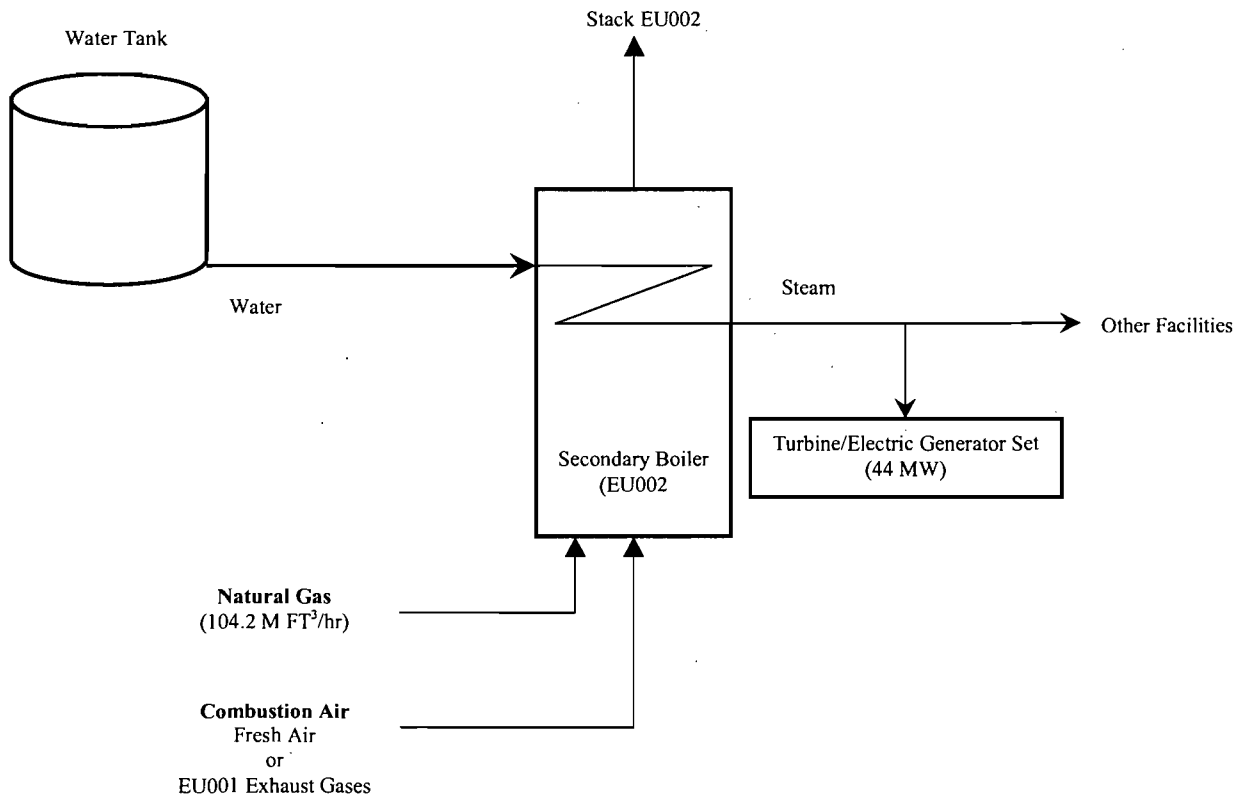
1. Process Flow Diagram <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU002-001</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU001-002</u> <input 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 checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU002-004</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously submitted, Date: <b>April, 2001</b> <input type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU002-006</u> <input 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>MB-FI-006</u> <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment:

**Emissions Unit Information Section 2 of 3**

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


11. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>MB-EU002-011</u> <input 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 checked="" type="checkbox"/> Attached, Document ID: <u>MB-FI-012</u> <input 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 checked="" type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: <u>MB-EU001-015</u> <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 type="checkbox"/> Not Applicable


**Document ID MB-EU002-001**  
**Process Flow Diagram**



**Polk Power Partners. L.P.**  
**Mulberry Cogeneration Facility**  
**TITLE V OPERATING PERMIT RENEWAL**

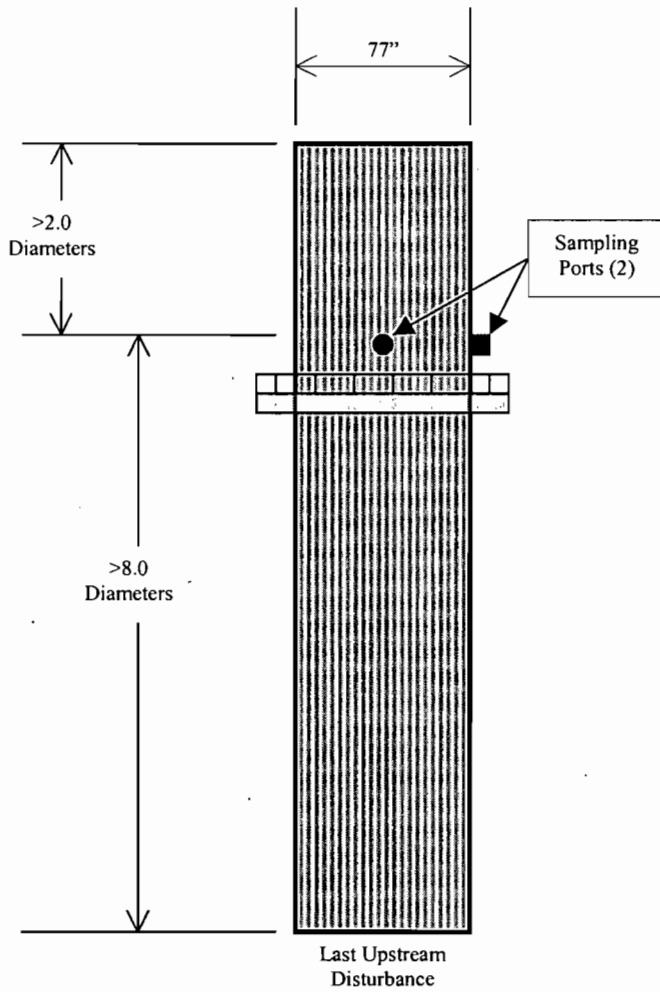
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 **Foster Wheeler Environmental Corporation**

