

Department of Environmental Protection

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

David B. Struhs Secretary

May 24, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Robert K. Alff
Senior Vice President, Calpine Eastern Corporation
Auburndale Power Partners L.P.
Auburndale Cogeneration Facility
The Pilot House, 2nd Floor, Lewis Wharf
Boston, MA 02110

Re: DEP File No. 1050221-004-AC
Auburndale Cogeneration Facility

Dear Mr. Alff:

Enclosed is one copy of the Draft air construction permit for the new Simple Cycle Combustion Turbine to be located at 1501 West Derby Avenue, Auburndale, Polk County. The <u>Technical Evaluation and Preliminary Determination</u>, the Department's <u>Intent to Issue Air Construction Permit</u> and the <u>Public Notice of Intent to Issue Air Construction Permit</u> are also included.

The <u>Public Notice of Intent to Issue Air Construction Permit</u> must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Michael P. Halpin or Mr. Linero at 850/921-9519.

Sincerely,

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

CHF/mph

Enclosures

In the Matter of an Application for Permit by:

Robert K. Alff, Senior Vice President, Calpine Auburndale Power Partners L.P.
The Pilot House, 2nd Floor, Lewis Wharf Boston, MA 02110

DEP File No. 1050221-004-AC Auburndale Cogeneration Facility Polk County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of Draft permit attached) for the proposed project, detailed in the application specified above and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Robert K. Alff, Senior Vice President, Calpine, applied on December 12, 2000, to the Department for an air construction permit for its Auburndale Cogeneration Facility located at 1501 West Derby Avenue, Auburndale, Polk County. The application became complete on May 18, 2001. The permit is to install one Simple Cycle Gas Turbine rated at 104 MW nominal (135 MW maximum) for peaking purposes at the existing facility.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to install the Simple Cycle Gas Turbine at the existing facility.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of <u>Public Notice of Intent to Issue Air Permit.</u> Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

Auburndale Cogeneration Facility, Auburndale, Florida DEP File No. 1050221-004-AC Page 2 of 3

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

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In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition

Auburndale Cogeneration Facility, Auburndale, Florida DEP File No. 1050221-004-AC Page 3 of 3

must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction

Permit (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and

Preliminary Determination, and the Draft permit) was sent by certified mail (*) and copies were mailed by U.S.

Mail before the close of business on 5/29/01 to the person(s) listed:

Robert K. Alff, Senior VP, Calpine Eastern Corporation *

Mr. Benjamin Borsch, Environmental Manager, Calpine *

Mr. Kennard F. Kosky, P.E. Golder

Mr. Bill Thomas, SWD-DEP

Mr. Gregg Worley, EPA

Mr. John Bunyak, NPS

Clerk Stamp

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

(Clerk) Hayes 5/29/01
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 1050221-004-AC

Auburndale Cogeneration Facility
Auburndale, Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Calpine Eastern Corporation, for the Auburndale Cogeneration Facility located at 1501 West Derby Avenue, Auburndale, Polk County. The permit is to install one Simple Cycle Gas Turbine rated at 104 MW nominal (135 MW maximum) for peaking purposes at the existing facility. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's mailing address is: Calpine Eastern Corporation, The Pilot House, 2nd Floor, Lewis Wharf, Boston MA 02110.

In order to ensure that a BACT review does not apply, the Department will require the use of Continuous Emission Monitoring Systems (CEMS) for the measurement of both nitrogen oxides (NO_X) and carbon monoxide (CO). Additionally, NO_X limitations will be placed upon the existing unit, which are more stringent than the current limits, offsetting proposed new emissions. Emissions of sulfur dioxide (SO₂), sulfuric acid mist (SAM), and particulate matter (PM/PM₁₀) will be very low because of the use of inherently clean burning pipeline quality natural gas and the low allowance (400 hours per year) for the combustion of 0.05% sulfur oil.

Total emissions of pollutants shall not exceed the following emission rates:

Pollutant		Proposed Oil Emission limit	TPY ¹	PSD Significant Emission Rates (TPY)
NO _x	25 ppmvd @ 15% O ₂	42 ppmvd @ 15% O ₂	39 ²	40
CO	10 ppmvd @ 15% O ₂	10 ppmvd @ 15% O ₂	99	100
VOC	4 ppmvd @ 15% O ₂	5 ppmvd @ 15% O ₂	5.7	40
SO ₇	2 grains / 100 SCF	74.9 lb/hr (0.05% S)	16.2	40
PM ₁₀	2.9 lb/hr	58.5 lb/hr	3.1	15

¹ Effective limit from permit conditions.

An air quality impact analysis was conducted, although it was not required. Emissions from the facility will not consume PSD increment and will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the Final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed

² The tons per year limit for NO_X is 39 TPY over past actual emissions at the facility.

by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection Bureau of Air Regulation Suite 4, 111 S. Magnolia Drive Tallahassee, Florida, 32301 Telephone: 850/488-0114 Fax: 850/922-6979 Dept. of Environmental Protection Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619-8218 Telephone: 813/744-6100 Fax: 813/744-6084

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. The Technical Evaluation and Preliminary Determination as well as the Draft Permit may be viewed at http://www8.myflorida.com/licensingpermitting/learn/environment/air/airpermit.html by clicking on *Utilities and Other Facilities Permits Issued*.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Auburndale Power Partners LP - Calpine

Auburndale Simple Cycle Unit Addition

104-Megawatt (Nominal) Combustion Turbine

Polk County

1050221-004-AC



Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section

May 24, 2001

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Auburndale Power Partners L.P. Auburndale Unit 2

1501 West Derby Avenue

Auburndale, Florida 33823-4079

Authorized Representative: Robert K. Alff, Senior Vice President, Calpine Eastern Corporation

1.2 REVIEWING AND PROCESS SCHEDULE

December 12, 2000

Received permit application and fee

January 11, 2001

Request For Additional Information

February 6, 2001

Second Request For Additional Information

May 18, 2001

Application complete

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

The facility is located in Auburndale, Polk County. The UTM coordinates are Zone 17; 420.8 km E; 3103.2 km N. This site is approximately 95 kilometers from Chassahowitzka Wildlife Refuge, a Class I PSD Area.

