KBN
A GOLDER ASSOCIATES COMPANY

Letter of Transmittal

Date: 06/15/96

Project No.: 9651047

RECEIVED
JUN 17 1996
BUREAU OF AIR REGULATION

To: Scott Sheplak
Florida Dept. of Environmental Prot.
2600 Blair Stone Road
Tallahassee, Florida 32399

Re: Polk Power Partners, L.P.
Mulberry Cogeneration Facility
#1050217

The following items are being sent to you: ☒ *with this letter* ☐ *under separate cover*

Copies	*Description*
4	Title V Air Operating Permit Application (Hard Copy)

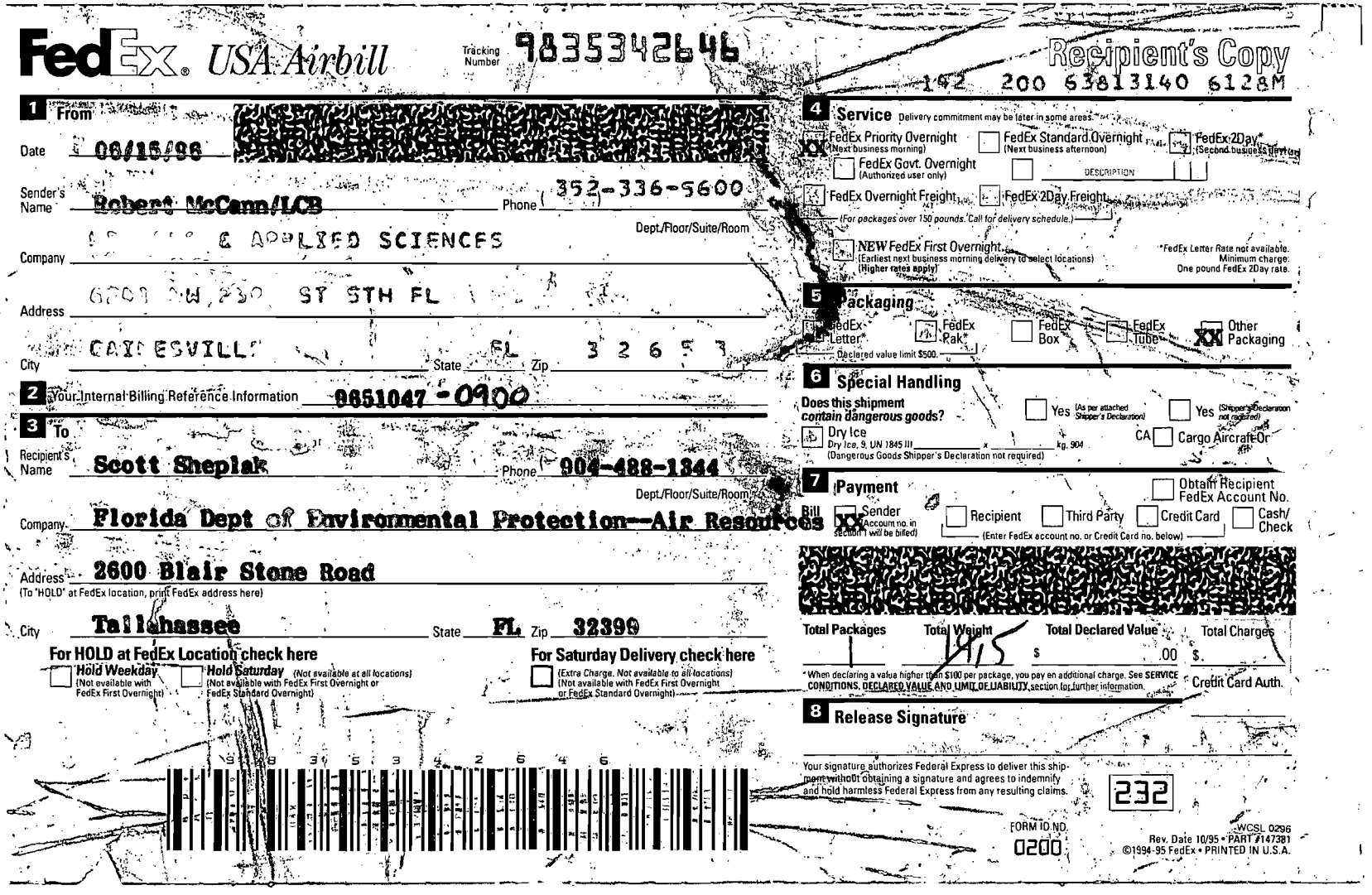
These are transmitted:

- ☐ *As requested*
- ☐ *For approval*
- ☐ *For review*
- ☐ *For your information*
- ☐ *For review and comment*
- ☒ *See Below*

Remarks: As indicated on the enclosed bulletin, we will be submitting the above referenced application electronically after June 15, 1996

9651047Y/F1/#01 (06/15/96)

6241 Northwest 23rd Street, Suite 500, Gainesville, Florida 32653-1500, 352-336-5600 FAX 352-336-6603
5405 West Cypress Street, Suite 215, Tampa, Florida 33607, 813-287-1717 FAX 813-287-1716
1801 Clint Moore Road, Suite 105, Boca Raton, Florida 33487, 407-994-9910 FAX 407-994-9393
7785 Baymeadows Way, Suite 105, Jacksonville, Florida 32256, 904-739-5600 FAX 904-739-7777
1616 'P' Street NW, Suite 350, Washington, DC 20036, 202-462-1100 FAX 202-462-2270



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Date 08/15/98

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Company & APPLIED SCIENCES Dept./Floor/Suite/Room

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City GAINESVILLE State FL Zip 3 2 6 5 3

2 Your Internal Billing Reference Information 0651047-0900

3 To

Recipient's Name Scott Sheplak Phone 904-488-1344

Company Florida Dept of Environmental Protection--Air Resources Dept./Floor/Suite/Room

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(To "HOLD" at FedEx location, print FedEx address here)

City Tallahassee State FL Zip 32399

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Bulletin

Due to FDEP's recall of ELSA Version 1.3 dated prior to June 7, 1996, this permit application will be submitted as hard copy and electronically.

To proceed efficiently and meet the June 15, 1996 deadline, this permit application is being submitted as follows:

* Four hard copies of the complete application submittal (i.e., form and attachments) for FDEP are enclosed.

* After June 15th, KBN will submit four copies of the application to FDEP electronically, using the approved ELSA Version 1.3. (Signature pages and hard-copy attachments will not be resubmitted.)

In addition, KBN Engineering and Applied Sciences, Inc. has received prior FDEP verification from Patricia Comer, June 7, 1996, that FDEP receipt of the permit application by 5:00 pm, Monday, June 17, 1996 will meet the rule deadline of June 15, 1996.

Department of
Environmental Protection

RECEIVED
JUN 25 1996
BUREAU OF
AIR REGULATION

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

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

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: **Polk Power Partners, L.P.**	
2. Site Name: **Mulberry Cogeneration Facility**	
3. Facility Identification Number:	[x] Unknown
4. Facility Location Information: Street Address or Other Locator: **3600 County Road 555** City: **Bartow** County: **Polk** Zip Code: **33831-0824**	
5. Relocatable Facility? [ ] Yes [x] No	6. Existing Permitted Facility? [x] Yes [ ] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	6/17/96
2. Permit Number:	1050217-001-AV
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID	Description of Emissions Unit	Permit Type
Unit # Unit ID		
1R	Combustion Turbine (CT) with HRSG	
2R	Secondary Heating Boiler	
3	Facility-wide Fugitive/De Minimis Emissions	

See individual Emissions Unit (EU) sections for more detailed descriptions.
Multiple EU IDs indicated with an asterisk (*). Regulated EU indicated with an "R".

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:

Allan Wade Smith, General Manager

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: **Polk Power G.P., Inc.**
Street Address: **1125 US 98 South, Suite 100**
City: **Lakeland** State: **FL** Zip Code: **33801**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:

Telephone: **(941) 682-6338** Fax: **(941) 683-8257**

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., 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.*

Allan W. Smith — Signature

6/14/96 — Date

* Attach letter of authorization if not currently on file.

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

[x] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., 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: _____

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit to be renewed: _____

[ ] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

_____

[ ] Air operation permit revision for a Title V source 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 to be revised: _____

Reason for revision: _____

_____

Category II: All Air Construction Permit Applications Subject to Processing Under Rule 62-210.300(2)(b),F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s): _____

_____

[ ] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g.; to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units.

This Application for Air Permit is submitted to obtain:

[ ] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: _____

_____

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s): _____

_____

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one:

[ ] Attached - Amount: $ _____ [ ] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations:

Not Applicable

2. Projected or Actual Date of Commencement of Construction :

3. Projected Date of Completion of Construction :

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14996**

2. Professional Engineer Mailing Address:
   Organization/Firm: **KBN Eng and Applied Sciences, Inc**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**

3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336-5600** Fax: **(352) 336-6603**

4. Professional Engineer's 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 [ ] 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

6/14/96
Date

(seal)

KENNARD F. KOSKY
CERTIFICATE
STATE OF
FLORIDA
REGISTERED ENGINEER

Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:
   Allan Wade Smith, General Manager

2. Application Contact Mailing Address:

   Organization/Firm: **Polk Power G.P., Inc.**
   Street Address: **1125 US 98 South, Suite 100**
   City: **Lakeland** State: **FL** Zip Code: **33801**

3. Application Contact Telephone Numbers:

   Telephone: **(941) 682-6338** Fax: **(941) 683-8257**

Application Comment

See Attachment MB-AI-AC

ATTACHMENT MB-AI-AC

APPLICATION COMMENT

ATTACHMENT MB-AI-AC

This Title V application is for the Polk Power Partners, Mulberry Cogeneration Combustion Turbine located in Bartow, Polk County, Florida.

The application's structure is as follows:

	Emission Units	
	EU1	EU2
General:	1 - Combustion Turbine (CT) 1 - Heat Recovery Steam Generator (HRSG)	Secondary Boiler
Emission Points (1):	1 - CT/HRSG Stack	1 - Secondary HRSG Stack
Fuel Segments:	Natural gas and No. 2 fuel oil through December 13, 1997. After December 13, 1997, No. 2 fuel oil used as emergency backup (720 hr)	Natural gas only
Pollutants: CT/HRSG	NO_x, SO_2, VOC, CO	NO_x, SO_2, CO (portion of CT gases exhaust through secondary HRSG stack)
VE Emissions:	VE limits applicable	VE limits applicable
CEM:	NO_x	—
PSD:	NO_x	NO_x

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates:
   Zone: **17** East (km): **413.6** North (km): **3080.6**

2. Facility Latitude/Longitude:
   Latitude (DD/MM/SS): **27 / 50 / 56** Longitude: (DD/MM/SS): **81 / 52 / 39**

3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
0	**A**	**49**	**4911**

7. Facility Comment (limit to 500 characters):

Facility consists of one combustion turbine (CT) with gases that exhaust through primary Heat Recovery Steam Generator (HRSG) stack and a portion of gases that can exhaust through secondary boiler stack. The CT is natural gas and oil-fired through Dec. 31, 1997. After Dec. 31, 1997, fuel oil can be used as backup fuel (720 hr/yr). Secondary boiler (duct burner) fires secondary HRSG with gases that exhaust through separate stack. Boiler fired by natural gas only.

