

Russell Weber - file -



HARDEE POWER PARTNERS

Via FedEx
June 11, 2001

Mr. Scott M. Sheplak, P.E.
Administrator, Title V Section
Bureau of Air Regulation
Florida Department of Environmental Protection
111 South Magnolia Avenue, Suite 4
Tallahassee, FL 32301

RECEIVED
JUN 13 2001
BUREAU OF AIR REGULATION

**Re: Request for Additional Information
Hardee Power Station – Title V Permit Revision
DEP File No. 0490015-003-AV**

Dear Mr. Sheplak:

Hardee Power Partners, Ltd. (HPP) has received your letter dated March 6, 2001 requesting additional information regarding the above referenced project and offers the following responses:

FDEP Item 1: Manufacturer's Performance Curves

Response:

Performance curves provided by General Electric for the Model 7EA combustion turbine are included as Attachment I.

FDEP Item 2: Applicability of the Acid Rain Program

Response:

Pursuant to 40 CFR 72.6 (b)(6), an exemption from the Acid Rain Program exists for independent power production facilities (IPPF's) that (i) have, as of November 15, 1990, one or more qualifying power purchase commitments to sell at least 15% of its planned net output capacity; and (ii) consist of one or more units designated by the owner or operator with total installed net output capacity not exceeding 130% of its total planned output capacity. Hardee Power Station is an IPPF meeting the requirements for this exemption. EPA has stated in guidance letters that, with regard to future expansion of capacity at an exempt facility, "if more

Mr. Scott M. Sheplak, P.E
June 11, 2001
Page 2 of 3

than [130%] of net output capacity is ever constructed at the facility, one or more units serving the capacity in excess of that amount will become affected by the Acid Rain Program requirements." See letter from Brian McLean, Director, EPA Acid Rain Division, to Steven Miller, Doswell Ltd. Partnership., Dec. 20, 1994 in Attachment II.

Furthermore, the preamble to the final rule states: "EPA proposed that all units in the facility will be exempt from the program, ..., but units added to the facility at a later time would be required to comply with the Acid Rain Program." 58 Fed. Reg. at 15639.

Thus, the preamble and guidance letters make clear that new units can be added at a later time without destroying the overall exemption of the facility. The facility as a whole is exempt only up to 130% of its planned capacity. Beyond that point, the owner/operator can designate which units shall remain exempt and which units shall be subject to the Acid Rain Program. Therefore, Units CT1A, CT1B, and CT2A are still exempt from the Acid Rain Program.

FDEP Item 3: Custom Fuel Monitoring Schedule

Response:

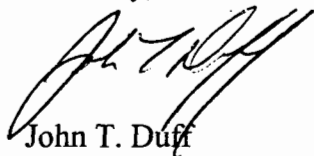
HPS previously submitted a revised Part 75 Monitoring Plan indicating that CT2B (Unit 004) will utilize hourly gas and oil flow data to monitor SO₂ emissions; i.e., use of 40 CFR Part 75, Appendix D monitoring procedures, and specifying the use of pipeline natural gas as the primary fuel. A copy of the revised Part 75 Monitoring Plan was submitted electronically to the EPA, Region 4 on October 9, 2000 and also to the Department in correspondence to Mr. Mike Harley dated October 9, 2000.

40 CFR 60.333(New Source Performance Standards for Stationary Gas Turbines) limits the sulfur content of fuels burned in stationary gas turbines to no more than 0.8 percent by weight. At a typical natural gas density of 0.047 lb/ft³, natural gas would need to contain more 265 gr S / 100 ft³ to exceed the 0.8 weight percent NSPS limit. Typical Florida Gas Transmission (FGT) natural gas sulfur content is approximately 4 parts per million by volume (ppmv) or 0.24 gr S / 100 ft³. The 40 CFR Part 75, Appendix D, Section 2.3.1.1 default SO₂ emission rate for pipeline natural gas is 0.0006 lb/MMBtu or 0.20 gr S / 100 ft³ assuming a natural gas heat content of 1,000 Btu / ft³. Accordingly, use of pipeline natural gas, as defined by 40 CFR 72.2, in CT2B provides reasonable assurance of consistent compliance with the fuel sulfur content limit of 40 CFR 60.33.

As requested in your letter, Responsible Official and Professional Engineer Certifications are attached. If you have any further questions, please contact Paul Carpinone at (813) 228-4858.

Mr. Scott M. Sheplak, P.E
June 11, 2001
Page 3 of 3

Sincerely,

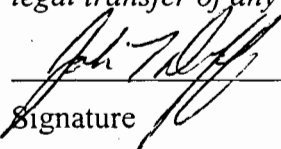


John T. Duff
Vice President-Power Operations

Attachments

cc: FDEP, SW District

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: John T. Duff, Vice President – Power Operations
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Hardee Power Partners, Ltd. Street Address: P.O. Box 111 City: Tampa State: FL Zip Code: 33601-0111
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (813) 228-1381 Fax: (813) 228-1360
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [✓], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i> Signature  Date <u>6/11/01</u>

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: Thomas W. Davis Registration Number: 36777
2. Professional Engineer Mailing Address: Organization/Firm: Environmental Consulting & Technology, Inc. Street Address: 3701 Northwest 98th Street City: Gainesville State: FL Zip Code: 32606
3. Professional Engineer Telephone Numbers: Telephone: (352) 332-0444 Fax: (352) 332-6722

4. Professional Engineer Statement:

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

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

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

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

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

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

Thomas R. Owen

Signature

6/8/01

Date

(seal)

* Attach any exception to certification statement.