2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Γ	Industry Group No.	49	Electric, Gas and Sanitary Services
Γ	Industry No.	4911	Electric Services

2.3 FACILITY CATEGORY

The existing facility is a cogeneration plant consisting of a combined cycle combustion turbine cogeneration system rated at 156 total megawatts (MW) output. The combined cycle system consists of one combustion turbine (CT), one unfired heat recovery steam generator (HRSG), and one steam turbine-generator. The facility utilizes pipeline natural gas as its primary fuel source and low sulfur (0.05 % by weight) distillate fuel oil as a backup fuel source. Also located at this facility are two distillate fuel oil storage tanks, and miscellaneous unregulated/insignificant emissions units and/or activities.

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Based upon the Title V application, the facility is not a major source of hazardous air pollutants (HAPs).





Auburndale Power Partners L.P. Auburndale Cogeneration Facility

DEP File No. 1050221-004-AC

3. PROJECT DESCRIPTION

This project addresses the following new emissions unit:

Emissions	Emissions unit Description
Unit No.	
006	104 (nominal) MW Westinghouse 501D5A combustion turbine (CT) Unit 2 configured for simple cycle operation. Heat input ratings at ISO conditions are 1369 MMBtu/hr for natural gas and
	1412 MMBtu/hr for number 2 fuel oil (0.05% S).

This new combustion turbine is virtually identical to the existing combustion turbine (Emissions Unit No. 001), except that the existing unit is configured for combined cycle mode. The applicant proposes to install this new simple cycle combustion turbine and accept appropriate limits on criteria pollutants (for either the new or existing units) so as to net out of PSD review for all pollutants. A further review of the P.T.E. and netting analysis follows.

4. PROJECT EMISSIONS

4.1 MAXIMUM POTENTIAL TO EMIT

The following table summarizes the potential maximum project emissions increases of pollutants at the facility:

Pollutant	Proposed Gas Emission limit	Proposed Oil Emission limit	TPY	PSD Significant Emission Rates (TPY)	Subject To PSD Review?	Calculated ² maximum hours
NOx	25 ppmvd @ 15% O ₂	42 ppmvd @ 15% O ₂	638.4	40	YES	326 (oil only)
co:	10 ppmvd @ 15% O ₂	10 ppmvd @ 15% O ₂	146.0	100	YES	6000
VOC	4 ppmvd @ 15% O ₂	5 ppmvd @ 15% O ₂	33.3	40	NO	> 8760
SO,	2 grains / 100 SCF	74.9 lb/hr (0.05% S)	30.1	40	NO	> 8760
PM ₁₀	2.9 lb/hr	58.5 lb/hr	13.0	15	NO	> 8760

Based upon gas firing for 8360 and oil firing for 400 hours/year.

If PSD: As shown in the above table, potential CO and NO_x emissions from the new gas turbine could exceed the "significant emission rates" identified in Table 62-212.400-2, F.A.C., which would subject the project to the PSD preconstruction review requirements. Therefore, the applicant has requested specific restrictions on operation of both units in order to maintain net emissions increases below the significant emissions rates and avoid PSD applicability for the project.

4.2 APPLICANT'S PROPOSED NETTING ANALYSIS FOR NO_X

The determination of "actual emissions" from the existing Auburndale Cogeneration Facility is complicated by two factors. First, the original PSD approval and subsequent permit modifications authorized a NO_x emissions limit in two stages. The first-stage NO_x limit was 25 ppmvd corrected to 15-percent oxygen, while the second stage NO_x limit was 15 ppmvd corrected to 15-percent oxygen. The latter was required to be achieved by December 31, 1998. The second factor that complicates determining "actual emissions" which are representative of normal operation from the Auburndale Cogeneration Facility is the technical problems in achieving the 15 ppmvd NO_x emissions limit using the methods suggested by the turbine manufacturer Siemens Westinghouse. The methods used involved over-injecting steam and/or water into the turbine combustors to lower NO_x levels. According to the applicant, this approach led to repeated premature, severe wear of combustion turbine hot gas components and, as a result, the alternative NO_x control method of employing an SCR had to be implemented.

During the year 2000, the Auburndale facility was offline for a period of time (which the applicant contends was abnormal) due to problems associated with the over-injection of steam to control NO_x and then for the installation of the SCR. These downtimes consisted of an unplanned maintenance outage in 2000, an extended annual planned outage, and a forced outage in November 2000. Since the over-injection of steam was causing combustion turbine blade damage, it was uncertain whether the extent of the potential damage would allow operation of the unit until its

² Annual operating hours, above which PSD would be triggered for subject pollutant (assumes 400 hours of oil firing).

annual planned outage in October 2000. As a result, the Auburndale Cogeneration Facility was shut down in June 2000 for 3.8 days to perform an internal combustor visual inspection. The installation of the SCR caused the annual planned outage in October to be extended to 17.2 days, which is 10.2 days longer than the normal annual combustor inspection outage that typically lasts 5 to 7 days. Finally, a forced outage in November associated with SCR start-up problems caused the facility to be down for 7.1 days. Therefore, the applicant contends there were 21.1 days of abnormal outage time during 2000 that were associated with over-injection for NO_x control and the installation of the SCR.

As described above, the actual emissions from the existing facility is complicated by the staged emission limit and problems experienced with over-injecting steam in the turbine. Therefore, using the last 2 years to determine "actual emissions", as suggested in the definition of actual emissions in Rule 62-210.200 F.A.C., is not considered to be representative of normal operations. Given these circumstances, the applicant proposes that the latest year of operation (i.e., year 2000), adjusted for forced outages resulting directly from the problems associated with the NO_x issues, be considered "representative" of "actual emissions". The data available from the facility and the Acid Rain continuous emissions monitoring (CEM) system is as follows for the year 2000.

Auburndale Cogeneration Facility - Year 2000 Fuel Usage and NOx Emissions

Hours of Operation:

8.139

Heat Input Gas:

8,765,886 MMBtu/year

Heat Input Oil:

189,361 MMBtu/year

247.61 tons/year

NO_X Emissions: Forced Outages:

506 hours

The applicant proposes that the 247.61 tons/year be adjusted to 8,645 hours of operation: 247.61 tons/year x 8.645/8,139 = 263 tons/year, increasing the year 2000 actual emissions by 15.39 tons. A NO_x emissions cap of 302 tons/year is therefore proposed by the applicant for the Auburndale Facility (263 tons/year actual plus 39 tons/year = 302 tons/year), which is the maximum that could be authorized without a PSD review. This NO, emissions cap is proposed as a facility-wide cap for both the existing cogeneration facility and the new peaking unit. It is noted that the existing potential NO_x emissions authorized for the existing unit is 344.3 tons/year, meaning that the applicant's proposal represents a 42 TPY (12 percent) reduction in potential NO_x emissions currently authorized by the Department for the existing unit alone.