Scale: N/A	Prepared: DJG	File: MB-EU002-001.doc
Date: 4/5/02	Approved: 	Document ID: MB-EU002-001

Source: 1996 Title V Permit Application, Attachment MB-EU01-L1,  
 Title V Operating Permit & AC/PSD Permits

**Document ID MB-EU002-004**  
**Stack Sampling Facilities**



Traverse Point Number	Inches Inside Stack Wall
1	3.4
2	11.3
3	22.7
4	54.3
5	65.7
6	73.6

**Polk Power Partners. L.P.  
Mulberry Cogeneration Facility**

**TITLE V OPERATING PERMIT RENEWAL**



**Foster Wheeler Environmental Corporation**

Scale: N/A  
Date: 4/5/02

Prepared: DJG  
Approved: *[Signature]*

File: MB-EU002-004.doc  
Document ID: MB-EU002-004



**Document ID MB-EU002-006**  
**Startup/Shutdown Procedures**

**MB-EU002-006**

**PROCEDURES FOR START-UP AND SHUTDOWN**

Startup of the Secondary Boiler begins by introducing natural gas into one of the burners within the unit and ignited. Start-up is complete and steady-state operation begins when the combustion process has stabilized.

Best Operating Practices to reduce or eliminate excess emissions include the following:

- ◆ Proper Excess Air Adjustments
- ◆ Shutdown of the Unit, if necessary
- ◆ Pressure Rate Changes.

Knowledge of the Best Operating Practices to reduce or eliminate excess emissions is part of the training provided to the boiler operators.

**Reference:** 1996 Title V Permit Application, Attachment MB-E01-L6

**Document ID MB-EU002-011**  
**Alternative Methods of Operation**

**MB-EU002-011**

**ALTERNATIVE METHODS OF OPERATION**

The alternative methods of operation include the following:

- ◆ Natural gas firing in the Secondary Boiler.
- ◆ Natural gas firing in the Secondary Boiler with a portion of the exhaust gases from the Combustion Turbine firing natural gas directed through the Secondary Boiler.
- ◆ Natural gas firing in the Secondary Boiler with a portion of the exhaust gases from the Combustion Turbine firing distillate oil directed through the Secondary Boiler.

The alternative methods of operation have all been addressed within the construction permits and the initial Title V Operating Permit.

**EMISSIONS UNIT 003**

**UNREGULATED ACTIVITIES**

**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 type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input checked="" 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):</p> <p style="text-align: center;"><b>Unregulated Activities</b></p>			
<p>4. Emissions Unit Identification Number: ID: EU003</p>		<p><input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>	
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date: A</p>	<p>7. Emissions Unit Major Group SIC Code: 4911</p>	<p>8. Acid Rain Unit? <input type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters)</p> <p style="text-align: center;"><b>The unregulated activities include those emissions units or activities that are not specifically exempted from permitting or insignificant by Rule.</b></p>			

**Emissions Unit Information Section 3 of 3**

**Emissions Unit Control Equipment**

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

2. Control Device or Method Code(s):

**Emissions Unit Details**

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

**Emissions Unit Information Section 3 of 3**

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

**Segment Description and Rate: Segment 1 of 3**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Surface Coating Activities</b>		
2. Source Classification Code (SCC): <b>3-05-999-99</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor: <b>2,190</b>
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):  <b>Based on the 6-gallon per day exemption criteria. Emissions associated with the surface coating activities will only be reported if the annual usage exceed the permit exemption level. This is not expected to happen on an annual basis.</b>		

**Segment Description and Rate: Segment 2 of 3**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Cooling Tower Drift Loses</b>		
2. Source Classification Code (SCC): <b>3-85-001-01</b>		3. SCC Units: <b>1,000 Gallons</b>
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):  <b>There are two (2) Cooling Tower Structures, the Main Cooling Tower and the Inlet Air Cooling Tower.</b>		



**Emissions Unit Information Section 3 of 3**

**Segment Description and Rate: Segment 3 of 3**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <p style="text-align: center;"><b>Paved/Unpaved Areas</b></p>		
2. Source Classification Code (SCC):		3. SCC Units: <b>grams per vehicle mile traveled</b>
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor: <b>1,000</b>
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

**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):		

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS
THAPs			NS
PM/PM10			NS