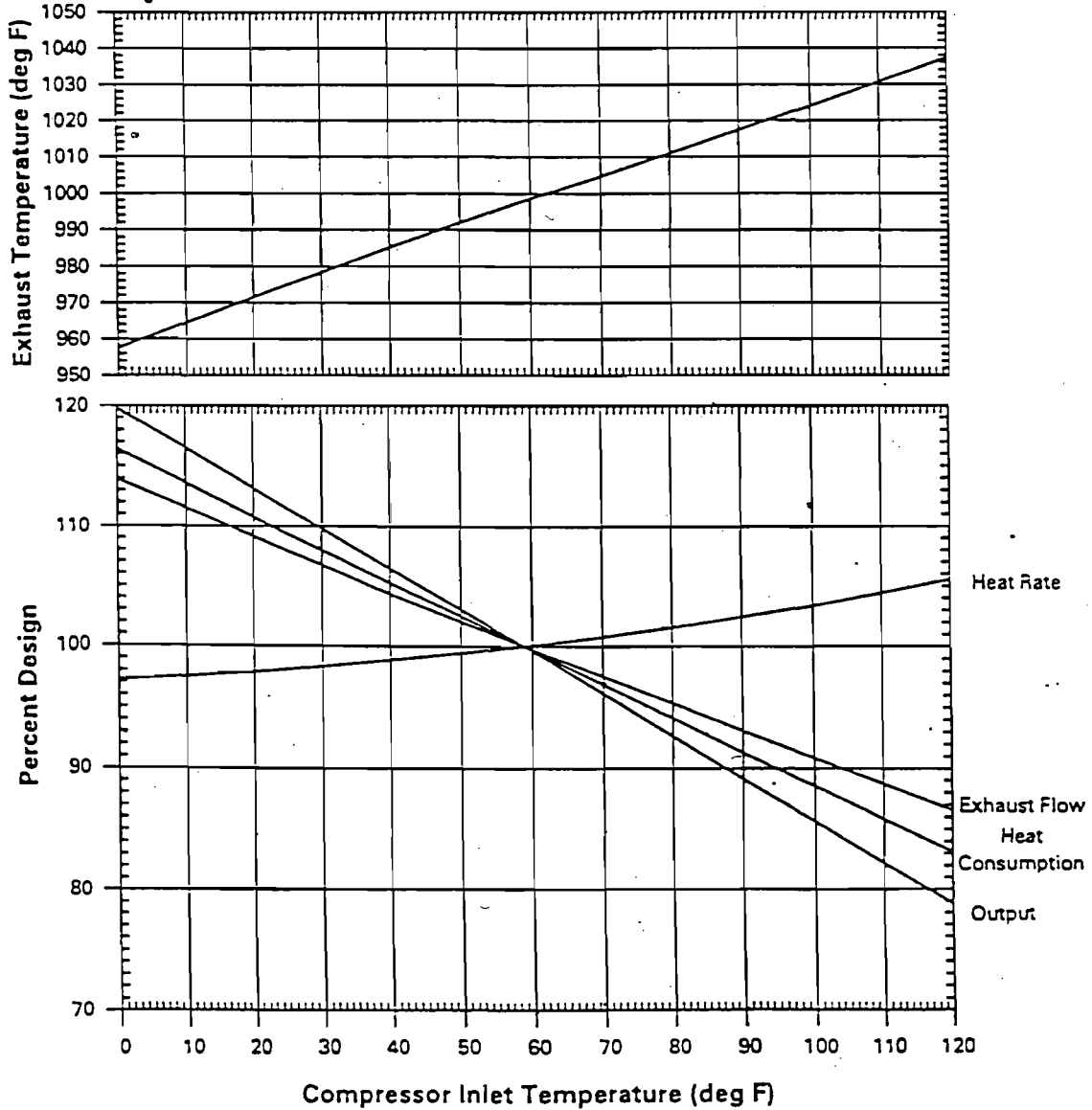
ATTACHMENT I

GE PERFORMANCE CURVES FOR CT2B

GENERAL ELECTRIC MODEL PG7121EA GAS TURBINE

Effect of Compressor Inlet Temperature on
Output, Heat Rate, Heat Consumption, Exhaust Flow
And Exhaust Temperature at Base Load and 100% speed.

Configuration: DLN Combustor
Fuel: Natural Gas
Design Values on Curve 522HA282 Rev 2



I Levine
8/17/98

522HA283
Rev - 2

BB

ATTACHMENT II

**Letter from Brian McLean, Director, EPA Acid Rain Division, to Steven
Miller, Doswell Ltd. Partnership., Dec. 20, 1994**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR AND RADIATION

Steven K. Miller
Doswell Limited Partnership
2112 W. Laburnum Ave, Suite 108
Richmond, VA 23227

Dear Mr. Miller:

The Acid Rain Division has received your request for an applicability determination for the Doswell Limited Partnership facility in Hanover County, Virginia ("Doswell") under 40 CFR Part §72.6(c). This letter represents EPA's official determination of applicability for Doswell which commenced commercial operation in May, 1992 (ORISPL number 52019).

As described in your letter, Doswell consists of two gas and oil-fired combined cycle trains. Each train has two 127 MWe combustion turbines serving heat recovery steam generators headered to one 147 MWe steam turbine. The facility is the subject of a January, 1990 power sales agreement with Virginia Power for 363 MWe from each unit (726 MWe total). The installed capacity of the facility is 802 MWe. You also submitted information demonstrating that the facility meets the definition for an independent power production facility and that the power sales agreement meets the definition of a qualifying power purchase commitment.

Based on the information above, both units at Doswell are not affected under the Acid Rain Program. Section 405(g)(6) of the Act, implemented at 40 CFR §72.6, provides that independent power production facilities with power purchase commitments prior to November 15, 1990 are exempt from all requirements under Title IV. The implementing regulations require that the power purchase commitment(s), as of November 15, 1990, represent at least 15 percent of the total planned net output capacity. This condition is met by the Doswell-Virginia Power agreement. However, the regulations limit the exempted facility to 130 percent of the total planned net output capacity. Thus, if more than 944 MWe of net output capacity is ever constructed at the facility (one or more units serving the capacity in excess of that amount) will become affected by the Acid Rain Program requirements. (See 40 CFR §72.6(b)(5)(ii).) ✱

This determination is based solely on the representations made in your letter of December 14, 1993. According to 40 CFR 72.6(c)(5), this decision may be appealed under 40 CFR part 78. 40 CFR §72.6(c) requires you to send copies of this letter to each owner or operator of Doswell.

-2-

If you have further questions regarding the Acid Rain Program, please contact Kathy Barylski of my staff at (202) 233-9074.

Sincerely,

/s/ (December 20, 1994)

Brian J. McLean, Director
Acid Rain Division

cc: OECA

702 N. Franklin St. (33602)
P.O. Box 111
Tampa, FL 33601
(813) 228-1282
(813) 228-1308 Fax



RECEIVED

SEP 26 2001

Fax

BUREAU OF AIR REGULATION

To: Scott Sheplak, P.E. **Fax: 850.922.6979**

Of: FDEP **Phone: 850.921.9532**

From: Byron Burrows, P.E. **pages (incl. cover):**

Phone: 813.228.1282 **Date: 9/26/01**

Subject: Hardee Power Station Proof of Public Notice

Urgent For Review Please Comment Please Reply Please Recycle

● Comments:
Scott:

Due to an address error, the proof of public notice was returned today. I am sending the original overnight to you. I apologize for the delay in getting this to you.

Please call me if you have any questions.

If Problems With Transmission, Please Call (813) 228-1282



HARDEE POWER PARTNERS

Via Certified Mail – 7000 0520 0016 1537 6359

September 9, 2001

Florida Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, FL 32301
Attn: Mr. Scott Sheplak, P.E.

RE: Hardee Power Partners (HPP)
Hardee Power Station (HPS)
Title V Air Operating Permit
Revision No. 0490015-003-AV
Original Newspaper Clipping / Original Publisher's Affidavit

Dear Mr. Sheplak:

Per the instructions in the Public Notice Authorization Package for the Draft Title V Permit Revision of the above referenced facility, please find enclosed an original copy of the newspaper clipping for notice published on August 24, 2001. Also attached is the original publisher's affidavit from The Tampa Tribune newspaper.

Please contact me at (813) 228-4858 or Byron Burrows at (813) 228-1282 if you have any questions regarding this information.

Sincerely,

Paul L. Carpinone
Director-Environmental, Safety

Enclosure

BEST AVAILABLE COPY

THE TAMPA TRIBUNE

Published Daily

Tampa, Hillsborough County, Florida

State of Florida)
County of Hillsborough) ss.

