Original

AUBURNDALE POWER PARTNERS

LIMITED PARTNERSHIP

October 25, 1995

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

RECEIVED
OCT 26 1995
BUREAU OF AIR REGULATION

Re: Auburndale Cogeneration Facility
Title V Permit Application

Dear Mr. Fancy:

Auburndale Power Partners (APP), Limited Partnership, a wholly-owned subsidiary of Mission Energy Company, operates a nominal 156 megawatt (MW) cogeneration facility located near Auburndale, Polk County, Florida. The Auburndale Cogeneration Facility is a combined cycle system comprised of one Westinghouse 501D5 combustion turbine (CT), one steam turbine (ST), one unfired heat recovery steam generator (HRSG), and ancillary support equipment. The facility utilizes pipeline natural gas as its primary fuel source with low sulfur (0.05 weight percent sulfur) distillate fuel oil serving as a backup fuel.

A construction permit application for the Auburndale Cogeneration Facility was Submitted to the Florida Department of Environmental Protection (FDEP) in February 1992. FDEP subsequently issued Construction Permit AC53-208321 on December 14, 1992 with an expiration date of October 30, 1995. APP understands that the expiration date of Construction Permit AC53-208321 has been extended by law until November 1, 1996.

The Auburndale Cogeneration Facility qualifies as Title V Source pursuant to Chapter 62-231.200(19), Florida Administrative Code (F.A.C.), because potential emissions of a regulated APP's Title V permit application for the Auburndale Cogeneration Facility are enclosed to satisfy the requirements of Chapter 62-213.400, F.A.C.

Please contact me at (941) 965-1561 if there are any questions regarding this application.

Sincerely,

Gene R. Bergfield

Gene Bergfield
Plant Technical Supervisor

1501 Derby Avenue Auburndale, FL 33823 Phone: (941) 965-1561 Fax: (941) 965-1924

TITLE V OPERATION PERMIT APPLICATION

AUBURNDALE COGENERATION FACILITY

Prepared for:

AUBURNDALE POWER PARTNERS, LTD.
Auburndale, Florida

Prepared by:

ECT
Environmental Consulting & Technology, Inc.
3701 Northwest 98th Street
Gainesville, Florida

ECT No. 94677-0430-1100

October 1995

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INTRODUCTION

Auburndale Power Partners (APP), Limited Partnership, a wholly-owned subsidiary of Mission Energy Company, operates a nominal 156 megawatt (MW) cogeneration facility located near Auburndale, Polk County, Florida. The Auburndale Cogeneration Facility is a combined cycle system comprised of one Westinghouse 501D5 combustion turbine (CT), one steam turbine (ST), one unfired heat recovery steam generator (HRSG), and ancillary support equipment. The facility utilizes pipeline natural gas as its primary fuel source with low sulfur (0.05 weight percent sulfur) distillate fuel oil serving as a backup fuel.

A construction permit application for the Auburndale Cogeneration Facility was submitted to the Florida Department of Environmental Protection (FDEP) in February 1992. FDEP subsequently issued Construction Permit AC53-208321 on December 14, 1992. This permit was amended on June 17, 1994, to include an alternate sulfur analysis procedure for liquid fuels and to delete Specific Conditions No. 11 and 12 regarding beryllium and mercury testing.

Construction Permit AC53-208321 expires October 30, 1995. APP submitted a request to FDEP dated August 11, 1995, requesting an extension of the expiration date of Construction Permit AC53-208321 to March 1, 1996. The Department's response, dated August 30, 1995, indicated that a proposed rule, if adopted, would extend the construction permit expiration date by law until November 1, 1996. The FDEP letter also indicated that APP's construction permit remains valid until the agency acts upon the expiration date extension request.

Commencement of construction and initial startup of the Auburndale Cogeneration Facility occurred on February 1, 1993, and March 25, 1994, respectively. Commercial operation of the facility began in July 1994.

The Auburndale Cogeneration Facility qualifies as a Title V Source pursuant to Chapter 62-213.200(19), Florida Administrative Code (F.A.C.), because potential emissions of a regulated air pollutant exceed 100 tons per year. This application package constitutes APP's Title V permit application for the Auburndale Cogeneration Facility and is submitted to satisfy the requirements of Chapter 62-213.400, F.A.C.

Owner/Authorized Representative or Responsible Official

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

   Name : Don Fields
   Title : Executive Director

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

   Organization/Firm : Auburndale Power Partners, Ltd.
   Street Address : 1501 Derby Avenue
   City : Auburndale
   State : FL Zip Code : 33823-____

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

   Telephone : (813)965-1561 Fax : (813)965-1924

4. Owner/Authorized Representative or Responsible Official Statement :

   I, the undersigned, am the owner or authorized representative of the facility (non-Title V source) addressed in this Application for Air Permit or the responsible official, as defined in Chapter 62-213, 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. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this application 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. If the purpose of this application is to obtain an air operation permit or operation permit revision for one or more emissions units which have undergone construction or modification, I 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. 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.*

   Signature

   10/25/95
   Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name : Thomas W. Davis

   Registration Number : 36777

2. Professional Engineer Mailing Address :

   Organization/Firm : Environmental Consult. & Tech., Inc
   Street Address : 3701 NW 98th Street
   City : Gainesville
   State : FL Zip Code : 32606-____

3. Professional Engineer Telephone Numbers :

   Telephone : (904)332-0444 Fax : (904)332-6722

4. Professional Engineer Statement :

   I, the undersigned, hereby certified, except as particularly noted herein, that :*
   (1) To the best of my knowledge, there is reasonable assurance (a) that the air pollutant emissions unit(s) and the air pollutant 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 in the Florida Statues and rules of the Department of Environmental Protection; or (b) for any application for a TitleV source air operation permit, that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in the application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application;
   (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; and
   (3) For any application for an air construction permit for one or more proposed new or modified emissions units, 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.

