## Memorandum

# Florida Department of Environmental Protection

TO:

Joseph Kahn, Director, DARM

Through:

Trina L. Vielhauer, Chief, BAR

From:

Jeff Koerner, Air Permitting North Section

Bruce Thomas, Air Permitting North Section

DATE:

October 3, 2007

SUBJECT:

DEP File No. 0490015-008-AC (PSD-FL-140B)

Attached is the final PSD permit revision, which increases the heat input rates for unit CT-2B (ARMS EU-005) from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. Actual operating data indicates that the heat input rates provided by the gas turbine vendor underestimate the actual performance of the installed gas turbine. No physical or operational changes are necessary to realize the actual installed capacity of Unit CT-2B. No increase in the emissions standards (concentrations or mass emissions rates) are requested to accommodate the change. The applicant does not expect any emissions increases nor increased utilization as a result of the change. Unit CT-2B will continue to comply with all applicable provisions of the air construction and operation permits.

No comments were received from the EPA or the public. We recommend your approval of the attached final permit.

Attachments

JK/tv/jfk/bxt



## Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

### **PERMITTEE**

Hardee Power Partners 6695 North County Road 663 Fort Green Springs, FL 33834

Authorized Representative: Mr. Alex C. George, Vice President Air Permit No. PSD-FL-140B Project No. 0490015-008-AC Hardee Power Station Facility ID No. 0490015 Heat Input Increases for CT-2B

### **FACILITY AND LOCATION**

This permit authorizes increases in the maximum permitted heat input rates for Unit CT-2B from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. The combustion turbine is installed at the Hardee Power Station, which is an existing electrical generating power plant (SIC No. 4911). The facility is located in Hardee County at 6695 North County Road 663 North in Fort Green Springs, Florida. The UTM coordinates are Zone 17, 405.02 km East, and 3057.18 km North.

### STATEMENT OF BASIS

This air pollution construction permit revision is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

Joseph Kahn, Director

Division of Air Resource Management

#### NOTICE OF FINAL PERMIT

In the Matter of an Application for Permit by:

Hardee Power Partners 6695 North County Road 663 Fort Green Springs, FL 33834

Authorized Representative:

Alex C. George, Vice President

Air Permit No. 0490015-008-AC PSD Permit No. PSD-FL-140B Hardee Power Partners Heat Input Increases for CT-2B

Enclosed is final air Permit No. 0490015-008-AC, which increases the maximum permitted heat input rates for Unit CT-2B from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. The combustion turbine is installed at the Hardee Power Station, which is located in Hardee County at 6695 North County Road 663 North in Fort Green Springs, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S. by filing a Notice of Appeal pursuant to Rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000); and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief Bureau of Air Regulation

### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit) was sent by electronic mail with received receipt requested before the close of business on 10/4/07 to the persons listed:

- Mr. Alex C. George, Hardee Power Partners (ageorge@invenergyservices.com)
- Mr. Frank Sarduy, Hardee Power Partners (fsarduy@invenergyservices.com)
- Mr. Thomas W. Davis, ECT (tdavis@ectinc.com)
- Ms. Cindy Zhang-Torres, SWD Office (Cindy.Zhang-Torres@dep.state.fl.us)
- Mr. Mike Halpin, Siting Office (Mike.Halpin@dep.state.fl.us)
- Ms. Katy Forney, EPA Region 4 (forney.kathleen@epa.gov)
- Mr. Jim Little, EPA Region 4 (little.james@epa.gov)
- Mr. Dee Morse, NPS (dee morse@nps.gov)

Clerk Stamp

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

## FINAL DETERMINATION

### **PERMITTEE**

Hardee Power Partners 6695 North County Road 663 Fort Green Springs, FL 33834

## PERMITTING AUTHORITY

Florida Department of Environmental Protection Division of Air Resource Management Bureau of Air Regulation, Air Permitting North Section 2600 Blair Stone Road, MS #5505 Tallahassee, Florida 32399-2400

#### **PROJECT**

Project No. 0490015-008-AC PSD Permit Revision No. PSD-FL-140B Hardee Power Station

This project authorizes increases in the maximum permitted heat input rates for Unit CT-2B from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil.

## NOTICE AND PUBLICATION

The Department distributed the Intent to Issue Permit package on August 15, 2007. The applicant published the Public Notice of Intent to Issue in <u>The Herald - Advocate</u> on September 6, 2007. The Department received the proof of publication on September 13, 2007.

## **COMMENTS**

No comments on the Draft Permit were received from the public, the Department's Southwest District Office, the EPA Region 4 Office, the National Park Service, or the applicant.

## **CONCLUSION**

The final action of the Department is to issue the permit as drafted.

#### REVISED DRAFT PERMIT CONDITIONS

This permitting action revises the following specific condition in air construction Permit No. PSD-FL-140A (Project No. 0490015-002-AC). All other conditions in that permit remain unchanged.

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

3. 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 880 950 MMBTU per hour of heat input from firing natural gas nor 950 1060 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% of 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, shall be provided to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C.]