Before the undersigned authority personally appeared J. Rosenthal, who on oath says that she is Classified Billing Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

in the matter of PUBLIC NOTICE OF INTENT

was published in said newspaper in the issues of AUGUST 24, 2001

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

J. Rosenthal
Sworn to and subscribed by me, this 28 day
of AUGUST A.D. 20⁰¹

Personally Known or Produced Identification _____
Type of Identification Produced _____

OFFICIAL NOTARY SEAL
SUSIE LEE SLATON
COMMISSION NUMBER
DD000060
COMMISSION EXP.
APRIL 16, 2005

Susie Lee Slaton

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Title V DRAFT Permit Revision No.: D00015-003-AV
Hardie Power Station
Hardie County
The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V Air operation permit revision for the Hardie Power Station, located on County Road 653, Fort Green Springs, Hardie County. The revision reflects the addition of an additional simple cycle, dual fuel, General Electric Model 7FA combustion turbine (GT-2B) with electrical generator (75 MW). The applicant's name and address are: Mr. John T. Buff, Vice President - Power Operations, Hardie Power Partners, Limited, P.O. Box 111, Tampa, FL 33601-011.
The permitting authority will issue the Title V PROPOSED Permit Revision, and subsequent Title V FINAL Permit Revision, in accordance with the conditions of the Title V DRAFT Permit Revision unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit Revision issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2640 Blair Stone Road, Mail Station #5605, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Revision, the permitting authority shall issue another DRAFT Permit Revision and require, if applicable, another Public Notice.
A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.55 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in Office of General Counsel of the Department.



HARDEE POWER PARTNERS

September 24, 2001

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SEP 28 2001

BUREAU OF AIR REGULATION

Mr. Scott M. Sheplak, P.E.
Administrator, Title V Section
Bureau of Air Regulation
Florida Department of Environmental Protection
111 South Magnolia Avenue, Suite 4
Tallahassee, FL 32301

**Re: Comments to draft Title V Permit
Hardee Power Station –
DEP File No. 0490015-003-AV**

Dear Mr. Sheplak:

Hardee Power Partners, Ltd. (HPP) has reviewed the draft Title V permit and offer the following comments. The comments and suggested wording are also included in the body of the attached draft permit.

Section III, Subsection A

Comment:

We suggest deleting references to CT-2B in the description since subsequent text in this section does not pertain to this unit.

Section III, Subsection B

Comment:

In permitting notes, last sentence; We suggest revising as noted to reflect that some provisions of the Acid Rain Program are applicable.

Emission Limitations and Standards, Specific Condition B.7

Comment:

We suggest additional language as follows to clarify the applicable NOx CEMs averaging period for fuel oil and natural gas firing.

“Compliance with the 3-hour (applicable during distillate fuel oil-firing) and 24 hour (applicable during natural gas-firing) block averages shall be demonstrated...”

Emission Limitations and Standards, Specific Condition B.8

Comment:

We suggest deletion of “ initial startup” language. Since CT-2B startup was in May 2000, this language is obsolete.

Monitoring Requirements, Specific Condition B.13

Comment:

We request adding the following clarifying language to the end of the paragraph:

“As an alternative to the monitoring requirements of this condition, the permittee may comply with the monitoring requirements of Specific Condition B.17 (Alternative Monitoring Plan).”

Monitoring Requirements, Specific Condition B.14

Comment:

We request additional language as follows to clarify the applicable NOx CEMs averaging period for fuel oil and natural gas firing.

“Compliance with the 3-hour (applicable during distillate fuel oil-firing) and 24 hour (applicable during natural gas-firing) block averages shall be demonstrated...”

Monitoring Requirements, Specific Condition B.14(a)

Comment:

Mr. Scott M. Sheplak, P.E
September 24, 2001
Page 3 of 4

We request that the last two sentences requiring a monitoring plan, be deleted since a monitoring plan has already been submitted.

Monitoring Requirements, Specific Condition B.17 (e) and B.17 (e) a

Comment:

We request the removal of the requirement to monitor the nitrogen content of the fuel oil and sulfur content of the natural gas. We are not required to monitor these parameters pursuant to Specific Condition B.15.

Custom Fuel Monitoring Schedule, Item No. 1.

Comment:

We request removal of Item No. 1 because we are not required to monitor these parameters pursuant to Specific Condition B.15.

Custom Fuel Monitoring Schedule, Item No. 3.

Comment:

We request adding the units; "...10 grains/1000 dry standard cubic feet..."

Test Methods and Procedures, Specific Condition B.25.

Comment:

We request removal of wording regarding notification of the initial compliance testing since this testing has already been completed.

Test Methods and Procedures, Specific Condition B.26.

Comment:

We request that the following language be inserted in this condition to be consistent with the testing requirements for CT-1A, CT-1B, and CT-2A and Rule 62-297.310(7)(a), F.A.C.

Annual performance tests for CO, NO_x, and visible emissions from the combustion turbine shall be conducted while firing natural gas if low sulfur distillate oil was used for 400 hours or less in the preceding 12-month period. Annual performance tests shall be conducted for CO, NO_x, and visible

Mr. Scott M. Sheplak, P.E
September 24, 2001
Page 4 of 4

emissions from the combustion turbine while firing low sulfur distillate oil if the distillate oil was used for more than 400 hours in the preceding 12-month period.

Additional Reporting and Recordkeeping Requirements C.16 and C.17.

Comment:

Specific Conditions C.16 and C.17 appear to be redundant. We recommend deleting Specific Condition C.16 and revising Specific Condition No. C.17 as shown in the attachment.

Additional Reporting and Recordkeeping Requirements C.20.

Comment:

*We request referencing specific conditions C.1 through C.4 in the first sentence. For NO_x, we request the addition of **“For CT-1A, CT-1B, and CT-2A, any one-hour period...”**. For CT-2B, NO_x CEMS data will be used in accordance with Specific Condition B.17(a) and (b).*

If you have any questions, please contact me at (813) 228-4858 or Byron Burrows at (813) 228-1282.

Sincerely,



Paul L. Carpinone
Director – Environmental and Safety

Attachments

cc: Tom Davis, P.E., ECT
L. N. Curtin, H & K
FDEP, SW District

Hardee Power Partners, Limited
Hardee Power Station
Facility ID No. 0490015
Hardee County

Title V Air Operation Permit
DRAFT Permit Revision No.: 0490015-003-AV

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-1344
Fax: 850/922-6979

Compliance Authority:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218

Title V Air Operation Permit
DRAFT Permit Revision No. 0490015-003-AV

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Permittee:
Hardee Power Partners
P.O. Box 111
Tampa, Florida 33601-0111

DRAFT Permit Revision No. 0490015-003-AV
Facility ID No. 0490015
SIC Nos. 49, 4911
Project: Title V Air Operation Permit Revision:
Combustion Turbine CT-2B

This permit revision is for the purpose of incorporating the terms and conditions of the air construction permit, No. PSD-FL-140A, for a simple cycle combustion turbine (CT) #CT-2B; and is located at the existing Hardee Power Station. Hardee Power Station is located on County Road 663, Fort Green Springs, in Hardee County; UTM Coordinates: Zone 17, 404.8 km East and 3,057.4 km North; Latitude: 22° 38' 02" North and Longitude: 81° 38' 02" West.