Facility Contact

1. Name and Title of Facility Contact: Dennis Oehming
   John Paul Jones, Manager of Cogeneration

2. Facility Contact Mailing Address:
   Organization/Firm: **CSW Energy, Inc.**
   Street Address: **3600 Hwy 555**
   City: **Bartow** State: **FL** Zip Code: **33830-0824**

3. Facility Contact Telephone Numbers:
   Telephone: **(941) 533-9073** Fax: **(941) 533-4092**

Facility Regulatory Classifications

1. Small Business Stationary Source?	[ ] Yes [x] No [ ] Unknown
2. Title V Source?	[x] Yes [ ] No
3. Synthetic Non-Title V Source?	[ ] Yes, [x] No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	[x] Yes [ ] No
5. Synthetic Minor Source of Pollutants Other than HAPs?	[ ] Yes [x] No
6. Major Source of Hazardous Air Pollutants (HAPs)?	[ ] Yes [x] No
7. Synthetic Minor Source of HAPs?	[ ] Yes [x] No
8. One or More Emissions Units Subject to NSPS?	[x] Yes [ ] No
9. One or More Emissions Units Subject to NESHAP?	[ ] Yes [x] No
10. Title V Source by EPA Designation?	[ ] Yes [x] No
11. Facility Regulatory Classifications Comment (limit to 200 characters): **CT - NSPS for stationary CTs, (40 CFR 60 Subpart GG).**	

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment MB-Fl-B

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted		2. Pollutant Classification
NOX	Nitrogen Oxides	B
CO	Carbon Monoxide	B
PM	Particulate Matter - Total	B
PM10	Particulate Matter - PM10	B
SO2	Sulfur Dioxide	A
VOC	Volatile Organic Compounds	B

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location:
   [X] Attached, Document ID: MB-FI-E1
   [ ] Not Applicable [ ] Waiver Requested

2. Facility Plot Plan:
   [X] Attached, Document ID: MB-FI-E2
   [ ] Not Applicable [ ] Waiver Requested

3. Process Flow Diagram(s):
   [X] Attached, Document ID(s): MB-FI-E3
   [ ] Not Applicable [ ] Waiver Requested

4. Precautions to Prevent Emissions of Unconfined Particulate Matter:
   [X] Attached, Document ID: MB-FI-E4
   [ ] Not Applicable [ ] Waiver Requested

5. Fugitive Emissions Identification:
   [X] Attached, Document ID: MB-FI-E5
   [ ] Not Applicable [ ] Waiver Requested

6. Supplemental Information for Construction Permit Application:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

8. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID: _____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [X] Not Applicable

9. Alternative Methods of Operation:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

10. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID: _____
    [X] Not Applicable

11. Identification of Additional Applicable Requirements:
[ ] Attached, Document ID: _____
[x] Not Applicable

12. Compliance Assurance Monitoring Plan:
[ ] Attached, Document ID: _____
[x] Not Applicable

13. Risk Management Plan Verification:

[ ] Plan Submitted to Implementing Agency - Verification Attached
Document ID: _____

[x] Plan to be Submitted to Implementing Agency by Required Date

[ ] Not Applicable

14. Compliance Report and Plan
[x] Attached, Document ID: MB-FI-E14
[ ] Not Applicable

15. Compliance Statement (Hard-copy Required)
[x] Attached, Document ID: MB-FI-E15
[ ] Not Applicable

ATTACHMENT MB-FI-B

FACILITY REGULATIONS

ATTACHMENT MB-FI-B

Applicable Requirements Listing - Power Plants (File: mb-fi-b.apl)

FACILITY: Mulberry Cogeneration Facility

FDEP Rules:

General Permits:

62-4.030	- Gneral Permits
62-4.040(1)(a)	- Exemptions from permitting
62-4.040(1)(b)	- Exemptions from permitting
62-4.100	- Suspension and Revocation
62-4.130	- Plant Problems

Stationary Sources-General:

62-210.300(2)(except b)	- permits general

Exemptions - Plant Specific:

62-210.300(3)(a)4.	- comfort heating < 1 mmBtu/hr
62-210.300(3)(a)5.	- mobile sources
62-210.300(3)(a)7.	- non-industrial vacuum cleaning
62-210.300(3)(a)8.	- refrigeration equipment
62-210.300(3)(a)9.	- vacuum pumps for labs
62-210.300(3)(a)10.	- steam cleaning equipment
62-210.300(3)(a)11.	- sanders < 5 ft2
62-210.300(3)(a)12.	- space heating equip.; (non-boilers)
62-210.300(3)(a)14.	- bakery ovens
62-210.300(3)(a)15.	- lab equipment
62-210.300(3)(a)16.	- brazing, soldering or welding
62-210.300(3)(a)17.	- laundry dryers
62-210.300(3)(a)20.	- emergency generators < 32,000 gal/yr
62-210.300(3)(a)21.	- general purpose engines < 32,000 gal.yr
62-210.300(3)(a)22.	- fire and safety equipment
62-210.300(3)(a)23.	- surface coating >5% VOC; 6 gal/month avg.
62-210.300(3)(a)24.	- surface coating <5% VOC
62-210.300(3)(b)	- Temporary Exemptions
62-210.370(3)	- All Permits (AOR's)
62-210.900(5)	- All Permits (AOR Form)

Title V Permits:

62-213.205(1)(a)	- Fees
62-213.205(1)(b)	- Fees
62-213.205(1)(c)	- Fees
62-213.205(1)(e)	- Fees

62-213.205(1)(f)	- Fees
62-213.205(1)(g)	- Fees
62-213.205(1)(i)	- Fees
62-213.205(1)(j)	- Fees
62-213.400	- Permits/Revisions
62-213.410	- Changes without permit revisions
62-213.420.(1)(b)2.	- Permits-allows continued operation
62-213.420.(1)(b)3.	- Permits-additional information
62-213.460	- Permit Shield
62-213.900(1)	- Fee Form

Open Burning:

62-256.300	- Prohibitions
62-256.700	- Open burning Allowed

Stationary Sources-Emission Standards:

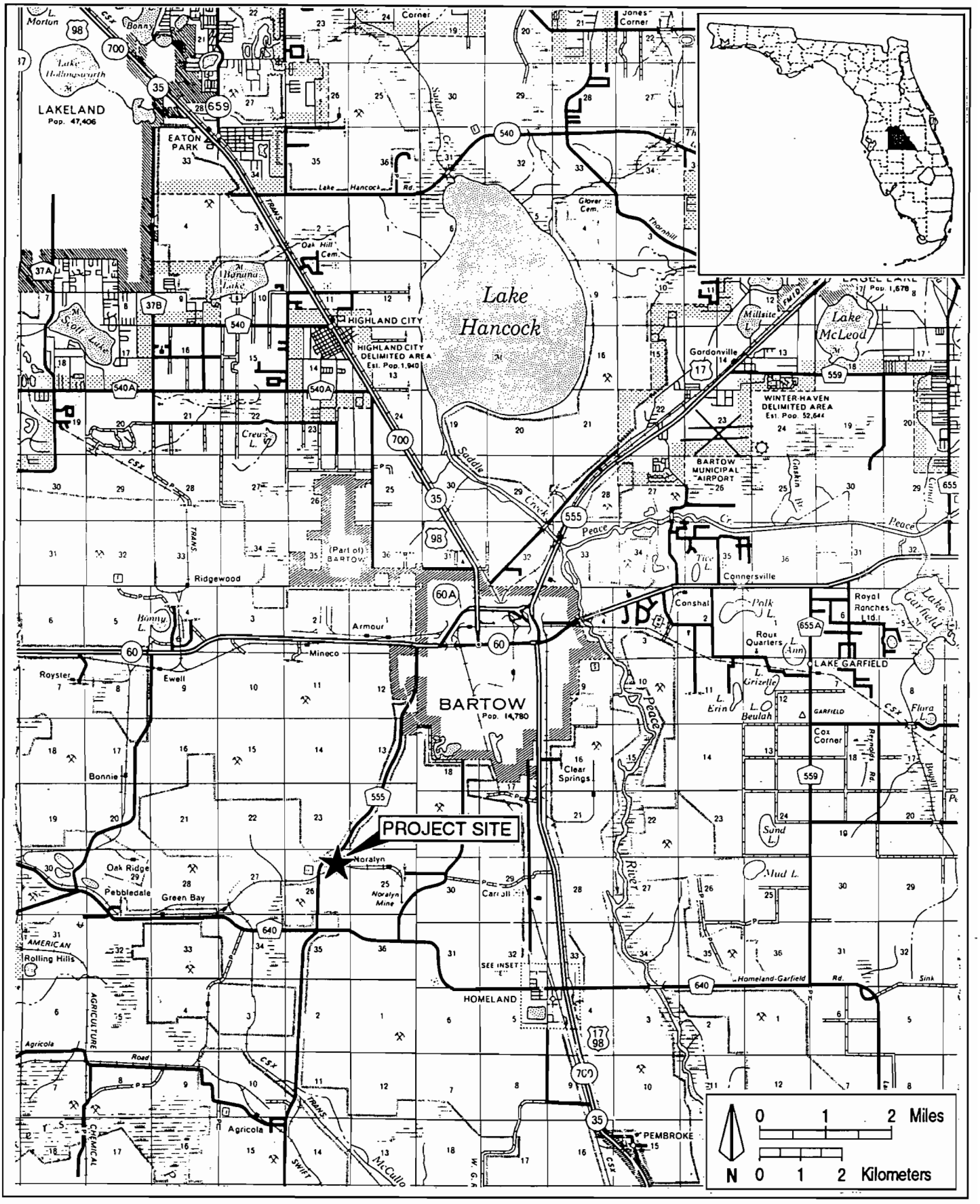
62-296.320(2) (State Only)	- All Permits (Odor)
62-296.320(3)(b)(State Only)	- Emergency Open Burning
62-296.320(4)(b)	- General VE
62-296.320(4)(c)	- Unconfined PM

Stationary Sources-Emission Monitoring

62-297.310(7)(a)10.	- Exemption of annual VE for 210.300(3)(a) sources/Gen. Per.

ATTACHMENT MB-FI-E1

AREA MAP



ATTACHMENT MB-FI-E1
AREA MAP
MULBERRY COGENERATION FACILITY

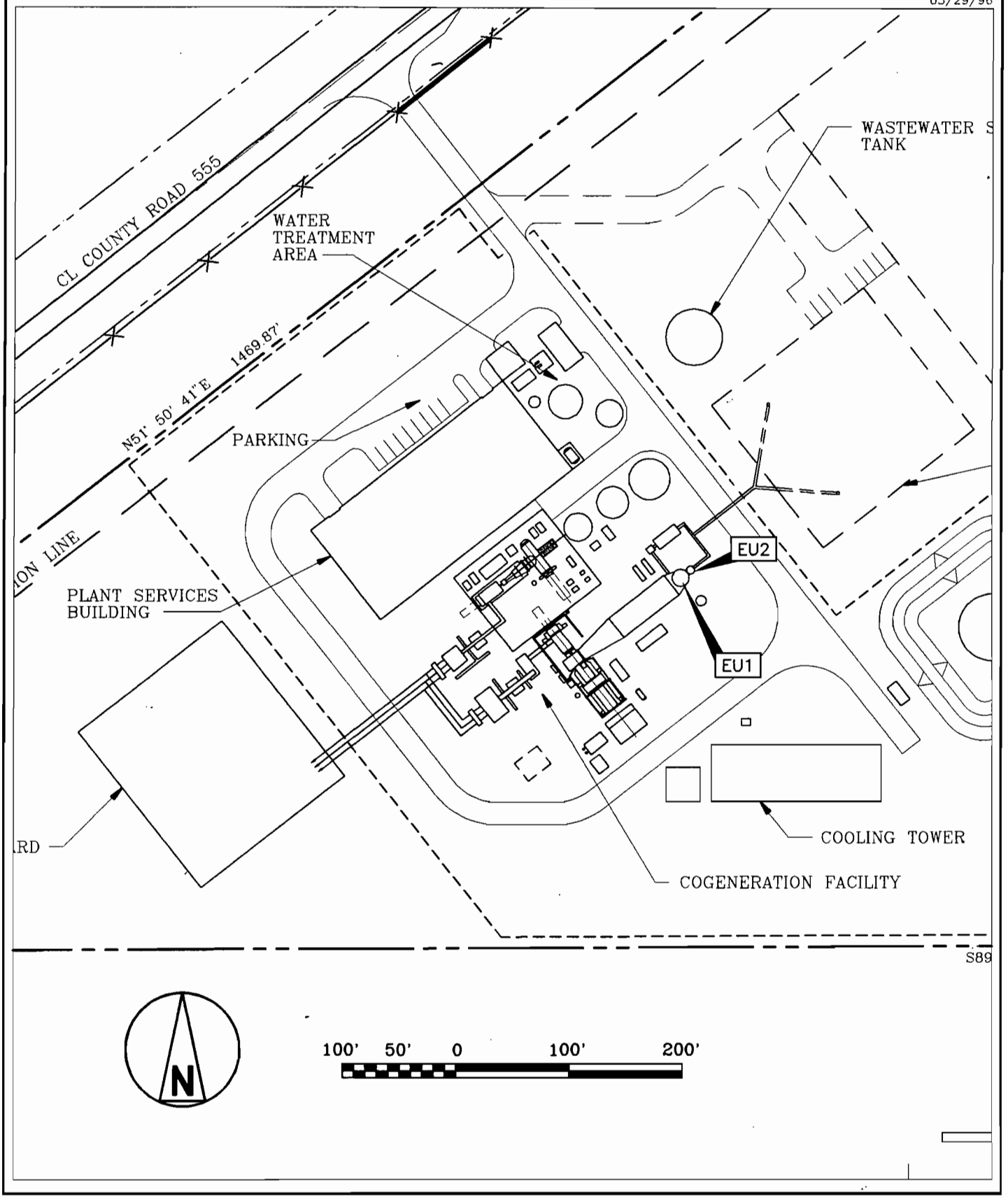
SOURCES: FDOT, 1988; KBN, 1996.