To allow for operational flexibility, the applicant proposed that existing short-term (ppmvd and lb/hr) NO_x emissions limits and compliance methods authorized for the existing Auburndale Cogeneration Facility remain as provided for in the PSD Permit (PSD-FL-185) and Final Title V Permit (1050221-002-AV).

5. RULE APPLICABILITY

This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment for all pollutants. Rule 62-4.030, F.A.C., prohibits modification of any existing emissions unit without first receiving a permit. It further specifies that a permitted installation may only be modified in a manner that is consistent with the terms of such a permit. Rule 62-210.200, F.A.C., defines "modification" to mean generally a change that results in an increase in actual emissions of regulated air pollutants. Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C., also reiterate the requirement for construction permits. Additionally, Rule 62-210.300 requires an Air Construction permit for all new sources of air pollution unless specifically exempt. The emission unit affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein).

6. AIR POLLUTION CONTROL METHODS

The applicant proposes to limit NO_X emissions through the use of an approved facility-wide NO_X cap and the use of water injection (thereby limiting unit specific emissions to 25 ppmvd @ 15% O_2). Although the applicant proposes to net out of a PSD review for NO_X , the unit must still conform to the NSPS requirements. The Department points

out that based upon current combustion turbine reviews, a PSD review (BACT Determination) for NO_x would not authorize emissions above 15 ppmvd and could likely result in the requirement to utilize a hot SCR.

6.1 STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

The minimum project control technology basis is 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (NSPS). Subpart GG was adopted by the Department by reference in Rule 62-204.800, F.A.C. The key emission limit required by this subpart is 75 ppmvd NO_X at 15% O2. The limit proposed by Auburndale is consistent with the requirements of this subpart.

6.2 DEPARTMENT'S DETERMINATION FOR NO_X

The Department has determined that the application of an emissions cap for NO_x , combined with additional "unit specific" emissions limits will eliminate the requirement for a PSD review for that pollutant. Concerning the precise value and implementation method of the proposed cap, the Department makes the following determinations:

6.2.1 AMOUNT OF NO_x CAP AUTHORIZED

It is recognized that some amount of the applicant's requested "adjustment" of the Year 2000 actual emissions may be in order. However, an adjustment that presumes that representative annual operating hours should be 8645 hours/year (98.7% of the hours in a year) rather than 8139 (92.9% of a year) appears aggressive. Accordingly, the Department will allow an adjustment, which yields 95% of a year's worth of operating hours (approximately 5.6 TPY over Year 2000 emissions). Representative emissions are deemed to be 253 TPY and baseline emissions are therefore set to be 39 TPY above that value, or 292 TPY (as an increase of 40 TPY triggers a PSD review for NO_x).

6.2.2 METHOD OF IMPLEMENTATION FOR THE NO_N CAP

The applicant originally requested a facility-wide cap, which would allow the greatest flexibility. The method, by which the applicant wished to demonstrate compliance with the cap, was to utilize CEMS on both emissions units and to be bound by the facility-wide-cap, with no additional emissions limitation placed upon the existing unit beyond the limits already in existence. The applicant pointed out that the Department had previously issued some permits in this fashion, suggesting that consideration should be given to this established precedence. The Department recognizes that some of these past permitting actions may exist, but does not intend to perpetuate related errors. Accordingly, a cap will be authorized in strict accordance with the EPA's New Source Review Training Course and related guidance. This guidance specifically requires that increases from the proposed modification shall be added to source-wide contemporaneous increases, less source-wide creditable decreases. The Department maintains that as a prerequisite to performing the analysis, new potential emission increases from the proposed project (without netting) must be identified. These may then be compared to the proposed decreases from any existing emissions units, to ascertain whether the project will indeed net out. All emission increases and decreases must be creditable, contemporaneous and not otherwise needed to meet a regulatory compliance requirement. Among other requirements, *creditable* is defined as permanent, real, quantifiable and federally enforceable.

Avoidance of PSD through "netting" cannot be authorized without an itemization of the creditable emission reductions (from existing source(s)), which are being permanently proposed. In this case, the applicant wishes to increase NO_x emissions by 115 TPY at the new source. Therefore, the emissions of the existing unit will need to be reduced by 115 TPY in order for netting to be authorized. Since the baseline emissions for the existing unit are 292 TPY and the existing NO_x limit is 15 ppmvd, the new limits imposed upon the existing unit shall be 177 TPY [292 –115] as well as 9 ppmvd on an equivalent annual basis [15 ppmvd * 177/292]. Methods of compliance with each of these limits shall be specified within the permit.

6.2.3 DETERMINATION OF PTE FOR OTHER POLLUTANTS BASED UPON NETTING OUTCOME

Since the new emissions unit (EU-006) will be limited to 115 TPY of NO_X emissions, a de-facto limit on the hours of operation is calculable. The Department has determined that a limit of 1400 hours of operation (regardless of the authorized fuel mix) per consecutive 12-month is the de-facto limit which sets the PTE of each pollutant as per the table below:

Pollutant	Proposed Gas Emission limit	Proposed Oil Emission limit	TPY ¹	PSD Significant Emission Rates (TPY)	Subject To PSD Review?
. CO	10 ppmvd @ 15% O ₂	10 ppmvd @ 15% O ₂	23.4	100	NO
VOC	4 ppmvd @ 15% O ₂	5 ppmvd @ 15% O ₂	5.7	40	NO
SO ₂	2 grains / 100 SCF	74.9 lb/hr (0.05% S)	16.2	40	NO
PM ₁₀	2.9 lb/hr	58.5 lb/hr	3.1	15	NO

Based upon gas firing 1000 hours and oil firing for 400 hours/year; CO emissions may be higher due to low load operation.

6.3 ADDITIONAL COMPLIANCE PROCEDURES

Pollutant	Compliance Procedures for EU-006			
NO _x emission limit	EPA Method 20 (Initial and annual / annual RATA) NO _x CEMS data (24-hour block average) used for daily compliance of new emissions unit NO _x CEMS data (12-month rolling average) used for annual compliance of both units NO _x CEMS data (12-month rolling average) used for compliance of EU-001			
CO emission limit	EPA Method 10 (Initial and annual / annual RATA) CO CEMS data (12-month rolling average)	Established to avoid PSD		
VOC emission limit	EPA Method 25A (Initial and upon permit renewal)	Not established by BACT		
SO ₂ emission limit	Fuel Sampling	Not established by BACT		
PM ₁₀ emission limit	EPA Method 9 (Initial and annual)	Not established by BACT		

Specific permit conditions regarding short and long-term limits for EU-001 and EU-006 shall further describe these limitations, however the limits for EU-001 are in addition to existing emission limits, not in lieu of existing limits.