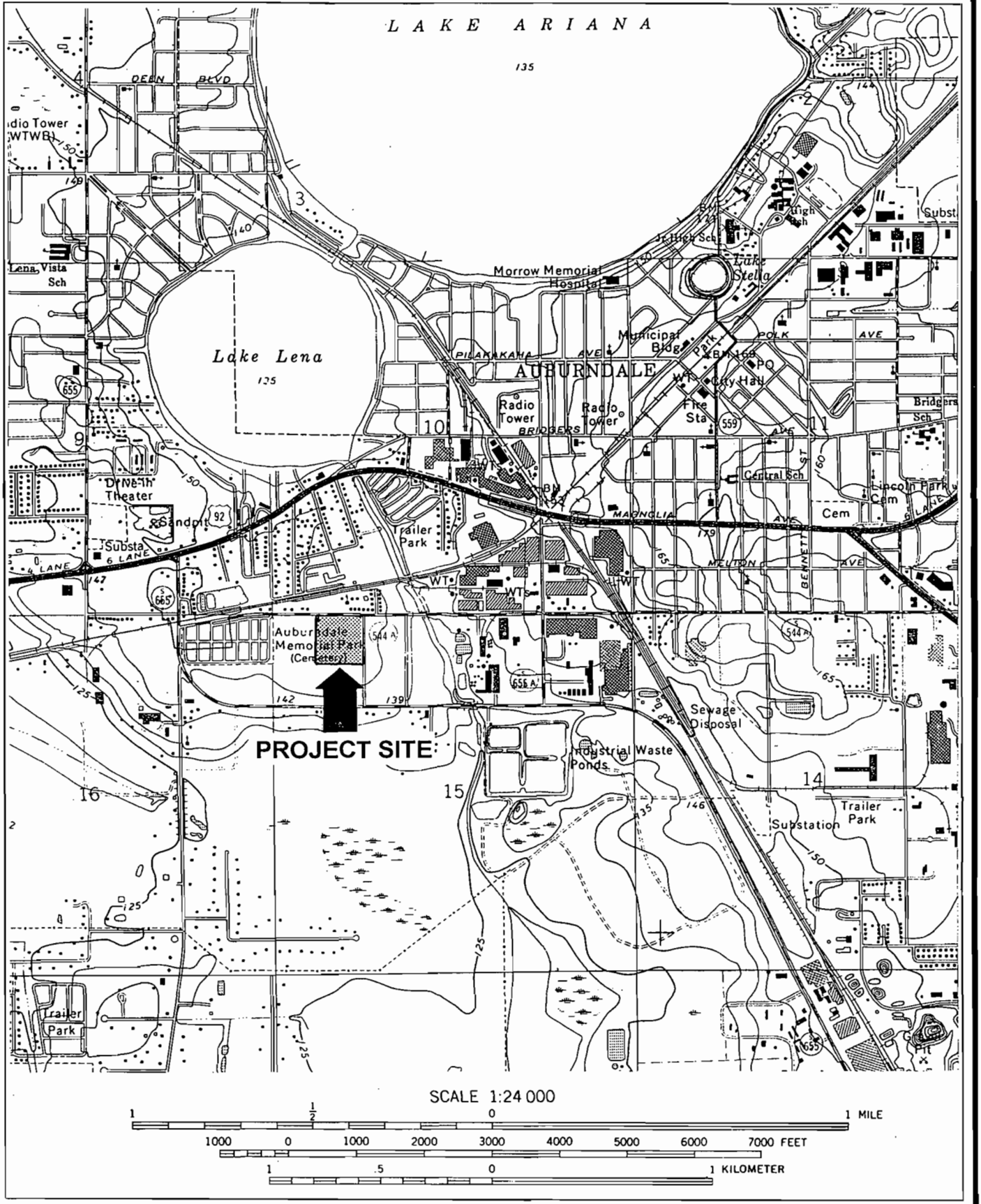
   Signature Date 10/24/95

   * Attach any exception to certification statement.

II.D.1

AREA MAP

94677-0430/td



DOCUMENT II.D.1.

AREA MAP

Source: USGS Quad, Auburndale, FL, 1975.

ECT

Environmental Consulting & Technology, Inc.

II.D.13 & 14

COMPLIANCE REPORT, PLAN, AND STATEMENT

COMPLIANCE REPORT, PLAN, AND STATEMENT

1. Compliance Report and Plan

Appendix A to this application identifies the requirements that are applicable to the emission units that comprise this Title V source. Each emissions unit is in compliance, and will continue to comply, with the respective applicable requirements.

The emission units that comprise this Title V source will comply with future-effective applicable requirements on a timely basis.

2. Proposed Schedule for the Submission of Periodic Compliance Statements Throughout the Permit Term

Periodic compliance statements are proposed to be submitted on an annual basis consistent with FDEP Rule 62-213.440(3)(b), F.A.C.

3. Compliance Certification

I, the undersigned, am the responsible official as defined in Chapter 62-213, 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.

Signature

10/25/95

Date

III.I.2

FUEL ANALYSES

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

REPORT OF LABORATORY ANALYSIS

PACE Incorporated Project Number: 250523.515
Project Description: Natural Gas
Sample Location: Natural Gas

Field Sampling Summary

An air sample was taken from the natural gas pipeline on May 19, 1995 by Willie Jackson. There were no problems encountered during the sampling event. Sampling went as planned, including the transfer of the samples to the laboratory on Friday, May 19, 1995.

Analytical Summary

The samples were analyzed in accordance with acceptable ASTM methods where specified. The results for both Natural Gas Physical Properties and Chemical Constituents of the sample are noted below.

Physical Properties	ASTM Method	Units	Natural Gas PACE # 250523.515
Molar Mass Ratio	GPA 2172-86		0.59312
Relative Density	GPA 2172-86		0.59421
Compressibility Factor	GPA 2172-86		0.99775
Gross Heating Value (Dry)	GPA 2172-86	BTU/CF (Ideal)	1041.9
Gross Heating Value (Dry)	GPA 2172-86	BTU/CF (Real)	1044.2
Gross Heating Value (Wet)	GPA 2172-86	BTU/CF (Ideal)	1024.6
Pressure Base	GPA 2172-86	psia	14.696
Chemical Constituents	**ASTM Method**	**Units**	**Natural Gas PACE # 250523.515**
Oxygen	GPA 2261-90	Mol %	<0.01
Nitrogen	GPA 2261-90	Mol %	0.27
Carbon Dioxide	GPA 2261-90	Mol %	0.98
Methane	GPA 2261-90	Mol %	94.89
Ethane	GPA 2261-90	Mol %	2.62
Propane	GPA 2261-90	Mol %	0.74
Isobutane	GPA 2261-90	Mol %	0.19
n-Butane	GPA 2261-90	Mol %	0.15

ENVIRONMENTAL LABORATORIES

REPORT OF LABORATORY ANALYSIS

Chemical Constituents	ASTM Method	Units	Natural Gas PACE # 250523.515
Isopentane	GPA 2261-90	Mol %	0.05
Hexanes Plus	GPA 2261-90	Mol %	0.09
Total	GPA 2261-90	Mol %	100.0
Carbon Content		Wt. %	N/A
Hydrogen Content		Wt. %	N/A
Oxygen Content		Wt. %	N/A

REPORT OF LABORATORY ANALYSIS

PACE Incorporated Project Number: 250510.514
Project Description: Fuel Oil
Sample Location: South Tank and North Tank

Field Sampling Summary

Two samples of fuel oil were taken on May 19, 1995 by PACE Field Technician,Willie Jackson. Fuel oil samples were taken from the North Tank and South Tank of the above ground storage tanks located on the facility premises. There were no problems encountered during the sampling event. Sampling went as planned, including the transfer of the samples to the laboratory on Friday, May 19, 1995.

Analytical Summary

The samples were analyzed in accordance with acceptable ASTM methods where specified. The results for both Fuel Oil Physical Properties and Chemical Constituents of the North and South Tank are noted below.

Physical Properties Sample 250510.514#	ASTM Method	Units	North Tank PACE #62205.8	South Tank PACE #62206.6
Ash Content	D-482	Wt %@775c		
BTU, Gross, Bomb	D-240	BTU/lb	19433	19285
Carbon, Hydrogen				
Carbon Content		Wt. %	87.00	86.79
Hydrogen Content		Wt. %	12.81	12.89
SPG by Densitometer	D-4052	@60/60 Deg F	0.8639	0.8642
Kinematic Viscosity	D-4052	@40 Deg C	3.13	2.95
Nitrogen, Total by Chemilium	D-4629	ppm wt.		
Sulfur, Total by X-Ray Fluoresc	D-1744	ppm wt.	0.040	0.040

III.I.12

ENHANCED MONITORING PLAN
(RESERVED)

III.I.14

ACID RAIN PART - PHASE II

Department of
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

AIR PERMIT APPLICATION FORM
ACID RAIN PART (PHASE II)

For more information, see instructions, and refer to 40 CFR 72.30 and 72.31

This submission is: [X] New [ ] Revised Copy [ ] of [ ]

STEP 1

Identify the source by plant name, State, and ORIS code from the National Allowance Data Base (NADB).