KBN

ATTACHMENT MB-FI-E2

FACILITY PLOT PLAN

KBN/9651047/PLOTPLAN.DWG
05/29/96



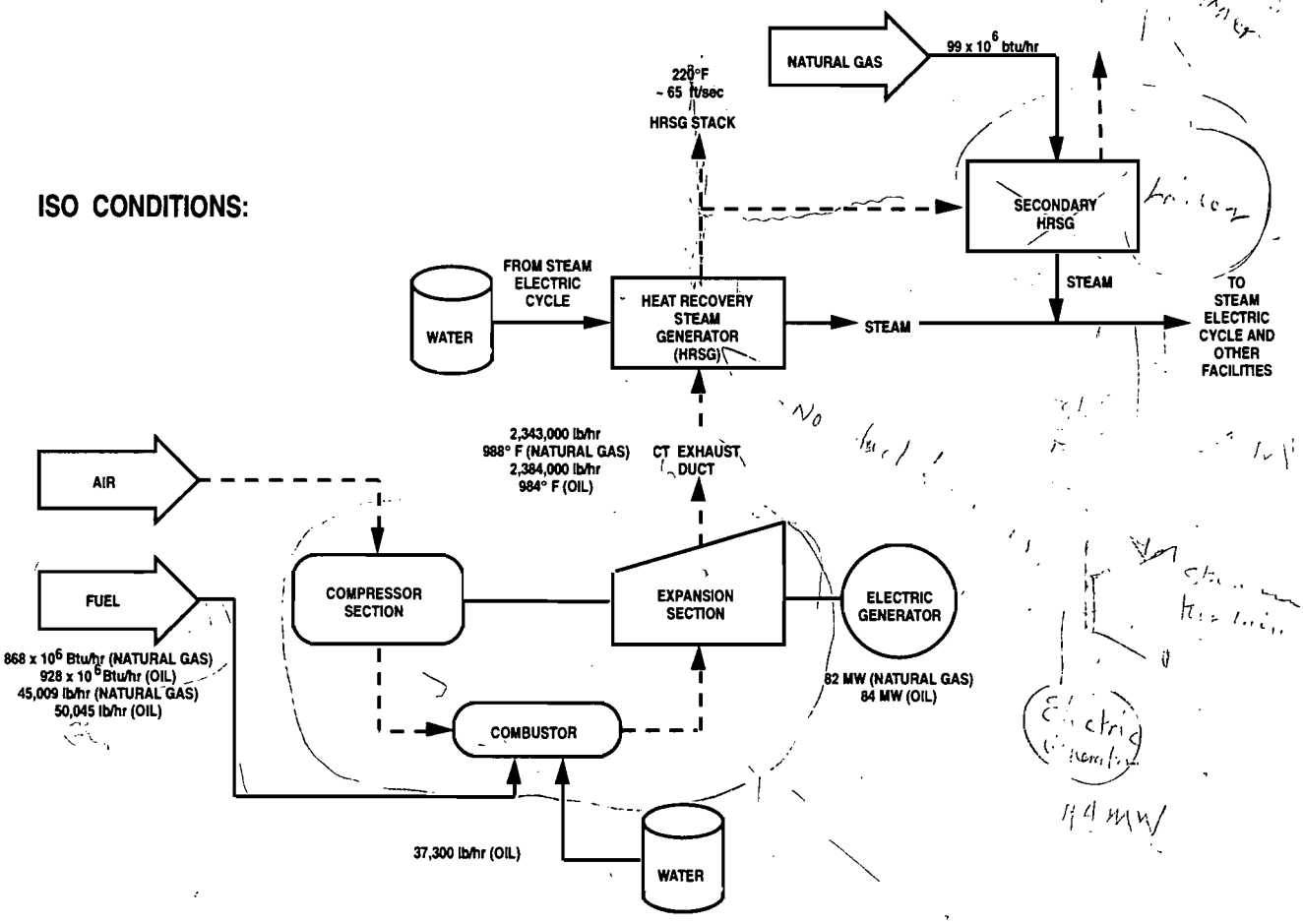
ATTACHMENT MB-FI-E2
PLOT PLAN
MULBERRY COGENERATION FACILITY

KBN

ATTACHMENT MB-FI-E3

PROCESS FLOW DIAGRAM

KBN30/ARK ENERGY FLOW .2
4/2/92 ph



Attachment MB-FI-E3
Flow Diagram
Mulberry Cogeneration Power Plant

KBN
A GOLDER ASSOCIATES COMPANY

ATTACHMENT MB-FI-E4

PRECAUTION TO PREVENT FUGITIVE EMISSIONS/UNCONFINED PARTICULATE MATTER

ATTACHMENT MB-FI-E4

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

The facility has negligible amounts of unconfined particulate matter as a result of the operation of the facility. Potential examples of particulate matter include:

- Fugitive dust from paved and unpaved roads, and
- Fugitive particulates from stone areas.

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with 62-296.310(3), F.A.C.:

- Maintenance of paved areas as needed,
- Regular mowing of grass and care of vegetation, and
- Limiting access to plant property by unnecessary vehicles.

ATTACHMENT MB-FI-E5

FUGITIVE EMISSIONS IDENTIFICATION

ATTACHMENT MB-FI-E5

FUGITIVE EMISSIONS IDENTIFICATION

Many fugitive emissions at the plant site have been classified as "trivial activities" (as presented in EPA's memorandum, "White Paper for Streamlined Development of Part 70 Permit Applications," July 10, 1995). As a result, these activities are not included as part of this permit application. For example, emissions from general plant maintenance and upkeep activities at the facility would be considered fugitive emissions, but have been judged to be trivial since these activities are not conducted as part of a manufacturing process, not related to the source's primary business activity, and do not otherwise trigger a permit modification.

Fugitive emissions that may result from the operation or activities that are not trivial at the facility are addressed in Emission Unit No. 3. This emission unit contains information on fugitive emissions that occur on a facility-wide basis. A summary of potential fugitive emission sources at the facility is presented in the following sections.

Criteria and Precursor Air Pollutants

Mulberry Cogeneration has not identified fugitive emission of sulfur dioxide, nitrogen oxides, carbon monoxide, or lead compounds which would exceed the thresholds defined in the permit application instructions.

Volatile Organic Compounds (VOCs)

Fugitive emissions of VOCs include those resulting from the use of cleaners and solvents for maintenance and operation.

Fugitive HAPs Emissions

The following hazardous air pollutants are present on the facility property and are potential sources of fugitive HAPs emissions:

- chlorine
- methyl ethyl ketone
- toluene
- xylene

Chlorine - Present in three 1-ton containers and six 150 lb cylinders. Used for water treatment at the facility.

(MEK)

Methyl Ethyl Ketone, Toluene, Xylene - The facility maintains several containers of paint thinner and solvents (which may contain MEK, toluene, or xylene) for use in plant maintenance activities. These containers are kept closed and are stored in weather-tight buildings. These emissions as a whole are addressed in the VOC section (preceding page).

Regulated Toxic or Flammable Substances

The following regulated toxic or flammable substances are present at the Mulberry Cogeneration facility:

- chlorine
- acetylene
- methane (natural gas)

Chlorine, Hydrazine, Hydrochloric Acid - Considered on the preceding page.

Acetylene - Present on the facility property in 100-lb cylinders which are used for plant maintenance (welding and cutting).

Methane - Is a primary component of natural gas. The facility has a natural gas pipeline which delivers fuel to the generating unit. This fuel delivery system is normally airtight, but does have safety valves which may open if an overpressure condition develops in the gas line.

ATTACHMENT MB-FI-E14

COMPLIANCE REPORT AND PLAN

ATTACHMENT MB-FI-E14

COMPLIANCE REPORT AND PLAN

The Mulberry Cogeneration Facility is in compliance with each Federal and state applicable requirement addressed in this Title V air permit application.

ATTACHMENT MB-FI-E15

COMPLIANCE STATEMENT

ATTACHMENT MB-FI-E15

COMPLIANCE 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.

Polk Power Partners, L.P., proposes that an annual statement of compliance shall be submitted with the annual operating report by March 1 of each year.

Signature, Responsible Official

6/14/96
Date

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[X] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Combustion Turbine (CT) with HRSG**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [X] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [X] Yes [ ] No	5. Emissions Unit Major Group SIC Code: **49**
6. Emissions Unit Comment (limit to 500 characters): **CT gases exhaust through a Heat Recovery Steam Generator (HRSG). HRSG services steam generator rated at 44 MW and furnishes steam to other facilities. The nameplate rating of the combustion turbine is 82 MW at 59° F. Portion of CT exhaust can be vented through secondary stack along with exhaust from gas-fired secondary boiler.**		

44
82
126

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters): **Stage Combustion Technology - Dry Low NOx Burners**
2. Control Device or Method Code: **24**

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date:	10 Aug 1994
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer: General Electric	Model Number: PG 7111 EA
4. Generator Nameplate Rating:	82 MW
5. Incinerator Information: Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:	869	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		

5. Operating Capacity Comment (limit to 200 characters):

Maximum heat input based on 914,526 MMcf/hr and 950 Btu/cf as low heating value (LHV) @ 59°F when firing natural gas.

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:

This depends on which fuel is fired

24	hours/day	7	days/week
52	weeks/yr	8,760	hours/yr

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment MB-E01-D

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: Stack (EU 1)
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): One Emission Unit discharges through this stack.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: N/A
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W
6. Stack Height: 125 feet
7. Exit Diameter: 15 feet
8. Exit Temperature: 220 °F

9. Actual Volumetric Flow Rate:	**679,324** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates: Zone: **17** East (km): **413.6** North (km): **3080.6**	
14. Emission Point Comment (limit to 200 characters): **Emission Point calculations are based on baseload conditions at 59°F for natural gas firing.**	

using $1 \times 10^6 \text{ ft}^3 \cdot \frac{900 \text{ Btu}}{1 \text{ ft}^3} = 900 \frac{\text{MMBtu}}{\text{scc unit}}$

From Permit

the max capacity is

$$10.13\text{-}4 \frac{\text{Mft}^3}{\text{hr}} \cdot \frac{900 \text{ Btu}}{\text{ft}^3} = 912.060 \frac{\text{MMBtu}}{\text{hr}}$$

to determine #4

$$\frac{912.060 \frac{\text{MMBtu}}{\text{hr}}}{900 \frac{\text{MMBtu}}{\text{scc unit}}} = \boxed{1.0134 \frac{\text{scc unit}}{\text{hr}}}$$

$$1.0134 \text{ scc unit} \cdot \frac{8760 \text{ hr}}{\text{hr}} \cdot \frac{\text{year}}{\text{year}} = \boxed{8877 \frac{\text{scc unit}}{\text{year}}}$$

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

Internal Combustion Engines; Electric Generation; Natural Gas Turbine

2. Source Classification Code (SCC):

2-01-002-01

3. SCC Units:

Million Cubic Feet Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
1.013	**8,877**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

946

10. Segment Comment (limit to 200 characters):

Max Hourly Rate = 1.0134 (rounded to 1.013). Max Annual Rate = 8,877.4 (rounded to 8877). Max rate at 20°F. Max percent sulfur: 1 grain/100 cf.

SCC unit

From "Bunkie" ref. material

$$\frac{1000\ \text{gal fuel}}{\text{SCC unit}} \times \frac{139,402\ \text{BTU}}{\text{gal}} = \frac{139.4\ \text{MMBTU}}{\text{gal}} \quad ; \quad 19,560\ \frac{\text{BTU}}{\text{lb}}$$

From permit, maximum heat input

$$55.6\ \frac{\text{M lb}}{\text{hr}} \times \frac{19,560\ \text{BTU}}{\text{lb}} = 1087.536\ \frac{\text{MMBTU}}{\text{hr}}$$

to compute #4: (Maximum Hourly Rate).

$$\frac{\text{Maximum Capacity}}{\text{fuel heat input}} = \frac{\text{MMBTu}}{\text{hr}} \times \frac{\text{Fuel unit (SCC unit)}}{\text{MMBTU}}$$

$$= \frac{1087.536}{139.4} = 7.80\ \frac{\text{SCC unit}}{\text{hr}}$$

to compute #5

$$7.80\ \frac{\text{SCC unit}}{\text{hr}} \times \frac{6833\ \text{hr}}{\text{yr}} = 53,307.99\ \frac{\text{SCC unit}}{\text{yr}}$$

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):
   Internal Combustion Engines; Electric Generation; Distillate Oil; Turbine

2. Source Classification Code (SCC): **2-01-001-01**

3. SCC Units: **Thousand Gallons**

4. Maximum Hourly Rate: **7.81**

5. Maximum Annual Rate: **53,393**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur: **0.1**

8. Maximum Percent Ash:

9. Million Btu per SCC Unit: **132** a bit low

10. Segment Comment (limit to 200 characters):
    Max rate at 20 °F. Annual rate based on firing oil at max hr rate for 6,833 hr/yr until Dec 31, 1997 (55.6 Mlb/hr; 379.9 MMlb/yr). After Dec 31, 1997, fuel oil used as backup, 720 hr/yr.