7. HAZARDOUS AIR POLLUTANT ANALYSIS

An evaluation of HAP emissions from the project indicates that the emissions are less than 25 tons/year for al! HAPS and less than 10 tons/year for a single HAP. Therefore, the requirements of 40CFR 63.43 for maximum achievable control technology are not applicable to the project.

8. SOURCE IMPACT ANALYSIS

The applicant's initial request for this project indicated that the increase in NO_X emissions would exceed the PSD Significant Emission Rates listed in Table 62-212.400-2, F.A.C. A significant impact analysis was subsequently performed. However, the applicant later modified the request so as to avoid a PSD review as described in this technical evaluation. Therefore, an air quality analysis is not required by rule. However, since the analyses were performed, the Department is providing a brief summary of those modeling results, as provided by the applicant, but without Department review.

An ambient air quality impact assessment was done in support of the original application. The modeling approach followed EPA and DEP guidelines for determining compliance with AAQS and PSD increments. Two air quality dispersion models were used to analyze air quality impacts for this project. These models were ISCST3 and CALPUFF. Both analyses resulted in no adverse impacts due to the proposed project

9. CONCLUSION

Based on the foregoing technical evaluation of the application, additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Michael P. Halpin, P.E. Review Engineer Department of Environmental Protection, Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

PERMITTEE:

Auburndale Power Partners L.P. c/o Calpine Eastern Corporation Boston, MA 02110

Authorized Representative:

Mr. Robert K. Alff Senior Vice President ARMS Permit No. 1050221-004-AC

Facility ID No. 1050221 SIC No. 4911

Expires: April 1, 2003

PROJECT AND LOCATION

The proposed project authorizes the installation of one-simple cycle, combustion turbine with an electrical generator set. The gas turbine is capable of producing a nominal 104 MW of electricity.

The project will be located in Polk County at 1501 West Derby Avenue, Auburndale. The UTM coordinates are Zone 17, 420.8 km E, 3103.2 km N and map coordinates are Latitude 28°,03' 06", Longitude 81° 48' 21".

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

APPENDICES

The following Appendices are attached as part of this permit.

Appendix GC - Construction Permit General Conditions

Howard L. Rhodes, Director Division of Air Resources Management

Date:

FACILITY DESCRIPTION

The existing facility is a cogeneration plant consisting of a combined cycle combustion turbine cogeneration system rated at 156 total megawatts (MW) output. The combined cycle system consists of one combustion turbine (CT), one unfired heat recovery steam generator (HRSG), and one steam turbine-generator. The facility utilizes pipeline natural gas as its primary fuel source and low sulfur (0.05 % by weight) distillate fuel oil as a backup fuel source. Also located at this facility are two distillate fuel oil storage tanks, and miscellaneous unregulated/insignificant emissions units and/or activities. Completion of this project will result in the installation of a new electric power generator capable of providing a nominal 104 MW of electrical power.

NEW EMISSIONS UNIT

The proposed project will result in the following new emissions unit, as well as additional limitations being placed upon existing Emission Unit 001.

ARMS ID No.	Emission Unit Description
006	Westinghouse 501D5A combustion turbine (CT) configured for simple cycle operation, 1369
	MMBtu/hr for natural gas and 1412 MMBtu/hr for number 2 fuel oil (0.05% S) at ISO conditions.
	Evaporative cooling is authorized.

REGULATORY CLASSIFICATION

HAPs: This facility will not be a major source of hazardous air pollutants (Title III).

Acid Rain: This facility is subject to the acid rain provisions of the Clean Air Act. (Title IV).

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review and Best Available Control Technology (BACT) determination. For this project, emissions of no pollutant are significant or subject to BACT standards, provided that the Emission Unit is operated as specified in this permit. However, the existing facility is classified as a PSD Major Source.

NSPS Sources: The combustion turbines specified in this permit are subject to regulation under the New Source Performance Standards for Stationary Gas Turbines, 40 CFR 60, Subpart GG.

RELEVANT DOCUMENTS

- Permit application received on 12/12/00
- Department's Request For Additional Information (RFI) distributed on 1/10/01
- Applicant's response to RFI received 1/19/01
- Department's 2nd RFI distributed on 2/6/01
- Application complete on 5/18/01
- Intent to Issue Permit package (including Technical Evaluation and Preliminary Determination) issued on 5/24/01

SECTION II. ADMINISTRATIVE REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

- 1. <u>Permitting Authority</u>: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
- 2. Compliance Authority: All documents related compliance activities such as reports, tests, and notifications should be submitted to the Air Resources Section of the Southwest District Office, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 3619-8218. The phone number is 813/744-6100 and the fax number is 813/744-6084.
- 3. <u>Terminology</u>: The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code.
- 4. General Conditions: The owner and operator are subject to, and shall operate under the attached General Conditions listed in Appendix GC of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
 - 6: New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
 - 7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
 - 8. Expiration: This air construction permit shall expire on April 1, 2003. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4) 62-4.080, and 62-4.210, F.A.C]
 - 9. Title V Permit: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Bureau of Air Regulation, and a copy sent to the Department's Southwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and 62-213.420, F.A.C.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

This section of the permit addresses the following new emissions unit and existing Emission Unit 001.

EU ID No.	Emission Unit Description
	Siemens/Westinghouse Model W501D5A combustion turbine with electrical generator set: Westinghouse 501D5A combustion turbine (CT) Unit 2 configured for simple cycle operation. Water injection technology shall be utilized for NO _x control. Heat inputs are 1369 MMBtu/hr for natural gas and 1412 MMBtu/hr for number 2 fuel oil (0.05% S), both during ISO conditions. Exhaust gases exit a 50 feet tall stack that is 22 feet in diameter at approximately 1000°F with a volumetric flow rate of 1,887,143 acfm.

APPLICABLE STANDARDS AND REGULATIONS

- 1. NSPS Requirements: The combustion turbine shall comply with all applicable requirements of 40 CFR 60, adopted by reference in Rule 62-204.800(7)(b), F.A.C.
 - (a) Subpart A, General Provisions, incuding:
 - 40 CFR 60.7; Notification and Record Keeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting Requirements.
 - (b) Subpart GG, Standards of Performance for Stationary Gas Turbines These provisions include a requirement to correct test data to ISO conditions; however, such correction is not used for compliance determinations with the BACT standards.