## HARDEE POWER PARTNERS LIMITED

Invenergy

Via Federal Express 7903 3454 8193

September 12, 2007

Ms. Trina L. Vielhauer Florida Department of Environmental Protection Bureau of Air Regulation 2600 Blair Stone Road Mail Station 5505 Tallahassee, Florida 32399-2400 RECEIVED

SEP 13 2007

BUREAU OF AIR REGULATION

Re:

Hardee Power Partners Limited

Hardee Power Station

Title V Air Operation Permit No. 0490015-007-AV

Proof of Public Notice Publication

Dear Ms. Vielhauer:

In accordance with Rule 62-110.106(5), F.A.C., Hardee Power Partners Limited hereby submits the enclosed proof of publication of Public Notice for draft Permit Nos. 0490015-008-AC and 0490015-009-AV. The Public Notice was published in the Wauchula Herald-Advocate on September 6, 2007.

Please feel free to contact Dennis Powell at (863) 375-3266 if you have any questions regarding this information.

Sincerely,

Ralph E. Randall

Plant Manager

Cc: Mr. Bruce Thomas - FDEP

E Kendelf

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T	newspaper published at Wauchula, in Hardee County, Florida; that the attached copy of advertise-	:
uff	ment, being a Public Notice	
1000 ·		
	in the matter of Hourdon Pour tartnew	
	in theCourt, was published in said newspaper in the issues	
	of September 6, 2007	
	Affiant further says that the said Herald-Advocate is a newspaper published at Wauchula, in said Hardee County, Florida, and that the said newspaper has heretofore been continuously published in said Hardee County, Florida, each week and has been entered as second class mail matter at the post office in Wauchula, in said Hardee County, Florida, for a period of one year next preceding the publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.  Swom to and subscribed before me this  A.D. 20  Notary Public	Commission # D0328603 Bonded By Nuttonal Notary Assn.
Se <sub>1</sub>	My Commission Expires , 2008.	
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## **Best Available Copy**

#### PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation

Draft Permit No. 0490015-008-AC, Air Construction Permit Revision
Draft Permit No. 0490015-009-AV, Concurrent Title V Air Operation Permit Revision

## Hardee Power Partners, Hardee Power Station Hardee County, Florida

Applicant: The applicant for this project is Hardee Power Partners. The applicant's authorized representative and mailing address is Alex C. George, Vice President, Hardee Power Station, 6695 County Road 663 North, Fort Green, Springs, Florida 33834.

Facility Location: The Hardee Power Partners operate an existing electrical generating power plant located in Hardee County at 6695 County Road 663 North in Fort Green Springs, Florida, 33834.

Project: The purpose of the project is to revise the original air construction permit and concurrently revise the Title V air operation permit to allow increases to the heat input rates for the Unit CT-2B simple cycle gas turbine. The draft permit authorizes increases from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. Actual operating data indicates that the heat input rates provided by the gas turbine vendor underestimate the actual performance of the installed gas turbine. No physical or operational changes are necessary to realize the actual installed capacity of Unit CT-2B. No increase in the emissions standards (concentrations or mass emissions rates) are requested to accommodate the change. The applicant does not expect any emissions increases nor increased utilization as a result of the change. Unit CT-2B will continue to comply with all applicable provisions of the air construction and operation permits.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212, F.A.C. Applications for Title V air operation permits are subject to review in accordance with to provisions of Chapter 403, F.S. and Chapters 62-4, 62-210, and 62-213 F.A.C. The projects are not exempt from the permitting procedures for air occonstruction and Title V air operation permits. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments on the Draft Air Construction Permit Revision: The Permitting Authority will accept written comments concerning the Draft Air Construction Permit Revision for a period of 14 days from the date of publication of the Public Notice. Written comments must be post-marked by the close of business (5:00 p.m.), on or before the end of this 14-day period by the Permitting Authority at the above address. If written comments result in a significant change to the Draft Permit, the Permitting Authority will issue a revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Comments on the Draft Title V Air Operation Permit Renewal: The Permitting Authority will accept written comments concerning the Draft Permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be post-marked by the close of business (5:00 p.m.); on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the Draft Permit, the Permitting Authority will issue a revised Draft Permit and require if applicable applicable.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Bouleyard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28:106.301, F.A.C.

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

Mediation: Mediation is not available in this proceeding.

Objections to the Draft Title V Air Operation Permit. Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any Title V permit. Any petition shall be based only on objections to the Title V permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any Title V permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C Section 7661d(b)(2), and must be filed with the Administrator of the EPA at: U.S. EPA. 401 M Street, S.W., Washington, D.C. 20460.