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NOX	024		EL
CO			EL
VOC			EL
SO2			EL
PM			NS
PM10			NS

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **NOX**
2. Total Percent Efficiency of Control: **90** % no documentation so assumed
3. Potential Emissions: **164** lb/hour **718.2** tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **42 ppmvd @ 15% O2** Reference: **AC Permit Limit-BACT**
7. Emissions Method Code: [X] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **AC Permit Limit**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Potential Emissions based on base load operating conditions at 59 °F for oil-firing through Dec. 31, 1997.**

Emissions Unit Information Section 1 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **87.8 lb/hr**
4. Equivalent Allowable Emissions: **87.8** lb/hour **384.5** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Compliance Test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on 25 ppmvd @ 15% O2-natural gas. AC Permit Limit, AC53-211670, Specific Condition No.2.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions: **1 Jan 1998**
3. Requested Allowable Emissions and Units: **52.7 lb/hr**
4. Equivalent Allowable Emissions: **52.7** lb/hour **230.7** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Compliance Test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on 15 ppmvd @ 15% O2-natural gas. AC Permit Limit, AC53-211670, Specific Condition No.2.**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **164 lb/hr**
4. Equivalent Allowable Emissions: **164** lb/hour **718.2** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Compliance Test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on 42 ppmvd @ 15% O2-fuel oil. AC Permit Limit, AC53-211670, Specific Condition No.2.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions: **1 Jan 1998**
3. Requested Allowable Emissions and Units: **164 lb/hr**
4. Equivalent Allowable Emissions: **164** lb/hour **59** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Compliance Test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on 42 ppmvd @ 15% O2-fuel oil. AC Permit Limit, AC53-211670, Specific Condition No.2,3; ton/yr based on 720 hr fuel use.**

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: CO
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 75.3 lb/hour 329.9 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: [ ]1 [ ]2 [ ]3 _____ to _____ tons/yr
6. Emission Factor: 35 ppmvd Reference: AC Permit Limit-BACT
7. Emissions Method Code: [X]0 [ ]1 [ ]2 [ ]3 [ ]4 [ ]5
8. Calculation of Emissions (limit to 600 characters): AC Permit Limit
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Potential emissions based on base load operating conditions at 59 °F for oil-firing through Dec. 31, 1997.

Emissions Unit Information Section 1 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**42.9 lb/hr**
4. Equivalent Allowable Emissions:	**42.9** lb/hour **187.8** tons/year
5. Method of Compliance (limit to 60 characters):	**Initial Compliance Test; EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on 20 ppmvd natural-gas firing. AC Permit Limit, AC53-211670, Specific Condition No.2. If NOx 15 ppmvd limit met, CO limit based on 25 ppmvd.**

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	**1 Jan 1998**
3. Requested Allowable Emissions and Units:	**53 lb/hr**
4. Equivalent Allowable Emissions:	**53** lb/hour **232** tons/year
5. Method of Compliance (limit to 60 characters):	**EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on 25 ppmvd natural-gas firing. AC Permit Limit, AC53-211670, Specific Condition No.2.**

Emissions Unit Information Section 1 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **75.3 lb/hr**
4. Equivalent Allowable Emissions: **75.3** lb/hour **329.9** tons/year
5. Method of Compliance (limit to 60 characters): **Initial Compliance Test; EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on oil-firing. AC Permit Limit, AC-53211670, Specific Condition No.2.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions: **1 Jan 1998**
3. Requested Allowable Emissions and Units: **75.3 lb/hr**
4. Equivalent Allowable Emissions: **75.3** lb/hour **27.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on oil-firing. AC Permit Limit, AC53-211670, Specific Condition No.2,3; ton/yr based on 720 hr fuel use.**

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: VOC
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 9.2 lb/hour 40.4 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: [ ]1 [ ]2 [ ]3 _____ to _____ tons/yr
6. Emission Factor: 10 ppmvd Reference: AC Permit Limit-BACT
7. Emissions Method Code: [X]0 [ ]1 [ ]2 [ ]3 [ ]4 [ ]5
8. Calculation of Emissions (limit to 600 characters): AC Permit Limit
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Potential emissions based on base load operating conditions at 59 °F for oil-firing through Dec. 31, 1997.

Emissions Unit Information Section 1 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **9.2 lb/hr**	
4. Equivalent Allowable Emissions: **9.2** lb/hour	**40.4** tons/year
5. Method of Compliance (limit to 60 characters): **Initial Compliance Test; EPA Method 18 or 25A**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on oil-firing. AC Permit Limit, AC53-211670, Specific Condition No.2. Emission limit through Dec. 31, 1997.**	

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **95.1** lb/hour **416.5** tons/year

4. Synthetically Limited? [**X**] Yes [ ] No

5. Range of Estimated Fugitive/Other Emissions:

   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **0.1 % S content oil**

   Reference: **See Comment**

7. Emissions Method Code:

   [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

   AC Permit Limit

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

   Potential emissions based on base load operating conditions at 59 °F for oil-firing through Dec. 31, 1997. Emission Factor Reference: AC Permit Limit - BACT.

Emissions Unit Information Section 1 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.1 %sulfur content**	
4. Equivalent Allowable Emissions:	**95.1** lb/hour **416.5** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Analysis (sulfur content)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on oil-firing. AC Permit Limit, AC53-211670, Specific Condition No.2.**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions: **1 Jan 1998**	
3. Requested Allowable Emissions and Units: **0.1 %sulfur content**	
4. Equivalent Allowable Emissions:	**95.1** lb/hour **34.2** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Analysis (sulfur content)**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on oil-firing. AC Permit Limit, AC53-211670, Specific Condition No.2,3; tons/yr based on 720 hr fuel use.**	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 3

1.	Visible Emissions Subtype: **VE10**
2.	Basis for Allowable Opacity: [ ] Rule [**X**] Other
3.	Requested Allowable Opacity Normal Conditions: **10.** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: **EPA Method 9**
5.	Visible Emissions Comment (limit to 200 characters): **Based on natural-gas firing. AC Permit Limit, AC53-211670, Specific Condition No.2.**

Visible Emissions Limitations: Visible Emissions Limitation 2 of 3

1.	Visible Emissions Subtype: **VE**
2.	Basis for Allowable Opacity: [**X**] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operating practice**
5.	Visible Emissions Comment (limit to 200 characters): **Excess VE allowed for startup and shutdown pursuant to FDEP Rule 62-210.700(1); 2 hrs/24 hour period.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 3 of 3

1.	Visible Emissions Subtype: **VE20**
2.	Basis for Allowable Opacity: [ ] Rule [X] Other
3.	Requested Allowable Opacity Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: **EPA Method 9**
5.	Visible Emissions Comment (limit to 200 characters): **Based on oil-firing. AC Permit Limit, AC53-211670, Specific Condition No.2.**

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1 of 2

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Rosemount Model Number: 951C Serial Number:	
5. Installation Date: 18 Dec 1995	
6. Performance Specification Test Date: 27 Dec 1995	
7. Continuous Monitor Comment (limit to 200 characters): NSPS (40 CFR60 Subpart GG). System installed in accordance with AC Permit, AC53-211670.	

Continuous Monitoring System Continuous Monitor 2 of 2

1. Parameter Code: EM	2. Pollutant(s): O2
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Servomex Model Number: 1400 B Serial Number:	
5. Installation Date: 18 Dec 1995	
6. Performance Specification Test Date: 27 Dec 1995	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [x] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[x] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[x] C	[ ] E	[ ] Unknown
	SO_2	[x] C	[ ] E	[ ] Unknown
	NO_2	[x] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	PSD review was performed as part of FDEP Air Construction Permit AC53-211670, PSD-FL-187, Feb. 21, 1994.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: MB-E01-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: MB-E01-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: MB-E01-L3	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[X] Attached, Document ID: MB-E01-L4	
	[ ] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[ ] Not Applicable
	[X] Previously Submitted, Date: 16 Feb 1996	
6.	Procedures for Startup and Shutdown	
	[X] Attached, Document ID: MB-E01-L6	[ ] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[ ] Attached, Document ID: _____	[X] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[X] Attached, Document ID: MB-E01-L10 [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [X] Not Applicable

12. Identification of Additional Applicable Requirements

[X] Attached, Document ID: MB-E01-L12 [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[X] Attached, Document ID: MB-FI-E14 [ ] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: MB-E01-L14

[ ] 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: _____

[ ] Not Applicable

ATTACHMENT MB-E01-D

EMISSIONS UNIT REGULATIONS

ATTACHMENT MB-E01-D

Applicable Requirements Listing - Power Plants (mb-e01-d.arl)

EMISSION UNIT: EU1 - Mulberry Cogeneration Facility - Combustion Turbine

FDEP Rules:

Air Pollution Control-General Provisions:
62-204.800(7)(b)37.(State Only) - NSPS Subpart GG
62-204.800(7)(d) (State Only) - NSPS General Provisions
62-204.800(12) (State Only) - Acid Rain Program
62-204.800(13) (State Only) - Allowances
62-204.800(14) (State Only) - Acid Rain Program Monitoring
62-204.800(16) (State Only) - Excess Emissions (may overlap term of permit)

Stationary Sources-General:
62-210.700(1) - Excess Emissions; Startup/shutdown/malfunction
62-210.700(4) - Excess Emissions; poor maintenance
62-210.700(6) - Excess Emissions; notification

Acid Rain:
62-214.300 - All Acid Rain Units (Applicability)
62-214.320 - All Acid Rain Units (Application Shield)
62-214.330 - Compliance Options (if 62-214.430)
62-214.350(2),(3),(6) - All Acid Rain Units (Certification)
62-214.370 - Revisions; corrections; (potentially applicable)
62-214.430 - All Acid Rain Units (Compliance Options)

Stationary Sources-Emission Monitoring (where stack test is required):
62-297.310(1) - All Units (Test Runs-Mass Emission)
62-297.310(2) - All Units (Operating Rate)
62-297.310(3) - All Units (Calculation of Emission)
62-297.310(4)(a) - All Units (Applicable Test Procedures;Sampling time)
62-297.310(4)(d) - All Units (Calibration)
62-297.310(5) - All Units (Determination of Process Variables)
62-297.310(6)(a) - All Units (Permanent Test Facilities-general)
62-297.310(6)(c) - All Units (Sampling Ports)
62-297.310(6)(d) - All Units (Work Platforms)
62-297.310(6)(e) - All Units (Access)
62-297.310(6)(f) - All Units (Electrical Power)
62-297.310(6)(g) - All Units (Equipment Support)
62-297.310(7)(a)3. - Permit Renewal Test Required
62-297.310(7)(a)4.1.;2. - Annual Test
62-297.310(7)(a)9. - FDEP Notification - 15 days

62-297.310(7)(c) - Waiver of Compliance Tests (fuel sampling)
62-297.310(8) - Test Reports

Federal Rules:

NSPS General Requirements:

40 CFR 60.7(b) - Notification/Recordkeeping (startup/shutdown/malfunction)
40 CFR 60.7(f) - Notification/Recordkeeping (maintain records-2 years)
40 CFR 60.8(c) - Performance Tests (representative conditions)
40 CFR 60.8(e) - Performance Tests (Provide stack sampling facilities)
40 CFR 60.8(f) - Test Runs
40 CFR 60.11(a) - Compliance (ref. S. 60.8)
40 CFR 60.11(d) - Compliance (maintain air pollution control equipment)
40 CFR 60.12 - Circumvention

NSPS Subpart GG:

40 CFR 60.332(a)(1) - NOx for Electric Utility Cts
40 CFR 60.333 - SO2 limits (0.8%-sulfur)
40 CFR 60.334 - Monitoring of Operations (WTF ratio/custom plan)
40 CFR 60.335 - Test Methods

Acid Rain-Permits:

40 CFR 72.9(a) - Permit Requirements
40 CFR 72.9(b) - Monitoring Requirements
40 CFR 72.9(c)(1) - SO2 Allowances-hold allowances
40 CFR 72.9(c)(2) - SO2 Allowances-violation
40 CFR 72.9(c)(1)(iiv) - SO2 Allowances- other utility units
40 CFR 72.9(c)(4) - SO2 Allowances-allowances held in ATS
40 CFR 72.9(c)(5) - SO2 Allowances-no deduction for 72.9(c)(1)(i)
40 CFR 72.9(e) - Excess Emission Requirements
40 CFR 72.9(f) - Recordkeeping and Reporting
40 CFR 72.9(g) - Liability
40 CFR 72.20(a) - Designated Representative; required
40 CFR 72.20(b) - Designated Representative; legally binding
40 CFR 72.20(c) - Designated Representative; certification requirements
40 CFR 72.21 - Submissions
40 CFR 72.22 - Alternate Designated Representative
40 CFR 72.23 - Changing representatives; owners
40 CFR 72.30(a) - Requirements to Apply (operate)
40 CFR 72.30(c) - Requirements to Apply (reapply before expiration)
40 CFR 72.30(d) - Requirements to Apply (submittal requirements)
40 CFR 72.32 - Permit Application Shield
40 CFR 72.33(b) - Dispatch System ID;unit/system ID
40 CFR 72.33(c) - Dispatch System ID;ID requirements
40 CFR 72.33(d) - Dispatch System ID;ID change

40 CFR 72.40(a)	- General; compliance plan
40 CFR 72.40(b)	- General; multi-unit compliance options
40 CFR 72.40(c)	- General; conditional approval
40 CFR 72.40(d)	- General; termination of compliance options
40 CFR 72.51	- Permit Shield
40 CFR 72.90	- Annual Compliance Certification

Monitoring Part 75:

40 CFR 75.5	- Prohibitions
40 CFR 75.10(a)(2)	- Primary Measurement; NOx;
40 CFR 75.10(a)(3)(iii)	- Primary Measurement; CO2-O2 Monitor (optional)
40 CFR 75.10(b)	- Primary Measurement; Performance Requirements
40 CFR 75.10(c)	- Primary Measurement; Heat Input; Appendix F
40 CFR 75.10(f)	- Primary Measurement; Minimum Measurement
40 CFR 75.10(g)	- Primary Measurement; Minimum Recording
40 CFR 75.11(d)	- SO2 Monitoring; Gas- and Oil-fired units
40 CFR 75.11(e)	- SO2 Monitoring; Gaseous fuel firing
40 CFR 75.12(b)	- NOx Monitoring; Determination of NOx emission rate; Appendix F
40 CFR 75.13(a)	- CO2 Monitoring; Continuous monitor (optional)
40 CFR 75.13(b)	- CO2 Monitoring; Appendix G (optional)
40 CFR 75.20(a)(5)	- Initial Certification Approval Process; Loss of Certification
40 CFR 75.20(b)	- Recertification Procedures
40 CFR 75.20(c)	- Certification Procedures
40 CFR 75.20(g)	- Exceptions to CEMS; oil/gas/diesel; Addendix D & E
40 CFR 75.21(a)	- QA/QC; CEMS;
40 CFR 75.21(b)	- QA/QC; Opacity;
40 CFR 75.21(c)	- QA/QC; Calibration Gases
40 CFR 75.21(d)	- QA/QC; Notification of RATA
40 CFR 75.21(e)	- QA/QC; Audits
40 CFR 75.21(f)	- QA/QC; CEMS
40 CFR 75.22	- Reference Methods
40 CFR 75.24	- Out-of-Control Periods; CEMS
40 CFR 75.30(a)(3)	- General Missing Data Procedures; NOx
40 CFR 75.32	- Monitoring Data Availability for Missing Data
40 CFR 75.33	- Standard Missing Data Porcedures
40 CFR 75.35	- Missing Data Procedures; CO2
40 CFR 75.36	- Missing Data Procedures for Heat Input
40 CFR 75.53	- Monitoring Plan (revisions)
40 CFR 75.54(a)	- Recordkeeping-general
40 CFR 75.54(b)	- Recordkeeping-operating parameter
40 CFR 75.54(d)	- Recordkeeping-NOx
40 CFR 75.55(c);(e)	- Recordkeeping; Special Situations (gas & oil firing)
40 CFR 75.56	- Certification; QA/QC Provisions

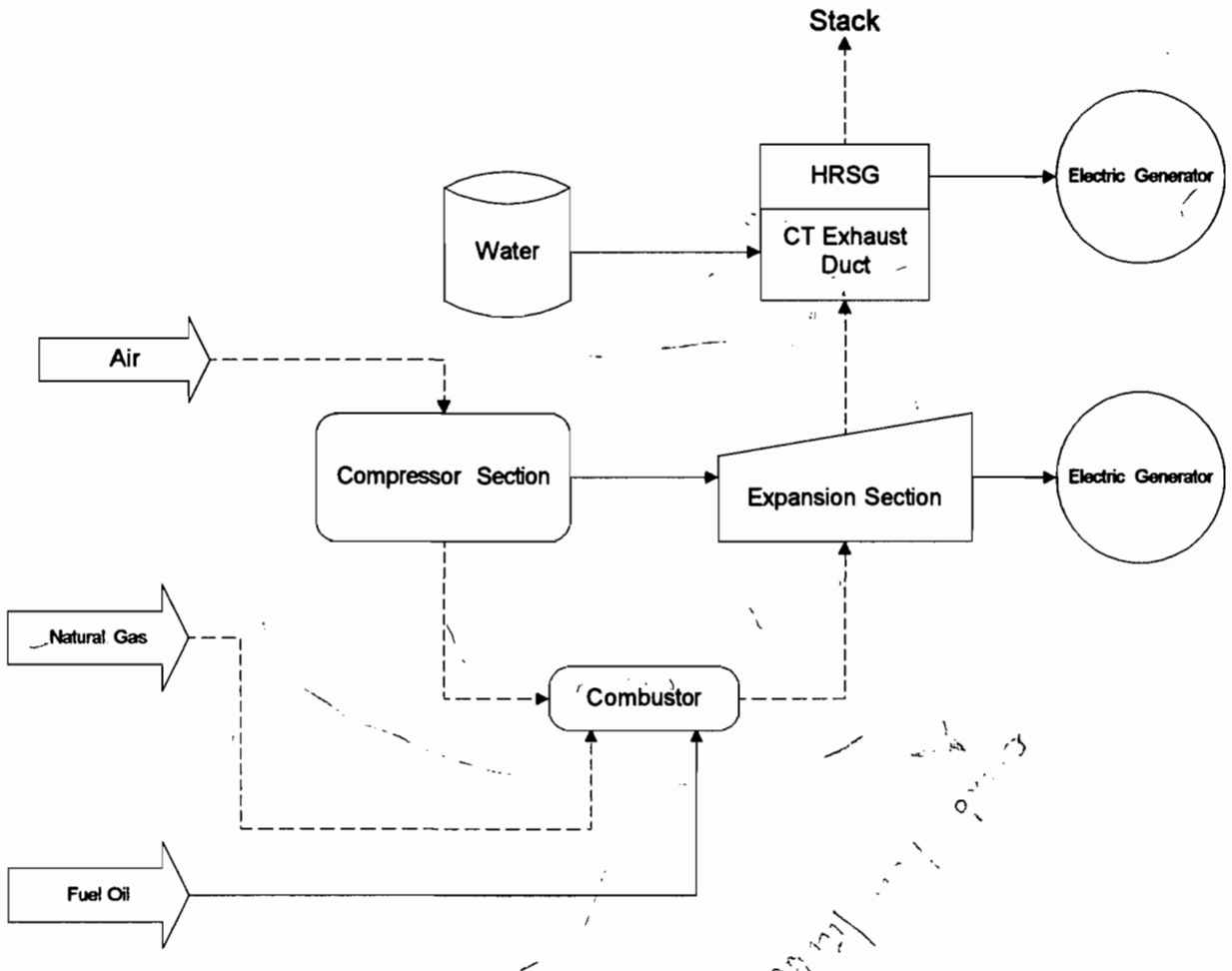
40 CFR 75.60	- Reporting Requirements-General
40 CFR 75.61	- Reporting Requirements-Notification cert/recertification
40 CFR 75.63	- Reporting Requirements-Certification/Recertification
40 CFR 75.64(a)	- Reporting Requirements-Quarterly reports; submission
40 CFR 75.64(b)	- Reporting Requirements-Quarterly reports; DR statement
40 CFR 75.64(c)	- Rep. Req.; Quarterly reports; Compliance Certification
40 CFR 75.64(d)	- Rep. Req.; Quarterly reports; Electronic format
Appendix A-3.	- Performance Specifications
Appendix A-4.	- Data Handling and Acquisition Systems
Appendix A-5.	- Calibration Gases
Appendix A-6.	- Certification Tests and Procedures
Appendix A-7.	- Calculations
Appendix B	- QA/QC Procedures
Appendix C-1.	- Missing Data; SO2/NOx for controlled sources
Appendix C-2.	- Missing Data; Load-Based Procedure; NOx & flow
Appendix F	- Conversion Procedures
Appendix G-2.	- Determination of CO2; combustion sources (optional)
Appendix H	- Traceability Protocol

Excess Emissions: (may overlap with term of permit)

40 CFR Part 77.3	- Offset Plans (future)
40 CFR Part 77.5(b)	- Deductions of Allowances (future)
40 CFR Part 77.6	- Excess Emissions Penalties SO2 and NOx

ATTACHMENT MB-E01-L1

PROCESS FLOW DIAGRAM



Process Flow Legend	Attachment	*Emission Unit:* Combustion Turbine Unit	KBN Engineering and Applied Sciences, Inc.
Steam Flow	Process Flow Diagram	*Process Area:* Overall Plant	
Gas Flow	Mulberry Cogeneration Facility	*Filename:* MBCOGEN.VSD	
Solid / Liquid Flow		*Latest Revision Date:* 5/26/96 11:22 AM	

ATTACHMENT MB-E01-L2

FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT MB-E01-L2

FUEL ANALYSIS

Fuel	Density (lb/gal)[a]	Maximum % Weight Content			Heat Capacity
		Sulfur	Nitrogen	Ash	
Natural Gas	0.045[b]	1[c]	0.42[d]	—	20,750 Btu/lb 950 Btu/ft^3
Distillate Oil	6.9	0.1	0.025-0.030	0.1	18,300 Btu/gal

[a] At 60 degrees F.
[b] Represented as lb/ft^3. Based on heat capacities presented.
[c] Represented as grains/100 ft^3.
[d] Atmospheric nitrogen.

Source: Fuel Analysis Samples, 1995.

ATTACHMENT MB-E01-L3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT MB-E01-L3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT

The combustion turbine uses dry low-NOx combustion to control NOx emissions resulting from the combustion of natural gas. The control of NOx is accomplished by reducing the flame temperatures through the use of staged combustion techniques. At lower loads, the combustors operates in a diffusion mode with lean mixtures of air and gas. At higher loads, the combustors operate in a premix mode where gas and air are mixed prior to combustion. When fuel oil is fired, NOx emissions are controlled by water injection. The control systems for the machine when firing natural gas and oil are internal to digital control systems (DCS).