STATEMENT OF BASIS: This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-213. The above named Permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix G-1, Manufacturer's Performance Curves
Appendix U-1, List of Unregulated Emissions Units and Activities
Appendix I-1, List of Insignificant Emissions Units and Activities
APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND
MONITORING SYSTEM PERFORMANCE REPORT (version dated 07/96)

Effective Date: June 20, 1999

Revision Effective Date:

Renewal Application Due Date: December 23, 2003

Expiration Date: June 20, 2004

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms/raw

Section I. Facility Information.

Subsection A. Facility Description.

Hardee Power Partners, Limited (HPP) operates a nominal 370 megawatt (MW) electric generation facility located approximately nine miles northwest of Wauchula in Hardee County, Florida. The Hardee Power Station is comprised of three identical General Electric (GE) 7111EA combustion turbines CT-1A, CT-1B, and CT-2A and a General Electric Model No. PG7121 7EA combustion turbine, CT-2B. CT-1A and 1B are each equipped with a heat recovery steam generator (HRSG) which feed one, common steam turbine (ST). CT-2A and CT-2B are each simple cycle combustion turbines (CTs). The facility utilizes pipeline natural gas as its primary fuel source with No. 2 distillate fuel oil serving as a backup fuel. The CT's are subject to 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines and are permitted under PSD-FL-140, PSD-FL-140A and PA-89-25. As described in PA-89-25SA, the facility may expand to an ultimate generating capacity of 880 MW (nominal net).

Also included in this permit are miscellaneous unregulated and insignificant emissions units and activities.

Based on the initial Title V permit application received June 13, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Units

E.U. ID

<u>No.</u>	<u>Brief Description</u>
001	Combustion Turbine 1A
002	Combustion Turbine 1B
003	Combustion Turbine 2A
004	Combustion Turbine 2B

Subsection C. Relevant Documents

The documents listed below are not a part of this permit; however, they are specifically related to this permit.

These documents are provided to the Permittee for information purposes only:

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History/ID Number Changes

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 13, 1996

Section II. Facility-wide Conditions

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit.

{Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the Permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. 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 of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.

[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

{Permitting Note: Although the Permittee is not required to perform a visible emissions compliance test to demonstrate compliance with the facility-wide limitations annually or before renewal, if the Department believes that the general visible emissions standard is being violated, the Department may require that the owner or operator perform a visible emissions compliance test per Chapter 62-297.310(7)(b), Special Compliance Tests.}

4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the Permittee shall submit to the implementing agency:

- a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
- b. certification forms and/or RMPs according to the promulgated rule schedule.

[40 CFR 68]

5. Unregulated Emissions Units and Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.

[Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.

[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The Permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

[Rule 62-296.320(1)(a), F.A.C.]

8. Reasonable precautions shall be taken to prevent emissions of unconfined particulate matter at this facility shall be taken as necessary.

[Rule 62-296.320(4)(c)2., F.A.C.]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

10. The Permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100, Fax: 813/744-6084

11. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155, Fax: 404/562-9164

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Section III. Emissions Units and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U.

<u>ID No.</u>	<u>Brief Description</u>
001	Combustion Turbine 1A
002	Combustion Turbine 1B
003	Combustion Turbine 2A

Hardee Power Partners, Limited (HPP) operates a nominal 370 megawatt (MW) electric generation facility located approximately nine miles northwest of Wauchula in Hardee County, Florida. The Hardee Power Station ~~includes is comprised of~~ three identical General Electric (GE) model PG-7111EA combustion turbines (CT-1A, CT-1B, and CT-2A) ~~each having a nominal power production output of 75 MW and a GE model PG-7121EA combustion turbine with electrical generation (75 MW)~~. CT-1A and 1B are each equipped with a heat recovery steam generator (HRSG) which feed one, common steam turbine (ST). CT-2A and CT-2B are simple cycle combustion turbines (CTs). CT-1A and CT-2A are each equipped with a stack to bypass each unit's HRSG.

TPS Comment: Subsection A specifically addresses CT-1A, CT-1B, and CT-2A. Since the subsequent text below is only applicable to these units, suggest deleting references to CT-2B above.

The facility utilizes pipeline natural gas as its primary fuel source with No.2 distillate fuel oil serving as a backup fuel. The CT's are subject to 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, and are permitted under PSD-FL-140 and PA-89-25. The facility may expand to an ultimate generating capacity of 880 MW (nominal net). Water injection is used to reduce NO_x emissions. The maximum permitted heat input rate to each CT is 1,312.3 MMBtu/hr while firing oil, and 1,268.4 MMBtu/hr while firing natural gas.

{Permitting notes: These emission units are regulated under Rule 62-210.300, F.A.C., Permits Required; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b)38., F.A.C.; NSPS - 40 CFR 60 Subpart A; Rule 212.400, F.A.C., Prevention of Significant Deterioration; PSD-FL-140; The units are not affected by the Acid Rain Program since they meet the requirements of 40 CFR 72.6(b)(6).}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input to each combustion turbine at an ambient temperature of 32°F shall not exceed 1,312.3 MMBtu/hr while firing fuel oil, nor 1,268.4 MMBtu/hr while firing natural gas.

[PSD-FL-140]

A.2. Methods of Operation - Fuels. The only fuels to be burned in this unit are natural gas or No. 2 fuel oil. The annual average sulfur content of the fuel oil shall not exceed 0.3 percent by weight; the maximum sulfur content shall not exceed 0.5%.
[Rules 62-213.440(1), F.A.C.; PSD-FL-140]

A.3. Hours of Operation.
This emissions unit is allowed to operate continuously, i.e., 8,760 hours per year.
[Rule 62-210.400, F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.4. Nitrogen Oxides. NO_x emissions from each CT shall not exceed:
a. 42 ppmvd at 15% O₂ and 215.9 lb./hour while firing natural gas;
b. 65 ppmvd at 15% O₂ and 383.8 lb./hour while firing fuel oil.
[PSD-FL-140]

A.5. Sulfur Dioxide. SO₂ emissions from each CT shall not exceed 35.8 lb./hour while firing natural gas and 734.4 lb./hour while firing fuel oil.
[PSD-FL-140]

A.6. Particulate Matter/PM₁₀. PM/PM₁₀ emissions from each CT shall not exceed 5 lb./hour while firing natural gas and 10 lb./hour while firing fuel oil.
[PSD-FL-140]

A.7. Carbon Monoxide. CO emissions from each CT shall not exceed 10 ppmvd and 31.3 lb/hr while firing natural gas and 26 ppmvd and 93.4 lb/hr while firing fuel oil.
[PSD-FL-140]

A.8. Volatile Organic Compounds. VOC emissions from each CT shall not exceed 2 ppmvd and 3.6 lb/hr while firing natural gas and 5 ppmvd and 10.3 lb/hr while firing fuel oil.
[PSD-FL-140]

A.9. Visible Emissions. Visible emissions from each CT shall not exceed 10 percent opacity while burning natural gas and 20 percent opacity when burning fuel oil.
[PSD-FL-140]

Monitoring Requirements

A.10. CMS Requirements. The Permittee shall install, operate, and maintain a continuous monitoring system (CMS) to monitor and record the fuel consumption, the ratio of water to fuel being fired in the turbine. The system shall be accurate to within ± 5.0 percent and shall be approved by the Department.
[40 CFR 60.334(a)]

A.11. Critical Fuel Parameters. The Permittee shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. Pursuant to the custom monitoring schedule provisions of 40 CFR 60.334(b)(2), the frequency of determination of these values shall be as follows:

a. Monitoring of the nitrogen content of No. 2 fuel oil is not required. Sulfur content of distillate fuel oil shall be determined for each shipment of No. 2 fuel oil received; and

b. Monitoring of the nitrogen content of pipeline natural gas is not required. Sulfur content of pipeline natural gas will be based on twice-monthly analyses provided by the natural gas supplier.