From:

Dee Morse@nps.gov

Sent:

Wednesday, August 15, 2007 11:18 AM

To:

Friday, Barbara

Subject:

DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV -

Hardee Power Partners-Hardee Power Station

Return Receipt

Your

DRAFT Title V Permit Revision No.:

document:

0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power

Partners-Hardee Power Station

was

Dee Morse/DENVER/NPS

received

by:

at:

08/15/2007 09:17:33 AM

From:

Halpin, Mike

To:

Friday, Barbara

Sent:

Wednesday, August 15, 2007 10:51 AM

Subject:

Read: DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV

- Hardee Power Partners-Hardee Power Station

### Your message

To:

'ageorge@invenergyllc.com'; 'Frank Sarduy'; 'tdavis@ectinc.com'; Zhang-Torres; Halpin, Mike; 'forney.kathleen@epa.gov';

'little.james@epa.gov'; 'dee\_morse@nps.gov'

Cc:

Thomas, Bruce X.

Subject:

DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power Partners-Hardee Power

Station

Sent:

8/15/2007 10:44 AM

was read on 8/15/2007 10:50 AM.

From: Tom Davis [tdavis@ectinc.com]

Sent: Wednesday, August 15, 2007 11:04 AM

To: Friday, Barbara

Subject: RE: DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV -

Hardee Power Partners-Hardee Power Station

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]

Sent: Wednesday, August 15, 2007 10:44 AM

To: ageorge@invenergyllc.com; Frank Sarduy; tdavis@ectinc.com; Zhang-Torres; Halpin, Mike;

forney.kathleen@epa.gov; little.james@epa.gov; dee\_morse@nps.gov

Cc: Thomas, Bruce X.

Subject: DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power

Partners-Hardee Power Station

### Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <a href="http://www.adobe.com/products/acrobat/readstep.html">http://www.adobe.com/products/acrobat/readstep.html</a>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

From: Sent:

Forney.Kathleen@epamail.epa.gov Wednesday, August 15, 2007 10:58 AM

To:

Friday, Barbara

Cc:

Little.James@epamail.epa.gov

Subject:

Re: DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV -

Hardee Power Partners-Hardee Power Station

Thanks Barbara, We received this draft permit...

Katy

Katy R. Forney Air Permits Section EPA - Region 4 61 Forsyth St., SW Atlanta, GA 30024

Phone: 404-562-9130 Fax: 404-562-9019

> "Friday, Barbara" <Barbara.Friday@ dep.state.fl.us>

> 08/15/2007 10:44

ΑM

<ageorge@invenergyllc.com>, "Frank Sarduy"

<FSarduy@invenergyllc.com>,

<tdavis@ectinc.com>,

"Zhang-Torres"

<Cindy.Zhang-Torres@dep.state.fl.</pre>

us>, "Halpin, Mike"

<Mike.Halpin@dep.state.fl.us>, Kathleen Forney/R4/USEPA/US@EPA, James Little/R4/USEPA/US@EPA,

<dee morse@nps.gov>

CC

Τо

"Thomas, Bruce X."

<Bruce.X.Thomas@dep.state.fl.us>

Subject

DRAFT Title V Permit Revision

0490015-008-AC(PSD-FL-140B)/04900

15-009-AV - Hardee Power

Partners-Hardee Power Station

Dear Sir/Madam:

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The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

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The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,
DEP, Bureau of Air Regulation
[attachment "0490015-009-AV Statement of Basis.pdf" deleted by Kathleen
Forney/R4/USEPA/US] [attachment "0490015-008-AC Draft Permit.pdf"
deleted by Kathleen Forney/R4/USEPA/US] [attachment "0490015-008-AC TEPD.pdf" deleted by
Kathleen Forney/R4/USEPA/US] [attachment "0490015-008-ACamd009AVCombinedPublicNotice.pdf" deleted by Kathleen Forney/R4/USEPA/US] [attachment
"0490015-008-ACand009-AVPECertification.pdf" deleted by Kathleen Forney/R4/USEPA/US]
[attachment "0490015-008-ACand009DraftCoverLetter.pdf" deleted by Kathleen
Forney/R4/USEPA/US] [attachment "0490015-009-AV Draft Permit.pdf"
deleted by Kathleen Forney/R4/USEPA/US] [attachment "0490015-009-AV History.pdf" deleted
by Kathleen Forney/R4/USEPA/US]

From:

Mail Delivery System [MAILER-DAEMON@mseive01.rtp.epa.gov]

Sent:

Wednesday, August 15, 2007 10:38 AM

To:

Friday, Barbara

Subject:

Successful Mail Delivery Report

Attachments:

Delivery report; Message Headers





Delivery report.txt (692 B)

Message

Headers.txt (1 KB)

This is the mail system at host mseive01.rtp.epa.gov.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<danois.gracy@epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent 46C30FC9 32738 650 170

<forney.kathleen@epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent 46C30FC9 32738 650 170

From:

Alex George [AGeorge@invenergyllc.com]

To:

Friday, Barbara

Sent:

Subject:

Wednesday, August 15, 2007 10:57 AM Read: DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV

- Hardee Power Partners-Hardee Power Station

Your message

To:

AGeorge@invenergyllc.com

Subject:

was read on 8/15/2007 10:57 AM.

To:

'ageorge@invenergyllc.com': Frank Sarduy: 'tdavis@ectinc.com'; Zhang-Torres; Halpin, Mike;

forney.kathleen@epa.gov; little.james@epa.gov; dee\_morse@nps.gov

Cc:

Thomas, Bruce X.