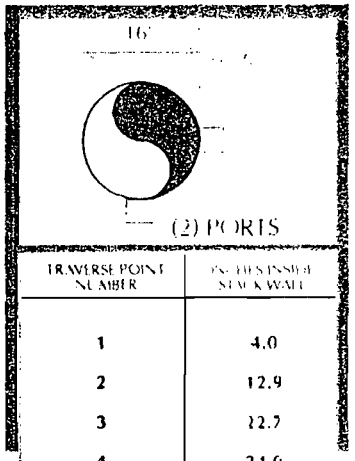
ATTACHMENT MB-E01-L4

DESCRIPTION OF STACK SAMPLING FACILITIES

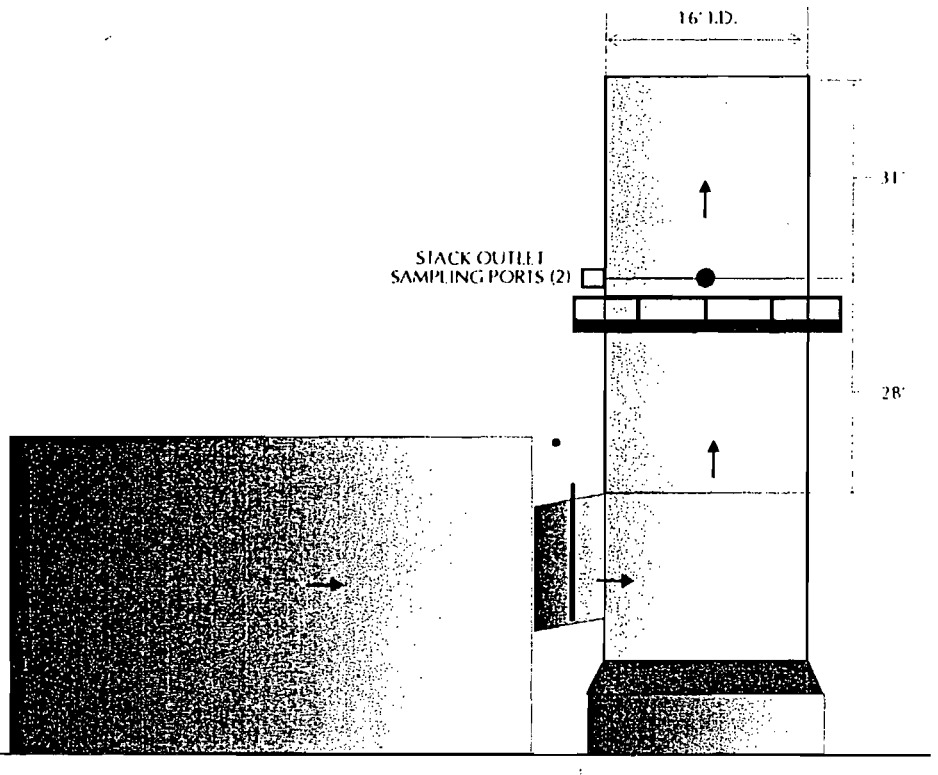
ATTACHMENT MB-E01-L4
DESCRIPTION OF STACK SAMPLING FACILITIES

The Mulberry Cogeneration Facility is required to perform annual stack testing in accordance with standard EPA reference methods. Pursuant to Rule 62-297.310, F.A.C., the annual stack test required is performed with the required stack sampling facilities. A diagram depicting stack sampling facilities is presented as an attachment. As specified by Rule 62-297.310(6) , the permanent test facilities meet the following:

- The sampling ports have a minimum effective diameter of 3 inches.
- The location of the sampling ports are 2 stack diameters downstream and 0.5 stack diameters upstream of flow disturbances.
- At least two sampling ports, 90 degrees apart have been installed on the circular stack.
- The working platform is at least 24 square feet in area, at least three feet wide, extends 180 degrees around the stack, has safety rails, toeboards, and a hinged floor opening attached to it. There are no obstructions 14 inches below the port and 6 inches on either side of the port.
- The platform access ladder is equipped with a safety cage.



TRAVERSE POINT NUMBER	% OF DISTANCE ACROSS STACK WALL
1	4.0
2	12.9
3	22.7
4	34.0
5	48.0
6	68.2
7	123.8
8	144.0
9	158.0
10	169.3
11	179.1
12	188.0



SOURCE: AIR CONSULTING & ENGINEERING, INC. (MULBERRY) 1/5/96

FIGURE 1.
SAMPLING POINT LOCATION
COMBUSTION TURBINE EXHAUST STACK
MULBERRY COGEN
MULBERRY, FLORIDA

ATTACHMENT MB-E01-L6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT MB-E01-L6
PROCEDURES FOR STARTUP/SHUTDOWN

Startup for the combustion turbine 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.

The combustion turbine (CT) utilizes dry-low-NO_x combustors for NO_x control during startup and shutdown. Emissions are continuously monitored by Continuous Emission Monitors (CEMs) for O_2 and NO_x. If excess emissions are encountered during startup or shutdown, the nature and cause of any malfunction is identified, along with the corrective actions taken or preventative measures adopted. Corrective actions may include switching the unit from automatic (remote) to local control. 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 system electrical grid), shutting off the fuel and coasting down to stop.

ATTACHMENT MB-E01-L10

ALTERNATIVE METHODS OF OPERATION

ATTACHMENT MB-E01-L10
ALTERNATIVE METHODS OF OPERATION

The combustion turbine can fire natural gas and distillate fuel oil.

ATTACHMENT MB-E01-L12

IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

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, 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 (Clerk) 2/21/94 (Date)

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

Final Determination

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_X 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_X 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.

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

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

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_x emissions shall be initially controlled by water injection and Low NO_x Burners. Future control technology for NOx will depend on whether the Low NO_x 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.

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.

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

AC 3323857

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)

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
PSD-FL-187
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): 15°C

Pollutant	Source	Fuel	Through 12/31/97 lbs/hr	Through 12/31/97 tons/yr	After 12/31/97 (See notes) lbs/hr	After 12/31/97 (See notes) 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_x limits for turbine after 12/31/97 based on 15 ppmvd (gas firing) achievable by 4/30/97 but not effective until after 12/31/97. Obsolete

(2) CO limits for turbine after 12/31/97 based on 25 ppmvd (gas firing). Should the NO_x emission limit for the turbine based on 15 ppmvd (gas firing) be achieved prior to 12/31/97, the CO emission limit prior to 12/31/97 will be based on 25 ppmvd.

(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). Boiler

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 ft3/hr	MM ft3/yr	hrs/yr	M lb/hr	MM lb/yr	hrs/yr
Turbine	1013.4	8877.4	8760	55.6	379.9	6833(1)
Boiler ~~Duct Burner~~	104.2	450.2(2)	~~8760~~ 4320	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_X: EPA Method 20
SO_2: 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 NOx control systems. The Bureau of Air Regulation shall, if NO_X emission limits are not met, review the

SPECIFIC CONDITIONS:

need for making a revised determination of Best Available Control Technology. If test results show that it is unlikely that NO_x 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. Wetherell

Virginia B. Wetherell, 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_x	- Dry Low NO_x Combustion
CO	- Combustion Design
H_2SO_4/SO_2	- Low Sulfur Fuel Oil (0.1%S)
PM/PM_{10}	- Combustion Design/Clean Fuel
VOC	- Combustion Design

BACT Determination by the Department

NO_x	- Dry Low NO_x Combustion with potential future SCR capability
CO	- Combustion Design
H_2SO_4/SO_2	- Low Sulfur Fuel Oil (0.1%S)
PM/PM_{10}	- 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_x	644.8	99.1	743.9	230.7	80.0	310.7	40.0
SO_2	327.4	16.4	343.8	11.4	1.8	13.2	40.0
PM/PM_{10}	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_2SO_4	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_2) through December 31, 1997 and 15 ppm thereafter. Performance on oil firing is based on NO_x emissions of 42 ppmvd (corrected to 15 percent O_2). SO_2 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_{10})

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/HRSG combinations, the oxidation catalyst can be located directly after the CT or in the HRSG. Catalyst size depends upon the exhaust flow, temperature, and desired efficiency.

Due to the oxidation of sulfur compounds and excessive formation of H_2SO_4 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_x)

The applicant requested that BACT for nitrogen oxides through December 31, 1997, be water injection and Low NO_x 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_2). 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_x emissions. The SCR process combines vaporized ammonia with NO_x 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_x with a new catalyst. As the catalyst ages, the maximum NO_x 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_3 with SO_3 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_x 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_x injection ratio. For natural gas firing, NO_x 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_x 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_x 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_x removed. The maximum annual NO_x emissions using water injection and Low NO_x combustor design will be 744 tons/year through December 31, 1997. Assuming that SCR would reduce the NO_x emissions by 65%, about 484 tons/year of NO_x 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_x 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_x limit of 15 ppmvd (natural gas) using Low-NO_x burner technology. Although the turbine manufacturer does not presently guarantee this limit, they have agreed to lower NO_x 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_2) and Sulfuric Acid Mist (H_2SO_4)

In accordance with "top down" BACT review, only two alternatives exist that would result in stringent SO_2 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, P.E., Chief
Bureau of Air Regulation

February 16, 1994
Date

Approved by:

Virginia B. Wetherell,
Secretary
Dept. of Environmental Protection

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

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Dear Mr. Malenius:

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

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**

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

KBN 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

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.

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

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 8/4/94 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.

Barbara F. Boutwell 8/4/94
(Clerk) (Date)

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

April 28, 1995

Mr. Wade Smith, Director
Business Operations Director
Polk Power GP, Inc.
1125 U.S. 98 South
Lakeland, Florida 33801

Dear Mr. Smith:

Re: Mulberry Cogeneration Facility PSD-FL-187
Permit Number AC 53-211670

The Department has reviewed your request of April 11, 1995 and determined that a renewal of the referenced permit, which expires on December 31, 1995, will be necessary.

According to F.A.C. 62-213(1)(a) "Timely Application", a Title V application must be submitted on behalf of your facility by April 2, 1995 (being revised to November 15, 1995). According to F.A.C. 62-213(1)(b), "Complete Application", an applicant submitting a timely and complete Title V application may continue to operate under the authority and provisions of any existing valid permit or site certification. Since your construction permit will expire during the 60 day Title V permit application completeness review period, your permit will be extended through January 15, 1996.

If for any reason the due date of your Title V application is deferred beyond November 15, 1995, we will extend your construction permit beyond January 15, 1996. If you have any questions about this matter, please call me at (904)488-1344.

Sincerely,

A. A. Linero 4/28

A. A. Linero, P.E.
Administrator
New Source Review

cc: John Brown
Bruce Mitchell
Jerry Kissel
David Zell

ATTACHMENT MB-E01-L14

ACID RAIN PERMIT APPLICATION

Phase II Permit 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	State	ORIS Code
Mulberry Cogeneration Facility	*FL*	54426

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

a	b	c	d	e
Boiler ID#	Compliance Plan: Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Compliance Plan: 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			

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

☐ For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Plant Name (from Step 1)
Orange Cogeneration Facility

Standard Requirements

Permit 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, 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 permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
(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 permitting authority; 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 permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 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 Administrator or permitting authority:
(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;
(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)
Orange Cogeneration Facility

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 a written exemption under 40 CFR 72.7 or 72.8, 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 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, 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 a written exemption under 40 CFR 72.7 or 72.8 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 John Paul Jones	
Signature John Paul Jones	Date 12/27/95

STEP 5 (optional)
Enter the source AIRS and FINDS identification numbers, if known

AIRS
FINDS

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[X] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Secondary Boiler**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [X] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [X] Yes [ ] No	5. Emissions Unit Major Group SIC Code: **49**
6. Emissions Unit Comment (limit to 500 characters): **The Secondary Boiler is for auxilliary steam. Boiler's gases and portion of CT gases can exhaust (EU1) through secondary HRSG stack.** Boiler		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Details

1. Initial Startup Date: **10 Aug 1994**	
2. Long-term Reserve Shutdown Date:	
3. Package Unit: Manufacturer:	Model Number:
4. Generator Nameplate Rating:	MW
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:	**99**	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters): **Maximum heat input based on 0.1042 MMcf/hr and 950 Btu/cf as low heating value (LHV) @ 59 °F when natural gas.**		

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:			
	24 hours/day	**7** days/week	
	52 weeks/yr	**8,760** hours/yr	

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment MB-E02-D

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **Stack (EU 2)**
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Secondary Boiler's gases and portion of CT's gases exhaust through this stack.**
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W
6. Stack Height: **125** feet
7. Exit Diameter: **3** feet
8. Exit Temperature: **220** °F

9. Actual Volumetric Flow Rate:	**28,201** acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone: **17** East (km): **413.6**	North (km): **3080.6**
14. Emission Point Comment (limit to 200 characters):	
Emission Point calculations are based on baseload conditions at 59 °F for natural gas firing.	

using $1 \times 10^6 \text{ ft}^3 \cdot \frac{900 \text{ BTU}}{\text{ft}^3} = 900 \frac{\text{MMBTU}}{\text{SCC unit}}$

From Permit.

$$104.2 \frac{\text{M ft}^3}{\text{hr}} \cdot \frac{\text{M 900 BTU}}{\text{M ft}^3} = 93.780 \frac{\text{MMBTU}}{\text{hr}}$$

to determine #4 (maximum hourly Rate).

$$\frac{93.780 \frac{\text{MMBTU}}{\text{hr}}}{900 \frac{\text{MMBTU}}{\text{SCC unit}}} = .1042 \frac{\text{SCC unit}}{\text{hr}}$$

to determine #5 (maximum Annual Rate)

$$.1042 \frac{\text{SCC unit}}{\text{hr}} \cdot \frac{4320 \text{ hr}}{\text{yr}} = 450$$

Emissions Unit Information Section 2 of 3 **Secondary Boiler**

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

   Internal Combustion Boiler; Industrial Natural Gas; 10-100 MMBtu/hr

2. Source Classification Code (SCC):

   1-02-006-02

3. SCC Units:

   Million Cubic Feet Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
0.104	**450**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

   950

10. Segment Comment (limit to 200 characters):

    Max Hourly Rate = 0.1042 (rounded to 0.104). Max Annual Rate = 450.2 (rounded to 450). Max rate at 20 °F. Annual rate based on max hr rate for 4,320 hr/yr. Max percent sulfur: 1 grain/100 cf.