PERFORMANCE RESTRICTIONS

- 2. <u>Combustion Turbines</u>: The permittee is authorized to install, tune, operate and maintain one new combustion turbine with electrical generator set (Siemens/Westinghouse Model 501D5A). The unit is designed to produce a maximum 135 MW of electrical power. [Applicant Request]
- 3. Permitted Capacity: The heat input to the combustion turbine from firing natural gas shall not exceed 1591 MMBtu per hour based on the following: 100% base load, a higher heating value (HHV) for natural gas and a compressor inlet air temperature of 32° F. The heat input to the combustion turbine from firing No. 2 fuel oil shall not exceed 1546 MMBtu per hour based on the following: 100% base load and a compressor inlet air temperature of 32° F. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing subsequent to both Phases. Heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. [Design, Rule 62-210.200, F.A.C. (Definition PTE)]
- 4. Simple Cycle, Intermittent Operation Only: The combustion turbine shall operate only in simple cycle mode not to exceed the permitted hours of operation, nor the permitted short and long-term emission limits allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD non-applicability determination and resulted in the emission standards specified in this permit. Specifically, these restrictions eliminated several control alternatives based on technical as well as regulatory considerations. For any request to modify this emission unit in any way (whether a physical or operational modification, including a change in the allowable hours of operation or heat input, or to alter

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

any short or long-term emission) the permittee shall submit a full PSD permit application complete with a new proposal of the best available control technology as if the unit had never been built. [Rules 62-212.400(2)(g) and 62-212.400(6)(b), F.A.C.]

- 5. Allowable Fuels: The combustion turbine shall be fired with pipeline-quality natural gas containing no more than 2 grains of sulfur per 100 dry standard cubic feet of gas, monthly average. It is noted that this limitation is much more stringent than the sulfur dioxide limitation in 40 CFR 60, NSPS Subpart GG and assures compliance with regulations 40 CFR 60.333 and 60.334 of this Subpart. The permittee shall demonstrate compliance with the fuel sulfur limits by keeping the records specified in this permit. The use of fuel oil containing no more than 0.05% sulfur by weight shall not exceed 400 hours during any consecutive 12-month period. [Applicant Request, Rule 62-210.200, F.A.C. (Definition PTE)]
- 6. Hours of Operation: The combustion turbine shall operate no more than 1400 hours during any consecutive 12-month period. The permittee shall install, calibrate, operate and maintain a monitoring system to measure and accumulate the amount of natural gas as well as fuel oil fired and the hours of operation. [Rule 62-210.200, F.A.C. (Definitions PTE), PSD Avoidance]
- 7. Plant Operation Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps-being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

EMISSIONS CONTROLS

- 8. Unconfined Emissions of Particulate Matter: [Rule 62-296.320(4)(c), F.A.C.]
 - (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
 - (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (c) Reasonable precautions include the following:
 - Paving and maintenance of roads, parking areas and yards.
 - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - Removal of particulate matter from roads and other paved areas under the control of the owner or
 operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent
 particulate from becoming airborne.
 - Landscaping or planting of vegetation.
 - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - Confining abrasive blasting where possible.
 - Enclosure or covering of conveyor systems.

- (d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.
- 9. Water Injection Technology: The permittee shall install, calibrate, tune, operate, and maintain a water injection system for the unit. The system shall be designed and operated so as to ensure that NO_X emissions do not exceed 25 ppmvd @15% O₂. [Applicant request; PSD avoidance]
- 10. <u>Tuning</u>: Prior to the initial emissions performance tests for the gas turbine, the water injection system shall be tuned to optimize the reduction of NO_X emissions (within the other limitations of this permit). Thereafter, each system shall be maintained and tuned in accordance with the manufacturer's recommendations to minimize permitted pollutant emissions. [Design, PSD avoidance]
- 11. <u>Circumvention</u>: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

EMISSIONS STANDARDS

12. <u>Summary</u>: The following table summarizes the emissions standards specified in this permit. Although these limits were not determined by BACT, they (along with other-limitations described herein) form the basis for the Department's determination that PSD does not apply.

Pollutant	Proposed Gas Emission limit	j 4	Proposed Oil Emission limit
NO _x	25 ppmvd @ 15% O ₂		42 ppmvd @ 15% O ₂
CO	10 ppmvd @ 15% O ₂	t- ¹³	.10 ppmvd @ 15% O ₂
VOC	4 ppmvd @ 15% O ₂	4, 1	5. ppmvd @ 15% O ₂
SO ₂	2 grains / 100 SCF	÷ 2	74.9 lb/hr (0.05% S)
PM ₁₀	2.9 lb/hr 97%	. 1	.÷ 58.5 lb/hr

13. Carbon Monoxide (CO):

CO emissions from the combustion turbine shall not exceed 10.0 ppmvd (at full output of the emissions unit) corrected to 15% oxygen. Additionally, annual emissions of CO from this emission unit shall not exceed 99 TPY, based upon a 12-month rolling total.

The permittee shall demonstrate compliance with this standard by conducting performance tests and emissions monitoring in accordance with EPA Method 10 and the CEMS requirement of this permit. [Rule 62-212.400, F.A.C. (PSD avoidance)]

14. Nitrogen Oxides (NO_x):

 NO_X emissions from the combustion turbine shall not exceed 25.0 ppmvd nor 42.0 ppmvd (gas and oil respectively) corrected to 15% oxygen. Additionally, annual emissions of NO_X from this emission unit shall not exceed 115 TPY, based upon a 12-month rolling total. In this regard, existing EU-001 shall be required to comply with an annual NO_X emission limit of 177 TPY, as well as an equivalent annual NO_X limit of 9 ppmvd corrected to 15% oxygen, based upon a 12-month rolling total. These emission limits are in addition to all existing limits on EU-001, and are unit specific limits imposed as a result of the applicant's desire to net out of a PSD review for NO_X for EU-006.