Plant Name	State	ORIS* Code
AUBURNDALE COGENERATION FACILITY	**FL**	**54658**

*Office of Regulatory Information Systems

STEP 2

Enter boiler ID# from NADB for each unit, and indicate whether a repowering plan is applicable by entering "yes" or "no" at column b. For **new units**, enter requested information in columns c and d.

a Boiler ID#	b Repowering Plan?	c **New Units** Commence Operation Date	d **New Units** Monitor Certification Deadline
1	**NO**	**7/94**	**1/1/95 - SO_2**
			1/1/96 - NO_x

STEP 3

If you responded "yes" in column b of Step 2 for any mark the box [ ] For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering unit, Technology Petition form has been submitted, is included, or will be submitted by June 1, 1996.

DEP Form No. 62-210.900(1)(a) - Form
Effective: 1-2-95

Plant Name (from Step 1)
AUBURNDALE COGENERATION FACILITY

STEP 4

Read the **Standard Requirements** and **Certification**, enter the name of the designated representative, and sign and date.

Standard Requirements

Permit Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:

(a) Submit a complete Acid Rain part, including a compliance plan, under this part in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and Rule 62-214.320, F.A.C.

(b) Submit in a timely manner any supplemental information that the State determines is necessary in order to review an Acid Rain part application and issue or deny a Title V permit;

(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:

(a) Operate the unit in compliance with a complete Acid Rain part application or a superseding Title V permit issued by the Department; and

(b) Have a Title V permit with 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 Parts 75 and 76.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Parts 75 and 76 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 Parts 75 and 76 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 Acid Rain source and each Acid Rain unit at the source shall:

(a) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount, after deductions by EPA under 40 CFR 73.34(c), not less than the total annual emissions of sulfur dioxide from the unit for the previous calendar year; and

(b) 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.

Sulfur Dioxide Requirements (Continued).

(3) An Acid Rain unit shall be subject to the requirements under Rule 62-214.330(1), F.A.C., and 40 CFR 72.9(c)(1) as follows:

(a) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2) that is not a substitution or compensating unit; or

(b) 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) that is not a substitution or compensating unit.

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts by EPA in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under 40 CFR 72.9(c)(1)i prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by EPA 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 Title V permit application that includes the Acid Rain Part, the Title V permit that includes the Acid Rain Part, or the written exemption under Rule 62-214.340, F.A.C., and 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 EPA under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements.

The owners and operators of the Acid Rain source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides, pursuant to 40 CFR Part 76.

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 operator of an Acid Rain unit that has excess emissions in any calendar year shall:

(a) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and

(b) 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 Acid Rain 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 by extended for cause in writing by EPA, at any time prior to the end of the 5 years.

Recordkeeping and Reporting Requirements (Continued).

(a) 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 40 CFR 72.24; 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 a new certificate of representation changing the designated representative;

(b) All emissions monitoring information, in accordance with 40 CFR Part 75;

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and

(d) Copies of all documents used to complete the Acid Rain Part application, and any other submission under the Acid Rain Part, or to demonstrate compliance with 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, a Title V permit with an Acid Rain Part, or a written exemption under Rule 62-214.340, F.A.C., or 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 42 U.S.C. 7413(c).

(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 42 U.S.C. 7413(c) and 18 U.S.C. section 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, including Chapter 62-214, F.A.C.

(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 the Acid Rain units of the source.

(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit, including a provision applicable to the designated representative of an Acid Rain unit, shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44, Phase II repowering extension plans, and 40 CFR Part 76, 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.

Plant Name (from Step 1)
AUBURNDALE COGENERATION FACILITY

Liability (Continued).

(7) Each violation of a provision of 40 CFR Parts 72, 73, 75, 76, 77, 78, or Chapter 62-214, F.A.C., 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, a Title V permit with 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 provisions 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 of 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 Donald W. Fields	
Signature Donald W. Fields	Date 10/25/95

APPENDIX B

POTENTIAL EMISSION RATE SUMMARY

Auburndale Power Partners
Potential Emission Summaries

A. Criteria Pollutants

Pollutant	Potential Emissions (tpy)			
	CT–001[1]	STR–001	STR–002	Totals
SO_2	170.19	N/A	N/A	170.19
NO_x	593.32	N/A	N/A	593.32
PM/PM_{10}	51.25	N/A	N/A	51.25
CO	196.34	N/A	N/A	196.34
VOC	27.14	0.24	0.24	27.62
Pb	0.01	N/A	N/A	0.01

[1] Based on 8,360 hrs/yr natural gas and 400 hrs/yr No. 2 fuel oil.

B. Hazardous Air Pollutants (HAPs) Under Section 112(b)

Pollutant	Potential Emissions (tpy)
Antimony[1]	0.0055
Arsenic[1]	0.0012
Benzene[2]	0.0045
Beryllium[1]	0.0001
Cadmium[1]	0.0011
Chromium[1]	0.0118
Cobalt[1]	0.0023
Formaldehyde[3]	0.1866
Hydrogen Chloride[1]	1.9030
Hydrogen Fluoride[1]	0.0080
Manganese[1]	0.0851
Mercury[2]	0.0002
Nickel[1]	0.3005
Phosphorus[1]	0.0751
POM[1]	0.0056
Selenium[1]	0.0013
Toluene[3]	0.0549
2,3,7,8 TCDD[1]	2.08E–09
Totals	2.6468

[1] Based on 400 hrs/yr No. 2 fuel oil.
[2] Based on 8,360 hrs/yr natural gas and 400 hrs/yr No. 2 fuel oil.
[3] Based on 8,760 hrs/yr natural gas.

C. Designated Air Pollutants Under Section 111

Pollutant	Potential Emissions (tpy)
Dioxin/Furan[1]	8.27E−09
Fluorides[2]	0.0080
Hydrogen Chloride[2]	1.9030
Sulfuric Acid Mist[1]	34.7860
Totals	**36.6971**

[1] Based on 8,360 hrs/yr natural gas and 400 hrs/yr No. 2 fuel oil.
[2] Based on 400 hrs/yr No. 2 fuel oil.

D. Toxic and Flammable Air Pollutants Under Section 112(r)

Pollutant	Potential Emissions (tpy)
Hydrogen Chloride[1]	1.9030
Hydrogen Fluoride[1]	0.0080
Methane[2]	2.0248
Sulfur Trioxide[2]	28.5340
Totals	**32.4699**

[1] Based on 400 hrs/yr No. 2 fuel oil.
[2] Based on 8,360 hrs/yr natural gas and 400 hrs/yr No. 2 fuel oil.

APPENDIX C

EMISSION INVENTORY WORKSHEETS

COMBUSTION SOURCES

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners – Auburndale Cogeneration Facility

CT–001

EMISSION SOURCE TYPE

COMBUSTION TURBINE (NATURAL GAS) – CRITERIA POLLUTANTS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Combustion Turbine #1
Emission Control Method(s)/ID No.(s):	Steam Injection for NO_x Control
Emission Point ID:	CT–001

EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Factor (lb/MMBtu)

Emission (ton/yr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Factor (lb/MMBtu) x Operating Period (hrs/yr) x (1 ton/ 2,000 lb)

Source: ECT, 1995.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day | 7 Days/Wk | 8,760 Hrs/Yr

Sulfur Content: 0.032 weight percent

Criteria Pollutant	Maximum Hourly Heat Input[1] (MMBtu/hr)	Pollutant Emission Factor (lb/MMBtu)	Potential Emission Rates (lb/hr)	Potential Emission Rates (tpy)
SO_2	1,253.0	0.94 * S	37.7	165.1
NO_x	1,253.0	0.1045	130.9	573.5
PM/PM_{10}[2]	1,253.0	0.0084	10.5	46.0
CO	1,253.0	0.0347	43.5	190.4
VOC	1,253.0	0.0048	6.0	26.3

SOURCES OF INPUT DATA

Parameter	Data Source
Operating Hours	APP, 1994.
Heat Input	Westinghouse, 1992.
Emission Factor (SO_2)	Table 3.1.1, AP–42, January 1995.
Emission Factors (all except SO_2)	Westinghouse, 1992.