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (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 Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NOX			EL
CO			EL
SO2			EL

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **NOX**
2. Total Percent Efficiency of Control: **90** %
3. Potential Emissions: **23.4** lb/hour **102.4** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **23.4 lb/hr** Reference: **AC Permit Limit-BACT**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **AC Permit Limit**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Potential emissions based on 59 °F operating conditions at base load; includes portion of CT exhaust with CT firing oil through Dec. 31, 1997. Max. nat. gas firing rate limited to 4320 hr/yr.**

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **23.4 lb/hr**
4. Equivalent Allowable Emissions: **23.4** lb/hour **102.4** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Compliance Test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing oil.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions: **1 Jan 1998**
3. Requested Allowable Emissions and Units: **23.4 lb/hr**
4. Equivalent Allowable Emissions: **23.4** lb/hour **8.4** tons/year
5. Method of Compliance (limit to 60 characters): **Compliance test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing oil.**

Emissions Unit Information Section 2 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **19.9 lb/hr**
4. Equivalent Allowable Emissions: **19.9** lb/hour **87.1** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Compliance Test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing natural gas.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions: **1 Jan 1998**
3. Requested Allowable Emissions and Units: **18.3 lb/hr**
4. Equivalent Allowable Emissions: **18.3** lb/hour **80** tons/year
5. Method of Compliance (limit to 60 characters): **Compliance test, EPA Method 20**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing natural gas.**

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **CO**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **13.4** lb/hour **58.5** tons/year
4. Synthetically Limited? [ ] Yes [**X**] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **13.4 lb/hr** Reference: **AC Permit Limit-BACT**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **AC Permit Limit**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Potential emissions based on 59 °F operating conditions at base load; includes portion of CT exhaust with CT firing oil through Dec. 31, 1997. Max. nat. gas firing rate limited to 4320 hr/yr.**

Emissions Unit Information Section 2 of 3
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**13.4 lb/hr**
4. Equivalent Allowable Emissions:	**13.4** lb/hour **58.5** tons/year
5. Method of Compliance (limit to 60 characters):	**Annual Compliance Test; EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing oil.**

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	**1 Jan 1998**
3. Requested Allowable Emissions and Units:	**13.4 lb/hr**
4. Equivalent Allowable Emissions:	**13.4** lb/hour **4.8** tons/year
5. Method of Compliance (limit to 60 characters):	**EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing oil.**

Emissions Unit Information Section 2 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **11.9 lb/hr**
4. Equivalent Allowable Emissions: **11.9** lb/hour **52** tons/year
5. Method of Compliance (limit to 60 characters): **Annual Compliance Test; EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing natural gas.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions: **1 Jan 1998**
3. Requested Allowable Emissions and Units: **12.6 lb/yr**
4. Equivalent Allowable Emissions: **12.6** lb/hour **55.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing natural gas.**

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**

2. Total Percent Efficiency of Control: % see calculat

3. Potential Emissions: **4.67** lb/hour **20.4** tons/year

4. Synthetically Limited? [**X**] Yes [ ] No

5. Range of Estimated Fugitive/Other Emissions:

[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **0.1 % S content oil**

Reference: **See Comment**

7. Emissions Method Code:

[**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

AC Permit Limit

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Potential emis. based on 59F op. conditions at baseload; includes portion of CT exhaust with CT firing oil through 12/31/1997. Max. nat. gas firing rate limited to 4320 hr/yr. Emis. Factor Ref:AC

Emissions Unit Information Section 2 of 3

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.1 % S content oil**	
4. Equivalent Allowable Emissions:	**4.67** lb/hour **20.4** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel analysis for sulfur content**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing oil.**	

B.

1. Basis for Allowable Emissions Code:	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.1 % S content oil**	
4. Equivalent Allowable Emissions:	**4.09** lb/hour **17.9** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel analysis for sulfur content**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **AC Permit Limit, AC53-211670, Specific Condition No.2,3. CT firing oil.**	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 3

1.	Visible Emissions Subtype: **VE10**
2.	Basis for Allowable Opacity: [ ] Rule [X] Other
3.	Requested Allowable Opacity Normal Conditions: **10.** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: **EPA Method 9**
5.	Visible Emissions Comment (limit to 200 characters): **Air Construction Permit, AC53-233851B, specific condition No.13, for natural gas firing.**

Visible Emissions Limitations: Visible Emissions Limitation 2 of 3

1.	Visible Emissions Subtype: **VE**
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour
4.	Method of Compliance: **Best operating practice**
5.	Visible Emissions Comment (limit to 200 characters): **Excess VE allowed for startup and shutdown pursuant to FDEP Rule 62-210.700(1); 2 hrs/24 hour period.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 3 of 3

1.	Visible Emissions Subtype: VE20
2.	Basis for Allowable Opacity: [ ] Rule [X] Other
3.	Requested Allowable Opacity Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour
4.	Method of Compliance: EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters): VE limit established in Permit AC53-211670 while CT firing fuel oil.

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor 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: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [x] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[X] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[X] C	[ ] E	[ ] Unknown
	SO_2	[X] C	[ ] E	[ ] Unknown
	NO_2	[X] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			
	PSD review was performed as part of FDEP Air Construction Permit AC53-233852A, PSD-FL-187, Feb. 21, 1994.			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1.	Process Flow Diagram	
	[X] Attached, Document ID: MB-E02-L1	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: MB-E01-L2	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[X] Attached, Document ID: MB-E02-L4	
	[ ] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[ ] Not Applicable
	[X] Previously Submitted, Date: 14 Feb 1996	
6.	Procedures for Startup and Shutdown	
	[X] Attached, Document ID: MB-E02-L6	[ ] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[ ] Attached, Document ID: _____	[X] Not Applicable
9.	Other Information Required by Rule or Statute	
	[ ] Attached, Document ID: _____	[X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[ ] Attached, Document ID: _____ [X] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [X] Not Applicable

12. Identification of Additional Applicable Requirements

[X] Attached, Document ID: MB-E01-L12 [ ] Not Applicable

13. Compliance Assurance Monitoring Plan

[X] Attached, Document ID: MB-FI-E14 [ ] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: MB-E01-L14

[ ] 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: _____

[ ] Not Applicable

ATTACHMENT MB-E02-D

EMISSIONS UNIT REGULATIONS

ATTACHMENT MB-E02-D

Applicable Requirements Listing - Power Plants (File: mb-e02-d.arl)

EMISSION UNIT: EU2- Mulberry Cogeneration Facility - Secondary HRSG

FDEP Rules:

Stationary Sources-General:

62-210.700(1)	- Excess Emissions
62-210.700(4)	- Excess Emissions
62-210.700(6)	- Excess Emissions

Stationary Sources-Emission Monitoring (Applicable to Secondary HRSG Stack):

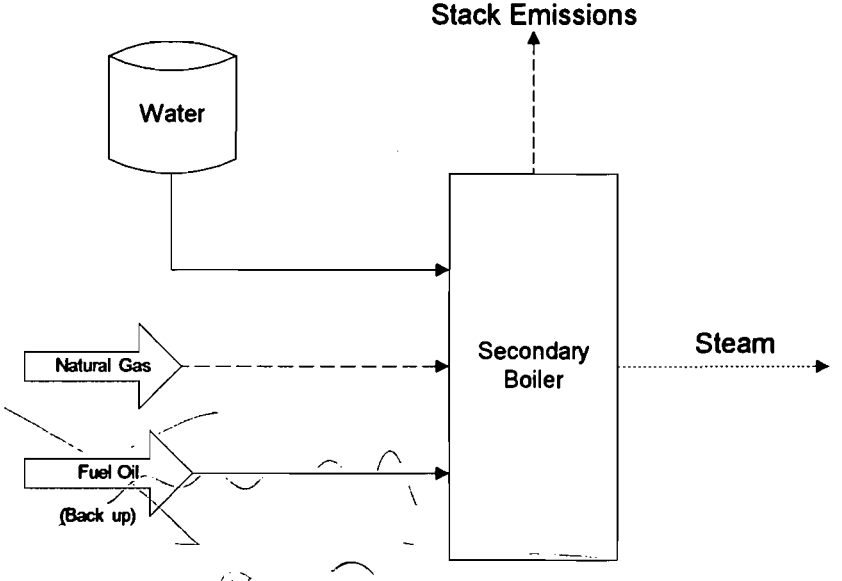
62-297.310(1)	- All Units (Test Runs-Mass Emission)
62-297.310(2)(b)	- All Units (Operating Rate)
62-297.310(3)	- All Units (Calculation of Emission)
62-297.310(4)(a)1.	- All Units (Applicable Test Procedures;Sampling time)
62-297.310(4)(d)	- All Units (Calibration)
62-297.310(5)	- All Units (Determination of Process Variables)
62-297.310(6)(a)	- All Units (Permanent Test Facilities-general)
62-297.310(6)(c)	- All Units (Sampling Ports)
62-297.310(6)(d)	- All Units (Work Platforms)
62-297.310(6)(e)	- All Units (Access)
62-297.310(6)(f)	- All Units (Electrical Power)
62-297.310(6)(g)	- All Units (Equipment Support)
62-297.310(7)(a)3.	- Permit Renewal Test Required
62-297.310(7)(a)4.b.	- Annual Test
62-297.310(7)(a)9.	- FDEP Notification - 15 days
62-297.310(8)	- Test Reports

Note: The NSPS in 40 CFR Part 60 Subpart Dc do not apply to this emissions unit since there are no standards for natural gas firing in this NSPS. The definition in 40 CFR 60.2 for "affected facility" require that a "standard" be applicable. Therefore, Subpart Dc does not apply.

The Acid Rain Program Rules are identified in Attachment MB-E01-D and are applicable to the combustion turbine and duct burners as a single unit.

ATTACHMENT MB-E02-L1

PROCESS FLOW DIAGRAM



Process Flow Legend	Attachment MB-E02-L1 Process Flow Diagram Mulberry Cogeneration Facility	*Emission Unit:* Secondary Boiler *Process Area:* Overall Plant *Filename:* MBCOGEN.VSD *Latest Revision Date:* 5/26/96 11:17 AM	KBN Engineering and Applied Sciences, Inc.
Steam Flow Gas Flow Solid / Liquid Flow			

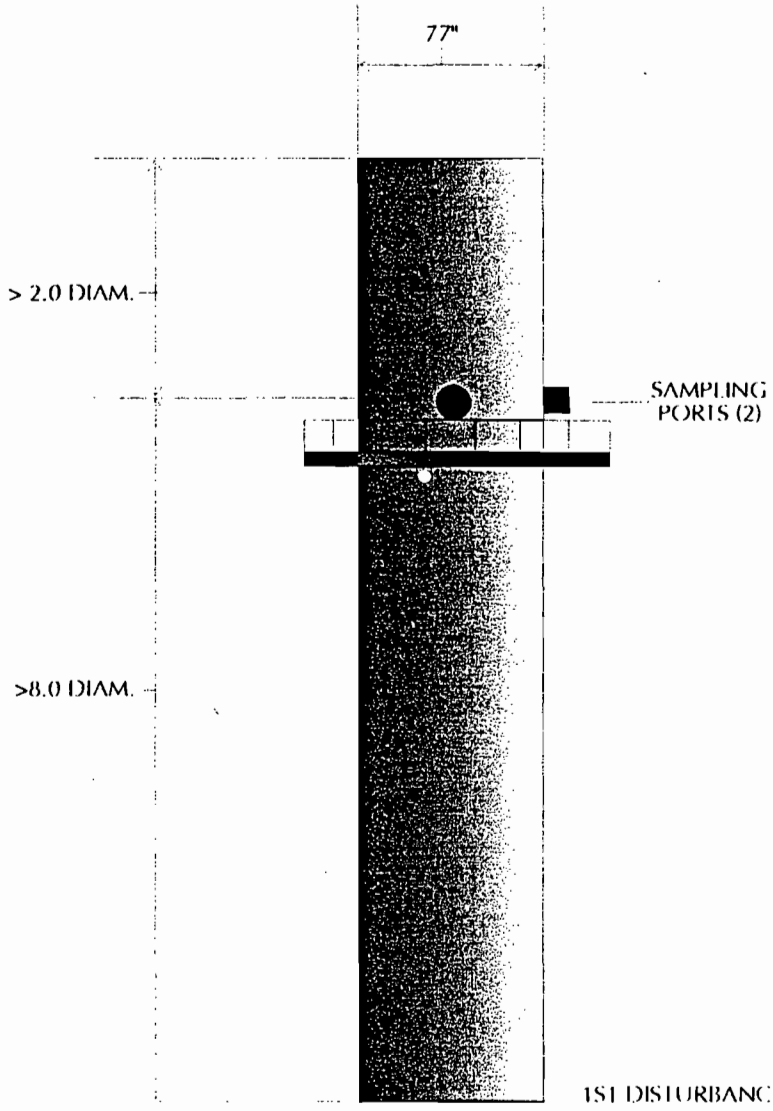
ATTACHMENT MB-E02-L4

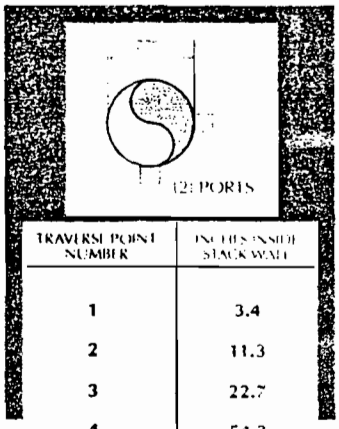
DESCRIPTION OF STACK SAMPLING FACILITIES