Subject:

DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV -

Hardee Power Partners-Hardee Power Station

Attachments: 0490015-009-AV Statement of Basis.pdf; 0490015-008-AC Draft Permit.pdf; 0490015-008-AC TEPD.pdf: 0490015-008-ACamd009-AVCombinedPublicNotice.pdf: 0490015-008-ACand009-AVPECertification.pdf; 0490015-008-ACand009DraftCoverLetter.pdf; 0490015-009-AV Draft

Permit.pdf; 0490015-009-AV History.pdf

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Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

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Thank you,

DEP, Bureau of Air Regulation

From:

System Administrator

To:

Halpin, Mike

Sent:

Wednesday, August 15, 2007 10:45 AM

Subject:

Delivered: DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-

AV - Hardee Power Partners-Hardee Power Station

## Your message

To:

'ageorge@invenergyllc.com'; 'Frank Sarduy'; 'tdavis@ectinc.com'; Zhang-Torres; Halpin, Mike; 'forney.kathleen@epa.gov';

'little.james@epa.gov'; 'dee\_morse@nps.gov'

Cc:

Thomas, Bruce X.

Subject:

DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power Partners-Hardee Power

Station

Sent:

8/15/2007 10:44 AM

was delivered to the following recipient(s):

Halpin, Mike on 8/15/2007 10:44 AM

From:

System Administrator

To:

Zhang-Torres; Thomas, Bruce X.

Sent:

Wednesday, August 15, 2007 10:45 AM

Subject:

Delivered:DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-

AV - Hardee Power Partners-Hardee Power Station

#### Your message

To:

'ageorge@invenergyllc.com'; 'Frank Sarduy'; 'tdavis@ectinc.com'; Zhang-Torres; Halpin, Mike; 'forney.kathleen@epa.gov';

'little.james@epa.gov'; 'dee\_morse@nps.gov'

Cc:

Thomas, Bruce X.

Subject:

DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power Partners-Hardee Power

Station

Sent:

8/15/2007 10:44 AM

was delivered to the following recipient(s):

Zhang-Torres on 8/15/2007 10:44 AM Thomas, Bruce X. on 8/15/2007 10:44 AM

From:

Exchange Administrator

Sent:

Wednesday, August 15, 2007 10:45 AM

To:

Friday, Barbara

Subject:

Delivery Status Notification (Relay)

Attachments:

ATT152193.txt; DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power Partners-Hardee Power Station



ATT152193.txt (284 B)

DRAFT Title V Permit Revision ...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

tdavis@ectinc.com

From:

Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]

Sent:

Wednesday, August 15, 2007 10:44 AM

To:

Friday, Barbara

Subject:

Successful Mail Delivery Report

Attachments:

Delivery report; Message Headers





Delivery report.txt (692 B)

Message

Headers.txt(2 KB)
This is the mail system at host mseive02.rtp.epa.gov.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<forney.kathleen@epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent 46C31114 13624 19658\_1

ttle.james@epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent 46C31114 13624 19658 1

From:

**Exchange Administrator** 

Sent:

Wednesday, August 15, 2007 10:46 AM

To:

Friday, Barbara

Subject:

Delivery Status Notification (Relay)

Attachments:

ATT152201.txt; DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power Partners-Hardee Power Station





ATT152201.txt (284 B)

DRAFT Title V Permit Revision ...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

dee morse@nps.gov

From:

System Administrator

To:

Alex George

Sent:

Wednesday, August 15, 2007 10:49 AM

Subject:

Delivered: DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-

AV - Hardee Power Partners-Hardee Power Station

### Your message

To:

ageorge@invenergyllc.com; Frank Sarduy; tdavis@ectinc.com; Zhang-Torres; Halpin, Mike; forney.kathleen@epa.gov;

little.james@epa.gov; dee\_morse@nps.gov

Cc:

Thomas, Bruce X.

Subject:

DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV - Hardee Power Partners-Hardee Power

Station

Sent:

8/15/2007 10:44 AM

was delivered to the following recipient(s):

Alex George on 8/15/2007 10:43 AM

From: Mailer-Daemon@ectinc.com

Sent: Wednesday, August 15, 2007 10:53 AM

To: Friday, Barbara

Subject: Confirm: `DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-

AV - Hardee Power Partners-Hardee Power Station' received

A message which requested delivery confirmation recently arrived at this server. This server honors all delivery confirmation requests whether generated from local mail traffic or from mail received via an outside source (such as SMTP/POP).