The permittee shall demonstrate compliance with this standard as described in Specific Condition 31 and by conducting performance tests and emissions monitoring in accordance with EPA Method 20 and the CEMS requirement of this permit. Short-term (ppmvd) NO_x emissions from the new emissions unit shall

not exceed the specified limitations based on a 24-hour block average for data collected from the continuous emissions monitor. [Rule 62-212.400, F.A.C. (PSD avoidance)]

15. Particulate Matter (PM/PM10), Sulfuric Acid Mist (SAM) and Sulfur Dioxides (SO2)

- (a) Fuel Specifications. Emissions of PM, PM₁₀, SAM, and SO₂ shall be limited by the use of pipeline-quality natural gas containing no more than 2 grain per standard cubic feet, the use of 0.05% sulfur oil and good combustion techniques as specified in this permit. The permittee shall demonstrate compliance with the oil and gas fuel sulfur limits by maintaining the records specified by this permit as well as fulfilling the requirements specified in PSD-FL-185. The fuel specification is a work practice standard established as a means of determining the applicability of PSD [Rule 62-212.400, F.A.C.] (PSD Applicability)] and as a synthetic minor limit for SAM/SO₂ emissions [Rule 62-4.070(3), F.A.C.].
- (b) General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter, or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

16. Volatile Organic Compounds (VOC):

VOC emissions from the combustion turbine shall exceed neither 4.0 ppmvd nor 5.0 ppmvd (gas and oil respectively) corrected to 15% oxygen. The permittee shall demonstrate compliance with these standards by conducting tests in accordance with EPA Method 25A and the performance testing requirements of this permit. Optional testing in accordance with EPA Method 18 may be conducted to account for the actual methane fraction of the measured VOC emissions, if specifically requested. [Application, Design, Rule 62-4.070(3), F.A.C.]

EXCESS EMISSIONS

- 17. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. These emissions shall be included in the calculation of the 12-month rolling and 24-hour averages to demonstrate compliance with the continuous emissions standards. [Rule 62-210.700(4), F.A.C.]
- 18. Excess Emissions Allowed: Providing the permittee adheres to best operational practices to minimize the amount and duration of excess emissions, the following conditions shall apply:
 - (a) During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for up to 2 hours in any 24-hour period. [Design; Rule 62-210.700(1) and (5), F.A.C.]
 - (b) During all startups, shutdowns, and malfunctions, the continuous emissions monitor (CEM) shall monitor and record emissions. However, up to 2 hours of monitoring data during any 24-hour period may be excluded from continuous compliance demonstrations as a result of startups, shutdowns, and documented malfunctions. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A full written report on the malfunctions shall be submitted in a quarterly report. [Design; Rules 62-210.700(1), (5), and 62-4.130, F.A.C.]
 - (c) CEMS data exclusion and replacement methods shall be in accordance with EPA's Acid Rain requirements. Additionally, the permittee's record-keeping for the EU-001 and EU-006 NO_x emissions caps (TPY) shall be in full agreement with publicly available data on EPA's Acid Rain website.

EMISSIONS PERFORMANCE TESTING

- 19. Sampling Facilities: The permittee shall design the combustion turbine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. Permanent stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rules 62-4.070 and 62-204.800, F.A.C., and 40 CFR 60.40a(b)]
- 20. Performance Test Methods: Initial-(I) and Annual (A) compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 69, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
 - (a) EPA Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources (I, A);
 - (b) EPA Method 10 Determination of Carbon-Monoxide Emissions from Stationary Sources (I, A);
 - -(d) EPA Method 20 Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines (I, A); and
 - (e) EPA Method 25A Determination of Volatile Organic Concentrations (I). (EPA Method 18 may be conducted to account for the non-regulated methane portion of the VOC emissions.)
 - Annual RATA testing at 100% output may be utilized to satisfy the above annual requirements for CO and NO_X tests. No other test methods may be used for compliance-testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure specified in Rule 62-297.620, F.A.C.
- 21. <u>Test Notification</u>: The permittee shall notify the Compliance Authority in writing at least 30 days prior to initial NSPS performance tests and at least 15 days prior to any other required tests. [40 CFR 60.7, 40 CFR 60.8 and Rule 62-297.310(7)(a)9., F.A.C.]
- 22. Initial Tests Required: Initial performance tests to demonstrate compliance with the emission standards specified in this permit shall be conducted within 60 days after achieving at least 90% of permitted capacity, but not later than 180 days after initial operation of the emissions unit. Initial performance tests shall be conducted for CO, NO_x, VOC, and visible emissions from the combustion turbine. Initial NO_x performance tests shall be conducted in accordance with the requirements of NSPS Subpart GG including testing at four separate load conditions. NO_x emissions data shall also be converted into units of the NSPS emissions standard. CO performance tests shall be conducted concurrently with all NO_x performance tests required at the four load conditions. [Rule 62-297.310(7)(a)1., F.A.C.]
- 23. Annual Performance Tests: To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for CO, NO_x and visible emissions from the combustion turbine. If conducted at permitted capacity, CO and NO_x emissions data collected during the annual CO and NO_x continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th). [Rule 62-297.310(7)(a)4., F.A.C.]
- 24. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall conduct performance tests for CO, NO_X, VOC, and visible emissions from the combustion turbine. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants that are required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [Rule 62-297.310(7)(a)3., F.A.C.]
- 25. Tests After Substantial Modifications: All performance tests required for initial startup shall also be conducted after any substantial modification and appropriate shakedown period of air pollution control

- equipment. Shakedown periods shall not exceed 100 days after re-starting the combustion turbine. [Rule 62-297.310(7)(a)4., F.A.C.]
- 26. Combustion Turbine Testing Capacity: Initial performance tests shall be conducted in accordance with 40 CFR 60.8 and 40 CFR 60.335 for pollutants subject to a New Source Performance Standard (NSPS) in Subpart GG for stationary gas turbines. Other required performance tests for compliance with standards specified in this permit shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. However, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for inlet temperature) and 110 percent of the value reached during the test until a new test is conducted...Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain—the permitted capacity. Emissions performance tests shall meet all applicable requirements of Chapters 62-204 and 62-297, F.A.C. [Rule 62-297.310(2), F.A.C.]
- 27. Calculation of Emission Rate: For each remissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

28. Applicable Test Procedures

- (a) Required Sampling Time.
- Unless otherwise specified in the applicable rule, the required sampling-time for-each test-run shall be no less than one hour and no greater than four hours, and the sampling-time at each sampling point shall be of-equal intervals of at least two minutes: [Rule 62-297.310(4)(a)1., F.A.C.]
 - 2. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)2., F.A.C.]
 - (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet. [Rule 62-297.310(4)(b), F.A.C.]
 - (c) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]

29. Determination of Process Variables

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310(5)(a), F.A.C.]
- (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5)(b), F.A.C.]

30. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

CONTINUOUS MONITORING REQUIREMENTS

31. Continuous Emission Monitoring System: The owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring (CEM) system in the exhaust stack of this emissions unit to measure and record the emissions of NO_x and CO from the emissions units, and the oxygen (O₂) content of the flue gas at the location where NO_x and CO are monitored, in a manner sufficient to demonstrate compliance with the emission limits of this permit. The CEM system shall be used to demonstrate compliance with the emission limits for NO_x and CO within this permit.