NOTES AND OBSERVATIONS

[1] Lower heating value (LHV) at 31° F.

[2] Excludes sulfuric acid mist.

DATA CONTROL

Data Collected by:	T.Davis	Date:	11/17/94
Evaluated by:	T.Davis	Date:	11/17/94
Data Entered by:	T.Davis	Date:	4/27/95
Reviewed by:	J. Uleling	Date:	10/23/95

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners – Auburndale Cogeneration Facility

CT–001

EMISSION SOURCE TYPE

COMBUSTION TURBINE (NATURAL GAS) – NONCRITERIA POLLUTANTS

Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Combustion Turbine #1
Emission Control Method(s)/ID No.(s):	Steam Injection for NO_x Control
Emission Point ID:	CT–001

EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu)

Emission (ton/yr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu) x Operating Period (hrs/yr) * (1 ton/ 2,000 lb)

Source: ECT, 1995.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day 7 Days/Wk 8,760 Hrs/Yr

Sulfur Content: 0.032 weight percent

Noncriteria Pollutant	Maximum Hourly Heat Input[1] (MMBtu/hr)	Pollutant Emission Factor[2] (lb/MMBtu)	Potential Emission Rates (lb/hr)	(tpy)
Benzene	1,253.0	8.0E–07	1.0E–03	4.4E–03
Dioxin & Furan	1,253.0	1.2E–12	1.5E–09	6.6E–09
Formaldehyde	1,253.0	3.4E–05	4.3E–02	1.9E–01
Methane	1,253.0	2.9E–04	3.6E–01	1.6E+00
Mercury	1,253.0	7.8E–10	9.8E–07	4.3E–06
Sulfur Trioxide	1,253.0	0.1575 * S	6.3E+00	2.8E+01
Sulfuric Acid Mist[3]	1,253.0	0.1929 * S	7.7E+00	3.4E+01
Toluene	1,253.0	1.0E–05	1.3E–02	5.5E–02

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1994.
Heat Input	Westinghouse, 1992.
Emission Factor, Benzene	Utility Boilers, Natural Gas – FCG, 1995.
Emission Factor, Dioxin & Furan	Utility Boilers, Natural Gas – FCG, 1995.
Emission Factor, Formaldehyde	Utility Boilers, Natural Gas – FCG, 1995.
Emission Factor, Methane	Utility Boilers, Natural Gas, Table 1.4–3, Section 1.4, AP–42, January 1995.
Emission Factor, Mercury	Utility Boilers, Natural Gas – FCG, 1995.
Emission Factor, Sulfur Trioxide	Westinghouse, 1992.
Emission Factor, Sulfuric Acid Mist	Assume complete conversion of SO_3 to H_2SO_4. ECT, 1995.
Emission Factor, Toluene	Utility Boilers, Natural Gas – FCG, 1995.

NOTES AND OBSERVATIONS

[1] Lower heating value (LHV) at 31° F.

[2] Emission factors based on natural gas heat content of 1,000 Btu/scf.

[3] H_2SO_4 (lb/10^6) = (0.1575 * S) * (98 lb H_2SO_4 / 80 lb SO_3); where S equals sulfur content.

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:	J. Uleling	Date:	10/23/95

EMISSION INVENTORY WORKSHEET

Auburndale Power Partnrers – Auburndale Cogeneration Facility | **CT–001**

EMISSION SOURCE TYPE

COMBUSTION TURBINE (DISTILLATE FUEL OIL) – CRITERIA POLLUTANTS | **Location: Doc II.D.2**

FACILITY AND SOURCE DESCRIPTION

Emission Source Description: Combustion Turbine #1

Emission Control Method(s)/ID No.(s): Steam Injection for NO_x Control

Emission Point ID: CT–001

EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu)

Emission (ton/yr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu) x Operating Period (hrs/yr) * (1ton/ 2,000 lb)

Source: ECT, 1995.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day | 7 Days/Wk | 400 Hrs/Yr

Fuel Sulfur: 0.05 Weight %

Criteria Pollutant	Maximum Hourly Heat Input[1] (MMBtu/hr)	Pollutant Emission Factor (lb/MMBtu)	Potential Emission Rates (lb/hr)	(tpy)
SO_2	1,252.0	1.01 * S	63.2	12.6
NO_x	1,252.0	0.1837	230.0	46.0
PM/PM_{10}[2]	1,252.0	0.0294	36.8	7.4
CO	1,252.0	0.0583	73.0	14.6
VOC	1,252.0	0.0080	10.0	2.0
Pb	1,252.0	5.8E–05	7.26E–02	1.45E–02

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1994.
Fuel Sulfur (S)	APP, 1994.
Heat Input	Westinghouse, 1992.
Emission Factor (SO_2)	Table 3.1–2., AP–42, January 1995.
Emission Factors (all except SO_2 and Pb)	Westinghouse, 1992.
Emission Factor (Pb)	Table 3.1–7., AP–42, January 1995.

NOTES AND OBSERVATIONS

[1] Lower heating value (LHV) at 29° F.

[2] Excludes sulfuric acid mist.

DATA CONTROL

Data Collected by:	T.Davis	Date:	11/17/94
Evaluated by:	T.Davis	Date:	11/17/94
Data Entered by:	T.Davis	Date:	4/27/95
Reviewed by:	D. Illeling	Date:	10/23/95

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners – Auburndale Cogeneration Facility

EMISSION SOURCE TYPE

COMBUSTION TURBINE (DISTILLATE FUEL OIL) – NONCRITERIA POLLUTANTS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Combustion Turbine #1
Emission Control Method(s)/ID No.(s):	Steam Injection for NO_x Control
Emission Point ID:	CT–001

EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu)

Emission (ton/yr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu) x Operating Period (hrs/yr) * (1ton/ 2,000 lb)

Source: ECT, 1995.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day | 7 Days/Wk | 400 Hrs/Yr

Noncriteria Pollutant	Maximum Hourly Heat Input[1] (MMBtu/hr)	Pollutant Emission Factor (lb/MMBtu)	Potential Emission Rates (lb/hr)	Potential Emission Rates (tpy)
Antimony	1,252.0	2.2E–05	2.8E–02	5.5E–03
Arsenic	1,252.0	4.9E–06	6.1E–03	1.2E–03
Benzene	1,252.0	1.1E–06	1.4E–03	2.8E–04
Benzo(a)pyrene	1,252.0	3.8E–09	4.8E–06	9.5E–07
Beryllium	1,252.0	3.3E–07	4.1E–04	8.3E–05
Cadmium	1,252.0	4.2E–06	5.3E–03	1.1E–03
Chromium	1,252.0	4.7E–05	5.9E–02	1.2E–02

SOURCES OF INPUT DATA

Parameter	Data Source
Operating Hours	APP, 1995.
Heat Input	Westinghouse, 1992.
Emission Factor, Sb	Table 3.1–7., AP–42, January 1995.
Emission Factor, As	Table 3.1–7., AP–42, January 1995.
Emission Factor, Benzene	Utility Boilers, No. 2 Oil – FCG, 1995.
Emission Factor, Benzen(a)pyrene	Utility Boilers, No. 2 Oil – FCG, 1995.
Emission Factor, Be	Table 3.1–7., AP–42, January 1995.
Emission Factor, Cd	Table 3.1–7., AP–42, January 1995.
Emission Factor, Cr	Table 3.1–7., AP–42, January 1995.