Message-ID: <1900D374FE4CCB4AB8DEB001320338BABA7E12@tlhexsmb5.floridadep.net>

To : tdavis@ectinc.com

From : Barbara.Friday@dep.state.fl.us

Subject : DRAFT Title V Permit Revision No.: 0490015-008-AC(PSD-FL-140B)/0490015-009-AV

- Hardee Power Partners-Hardee Power Station Date : Wed, 15 Aug 2007 10:44:02 -0400

Receiving Domain: ectinc.com

## Memorandum

# Florida Department of Environmental Protection

TO:

Trina Vielhauer, Bureau of Air Regulation

THROUGH:

Jeff Koerner, Air Permitting North Section/

FROM:

Bruce Thomas, Air Permitting North Section

DATE:

August 10, 2007

SUBJECT:

Project No. 0490015-008-AC (PSD-FL-140B)

Project No. 0490015-009-AV

Hardee Power Partners, Hardee Power Station

Heat Input Increase for CT-2B Simple Cycle Gas Turbine

This project is a minor revision to the original air construction permit for this unit with a concurrent revision of the Title V air operation permit. Attached for your review are the following items:

- Written Notice of Intent to Issue Air Permit;
- Public Notice of Intent to Issue Air Permit;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- P.E. Certification.

The Technical Evaluation and Preliminary Determination provide a detailed description of the project and the rationale for issuance. The P.E. certification briefly summarizes the proposed project. I recommend your approval of the attached Draft Permit.

Attachments

### P.E. CERTIFICATION STATEMENT

#### **PERMITTEE**

Hardee Power Partners 10150 Highland Manor Drive Tampa, Florida 33610 Draft Permit No. 0490015-008-AC Draft Permit No. 0490015-009-AV Heat Input Increase for Unit CT-2B Hardee Power Station Hardee County, Florida

#### PROJECT DESCRIPTION

The purpose of the project is to revise the original air construction permit (Permit No. 0490015-002-AC / PSD-FL-140A) and concurrently revise the Title V air operation permit (Permit No. 0490015-007-AV) to allow increases to the heat input rates for the Unit CT-2B simple cycle gas turbine. The draft permit authorizes increases from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. Actual operating data indicates that the heat input rates provided by the gas turbine vendor underestimate the actual performance of the installed gas turbine. No physical or operational changes are necessary to realize the actual installed capacity of Unit CT-2B. No increase in the emissions standards (concentrations or mass emissions rates) are requested to accommodate the change. The applicant does not expect any emissions increases nor increased utilization as a result of the change. Unit CT-2B will continue to comply with all applicable provisions of the air construction and operation permits.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).

Jeffery F. Koerner, P.E.

Registration No. 49441

(Date)



# Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

August 14, 2007

Alex C. George, Vice President Hardee Power Partners 10150 Highland Manor Drive Tampa, Fl 33610

Re: Project No. 0490015-008-AC (PSD-FL-140B)
Project No. 0490015-009-AV
Hardee Power Station
Heat Input Increase for Unit CT-2B Simple Cycle Gas Turbine

Dear Mr. George:

On February 7, 2007, the Hardee Power Partners submitted an application to revise air Permit No. 0490015-002-AC (PSD-FL-140A) and concurrently revise Title V air operation Permit No. 0490015-007-AV. The project will authorize nominal increases in the heat input rates for the existing Unit CT-2B simple cycle gas turbine. The unit is installed at the existing Hardee Power Station, which is located in Hardee County at 6695 County Road 663 North, Fort Green Springs, Florida. Enclosed are the following documents:

- The Written Notice of Intent to Issue Air Permit provides important information regarding: the Permitting Bureau of Air Regulation's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Bureau of Air Regulation's intent to issue an air permit; the procedures for submitting comments on the Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation.
- The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.
- The Technical Evaluation and Preliminary Determination summarizes the Bureau of Air Regulation's technical review of the application and provides the rationale for making the preliminary determination to issue a draft permit.
- The proposed Draft Permit includes the specific conditions that will regulate the emissions units covered by the proposed project.

If you have any questions, please contact the Project Engineer, Bruce Thomas, at 850/488-0114.

Sincerely,

Trina Vielhauer, Chief Bureau of Air Regulation

Vielhaus

Enclosures

TLV/jfk/bt

### WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an Application for Air Permits by:

Hardee Power Partners 10150 Highland Manor Drive Tampa, Fl 33610

Authorized Representative:
Alex C. George, Vice President

Project No. 0490015-008-AC Project No. 0490015-009-AV Heat Input Increases for Unit CT-2B Hardee Power Station Hardee County, Florida

**Facility Location**: The applicant, Hardee Power Partners, operates the existing Hardee Power Station, which is located in Hardee County at 6695 North County Road 663 North in Fort Green Springs, Florida.