Compliance with the emission limits for NO_x shall be based on a 24-hour block average starting at midnight of each operating day. The 24-hour block average shall be calculated from 24-valid-hourly, average emission rate values. Each hourly value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement; an hourly-value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). The owner or operator shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour. If the CEM system measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEM system shall be expressed as ppmvd, corrected to 15% oxygen.

For the EU-001 and EU-006 annual (TPY) emissions limits of NO_x, measurements shall be in pounds (converted to tons) and be based on a 12-month rolling total starting at the first day of each calendar month. Each monthly total shall be calculated by adding each valid 24-hour block average (as determined above) from valid operating days (all fuels) within the calendar month. This monthly total shall be combined with the emissions from the previous valid 11 calendar months and shall comprise a 12-month rolling total.

For the 9-ppmvd annual equivalent emissions limit, which is being placed upon EU-001, measurements shall be in ppmvd and be based on a 12-month rolling total starting at the first day of each calendar month. Each monthly total shall be calculated by adding each valid (daily) 24-hour gas firing block averages (as determined above) from valid operating days within the calendar month. This monthly total shall be combined with the previous valid 11 calendar months and shall comprise a 12-month rolling total. In order to convert each 12-month rolling total to an annual equivalent limit, the following formula shall be utilized:

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ppmvd_s = ppmvd_s * [hours_s/8760] where:
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ppmvd_e = the equivalent annual short-term emissions for nitrogen oxides (ppmvd corrected to $15\% O_2$)

ppmvd_a = the measured (CEMS) 12-month rolling short-term emissions for NO_X (ppmvd corr. to 15% O_2)

hours_e = 12-month rolling total valid hours of operation combusting natural gas

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

For the EU-006 annual CO emissions limit, measurements shall be in pounds (converted to tons) and be based on a 12-month rolling total starting at the first day of each calendar month. Each monthly total shall be calculated by adding each valid 24-hour block average (as determined above) from valid operating days within the calendar month. This monthly total shall be combined with the previous valid 11 calendar months and shall comprise a 12-month rolling total.

Annual (12-month rolling total) NO_X and CO limits shall be recalculated monthly and available on site for inspection purposes. Additionally, each year the facility shall submit all 12 months worth of calculations as part of the AOR submission.

32. Certification: The NO_X monitor shall be certified and operated in accordance with the following requirements. The NO_X monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. For purposes of determining compliance with the emission limits of this permit, missing data shall not be substituted. Instead the block average shall be determined using the remaining hourly data in the 24-hour block. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75. Subparts F and G. The RATA tests required for the NO_X monitor shall be performed using EPA Method 20 or 7E, of Appendix A of 40 CFR 60. The NO_X monitor shall be a dual range monitor. The span-for-the-lower range shall not be greater than 100 ppm; as a corrected to 15% O₂.

The CO monitor and O₂ monitor shall be certified and operated in accordance with the following requirements. The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4. The O₂ monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 3. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of section 7 shall be made each calendar quarter, and reported semi-annually to the Department's Southwest District Office. The RATA tests required for the CO-monitor shall be performed using EPA Method 10, of Appendix A of 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of section 10.15 may be used in lieu of the silica gel and ascarite traps. The span for the CO monitor shall not be greater than 100 ppm, as corrected to 15% O₂. The RATA tests required for the O₂ monitor shall not be greater than 21 percent.

33. No_X/CO CEMS Data Requirements: NO_X, CO and O₂ emissions data shall be recorded by the CEM system during episodes of startup, shutdown and malfunction. NO_X and CO emissions data recorded during these episodes may be excluded from the block average calculated to demonstrate compliance with the emission limits of this permit as provided in this paragraph. Periods of data excluded for startup and shutdown shall not exceed two hours in any block 24-hour period. Periods of data excluded for malfunctions shall not exceed two hours in any 24-hour block period. All periods of data excluded for any startup, shutdown or malfunction episode shall be consecutive for each episode. Periods of data excluded for all startup, shutdown or malfunction episodes shall not exceed four hours in any 24-hour block period. The owner or operator shall minimize the duration of data excluded for startup, shutdown and malfunctions, to the extent practicable. Data recorded during startup, shutdown or malfunction events shall not be excluded if the startup, shutdown or malfunction episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented.

Best operational practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

A summary report of duration of data excluded from the block average calculation, and all instances of missing data from monitor downtime, shall be reported to the Department's Southwest District office semi-annually, and shall be consolidated with the report required pursuant to 40 CFR 60.7. For purposes of reporting "excess emissions" pursuant to the requirements of 40 CFR 60.7, excess emissions shall be defined as the hourly emissions which are recorded by the CEM system during periods of data excluded for episodes of startup, shutdown and malfunction, allowed above. The duration of excess emissions shall be the duration of the periods of data excluded for such episodes. Reports required by this paragraph and by 40 CFR 60.7 shall be submitted no less than semi-annually, including semi-annual periods in which no data is excluded or no instances of missing data occur.

Upon request from the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

[Rules 62-4.070(3) and 62-212.400., F.A.C., and PSD avoidance]

[Note: Compliance with these requirements will ensure compliance with the other CEM system requirements of this -permit to comply with Subpart GG requirements, as well as the applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.7(a)(5) and 40 CFR 60.13, and with 40 CFR Part 51, Appendix P, 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60, Appendix F, Quality Assurance Procedures.]

COMPLIANCE DEMONSTRATIONS - TO A STATE OF THE PARTY OF TH

- 34. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]
- specified in this permit by maintaining records of the sulfur content of the natural gas being supplied for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASFM. methods D4084-82, D3246-81 or equivalent methods. These methods shall be used to determine the sulfur content of the natural gas fired in accordance with any EPA-approved custom fuel monitoring schedule or natural gas supplier data or the natural gas sulfur content referenced in 40 CFR 75 Appendix D. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e). However, the permittee is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used to determine the fuel sulfur content for compliance with the 40 CFR 60.333 SO2 standard. Fuel oil sampling for this emissions unit shall be conducted as per the requirements established in PSD-FL-185. [Rules 62-4.070(3) and 62-4.160(15), F.A.C.]
 - 36. <u>Alternate Monitoring Plan</u>: Subject to EPA approval, the following alternate monitoring may be used to demonstrate compliance.
 - (a) When requested by the Department, the CEMS emission rates for NO_X on this unit shall be corrected to ISO conditions to demonstrate compliance with the NO_X standard established in 40 CFR 60.332.
 - (b) Data collected from the NO_X CEM shall be used to report excess emissions in accordance with 40 CFR 60.334(c)(1) of NSPS, Subpart GG.
 - (c) A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) as provided for in PSD-FL-185.

37. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the hours of operation by fuel type, 12-month emission totals for NO_X and CO and amount of each fuel fired for the combustion turbine. Likewise, by the fifth calendar day of each month, the 12-month emission totals for the NO_X requirements that have been placed upon the existing EU-001 by this permit shall be recorded. The information shall be recorded in a written or electronic log and shall summarize the previous month of operation and the previous 12 months of operation. Information recorded and stored as an electronic file shall be available for inspection and/or printing within at least one day of a request from the Compliance Authority. [Rule 62-4.160(15), F.A.C.]

REPORTS

- 38. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.].
- 39. Quarterly Excess Emissions Reports: If excess CO, NO_x or visible emissions occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Following the NSPS format in 40 CFR 60.7, Subpart A, periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. Within thirty (30) days following each calendar quarter, the permittee shall submit a report on any periods of excess emissions that occurred during the previous calendar quarter to the Compliance Authority. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C.; and 40 CFR 60.7]
 - 40. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. This report shall include a summary of each of the prior year 12-month emission limitations, which are required for EU-001 and EU-006 by this permit. [Rule 62-210.370(2), F.A.C.]

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

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- This permit conveys no-title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title of leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
 - 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 rules.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
 - G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a) Have access to and copy and records that must be kept under the conditions of the permit;
 - b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a) A description of and cause of non-compliance; and
 - b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

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

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.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111. Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable and Example of the permitted activity until the transfer is approved by the Department of the permitted activity until the transfer is approved by the Department of the permitted activity and the transfer is approved by the Department of the permitted activity and the transfer is approved by the Department of the permitted activity and the transfer is approved by the Department of the permitted activity and the transfer is approved by the Department of the permitted activity and the transfer is approved by the Department of the permitted activity and the transfer is approved by the Department of the permitted activity and the transfer is approved by the Department of the permitted activity and the permitted activity and the transfer is approved by the Department of the permitted activity and the permitted activity activities and the permitted activity and the permitted activity activities and the permitted activities activities and the permitted activities activities activities and the permitted activities activities activities activities and the permitted activities act
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:

- a) Determination of Best Available Control Technology (X)
- b) Determination of Prevention of Significant Deterioration (X); and
- c) Compliance with New Source Performance Standards (X).
- G.14. The permittee shall-comply with the following:
 - a) Upon request, the permittee shall furnish all records and plans required under Department rules.

 During enforcement actions; the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed:
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Memorandum

Florida Department of Environmental Protection

TO:

Clair Fancy

THRU:

Al Linero aag 5/

FROM:

M. P. Halpin

DATE:

May 24, 2001

SUBJECT:

Auburndale Power Partners L.P.

Attached for approval and signature is a construction permit for a modification at the Auburndale Cogeneration Facility, located in Auburndale, Polk County. The permit is to install one Simple Cycle Gas Turbine rated at 104 MW nominal (135 MW maximum) for peaking purposes at the existing facility.

This new combustion turbine is virtually identical to the existing combustion turbine (Emissions Unit No. 001), except that the existing unit is configured for combined cycle mode. The applicant proposes to install this new simple cycle combustion turbine as a minor source, avoiding a PSD Review and BACT Determination. The unit will be allowed to meet a NO_X emission rate of 25 ppmvd during natural gas firing (achieved by water injection) which is allowable under the NSPS. Oil firing is being requested at a NO_X emission rate of 42 ppmvd, and up to 400 hours per year, which is a slight change to the original proposal.

Individual emission unit limits are included (for both the new and existing unit) in accordance with EPA's guidance on netting. The existing unit will be limited to 177 TPY and 9 ppmvd NO_x on an annual equivalent basis. The new unit will be limited to 115 TPY of NO_x and 1400 total hours of operation. The permit is structured so as to ensure compliance with the PSD non-applicability determination via the use of CEMS for NO_x and CO. No other emissions from the new unit have any realistic chance of exceeding the PSD thresholds.

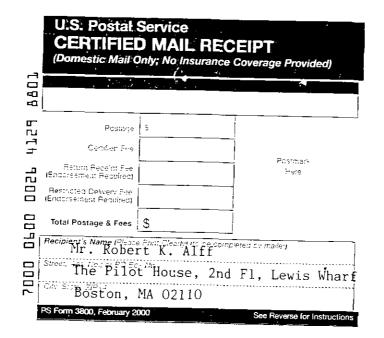
Although modeling was not required, it was completed and the modeling impacts are insignificant.

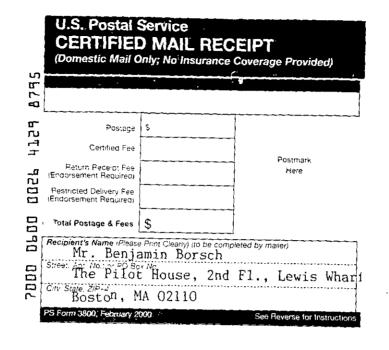
I recommend your approval and signature.

Attachments

/mph

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: Mr. Robert K. Alff, Sr. VP Auburndale Power Partners L.P. Auburndale Cogeneration Facility 	A. Received by (Please Print Clearly) C. Signature C. Signature D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No
The Pilot House, 2nd Floor Lewis Wharf Boston, MA 02110	3. Service Type D-Certified Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.
2. Arielo Nythor Grown serviced about 101	4. Restricted Delivery? (Extra Fee) Yes
PS Form 3811, July 1999 Domestic	Return Receipt 102595-





SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiec or on the front if space permits. 1. Arirle Addressed to: 	e. X Agent Addressee D. Is delivery address different from item 1? Yes
Mr. Benjamin Borsch Environmental Manager Calpine Eastern Corporation Auburndale Cogeneration Fact	In 725, Giller delivery address below.
The Pilot House, 2nd Floor Lewis Wharf Boston, MA 02110	3. Service Type 2. Certified Mail D Express Mail D Reflictered D Return Receipt for Merchandise D Instited Mail D C.O.D.
2. Article Number (Cooy from service label) 7000 0600 0026 4129 8795	4. Restricted Delivery? (Extra Fee)
PS Form 3811, July 1999 Dom	estic Return Receipt 102595-99-M-1789