NOTES AND OBSERVATIONS

[1] Lower heating value (LHV) at 29° F.

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:	J. Melung	Date:	10/23/95

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners – Auburndale Cogeneration Facility

CT–001
Page 2 of 5

EMISSION SOURCE TYPE

COMBUSTION TURBINE (DISTILLATE FUEL OIL) – NONCRITERIA POLLUTANTS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Combustion Turbine #1
Emission Control Method(s)/ID No.(s):	Steam Injection for NO_x Control
Emission Point ID:	CT–001

EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu)

Emission (ton/yr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu) x Operating Period (hrs/yr) * (1ton/ 2,000 lb)

Source: ECT, 1995.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day | 7 Days/Wk | 400 Hrs/Yr

Noncriteria Pollutant	Maximum Hourly Heat Input[1] (MMBtu/hr)	Pollutant Emission Factor (lb/MMBtu)	Potential Emission Rates (lb/hr)	(tpy)
Cobalt	1,252.0	9.1E–06	1.1E–02	2.3E–03
Dioxin & Furan	1,252.0	8.3E–12	1.0E–08	2.1E–09
Formaldehyde	1,252.0	2.0E–05	2.5E–02	5.0E–03
Hydrogen Chloride	1,252.0	7.6E–03	9.5E+00	1.9E+00
Fluorides	1,252.0	3.2E–05	4.0E–02	8.0E–03
Manganese	1,252.0	3.4E–04	4.3E–01	8.5E–02
Methane	1,252.0	2.1E–03	2.6E+00	5.3E–01

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1995.
Heat Input	Westinghouse, 1992.
Emission Factor, Co	Table 3.1–7., AP–42, January 1995.
Emission Factor, Dioxin & Furan	Utility Boilers, No. 2 Oil – FCG, 1995.
Emission Factor, Formaldehyde	Utility Boilers, No. 2 Oil – FCG, 1995.
Emission Factor, HCl	Utility Boilers, No. 2 Oil – FCG, 1995.
Emission Factor, FL	EPA, 1989.
Emission Factor, Mn	Table 3.1–7., AP–42, January 1995.
Emission Factor, Methane	Table 1.3–4., AP–42, January 1995.

NOTES AND OBSERVATIONS

[1] Lower heating value (LHV) at 29° F.

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:		Date:	10/23/95

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners – Auburndale Cogeneration Facility

CT–001

EMISSION SOURCE TYPE

COMBUSTION TURBINE (DISTILLATE FUEL OIL) – NONCRITERIA POLLUTANTS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Combustion Turbine #1
Emission Control Method(s)/ID No.(s):	Steam Injection for NO_x Control
Emission Point ID:	CT–001

EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu)

Emission (ton/yr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu) x Operating Period (hrs/yr) * (1ton/ 2,000 lb)

Source: ECT, 1995.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day | 7 Days/Wk | 400 Hrs/Yr

Noncriteria Pollutant	Maximum Hourly Heat Input[1] (MMBtu/hr)	Pollutant Emission Factor (lb/MMBtu)	Potential Emission Rates (lb/hr)	(tpy)
Mercury	1,252.0	9.1E–07	1.1E–03	2.3E–04
Nickel	1,252.0	1.2E–03	1.5E+00	3.0E–01
Phosphorus	1,252.0	3.0E–04	3.8E–01	7.5E–02
POM	1,252.0	2.3E–05	2.8E–02	5.6E–03
Selenium	1,252.0	5.3E–06	6.6E–03	1.3E–03
Sulfur Trioxide	1,252.0	0.1731 * S	1.1E+01	2.2E+00
Sulfuric Acid Mist[2]	1,252.0	0.2120 * S	1.3E+01	2.7E+00
Toluene	1,252.0	9.9E–06	1.2E–02	2.5E–03

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1995.
Heat Input	Westinghouse, 1992.
Emission Factor, Hg	Table 3.1.7, Section 3.1, AP–42, January 1995.
Emission Factor, Ni	Table 3.1.7, Section 3.1, AP–42, January 1995.
Emission Factor, P	Table 3.1.7, Section 3.1, AP–42, January 1995.
Emission Factor, POM	Utility Boilers, No. 2 Oil – FCG, 1995.
Emission Factor, Se	Table 3.1.7, Section 3.1, AP–42, January 1995.
Emission Factor, SO_3	Westinghouse, 1992.
Emission Factor, H_2SO_4	Assume complete conversion of SO_3 to H_2SO_4. ECT, 1995.
Emission Factor, Toluene	Utility Boilers, No. 2 Oil – FCG, 1995.

NOTES AND OBSERVATIONS

[1] Lower heating value (LHV) at 29° F.

[2] H_2SO_4 (lb/MMBtu) = (0.1731 * S) * (98 lb H_2SO_4 / 80 lb SO_3).

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:	J. Illeling	Date:	10/23/95

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners – Auburndale Cogeneration Facility

EMISSION SOURCE TYPE

COMBUSTION TURBINE (DISTILLATE FUEL OIL) – NONCRITERIA POLLUTANTS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Combustion Turbine #1
Emission Control Method(s)/ID No.(s):	Steam Injection for NO_x Control
Emission Point ID:	CT–001

EMISSION ESTIMATION EQUATIONS

Emission (lb/hr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu)

Emission (ton/yr) = Maximum Hourly Heat Input (MMBtu/hr) x Pollutant Emission Rate (lb/MMBtu) x Operating Period (hrs/yr) * (1ton/ 2,000 lb)

Source: ECT, 1994.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day | 7 Days/Wk | 400 Hrs/Yr

Noncriteria Pollutant	Maximum Hourly Heat Input[1] (MMBtu/hr)	Pollutant Emission Factor[3] (lb/MMBtu)	Potential Emission Rates (lb/hr)	(tpy)
2,3,7,8 TCDD	1,252.0	8.3E–12	1.0E–08	2.1E–09

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1995.
Heat Input	Westinghouse, 1992.
Emission Factor, 2,3,7,8 TCDD	Utility Boilers, No. 2 Oil – FCG, 1995.

NOTES AND OBSERVATIONS

[1] Lower heating value (LHV) at 29° F.

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:	J. Illeling	Date:	10/23/95

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners – Auburndale Cogeneration Facility

EMISSION SOURCE TYPE

COMBUSTION TURBINE (DISTILLATE FUEL OIL) – NONCRITERIA POLLUTANTS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	Combustion Turbine #1
Emission Control Method(s)/ID No.(s):	Steam Injection for NO_x Control
Emission Point ID:	CT–001

EMISSION ESTIMATION EQUATIONS

Emission (curies/hr) = PM Emission Rate (lb/hr) x (453.59 g/lb) x Pollutant Emission Rate (picocuries/g PM) x 10^{-12}

Emission (curies/yr) = PM Emission Rate (lb/yr) x (453.59 g/lb) x Pollutant Emission Rate (picocuries/g PM) x 10^{-12}

Source: ECT, 1994.

INPUT DATA AND EMISSIONS CALCULATIONS

Operating Hours: 24 Hrs/Day 7 Days/Wk 400 Hrs/Yr

Noncriteria Pollutant	PM Emission Rates (lb/hr)	PM Emission Rates (ton/yr)	Pollutant Emission Factor (picocuries/g PM)	Potential Emission Rates (curies/hr)	Potential Emission Rates (curies/yr)
Radionuclides	36.8	7.4	1.90	3.1744E–08	1.2697E–05

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1995.
Emission Factor, Radionuclides	Utility Boilers, No. 2 Oil – FCG, 1995.