**Project**: The purpose of the project is to revise the original air construction permit and concurrently revise the Title V air operation permit to allow increases to the heat input rates for the Unit CT-2B simple cycle gas turbine. The draft permit authorizes increases from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. Actual operating data indicates that the heat input rates provided by the gas turbine vendor underestimate the actual performance of the installed gas turbine. No physical or operational changes are necessary to realize the actual installed capacity of Unit CT-2B. No increase in the emissions standards (concentrations or mass emissions rates) are requested to accommodate the change. The applicant does not expect any emissions increases nor increased utilization as a result of the change. Unit CT-2B will continue to comply with all applicable provisions of the air construction and operation permits.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida. Administrative Code (F.A.C.). Applications for Title V air operation permits are subject to review in accordance with to provisions of Chapter 403, F.S. and Chapters 62-4, 62-210, and 62-213, F.A.C. The projects are not exempt from the permitting procedures for air construction and Title V air operation permits. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

**Project File**: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue a renewed Title V air operation permit and a concurrent air construction permit revision for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a final air construction permit revision and a proposed Title V air operation permit renewal (and subsequent final Title V air operation permit renewal) in accordance with the conditions of the proposed Draft Permits unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at the address or phone number listed above. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments on the Draft Air Construction Permit Revision: The Permitting Authority will accept written comments concerning the Draft Air Construction Permit Revision for a period of 14 days from the date of publication of the Public Notice. Written comments must be post-marked by the close of business (5:00 p.m.), on or before the end of this 14-day period by the Permitting Authority at the above address. If written comments result in a significant change to the Draft Permit, the Permitting Authority will issue a revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Comments on the Draft Title V Air Operation Permit Renewal: The Permitting Authority will accept written comments concerning the Draft Permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be post-marked by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the Draft Permit, the Permitting Authority will issue a revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

**Petitions**: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within fourteen 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or

#### WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief Bureau of Air Regulation

## **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Intent to Issue Air Permit package (including the Written Notice of Intent to Issue Air Permit, the Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by electronic mail with received receipt requested before the close of business on 8 to the persons listed below.

Mr. Alex C. George, Hardee Power Partners (ageorge@invenergyservices.com)

Mr. Frank Sarduy, Hardee Power Partners (<u>fsarduy@invenergyservices.com</u>)

Mr. Thomas W. Davis, ECT (tdavis@ectinc.com)

Ms. Cindy Zhang-Torres, SWD Office (Cindy.Zhang-Torres@dep.state.fl.us)

Mr. Mike Halpin, Siting Office (Mike.Halpin@dep.state.fl.us)

Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)

Mr. Jim Little, EPA Region 4 (little.james@epa.gov)

Mr. Dee Morse, National Park Service (<u>Dee Morse@nps.gov</u>)

EPA Region 4 (posted)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

(C-12)

### PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

Florida Department of Environmental Protection Division of Air Resource Management, Bureau of Air Regulation

Draft Permit No. 0490015-008-AC, Air Construction Permit Revision Draft Permit No. 0490015-009-AV, Concurrent Title V Air Operation Permit Revision

> Hardee Power Partners, Hardee Power Station Hardee County, Florida

**Applicant**: The applicant for this project is Hardee Power Partners. The applicant's authorized representative and mailing address is: Alex C. George, Vice President, Hardee Power Station, 10150 Highland Manor Drive, Tampa, Florida 33610.

**Facility Location**: The Hardee Power Partners operate an existing electrical generating power plant located in Hardee County at 6695 County Road 663 North in Fort Green Springs, Florida.

**Project**: The purpose of the project is to revise the original air construction permit and concurrently revise the Title V air operation permit to allow increases to the heat input rates for the Unit CT-2B simple cycle gas turbine. The draft permit authorizes increases from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. Actual operating data indicates that the heat input rates provided by the gas turbine vendor underestimate the actual performance of the installed gas turbine. No physical or operational changes are necessary to realize the actual installed capacity of Unit CT-2B. No increase in the emissions standards (concentrations or mass emissions rates) are requested to accommodate the change. The applicant does not expect any emissions increases nor increased utilization as a result of the change. Unit CT-2B will continue to comply with all applicable provisions of the air construction and operation permits.

**Permitting Authority**: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212, F.A.C. Applications for Title V air operation permits are subject to review in accordance with to provisions of Chapter 403, F.S. and Chapters 62-4, 62-210, and 62-213 F.A.C. The projects are not exempt from the permitting procedures for air construction and Title V air operation permits. The Florida Department of Environmental Protection's Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Bureau of Air Regulation's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Bureau of Air Regulation's phone number is 850/488-0114.

**Project File:** A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all applicable provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments on the Draft Air Construction Permit Revision: The Permitting Authority will accept written comments concerning the Draft Air Construction Permit Revision for a period of 14 days from the date of publication of the Public Notice. Written comments must be post-marked by the close of business (5:00 p.m.), on or before the end of this 14-day period by the Permitting Authority at the above address. If written comments result in a significant change to the Draft Permit, the Permitting Authority will issue a revised Draft

### PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Comments on the Draft Title V Air Operation Permit Renewal: The Permitting Authority will accept written comments concerning the Draft Permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be post-marked by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the Draft Permit, the Permitting Authority will issue a revised Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241; Fax: 850/245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

Mediation: Mediation is not available in this proceeding.

### PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

Objections to the Draft Title V Air Operation Permit: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any Title V permit. Any petition shall be based only on objections to the Title V permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any Title V permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C Section 7661d(b)(2), and must be filed with the Administrator of the EPA at: U.S. EPA. 401 M Street, S.W., Washington, D.C. 20460.