[40 CFR 60.334(b)(1)&(b)(2)]

Test Methods & Procedures

A.12. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90 to 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load 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 purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. If testing shows that NO_x emissions exceed the Subpart GG standard when operating at capacity, the Department may require a performance test in accordance with 40 CFR 60.335 testing procedures.

[Rule 62-4.070(3), F.A.C. and 40 CFR 60.8(a)]

A.13. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

A.14. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

A.15. Applicable Test Procedures.

(a) Required Sampling Time.

1. 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.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

- a. (not applicable)
- b. (not applicable)
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) **Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) **Required Flow Rate Range.** For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) **Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1. (See attachment.)

(e) **Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

A.16. 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., SIP approved]

A.17. Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7)(c), F.A.C., SIP approved]

A.18. An annual compliance test shall be performed on each CT if the CT operated for more than 400 hours in the preceding 12-month period. Annual compliance tests shall be performed on the CT's while firing natural gas if No. 2 fuel oil was used for 400 hours or less in the preceding 12-month period. Annual compliance tests shall be performed on the CTs while firing No. 2 fuel oil if the No. 2 fuel was used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using the following EPA reference methods in accordance with 40 CFR 60, Appendix A, as adopted by reference in Chapter 62-297, F.A.C.:

- a. Reference Method 5, 5B or 17 for PM (oil only).
- b. Reference Method 9 for VE.
- c. Reference Method 10 for CO.
- d. Reference Method 20 for NOx.
- e. Reference Method 25A for VOC.
- f. Other methods may be used for compliance testing after obtaining prior Departmental approval, in writing.

[Rule 62-297.310(7)(a)(4), F.A.C., PSD-FL-140]

A.19. Sulfur Content. The Permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D 2880-96, or more recent version, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or more recent versions, shall be used for the sulfur content of gaseous fuels (incorporated by reference - see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases.

Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Department.

[40 CFR 60.335(d)]

A.20. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335 (a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

[40 CFR 60.335(e)]

A.21. These emissions units are also subject to conditions C.1. through C.20., contained in **Subsection C. Common Conditions.**

Special Conditions

S.1. On or before April 1 of each year, the Permittee shall submit to DARM and the Department's Southwest District Office an annual report for the previous year showing:

1. The annual average capacity factor (CF) for each individual generating unit;
2. The cumulative lifetime average CF for each individual generating unit;
3. The annual average CF for the Hardee Power Station; and,
4. The cumulative lifetime average CF for the Hardee Power Station.

The annual average CF shall be calculated by dividing each unit's megawatt hours output of generation by the product of the official megawatt rating of the unit and the number of hours in a year. Cumulative lifetime average CF shall be calculated by dividing the cumulative total of megawatt hours output of

generation by the product of the official combined cycle megawatt rating and the cumulative period of hours since commercial operation.

[PSD-FL-140]

S.2. To determine compliance with the capacity factor condition, the Permittee shall maintain daily records of power generation for each turbine.

[PSD-FL-140]

S.3. Should any annual report demonstrate that the cumulative lifetime CF for the Hardee Power Station exceeds 60% at any time, the Permittee shall install SCR or another technology of equal or greater NO_x reduction capability. In no event shall any such SCR or equivalent NO_x control technology installation and compliance testing occur later than 30 months from the date that the Permittee requested or the facility exceeded the 60% cumulative average CF.

[PSD-FL-140]

S.4. If start/black start capability for the CT's is provided by a combustion unit, the Department shall be notified of the type and model, output capacity, anticipated hours of operation, and the air emissions of the unit.

[PSD-FL-140]

Section III. Emissions Units and Conditions.

Subsection B. This section addresses the following emissions unit(s).

E.U.

<u>ID No.</u>	<u>Brief Description</u>
004	Combustion Turbine 2B

Emission unit 004 is a General Electric Model No. PG7121 7EA dual-fuel simple cycle combustion turbine with electrical generator having a nominal power production output of 75 MW. Dry low-NO_x (DLN) combustion technology will be used to control nitrogen oxide emissions when firing the primary fuel of pipeline natural gas. Water injection will be used to control NO_x emissions when firing low sulfur distillate oil as a backup fuel. Combustion design and clean fuels will be used to minimize emissions of CO, PM/PM₁₀, SAM, SO₂, and VOC.

Exhaust gases from the combustion turbine will exit an 85 feet high rectangular stack (9 feet by 19 feet) at approximately 1000 °F with a volumetric flow rate of 1,465,518 acfm. These parameters are based on firing natural gas at 100% base load, cooling the turbine inlet air to 59 °F, and ambient conditions of 60% relative humidity and 14.7 psi.

{Permitting notes: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b)38., F.A.C.; NSPS - 40 CFR 60 Subpart A; Rule 212.400, F.A.C., Prevention of Significant Deterioration; PSD-FL-140A; **and applicable provisions of The units are not affected by the Acid Rain Program since they meet the requirements of 40 CFR 72.6(b)(6).**}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The combustion turbine shall operate only in simple-cycle mode and generate a nominal 75 MW of electrical power. Operation of this unit shall not exceed 880 mmBTU per hour of heat input from firing natural gas nor 950 mmBTU per hour of heat input from firing low sulfur distillate oil. The maximum heat inputs are based on the lower heating value (LHV) of each fuel, an inlet air supply cooled to 59 °F, a relative humidity of 60%, an ambient air pressure of 14.7 psi, and 100% base load. Therefore, maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's performance curves, corrected for site conditions or equations for correction to other ambient conditions, have been provided and are a part of this permit, see Attachment G-1.

[Rule 62-210.200, F.A.C. and PSD-FL-140A]

B.2. Methods of Operation - Fuels: The combustion turbine shall be fired by pipeline natural gas containing no more than 2 grains of sulfur per 100 dry standard cubic feet of gas. As a backup fuel, the combustion turbine may be fired with No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. Compliance with limits on fuel sulfur content shall be demonstrated by the record keeping requirements and/or the conditions of the Alternate Monitoring Plan specified in this

permit. It is noted that these limitations are much more stringent than the NSPS sulfur dioxide limitation and assure compliance with 40 CFR 60.333 and 60.334, see specific condition B..

[Applicant Request, Rule 62-210.200, F.A.C., and PSD-FL-140A]

B.3. Hours of Operation. The hours of operation of the combustion turbine are not limited when firing natural gas (8760 hours per year). The combustion turbine shall not fire low sulfur distillate oil for more than 876 hours during any consecutive 12 months. Operation below 50% of baseline operation shall be limited to two (2) hours per unit cycle (breaker open to breaker closed).