ATTACHMENT MB-E02-L4
DESCRIPTION OF STACK SAMPLING FACILITIES

The Mulberry Cogeneration Facility is required to perform annual stack testing in accordance with standard EPA reference methods. Pursuant to Rule 62-297.310, F.A.C., the annual stack test required is performed with the required stack sampling facilities. A diagram depicting stack sampling facilities is presented as an attachment. As specified by Rule 62-297.310(6) , the permanent test facilities meet the following:

- The sampling ports have a minimum effective diameter of 3 inches.
- The location of the sampling ports are 2 stack diameters downstream and 0.5 stack diameters upstream of flow disturbances.
- At least two sampling ports, 90 degrees apart have been installed on the circular stack.
- The working platform is at least 24 square feet in area, at least three feet wide, extends 180 degrees around the stack, has safety rails, toeboards, and a hinged floor opening attached to it. There are no obstructions 14 inches below the port and 6 inches on either side of the port.
- The platform access ladder is equipped with a safety cage.





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

NOTE: NOT TO SCALE.

SOURCE: AIR CONSULTING & ENGINEERING, INC. (MULBAB) 3/1/96

FIGURE 2.
SAMPLING POINT LOCATION
AUXILLIARY BOILER EXHAUST STACK
MULBERRY COGEN
MULBERRY, FLORIDA

ATTACHMENT MB-E02-L6

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT MB-E02-L6

PROCEDURES FOR STARTUP AND SHUTDOWN MINIMIZING EXCESS EMISSIONS

Startup of the fossil-fuel boiler begins when natural gas is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- proper excess air adjustments
- recognizing and removal of faulty burners
- removal of the unit from operation
- pressure rate changes

Knowledge of the appropriate countermeasures to take under an excess emissions condition is a part of the routine operator training for the engineers who operate the boiler.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[ ] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[X] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Facility-wide Fugitive/De Minimis Emissions**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [X] Unknown		
3. Emissions Unit Status Code: **A**	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: **49**
6. Emissions Unit Comment (limit to 500 characters): **See Attachment MB-E03-B6**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):

Petroleum Product Storage - Fugitive Emissions (Storage)

2. Source Classification Code (SCC):

4-03-888-01

3. SCC Units:

Thousand Gallons Stored

4. Maximum Hourly Rate:	5. Maximum Annual Rate:

6. Estimated Annual Activity Factor:

707

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:

9. Million Btu per SCC Unit:

10. Segment Comment (limit to 200 characters):

Segment refers to combined storage capacity of various petroleum product storage tanks contained in emission unit at time permit appl. submittal. See Attachment MB-E03-B6 for list.

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Petroleum Product Storage - Fugitive Emissions (Throughput)**	
2. Source Classification Code (SCC): **4-03-999-99**	
3. SCC Units: **Thousand Gallons Throughput**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: **53,406**	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **Segment refers to combined throughput of various petroleum product storage tanks contained in emission unit at time permit appl. submittal. See Attachment MB-E03-B6 for list.**	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[X] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.

[ ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	[ ] C	[ ] E	[X] Unknown
	SO_2	[ ] C	[ ] E	[X] Unknown
	NO_2	[ ] C	[ ] E	[X] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			

ATTACHMENT MB-E03-B6

EMISSION UNIT COMMENT

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
Plant Service Building	
Offices/ Administrative	
	Office Equipment Operation
	Restrooms and Kitchen (800 cfm)
	Heating and AC Equipment
Plant Maint. Shop Area	
	Routine Repairs
	Building Ventilation Sys.(5 units) (1 -14,200 cfm, 4 - 5,300 cfm)
	Indoor Fugitives (grinder, drill presses, etc.)
	Sand Blasting/ Grit Blasting
	Parts Wash System
	Portable Arc Welder
	Shop Vacuum
	Forklift (gasoline)
	Flammable Storage Locker (chemicals, solvents, and oils)
	Golf cart (gasoline)
	Storage Area
	High Pressure Cleaning System
	Fire Protection (CO_2 - 20 lb) (Dry Chem - 20 lb)
Control Room	
	Restroom (180 cfm)

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
	Heating and AC Equipment
	Fire Protection (2 - CO2 - 20 lb)
Water Analysis Laboratory	
	Hood and vent (1,200 cfm)
	Fire Protection (CO2 - 20 lb) (Dry Chem - 10 lb)
Water Treatment Area	
Water Treatment Building	Fire Protection (2-Dry Chem - 20 lb)
	Building Ventilation Sys.(3,850 cfm)
	Sample Recovery Tank (1,500 gal)
	R O Water Treatment System
	Chemical Day Tanks RO Antiscalant- 100 gal Sodium Sulfite - 100 gal R O Chemical Cleaning - 350 gal Anionic Flocculant (15 gal)
	Plumbing Vents (6)
	Force Draft Degassifier (1,000 gal)
	Caustic Tank (5,109 gal) (50% NAOH)
	Service Water Pressure Tank (1,369 gal)
	Service Water Pumps (2)
	HRSG Boiler Chemical Injection Oxygen Scavenger Tank (200 gal) Amine Tank (200 gal)

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
Zero Discharge System	Phosphate Tank (200 gal)
	Brine Blowdown Surge Tank (8,400 gal)
	Coagulant Storage Tanks - 2 (3,700 gal) Ferrous Sulfate
	Product Water Level Pot (100 gal)
	Crystallizer System
	Filler Press Hydraulic Reservoir
	Product Water Tank (550 gal)
	Process Condensate (150 gal)
	Sludge Thickening Tank (6,500 gal)
	Various Pumps
Water Treatment Outside Area	
	Well Water Pumps (2)
	Service Water Tank (300,000 gal)
	Demin Water Tank (150,000 gal)
	Demineralizer Acid Tank (8,400 gal)
	Condensate Storage Tank (75,000 gal)
	Chlorine Storage (3 - 1 ton cylinders)
	Multicone Aerator (H2S Removal Sys)
	Lime Storage Hopper (2,800 cu ft)
	Soda Ash Storage Hopper (2,800 cu ft)

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
	Slurry Sump (4,241 gal)
	Pretreat SCU Surge Tank (7,000 gal)
	Pretreat clearwell (14,360 gal)
	Waste Water Recovery Basin (14,780 gal)
	Neutralization Basin (39,000 gal)
	Waste Water Storage Tank (450,000 gal)
	Waste Water Coagulant Stg Tank (3,700 gal)
	Waste Water Coagulant Aid Tank (100 gal)
	Waste Water Pumps (2)
	Crystallizer Antifoam Sol Tank (100 gal)
	Treated Waste Water Clearwell (8,975 gal)
	Various Pumps
Cooling Towers	
	Main Cooling Tower
	Inlet Air Cooling Tower
	Circulating Water Pumps (4)
	Evaporative Condenser Acid Tank (600 gal)
	Cooling Tower Chemicals
	Dispersant Tank (400 gal)
	Corrosion Inhibitor Tank (400 gal)
	Cooling Tower Acid Tanks (2 - 600 gal)
Circulating Water Treatment Building	
	Fire Protection (CO_2 - 20 lb)

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
	Building Ventilation Sys.(5,400 cfm)
	Chlorine Room Ventilation (3,600 cfm)
Fire Water Pumphouse	
	Building Ventilating System (1 Unit) (4,400 cfm)
Control Cabinet Building	
	Fire Protection (CO2 & Dry Chem 20 lb)
	Heating and AC System (2 wall units)
	Gas Chromatograph
Electrical Room	Electrical Switching Equipment
	Electrical Room Fire Protection (2 - CO2 -20 lb & 1 - Dry chem. - 20 lb)
	Heating and AC System (2 wall units)
CT/HRSG & Steam Turbine Area	
CTs	Lube Oil Vapor Extractor (Mist Elimination System)
	Turbine/Generator Fire System (CO2 - 4 ton tank)
	CO2 Storage Tank (4 tons)
	Turbine/Generator Cooling Air
	CT Auxiliary Room Cooling (A/C unit)
	Purge Air Cooler Vent
	Turbine/Generator lube Oil Vents

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
	Turbine Bearing Oil Vents
	Steam Set Air Ejector
HRSG	Nitrogen Cap & Lines (6 vents)
	STG Drain Flash Tank
	STG Room Ventilation System (A/C unit)
	Various Pumps (sumps, condensate, etc.)
	Miscellaneous Drains Tank
	Steam Line Safety Valve
	Deaerator Vents (2)
	Safety Valve
	Boiler Feed Water Pumps
	Various Steam Vents & Pressure Relief Valves (23)
	Steam Condenser Vent
ST	Lube Oil Drain Tank (2.000 gal)
	Lube Oil Tank Storage Tank (2,000 gal)
	Hydraulic System (90 gal)
Fuel Oil System	Fuel Oil Tank (700,000 gal)
	Fuel Oil Transfer Pump
	Fuel Oil Unloading Pump

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
	False Start Drain Tank (2,500 gal)
	Fuel Oil Vents
Auxillary Cooling Water System	
	Auxiliary Cooling Water Exp Tank (1,657 ga
	Aux Cooling Water Pumps (2)
	Cooling Water Surge Tank (100 gal)
Natural Gas System	
	Natural Gas Release Valves
	Emergency Line Release Valve
	Natural Gas Safety Valve
	Natural Gas Chromatography Sample Line
	Natural Gas Scrubber Drain (500 gal)
	Stack (one/unit)
CEM Building	
	CEM Equipment & Calibration Tanks (CO, NOx, O2, & N2)
	Heating and AC System (2 wall units)
Foam Tank Building	
	Fuel Oil Foam Storage Tank (200 gal)
CT Water Wash Skid	
	Building Ventilation Sys.(1,800 cfm)
	Water Wash Detergent (60 gal)
	Detergent Storage (2 - 55 gal drums)

Attachment MB-E03-B6
General Emissions Unit Information for Unregulated Emissions

Table 1. Mulberry Cogeneration Facility, Unregulated Emissions Unit

Area	Emission Unit Description
	Water Wash Water Tank (1,500 gal)
CT Inlet Air Cooler	
	Ammonia Chiller (49,500 lb)
General Plant Site	
	Ethylene Glycol Storage (55 gal drum)
	Brazing, Soldering or Welding
	Plant Grounds Maintenance
	Routine Painting and / or Maintenance
	Non-Halogenated Solvent
	Halogenated Solvent Cleaners/Degreasers
	Portable Maintenance Equipment Diesel Engine
	Steam Line to customer
Substation	
	Transformers and Associated Equipment (2 transformers)
Parking Lot	Vehicles

Attachment MB-EU3-B6
General Emissions Unit Information

Table 2. Mulberry Cogeneration Facility, Petroleum Product Storage and Throughput Operations

Tank Description	Storage Product	Storage Tank Size (gallons)	Potential Annual Throughput (gallons)
Lube oil drain tank	Lube oil	2,000	4,000
Lube oil storage	Lube oil	2,000	4,000
Fuel oil tank	Distillate fuel oil	700,000	53,393,352 (1)
False start drain	Fuel oil	2,500	5,000
	TOTAL	706,500	53,406,352