## TECHNICAL EVALUATION &

## PRELIMINARY DETERMINATION

## **APPLICANT**

Hardee Power Partners 10150 Highland Manor Drive Tampa, FL 33610

Hardee Power Station ARMS Facility ID No. 0490015

## **PROJECT**

Draft Permit No. 0490015-008-AC Heat Input Increases for Unit CT-2B Simple Cycle Gas Turbine

## **COUNTY**

Hardee County, Florida

## PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Air Permitting North Section
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

## 1. GENERAL PROJECT INFORMATION

## **Facility Description and Location**

The Hardee Power Partners operates a nominal 370 megawatt (MW) electric generation facility located approximately nine miles northwest of Wauchula in Hardee County at 6695 North County Road 663 North in Fort Green Springs, Florida. The UTM coordinates are Zone 17, 405.02 km East and 3057.18 km North. The existing electrical generating power plant has a Standard Industrial Classification Code of SIC No. 4911.

The Hardee Power Station includes four General Electric (GE), dual-fuel fired combustion turbines (CT). The facility utilizes pipeline natural gas as its primary fuel source with No. 2 distillate fuel oil serving as a backup fuel. Units CT-1A, CT-1B and CT-2A are identical combustion turbines (GE Model No. PG-7111EA). Unit CT-2B is a GE Model No. PG-7121EA combustion turbine. Together, Units CT-1A and CT-1B comprise a combined-cycle system with each combustion turbine paired with a heat recovery steam generator that is ducted to a common steam-electrical generator (76 MW). Each combustion turbine has a nominal power production output of 75 MW. Units CT-2A and CT-2B operate as a simple cycle units.

## **Primary Regulatory Categories**

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

## **Project Description**

The applicant requests the following increases to the heat input rates for unit CT-2B (ARMS EU-005): from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. Actual operating data indicates that the heat input rates provided by the gas turbine vendor underestimate the actual performance of the installed gas turbine. No physical or operational changes are necessary to realize the actual installed capacity of Unit CT-2B. No increase in the emissions standards (concentrations or mass emissions rates) are requested to accommodate the change. The applicant does not expect any emissions increases nor increased utilization as a result of the change. Unit CT-2B will continue to comply with all applicable provisions of the air construction and operation permits.

## **Processing Schedule**

February 7, 2007 Department received the applications.

March 9, 2007 Department requested additional information, application incomplete.

June 6, 2007 Department received additional information; application complete.

## 2. APPLICABLE REGULATIONS

### **State Regulations**

This project is subject to the applicable rules and regulations defined in the following F.A.C. Chapters: 62-4 (Permitting Requirements); 62-204 (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference); 62-210 (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms); 62-212 (Preconstruction Review, PSD Review and BACT, and Non-attainment Area Review and LAER); 62-213 (Title V Air Operation Permits for Major Sources of Air Pollution); 62-296 (Emission Limiting Standards); and 62-297 (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures). PSD applicability and the preconstruction

#### TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

review requirements of Rule 62-212.400, F.A.C. are discussed in Section 2 of this report. Additional details of the other state regulations are provided in Section 3 of this report.

#### **Federal Regulations**

The Environmental Protection Agency establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 identifies New Source Performance Standards (NSPS) for a variety of industrial activities. Part 61 specifies National Emissions Standards for Hazardous Air Pollutant (NESHAP) based on specific pollutants. Part 63 specifies NESHAP provisions based on the Maximum Achievable Control Technology (MACT) for given source categories. Federal regulations are adopted in Rule 62-204.800, F.A.C. This project will not result in any newly applicable federal regulations.

#### 2. PSD APPLICABILITY REVIEW

#### General PSD Applicability

The Department regulates major stationary sources in accordance with Florida's PSD program pursuant to Rule 62-212.400, F.A.C. PSD preconstruction review is required in areas that are currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for these regulated pollutants. As defined in Rule 62-210.200, F.A.C., a facility is considered a "major stationary source" if it emits or has the potential to emit 5 tons per year of lead, 250 tons per year or more of any PSD pollutant, or 100 tons per year or more of any PSD pollutant and the facility belongs to one of the 28 listed PSD major facility categories. PSD pollutants include: carbon monoxide (CO); nitrogen oxides (NO<sub>x</sub>); sulfur dioxide (SO<sub>2</sub>); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM<sub>10</sub>); volatile organic compounds (VOC); lead (Pb); Fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H<sub>2</sub>S); total reduced sulfur (TRS), including H<sub>2</sub>S; reduced sulfur compounds, including H<sub>2</sub>S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO<sub>2</sub> and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as nonmethane organic compounds (NMOC); and mercury (Hg).

For major stationary sources, PSD applicability is based on emissions thresholds known as the "significant emission rates" as defined in Rule 62-210.200, F.A.C. Emissions of PSD pollutants from the project exceeding these rates are considered "significant" and the Best Available Control Technology (BACT) must be employed to minimize emissions of each PSD pollutant. Although a facility may be "major" for only one PSD pollutant, a project must include BACT controls for any PSD pollutant that exceeds the corresponding significant emission rate. In addition, applicants must provide an Air Quality Analysis for each PSD pollutant.