[Rule 62-210.200; Rule 62-212.400, F.A.C. (BACT), and PSD-FL-140A]

B.4. Simple Cycle Operation. The combustion turbine shall operate only in simple cycle mode. This requirement is based on the permittee's request, which formed the basis of the NO_x BACT determination and resulted in the emission standards specified in this permit. Specifically, the NO_x BACT determination eliminated several control alternatives based on technical considerations and costs due to the elevated temperatures of the exhaust gas. Any request to convert this unit to combined cycle operation by installing a new heat recovery steam generator or connecting this unit to an existing heat recovery steam generator shall require the permittee to perform a new NO_x BACT analysis and the approval of the Department through a permit modification. The results of this analysis may validate the initial BACT determination or result in the submittal of a full PSD permit application, new control equipment, new control equipment, and new emissions standards.

[Rule 62-212.400(6)(b), F.A.C., and PSD-FL-140A]

Performance Restrictions

B.5. Operating Procedures: The Best Available Control Technology (BACT) determinations established by this permit rely on "good operating practices" to minimize emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the combustion turbine and pollution control devices in accordance with the guidelines and procedures established by each equipment manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions.

[Applicant Request; Rule 62-4.070(3); Rule 62-212.400, F.A.C. (BACT), and PSD-FL-140A]

B.6. 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 owner or operator shall notify the Compliance Authority as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the 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 and the regulations.

[Rule 62-4.130, F.A.C., and PSD-FL-140A]

Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.7. Nitrogen Oxides.

- (a) **Gas Firing:** When firing natural gas in the combustion turbine, NO_x emissions shall not exceed 32.0 pounds per hour nor 9.0 ppmvd corrected to 15% oxygen based on a 3-hour test average. In addition, NO_x emissions shall not exceed 9.0 ppmvd corrected to 15% oxygen based on a 24-hour block average for data collected from the continuous emissions monitor.
- (b) **Oil Firing:** When firing low sulfur distillate oil in the combustion turbine, NO_x emissions shall not exceed 167.0 pounds per hour nor 42.0 ppmvd corrected to 15% oxygen based on a 3-hour test average. In addition, NO_x emissions shall not exceed 42.0 ppmvd corrected to 15% oxygen based on a 3-hour block average for data collected from the continuous emissions monitor.

NO_x emissions are defined as emissions of oxides of nitrogen measured as NO₂. Compliance with the 3-hour (**applicable during distillate fuel oil-firing**) and 24 hour (**applicable during natural gas-firing**) block averages shall be demonstrated by collecting and reporting data in accordance with the conditions for the NO_x continuous emissions monitor specified by this permit.

[PSD-FL-140A]

TPS Comment: Additional language clarifies the applicable NO_x CEMS averaging periods for distillate fuel oil and natural gas firing.

B.8. Carbon Monoxide.

- (a) **Gas Firing:** ~~During the first 12 months after initial startup, CO emissions shall not exceed 54.0 pounds per hour nor 25.0 ppmvd corrected to 15% oxygen based on a 3-hour test average when firing natural gas in the combustion turbine. Thereafter,~~ CO emissions shall not exceed 43.0 pounds per hour nor 20.0 ppmvd corrected to 15% oxygen based on a 3-hour test average when firing natural gas in the combustion turbine.
- (b) **Oil Firing:** When firing low sulfur distillate oil in the combustion turbine, CO emissions shall not exceed 43.0 pounds per hour nor 20.0 ppmvd corrected to 15% oxygen based on a 3-hour test average.

[PSD-FL-140A]

TPS Comment: Initial startup of CT-2B was in May 2000. Deleted CO limitation is now obsolete.

B.9. Sulfur Dioxide and Sulfuric Acid Mist (SAM). SO₂ and SAM emissions shall be limited by the good combustion techniques and the fuel sulfur limitations specified in this permit: natural gas containing no more than 2 grains of sulfur per 100 dry standard cubic feet of gas and No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight.

[PSD-FL-140A]

B.10. Particulate Matter/PM₁₀. PM/PM₁₀ emissions from the CT shall be limited by the good combustion techniques and the fuel sulfur limitations specified in this permit: natural gas containing no more than 2 grains of sulfur per 100 dry standard cubic feet of gas and No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight.

[PSD-FL-140A]

B.11. Visible Emissions. As a surrogate for PM/PM₁₀ emissions, visible emissions from the operation of the CT shall not exceed 10% opacity, based on a 6-minute average.

[PSD-FL-140A]

B.12. Volatile Organic Compounds (VOCs).

- (a) **Gas Firing:** When firing natural gas in the combustion turbine, VOC emissions shall not exceed 2.0 pounds per hour nor 2.0 ppmvd based on a 3-hour test average.
- (b) **Oil Firing:** When firing low sulfur distillate oil in the combustion turbine, VOC emissions shall not exceed 5.0 pounds per hour nor 4.0 ppmvd based on a 3-hour test average.

The VOC emissions shall be measured and reported in terms of methane.

[PSD-FL-140A]

Monitoring Requirements.

B.13. CMS Requirements. The permittee shall install, calibrate, operate and maintain a continuous monitoring system (CMS) to monitor and record the fuel consumption, the ratio of water to fuel being fired in the turbine. The system shall be accurate to within ± 5.0 percent and shall be approved by the Department. **As an alternative to the monitoring requirements of this condition, the permittee may comply with the monitoring requirements of Specific Condition B.17 (Alternative Monitoring Plan).**

[40 CFR 60.334(a)]

B.14. NO_x CEM: The permittee shall install, calibrate, operate, and maintain a continuous emission monitoring system (CEMS) to measure and record NO_x and oxygen concentrations in the combustion turbine exhaust stack. A monitor for carbon dioxide may be used in place of the oxygen monitor, but the system shall be capable of correcting the emissions to 15% oxygen. NO_x data collected by the CEMS shall be used to demonstrate compliance with the 3-hour (**applicable to distillate fuel oil-firing**) and 24-hour (**applicable to natural gas-firing**) block emissions standards for NO_x. The block averages shall be determined by calculating the arithmetic average of all hourly emission rates for the respective averaging period. Each 1-hour average shall be expressed in units of ppmvd corrected to 15% oxygen and calculated using at least two valid data points at least 15 minutes apart. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless prohibited by 62-210.700 F.A.C. When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified averaging period.

- (a) The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of: Rule 62-297.520, F.A.C., including certification

of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications 2 and 3; 40 CFR 60.7(a)(5); 40 CFR 60.13; 40 CFR 60, Appendix F; and 40 CFR Part 75. ~~A monitoring plan shall be provided to the DEP Emissions Monitoring Section Administrator, EPA and the Compliance Authority for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62. The plan shall consist of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location.~~

- (b) Continuous emission monitoring data required by this permit shall be collected and recorded during all periods of operation including startup, shutdown, and malfunction, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. Although recorded, emissions during periods of startup, shutdown and malfunction are subject to the excess emission conditions specified in this permit. When the CEMS reports NO_x emissions in excess of the standards allowed by this permit, the owner or operator shall notify the Compliance Authority within one (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. The Department may request a written report summarizing the excess emissions incident.

[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C and 40 CFR 60.7]

TPS Comment: A 40 CFR Part 75 Monitoring Plan has been submitted. Deleted text is now obsolete.