NOTES AND OBSERVATIONS

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:	J. Melin	Date:	10/23/95

STORAGE TANK SOURCES

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners

STR–001

PROJECT INFORMATION

ORGANIC LIQUID STORAGE LOSSES – VERTICAL FIXED ROOF TANKS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	No. 2 Distillate Fuel Oil Storage Tank #1, Fixed Cone Roof
Emission Control Method(s)/ID No.(s):	None
Emission Point ID:	STR–001

EMISSION ESTIMATION EQUATIONS

EPA TANKS2 Program

Source: CHIEF BBS, EPA 1993.

INPUT DATA

Operating Hours: 24 Hrs/Day | 7 Days/Wk | 8,760 Hrs/Yr

D Shell Dia. (ft)	H_S Shell Height (ft)	H_L – Max. Liquid Height (ft)	H_L – Avg. Liquid Height (ft)	R_S Shell Radius (ft)	S_R Cone Roof Slope (ft/ft)	V_w Tank Working Volume (gal)	Q Maximum Throughput (gal/yr)
45.0	52.3	42.0	21.0	22.5	0.0625	500,000	3,820,556

Turnovers Per Year	Shell Color	Shell Condition	Roof Color	Roof Condition	Roof Type	P_{BP} Breather Pressure (psig)	P_{BV} Breather Vacuum (psig)
7.64	Gray/Light	Good	Gray/Light	Good	Cone	0.02	0.02

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1995.
Shell Diameter, D	APP, 1995.
Shell Height, H_S	APP, 1995.
Liquid Height, H_l, Max. & Avg.	APP, 1995.
Shell Radius, R_S	Calculated: Shell Diameter / 2.
Cone Roof Slope, S_R	Section 12.3, Page 12–25, AP–42, September 1992.
Tank Working Volume, V_w	Calculated: PI * (R_S) ^ 2 * H_l –Max. * 7.481 gal / ft^3.
Maximum Throughput, Q	APP, 1995.
Turnovers Per Year	Calculated: Q / V_w.
Shell/Roof Color & Condition	Onsite Inspection, ECT, 1994.
Roof Type	Onsite Inspection, ECT, 1994.
Breather Pressure Setting, P_{BP}	Onsite Inspection, ECT, 1994.
Breather Vacuum Setting, P_{BV}	Onsite Inspection, ECT, 1994.

VOC EMISSION CALCULATIONS – FROM TANKS2 PROGRAM

Standing Losses (lb/yr)	Withdrawal Losses (lb/yr)	Total Losses (lb/yr)	Total Losses (ton/yr)
330.25	144.67	474.92	0.24

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:	J. Uelling	Date:	10/23/95

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	STR-001
City:	Auburndale
State:	FL
Company:	Auburndale Power Partners
Type of Tank:	Vertical Fixed Roof

Tank Dimensions

Shell Height (ft):	52
Diameter (ft):	45
Liquid Height (ft):	42
Avg. Liquid Height (ft):	21
Volume (gallons):	500000
Turnovers:	8
Net Throughput (gal/yr):	3820556

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition:	Good
Roof Color/Shade:	Gray/Light
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft):	1.41
Radius (ft) (Dome Roof):	0.00
Slope (ft/ft) (Cone Roof):	0.0625

Breather Vent Settings

Vacuum Setting (psig):	-0.02
Pressure Setting (psig):	0.02

Meteorological Data Used in Emission Calculations: Orlando, Florida

ixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
istillate fuel oil no. 2	All	80.00	70.64	89.36	74.64	0.0122	0.0091	0.0162	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	330.25	144.67	474.92
Total:	330.25	144.67	474.92

EMISSION INVENTORY WORKSHEET

Auburndale Power Partners

STR–002

PROJECT INFORMATION

ORGANIC LIQUID STORAGE LOSSES – VERTICAL FIXED ROOF TANKS | Location: Doc II.D.2

FACILITY AND SOURCE DESCRIPTION

Emission Source Description:	No. 2 Distillate Fuel Oil Storage Tank #2, Fixed Cone Roof
Emission Control Method(s)/ID No.(s):	None
Emission Point ID:	STR–002

EMISSION ESTIMATION EQUATIONS

EPA TANKS2 Program

Source: CHIEF BBS, EPA 1993.

INPUT DATA

Operating Hours: 24 Hrs/Day 7 Days/Wk 8,760 Hrs/Yr

D Shell Dia. (ft)	H_S Shell Height (ft)	H_L – Max. Liquid Height (ft)	H_L – Avg. Liquid Height (ft)	R_S Shell Radius (ft)	S_R Cone Roof Slope (ft/ft)	V_w Tank Working Volume (gal)	Q Maximum Throughput (gal/yr)
45.0	52.3	42.0	21.0	22.5	0.0625	500,000	3,820,556

Turnovers Per Year	Shell Color	Shell Condition	Roof Color	Roof Condition	Roof Type	P_{BP} Breather Pressure (psig)	P_{BV} Breather Vacuum (psig)
7.64	Gray/Light	Good	Gray/Light	Good	Cone	0.02	0.02

SOURCES OF INPUT DATA

Variable	Data Source
Operating Hours	APP, 1995.
Shell Diameter, D	APP, 1995.
Shell Height, H_S	APP, 1995.
Liquid Height, H_l, Max. & Avg.	APP, 1995.
Shell Radius, R_S	Calculated: Shell Diameter / 2.
Cone Roof Slope, S_R	Section 12.3, Page 12–25, AP–42, September 1992.
Tank Working Volume, V_w	Calculated: PI * (R_S) ^ 2 * H_l –Max. * 7.481 gal / ft^3.
Maximum Throughput, Q	APP, 1995.
Turnovers Per Year	Calculated: Q / V_w.
Shell/Roof Color & Condition	Onsite Inspection, ECT, 1994.
Roof Type	Onsite Inspection, ECT, 1994.
Breather Pressure Setting, P_{BP}	Onsite Inspection, ECT, 1994.
Breather Vacuum Setting, P_{BV}	Onsite Inspection, ECT, 1994.

VOC EMISSION CALCULATIONS – FROM TANKS2 PROGRAM

Standing Losses (lb/yr)	Withdrawal Losses (lb/yr)	Total Losses (lb/yr)	Total Losses (ton/yr)
330.25	144.67	474.92	0.24

DATA CONTROL

Data Collected by:	T. Davis	Date:	11/17/94
Evaluated by:	T. Davis	Date:	11/17/94
Data Entered by:	T. Davis	Date:	4/27/95
Reviewed by:	[signature]	Date:	10/23/95

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	STR-002
City:	Auburndale
State:	FL
Company:	Auburndale Power Partners
Type of Tank:	Vertical Fixed Roof

Tank Dimensions

Shell Height (ft):	52
Diameter (ft):	45
Liquid Height (ft):	42
Avg. Liquid Height (ft):	21
Volume (gallons):	500000
Turnovers:	8
Net Throughput (gal/yr):	3820556

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition:	Good
Roof Color/Shade:	Gray/Light
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft):	1.41
Radius (ft) (Dome Roof):	0.00
Slope (ft/ft) (Cone Roof):	0.0625

Breather Vent Settings

Vacuum Setting (psig):	-0.02
Pressure Setting (psig):	0.02

Meteorological Data Used in Emission Calculations: Orlando, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	80.00	70.64	89.36	74.64	0.0122	0.0091	0.0162	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	330.25	144.67	474.92
Total:	330.25	144.67	474.92

APPENDIX D

CURRENT PERMIT

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Auburndale Power Partners
12500 Fair Lakes Circle, Ste. 420
Fairfax, Virginia 22033

Permit Number: AC 53-208321
PSD-FL-185
Expiration Date: Oct. 30, 1995
County: Polk
Latitude/Longitude: 28°03'15"N
81°48'20"W
Project: 156 MW Combined Cycle System

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 made a part hereof and specifically described as follows:

Auburndale Power Partners proposes to operate a combined cycle system consisting of one combustion turbine, one steam turbine, and one heat recovery steam generator and ancillary equipment. This total system is rated at 156 MW output nominal capacity (52 MW output from the steam turbine generator). This facility is located on County Road 544-A (Derby Avenue) in Auburndale, Polk County, Florida. The UTM coordinates are Zone 17, 420.8 km East and 3103 km North.