B.15. Critical Fuel Parameters. The Permittee shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. Pursuant to the custom monitoring schedule provisions of 40 CFR 60.334(b)(2), the frequency of determination of these values shall be as follows:

- a. Monitoring of the nitrogen content of No. 2 fuel oil is not required. Sulfur content of distillate fuel oil shall be determined for each shipment of No. 2 fuel oil received; and
- b. Monitoring of the nitrogen content of pipeline natural gas is not required. Sulfur content of pipeline natural gas will be based on twice-monthly analyses provided by the natural gas supplier.

[40 CFR 60.334(b)(1)&(b)(2)]

Compliance Demonstrations

B.16. Fuel Records

- (a) Natural Gas: The permittee shall demonstrate compliance with the fuel sulfur limit for natural gas 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 ASTM 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 (see Alternate Monitoring Plan) 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 owner or operator, a service contractor retained by the owner or operator, 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.

- (b) Low Sulfur Distillate Oil: For all bulk shipments of low sulfur distillate oil received at this facility, the permittee shall obtain from the fuel vendor an analysis identifying the sulfur content. Methods for determining the sulfur content of the distillate oil shall be ASTM D129-91, D2622-94, or D4294-90 or equivalent methods. Records shall specify the test method used and shall comply with the requirements of 40 CFR 60.335(d).

[Rules 62-4.070(3) and 62-4.160(15), F.A.C.]

B.17. Alternate Monitoring Plan: Subject to EPA approval, the following alternate monitoring may be used to demonstrate compliance.

- (a) The NO_x CEM data may be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. Subject to EPA approval, the calibration of the water-to-fuel ratio-monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS.
- (b) The NO_x CEM data shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG.
- (c) 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.
- (d) A **custom fuel monitoring schedule** pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following conditions are met.
- (1) The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30. [Acid Rain Permit Received on October 27, 1999]
 - (2) The permittee shall submit a monitoring plan, certified by signature of the Authorized Representative, that commits to using a primary fuel of pipeline supplied natural gas containing no more than 2 grains of sulfur per 100 SCF of gas pursuant to 40 CFR 75.11(d)(2);
 - (3) Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel-monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO₂ emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

[40 CFR 60, Subpart GG, Applicant Request]

- (e) The permittee shall monitor ~~the sulfur contents and nitrogen content~~ of No. 2 distillate fuel oil (or a superior grade) and ~~sulfur content of~~ natural gas. These values may be provided by the vendor and the frequency of determinations of these values shall be as follows:

a. No. 2 Distillate Fuel Oil (or a superior grade). The ~~values,~~ sulfur ~~and nitrogen~~ content shall be determined on each occasion that fuel is transferred to the storage tanks from any other

source. Records of these values shall be kept by the facility for a five year period for regulatory agency inspection purposes.

b. Natural Gas. Pursuant to 40 CFR 60.334(b)(2), a custom fuel monitoring schedule for the determination of these values shall be followed for the natural gas fired at this facility and shall be as follows:

Custom Fuel Monitoring Schedule for Natural Gas (NG)

1. ~~Monitoring of fuel nitrogen content shall not be required if NG is the only fuel being fired in the gas turbines.~~
2. Sulfur Monitoring:
 - (a). Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2), or the latest edition(s).
 - (b). This custom fuel monitoring schedule shall become effective on the date this permit becomes valid. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333 and the conditions of this permit, then sulfur monitoring shall be conducted once per quarter for six quarters. If monitoring data is provided by the applicant which demonstrates consistent compliance with the requirements herein the applicant may begin monitoring as per the requirements of 2(c).
 - (c). If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and the conditions of this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - (d). Should any sulfur analysis as required in items 2(b) or 2(c) above indicate non-compliance with 40 CFR 60.333 and the conditions of this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in natural gas quality (i.e., sulfur content varying by more than 10 grains/1000 dry standard cubic feet of gas) shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

[40 CFR 60.334(b); PSD-FL-140A.]

TPS Comment: Monitoring of the nitrogen content of distillate fuel oil and natural gas is not required per Specific Condition B.15.

B.18. Monthly Operations Summary: By the fifth calendar day of each month, the owner or operator shall record the following information in a written (or electronic) log for the previous month of operation: the amount of hours each fuel was fired; the quantity of each fuel fired; the calculated average heat input

of each fuel fired in mmBTU per hour, based on the lower heating value; and the average sulfur content of each fuel. In addition, the owner or operator shall record the hours of oil firing for the previous 12 months of operation. The Monthly Operations Summary shall be maintained on site in a legible format available for inspection or printed at the Department's request.

[Rule 62-4.160(15), F.A.C.]

Test Methods & Procedures

B.19. Combustion Turbine Testing Capacity: Testing of emissions 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 ambient 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.]

B.20. Calculation of Emission Rate: 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.]

B.21. Applicable Test Procedures

(a) Required Sampling Time.

1. 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.]

- (d) **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.]

B.22. 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.]

B.23. 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)]

B.24. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

B.25. Test Notification: The permittee shall notify the Compliance Authority in writing ~~at least 30 days prior to initial performance tests and~~ at least 15 days prior to any ~~other~~-required ~~performance~~ tests.

[Rule 62-297.310(7)(a)9., F.A.C. and 40 CFR 60.7, 60.8]

TPS Comment: Initial performance testing has been completed. Deleted text is now obsolete.

B.26. Annual Performance Tests: Annual performance tests for CO, NO_x, and visible emissions from the combustion turbine shall be conducted ~~while individually for the firing of natural gas if low sulfur distillate oil was used for 400 hours or less in the preceding 12-month period.~~ Annual performance tests shall be conducted for CO, NO_x, and visible emissions from the combustion turbine while firing and low sulfur distillate oil if the distillate oil was used for more than 400 hours in the preceding 12-month period. Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th). When conducted at permitted capacity, the annual NO_x continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the annual compliance stack test. [Rule 62-297.310(7)(a)4., F.A.C.]

TPS Comment: Requested language is consistent with the testing requirements for CT-1A, CT-1B, and CT-2A and Rule 62-297.310(7)(a), F.A.C.

B.27. Tests Prior to Permit Renewal: During the federal fiscal year (October 1st to September 30th) prior to renewing the air operation permit, the permittee shall also conduct individual performance tests for VOC emissions for firing natural gas and low sulfur distillate oil.

[Rule 62-297.310(7)(a)3., F.A.C.]

B.28. Tests After Substantial Modifications: All performance tests required for initial startup shall also be conducted after any substantial modification and appropriate shake-down period of air pollution control equipment including the replacement of dry low- NO_x combustors. Shakedown periods shall not exceed 100 days after re-starting the combustion turbine.

[Rule 62-297.310(7)(a)4., F.A.C.]

B.29. VE Tests After Shutdown: Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions (VE) compliance test once per each five-year period, coinciding with the term of its air operation permit.

[Rule 62-297.310(7)(a)8., F.A.C.]

B.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.]