The sources 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. Auburndale Power Partners (APP) application received February 10, 1992.
2. Department's letter dated March 10, 1992.
3. APP's letter received April 28, 1992.
4. APP's letter received May 19, 1992.
5. APP's letter received June 18, 1992.

PERMITTEE:
Auburndale Power Partners

Permit Number: AC 53-208321
PSD-FL-185
Expiration Date: October 30, 1995

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

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

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

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

GENERAL CONDITIONS:

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)

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;

GENERAL CONDITIONS:

- 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:

Emission Limits

1. The maximum allowable emissions from this source shall not exceed the emission rates listed in Table 1.

2. Visible emissions shall not exceed 20% opacity. At full load, visible emissions shall not exceed 10% opacity.

Operating Rates

3. This source is allowed to operate continuously (8760 hours per year).

4. This source is allowed to use natural gas as the primary fuel and low sulfur No. 2 distillate oil as the secondary fuel (with the conditions specified in Specific Condition No. 5 below).

5. The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the values as follows:

a) Maximum low sulfur No. 2 fuel oil consumption for the facility shall be allowed for the equivalent of 18 months (13,140 hours) of the initial facility operation, or until the Florida Gas Transmission (FGT) Phase III expansion is complete and natural gas is available; whichever occurs first. The unit start-up is expected by 10/94 and natural gas would be used by 4/96.

b) Once the FGT Phase III expansion is complete and natural gas is available to the facility, low sulfur No. 2 fuel oil firing shall be limited to 400 hours annually.

SPECIFIC CONDITIONS:

c) Maximum sulfur content in No. 2 fuel oil shall not exceed 0.05 percent by weight.

d) The maximum heat input of 1,170 MMBtu/hr LHV at ISO conditions (base load) for distillate fuel oil No. 2.

e) The maximum heat input of 1,214 MMBtu/hr LHV at ISO conditions (base load) for natural gas.

6. Any change in the method of operation, equipment or operating hours shall be submitted to DER's Bureau of Air Regulation.

7. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility may be included in the operating permit.

Compliance Determination

8. Compliance with the NO_X, SO_2, CO, PM, PM_{10}, and VOC standards shall be determined (while operating at 95-100% of the permitted maximum heat rate input) within 180 days of initial operation and annually thereafter, by the following reference methods as described in 40 CFR 60, Appendix A (July, 1991 version) and adopted by reference in F.A.C. Rule 17-2.700.

- Method 1. Sample and Velocity Traverses
- Method 2. Volumetric Flow Rate
- Method 3. Gas Analysis
- Method 5. Determination of Particulate Matter Emissions from Stationary Sources
- Method 9. Determination of the Opacity of the Emissions from Stationary Sources
- Method 8. Determination of the Sulfuric Acid of the Emissions from Stationary Sources
- Method 10. Determination of the Carbon Monoxide Emission from Stationary Sources
- Method 20. Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
- Method 25A. Determination of the Volatile Organic Compounds Emissions from Stationary Sources

Other DER approved methods may be used for compliance testing after prior Departmental approval.

9. Method 5 must be performed on this unit to determine the initial compliance status of the unit. Thereafter, the opacity emissions test may be used unless 10% opacity is exceeded.

SPECIFIC CONDITIONS:

10. Compliance with the SO_2 emission limit can also be determined by calculations based on fuel analysis using ASTM D4292 for the sulfur content of liquid fuels and ASTM D4084-82 or D3246-81 for sulfur content of gaseous fuel.

11. Trace elements of Beryllium (Be) shall be tested during initial compliance test using EMTIC Interim Test Method. As an alternative, Method 104 may be used; or Be may be determined from fuel sample analysis using either Method 7090 or 7091, and sample extraction using Method 3040 as described in the EPA solid waste regulations SW 846.

12. Mercury (Hg) shall be tested during initial compliance test using EPA Method 101 (40 CFR 61, Appendix B) or fuel sampling analysis using methods acceptable to the Department.

13. During performance tests, to determine compliance with the proposed NO_X standard, measured NO_X emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{X\ obs}) \left(\frac{P_{ref}}{P_{obs}}\right)^{0.5} e^{19\ (H_{obs} - 0.00633)} \left(\frac{288°K}{T_{AMB}}\right)^{1.53}$$

where:

NO_X = Emissions of NO_X at 15 percent oxygen and ISO standard ambient conditions.

$NO_{X\ obs}$ = Measured NO_X emission at 15 percent oxygen, ppmv.

P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure.

P_{obs} = Measured combustor inlet absolute pressure at test ambient pressure.

H_{obs} = Specific humidity of ambient air at test.

e = Transcendental constant (2.718).

T_{AMB} = Temperature of ambient air at test.

14. Test results will be the average of 3 valid runs. The Southwest District office will be notified at least 30 days in writing in advance of the compliance test(s). The sources shall

SPECIFIC CONDITIONS:

operate between 95% and 100% of permitted capacity during the compliance test(s) as adjusted for ambient temperature. Compliance test results shall be submitted to the Southwest District office no later than 45 days after completion.

15. The permittee shall leave sufficient space suitable for future installation of SCR equipment should the facility be unable to meet the NO_x standards, if required.

16. The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from this source. The continuous emission monitor must comply with 40 CFR 60, Appendix B, Performance Specification 2 (July 1, 1991).

17. A continuous monitoring system shall be installed to monitor and record the fuel consumption on each unit. While steam injection is being utilized for NO_x control, the steam to fuel ratio at which compliance is achieved shall be incorporated into the permit and shall be continuously monitored. The system shall meet the requirements of 40 CFR Part 60, Subpart GG.

18. Sulfur, nitrogen content and lower heating value of the fuel being fired in the combustion turbines shall be based on a weighted 12 month rolling average from fuel delivery receipts. The records of fuel oil usage shall be kept by the company for a two-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the fuel being fired in the gas turbine exceeds 0.05 percent sulfur by weight.

Rule Requirements

19. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes, Chapters 17-210, 212, 296, 297 and 17-4, Florida Administrative Code and 40 CFR (July, 1991 version).

20. The sources shall comply with all requirements of 40 CFR 60, Subpart GG, and F.A.C. Rule 17-296.800(2)(a), Standards of Performance for Stationary Gas Turbines.

21. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-2.210.300(1)).

SPECIFIC CONDITIONS:

22. This source shall be in compliance with all applicable provisions of F.A.C. Rules 17-210.650: Circumvention; 17-2.250: Excess Emissions; 17-296.800: Standards of Performance for New Stationary Sources (NSPS); 17-297: Stationary Point Source Emission Test Procedures; and, 17-4.130: Plant Operation-Problems.

23. If construction does not commence within 18 months of issuance of this permit, then the permittee shall obtain from DER a review and, if necessary, a modification of the control technology and allowable emissions for the unit(s) on which contruction has not commenced (40 CFR 52.21(r)(2)).

24. Quarterly excess emission reports, in accordance with the July 1, 1991 version of 40 CFR 60.7 and 60.334 shall be submitted to DER's Southwest District office.

25. Literature on equipment selected shall be submitted as it becomes available. A CT-specific graph of the relationship between NOx emissions and steam injection and also another of ambient temperature and heat inputs to the CT shall be submitted to DER's Southwest District office and the Bureau of Air Regulation.

26. Construction period fugitive dust emissions shall be minimized by covering or watering dust generation areas.

27. Pursuant to F.A.C. Rule 17-210.300(2), Air Operating Permits, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur, nitrogen contents and the lower heating value of the fuel being fired, fuel usage, hours of operation, air emissions limits, etc. Annual reports shall be sent to the Department's Southwest District office by March 1 of each calendar year.

28. 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).

29. 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

PERMITTEE:
Auburndale Power Partners

Permit Number: AC 53-208321
PSD-FL-185
Expiration Date: October 30, 1995

SPECIFIC CONDITIONS:

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 14th day
of December, 1992

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Carol M. Browner
Secretary

Table 1 Ad
06/17/94

Auburndale Power Partners - AC53-208321 (PSD-FL-185)

TABLE 1 - ALLOWABLE EMISSION RATES

Pollutant	Fuel[A]	Allowable Emission Standard/Limitation	Basis
NO_x	Gas	15 ppmvd @ 15% O_2 & ISO (78.6 lbs/hr; 344.3 TPY)[B]	BACT
	Gas	25 ppmvd @ 15% O_2 & ISO (131.0 lbs/hr; 573.8 TPY)	BACT
	Oil	42 ppmvd @ 15% O_2 & ISO (230.0 lbs/hr; 1,007.4 TPY)	BACT
CO	Gas	21 ppmvd (43.5 lbs/hr; 190.5 TPY)[C]	
	Gas	15 ppmvd (43.5 lbs/hr; 190.5 TPY)	BACT
	Oil	25 ppmvd (73.0 lbs/hr; 319.7 TPY)	BACT
VOC	Gas	6.0 lbs/hr; 26.3 TPY	BACT
	Oil	10.0 lbs/hr; 43.8 TPY	BACT
PM_{10}	Gas	0.0134 lb/MMBtu (10.5 lbs/hr; 46.0 TPY)	BACT
	Oil	0.0472 lb/MMBtu (36.8 lbs/hr; 161.2 TPY)	BACT
SO_2	Gas	40.0 lbs/hr; 175.2 TPY	BACT
	Oil	70.0 lbs/hr; 306.6 TPY	BACT
H_2SO_4	Gas	7.5 lbs/hr; 32.9 TPY	BACT
	Oil	14 lbs/hr; 61.3 TPY	BACT
Opacity	Gas	10% opacity[D]	BACT
	Oil	10% opacity	BACT
Hg	Gas	1.10×10^{-5} lb/MMBtu (0.001 lb/hr; 0.06 TPY)	Appl.
	Oil	3.0×10^{-6} lb/MMBtu (0.004 lb/hr; 0.016 TPY)	Appl.
As	Oil	1.61×10^{-4} lb/MMBtu (0.20 lb/hr; 0.05 TPY)	BACT
F	Oil	3.30×10^{-5} lb/MMBtu (0.04 lb/hr; 0.17 TPY)	Appl.
Be	Oil	2.0×10^{-6} lb/MMBtu (0.003 lb/hr; 0.014 TPY)	BACT
Pb	Oil	1.04×10^{-4} lb/MMBtu (0.13 lb/hr; 0.510 TPY)	BACT

A) Fuel: Natural Gas. Emissions are based on 8360 hours per year operating time burning natural gas and 400 hours per year operating time burning No. 2 fuel oil.
Fuel: No. 2 Distillate Fuel Oil (0.05% S). Emissions are based on 8760 hours per year burning fuel oil.

B) The NO_x maximum limit will be lowered to 15 ppm by 9/30/97 (about 18 months after natural gas is first fired) using appropriate combustion technology improvements or SCR.

C) 21 ppmvd at minimum load.
15 ppmvd at base load.

D) 10% opacity at full load conditions.

Department of Environmental Protection

6/22/94

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 17, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Edward P. Hopkins
Project Manager
Auburndale Power Partners
1501 Derby Avenue
Auburndale, Florida 33823

Dear Mr. Hopkins:

RE: Auburndale Power Partners Limited Partnership
FDEP AC 53-208321
PSD-FL-185

The Department is in receipt of your letter dated May 19, 1994, requesting to use ASTM D2880-71 for the analysis of liquid sulfur content and to change the emission rates of three trace metal contaminants (mercury, arsenic and lead).

The Department has evaluated your request and determined the following:

To revise Specific Condition No. 10 and to delete Specific Conditions 11 and 12 as follows:

Specific Condition No. 10:

FROM:

Compliance with the SO_2 emission limit can also be determined by calculations based on fuel analysis using ASTM D4292 for the sulfur content of liquid fuels and ASTM D4084-82 or D3246-81 for sulfur content of gaseous fuels.

TO:

Compliance with the SO_2 emission limit can also be determined by calculations based on fuel analysis using ASTM D4292 **or D2280-71** for the sulfur content of liquid fuels and ASTM D4084-82 or D3246-81 for sulfur content of gaseous fuels.

Specific Condition No. 11 will be deleted.

Specific Condition No. 12 will be deleted.

The Department has elected to delete specific conditions No. 11 and 12. At this point we have sufficient test data to determine that these trace metals emissions when burning No. 2 fuel oil (0.05% S) are not a threat to human health or welfare. The emissions data results from this facility are hardly detectable. The Department believes that the initial compliance test was sufficient to comply with the conditions of the permit and no further testing is necessary.

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.

A copy of this letter shall be filed with the referenced permits and will become a part of those permits.

Sincerely,

Howard L. Rhodes

Howard L. Rhodes
Director
Division of Air Resources Management

HLR/TH/bjb

cc:

Attachment to be incorporated:

Mr. Edward P. Hopkins's letter dated May 19, 1994

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 6/20/94 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 J. Powell 6/20/94
Clerk Date

ELECTRONIC SUBMITTAL

BEST AVAILABLE COPY

original file

[redacted]

11/15/96
virus free

Facility Name: Auburndale
Power Partners

Facility ID: 1050221-002-AV

Disk #1 of 1

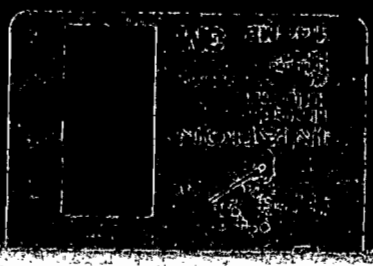
Facility Name: Auburndale
Power Partners

Facility ID: 1050221-002-AV

Disk #1 of 1

Revised 11/5/96

virus v'd
11-8-96
BBR



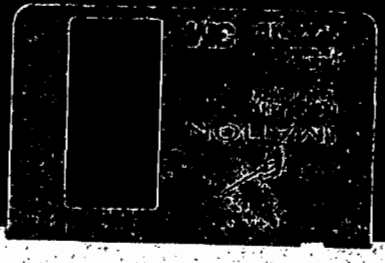
Facility Name: Auburndale
Power Partners

Facility ID: 1050221-002-AV

Disk #1 of 1

Revised 11/5/96

virus v'd
11-8-96
BBR



Facility Name: Auburndale
Power Partners

Facility ID: 1050221-002-AV

Disk #1 of 1

Revised 11/5/96

virus v'd
11-8-96
BBR