B.31. Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources

equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7)(c), F.A.C., SIP approved]

B.32. Performance Test Methods: Compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

- (a) **EPA Method 7E**, "Determination of Nitrogen Oxide Emissions from Stationary Sources". This method may be used to determine compliance with the annual 3-hour NO_x limit.
- (b) **EPA Method 9**, "Visual Determination of the Opacity of Emissions from Stationary Sources" for VE.
- (c) **EPA Method 10**, "Determination of Carbon Monoxide Emissions from Stationary Sources" for CO. All CO tests shall be conducted concurrently with NO_x emissions tests.
- (d) **EPA Method 20**, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." This test shall be used to determine compliance for the initial performance tests and may be used to determine compliance with the annual 3-hour NO_x limit.
- (e) **EPA Methods 18, 25 and/or 25A**, "Determination of Volatile Organic Concentrations."

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 pursuant to 62-297.620, F.A.C.

[Rule 62-297.310(7)(a)(4), F.A.C., and PSD-FL-140A]

Excess Emissions

B.33. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, or malfunction of the combustion turbine shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions resulting from startup to simple cycle mode shall not exceed one (1) hour. In no case shall excess emissions from startup, shutdown, and malfunction exceed two hours in any 24-hour period. If excess emissions occur due to malfunction, the owner or operator shall notify the Compliance Authority within one (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.

[Applicant Request, Vendor Data and Rule 62-210.700, F.A.C.]

B.34. These emissions units are also subject to conditions C.1. through C.20., contained in **Subsection C. Common Conditions.**

Section III. Emissions Units and Conditions.

Subsection C. Common Conditions.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
001	Combustion Turbine 1A
002	Combustion Turbine 1B
003	Combustion Turbine 2A
004	Combustion Turbine 2B

Except as otherwise specified under Subsections A. through D., the following conditions apply to the emissions unit(s) listed above:

General Provisions - 40 CFR 60 Subpart A

C.1. Excess Emissions Reporting: If excess emissions occur due to malfunction, the owner or operator 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 (40 CFR 60.7, Subpart A) periods of startup, shutdown, 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. This quarterly report shall follow the format provided in Figure 1 (see attached) of this permit.

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7]

C.2. Quarterly Report. The Permittee shall submit a quarterly excess emissions and monitoring systems performance report. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

1. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

2. Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

3. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

4. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)]

C.3. Summary Report. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Department. One summary report form shall be submitted for each pollutant monitored.

1. If the total duration of excess emissions for the reporting period is less than one percent of the operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Department.

2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)]

C.4. Reporting Frequency.

(1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under 40 CFR 60 continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and

(iii) The Department does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Department in writing of his or her intention to make such a change and the Department does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Department may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Department to make a judgment about the source's potential for noncompliance in the future. If the Department disapproves the Permittee's request to reduce the frequency of reporting, the Department will notify the Permittee in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Department to the Permittee will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the Permittee shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the Permittee may again request approval from the Department to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)]

C.5. Records Retention. The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (five) years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

C.6. If requested by the Department pursuant to Condition A.12., performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in 40 CFR 60, Subpart GG unless the Department (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Department's satisfaction that the affected facility is in compliance with the standard, or (3) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Department's authority to require testing under section 114 of the Act. [40 CFR 60.8(b)(1), (4) & (5)]

C.7. If requested by the Department pursuant to Condition A.12., performance tests shall be conducted under such conditions as the Department shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Department such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]

C.8. Department Notification.

(a) The Permittee shall provide to the Department's Southwest District office at least 15 days prior notice of any compliance or performance test, except as specified under other subparts, to afford the District office the opportunity to have an observer present. Test results shall be submitted to the District office no later than 45 days after completion of the test.

(b) The Permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted timely and in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change and, the anticipated completion date of the change.

[40 CFR 60.8(d) and Rule 62-297.310(7)(a)8., F.A.C.]

Compliance with Standards and Maintenance Requirements

C.9. The Permittee shall follow the manufacturer's instructions during periods of start-up, shutdown, malfunction, or load change to ensure that the best operational practices to minimize emissions will be adhered to and the duration of any excess emissions will be minimized. The instructions shall be kept on file at the plant site and made available for inspection upon request by the Department.

[40 CFR 60.11(d)]

C.10. Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[40 CFR 60.11(g)]

C.11. Circumvention. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

Monitoring Requirements

C.12. After receipt and consideration of written application, the Department may approve alternatives to any monitoring procedures or requirements of 40 CFR 60 including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by 40 CFR 60 would not provide accurate measurements due to liquid water or other interferences caused by substances with the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(7) Alternatives to the ASTM test methods or sampling procedures specified by any subpart.

(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, 40 CFR 60 appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Department may require that such demonstration be performed for each affected facility.

(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities are released to the atmosphere through more than one point.

[40 CFR 60.13(i)]

Modifications

C.13. The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of 40 CFR 60 any other facility within that source.

[40 CFR 60.14(c)]

C.14. Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of this section.

[40 CFR 60.14(f)]

Additional Reporting and Recordkeeping Requirements

C.15. 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.

[Rule 62-210.370(2), F.A.C.]

~~C.16. Two copies of the results of the annual compliance emission tests required by Condition A.18. shall be submitted within forty-five days of the last sampling run to the Southwest District office in Tampa. All reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.310(8), F.A.C.~~

~~[Rule 62-297.310(8), F.A.C.]~~

C.17. Emissions Performance Test Reports: A report indicating the results of ~~any the~~ required emissions performance tests shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall ~~be submitted in duplicate and 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.]

TPS Comment: Specific Conditions C.16 and C.17 appear to be redundant. Recommend deleting Specific Condition C.16 and revising Specific Condition No. C.17 as shown.

Excess Emissions

{Permitting Note: The Excess Emissions Rule at 62-210.700, F.A.C., cannot vary any requirement of a NSPS provision.}

C.18. Excess emissions from the CTs resulting from start-up, shutdown, malfunction, or load change shall be acceptable providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for a longer duration.

[Rule 62-210.700(1), F.A.C.]

C.19. 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 24-hour NO_x averages for compliance determinations.

[Rule 62-210.700(4), F.A.C.; PSD-FL-140A]

C.20. Excess Emissions Defined. For the purpose of reports required under 40 CFR 60.7(c) (see specific conditions C.1. through C.4, G.1 through G.4.), periods of excess emissions that shall be reported are defined as follows:

a. *Nitrogen oxides.* For CT-1A, CT-1B, and CT-2A, aAny one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

For CT-2B, NO_x CEMS data will be used in accordance with Specific Condition B.17(a) and (b).

b. *Sulfur dioxide.* Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent by weight.
[40 CFR 60.60.334(c)(1)&(2)]

Section IV. This section is the Acid Rain Part.

Operated by: Hardee Power Partners

ORIS code: 50949

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions unit(s) listed below are regulated under Acid Rain, Phase II.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
004	Combustion Turbine 2B

A.1. The Phase II permit application(s) submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), dated 07/01/95.

[Rules 62-213, F.A.C. and 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations and nitrogen oxide (NO_x) requirements for each Acid Rain unit are as follows:

<u>E.U. ID</u>	<u>EPA ID</u>	<u>Year</u>	1999	2001	2002	2003	2004
004	2B	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

A.4. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C., Fast-Track Revisions of Acid Rain Parts.

[Rules 62-213.413 and 62-214.370(4), F.A.C.]

A.5. Comments, notes, and justifications: Phase II Permit received October 27, 1999.

A.6. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.

[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, Definitions - Applicable Requirements, F.A.C.]