#### **PSD** Applicability for the Project

The project is located in Hardee County, which is in an area that is currently in attainment with the state and federal AAQS or otherwise designated as unclassifiable. The existing plant emits or has the potential to emit 250 tons per year or more of at least one PSD pollutant. Therefore, the facility is a major stationary source and the project is subject to a PSD applicability review. The following section discusses PSD applicability for the proposed project.

#### 3. DEPARTMENT'S PROJECT REVIEW

In October of 1999, the Department issued a permit (PSD-FL-140A) to construct a GE Model No. PG-7121(EA) simple cycle combustion turbine (Unit CT-2B) rated at a nominal 75 MW. The permit specified a maximum heat input rate of 880 MMBtu per hour when firing natural gas and 950 MMBtu per hour when firing distillate oil based on: 100% load, the lower heating value (LHV) of the fuel, a compressor inlet temperature of 59° F, a relative humidity of 60% and an ambient air pressure of 14.7 psi. Due to its low cycle efficiency of approximately 30% in simple cycle mode, Unit CT-2B operates as a "peaking unit" during peak periods of demand for electricity. Shortly after its construction, Unit CT-2B averaged 1653 hours per year from 2000 to

#### TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

2002. However, after several large power generation projects were added to the electrical grid, Unit CT-2B averaged only 329 hours per year from 2003 to 2006. This reflects its true operation as a peaking unit based on actual demand levels.

Initial tests showed compliance for CO, NOx, VOC and opacity at a heat input rate of 895 MMBtu per hour when firing natural gas and 1024 MMBtu per hour when firing distillate oil. Subsequent tests demonstrated compliance for CO, NOx and opacity at heat input rates at 905 MMBtu per hour when firing natural gas and 1027 MMBtu per hour when firing distillate oil. Based on the actual installed capacity of Unit CT-2B, the applicant requests an 8% increase of the maximum heat input rate for gas firing to 950 MMBtu per hour and 11.6% increase to 1060 MMBtu per hour when firing distillate oil. No physical or operational changes are necessary to realize the heat input rates for Unit CT-2B. No increase in the emissions standards (concentrations or mass emissions rates) are requested to accommodate the change. The applicant does not expect any emissions increases nor increased utilization as a result of the request. Unit CT-2B will continue to comply with all applicable provisions of the air construction and operation permits. The applicant contends that the request is simply to recognize the true installed capacity of Unit CT-2B.

It is not uncommon for a facility to make such a request within the first few years of installation because vendors often provide performance guarantees for heat input rates that can be readily achieved. Although this request is outside the typical time frames, there are several unique factors including: use as a peaking unit, documented operation at the higher heat input rate as originally installed, no physical or operational changes necessary to realize the higher heat input rates and performance tests demonstrating compliance at the higher heat input rates. Based on the specific information available for this project, the Department agrees that this change will not result in any emissions increases nor increased utilization.

As a check, the Department conducted the following analysis. The current natural gas firing permit limits for CO and NOx emissions are 20 ppmvd @ 15% O<sub>2</sub> (43 lb/hour) and 9 ppmvd @ 15% O<sub>2</sub> (32 lb/hour), respectively. At the current permitted natural gas heat input rate of 880 MMBtu/hour, this is equivalent to 0.049 lb CO/MMBtu and 0.036 lb NOx/MMBtu. Using these emissions factors, the following calculations estimate the potential emissions increases from raising the maximum heat input rate to 950 MMBtu per hour for the full 8760 hours per year:

CO = (0.049 lb CO/MMBtu) (950 - 880 MMBtu/hour) (8760 hours/year) (ton/2000 lb) = 15 tons/year

NOx = (0.036 lb CO/MMBtu) (950 - 880 MMBtu/hour) (8760 hours/year) (ton/2000 lb) = 11 tons/year

Potential CO and NO<sub>x</sub> emissions increases for distillate oil firing with the permitted 876 hour per year oil firing limitation are 15 and 18 tons per year, respectively.

The estimated potential emissions increases are well below the PSD significant emissions rates for CO (100 tons/year) and NOx (40 tons/year). The use of pipeline natural gas as the primary fuel source with No. 2 distillate fuel oil serving as a backup fuel will insure emissions of PM/PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub> and VOC will be less than these pollutants and any potential increases would also be well below the PSD significant emissions rates. Therefore, the draft permit will authorize the requested revised heat input rates.

#### PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the Draft Permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the Draft Permit. Bruce Thomas is the project engineer responsible for reviewing the application and drafting the permit changes. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

#### DRAFT PERMIT

#### **PERMITTEE**

Hardee Power Partners 10150 Highland Manor Drive Tampa, FL 33610

Authorized Representative: Alex C. George, Vice President Air Permit No. PSD-FL-140A Project No. 0490015-008-AC Expires: August 1, 2008 Hardee Power Station Facility ID No. 0490015 Heat Input Increases for CT-2B

#### **FACILITY AND LOCATION**

This permit authorizes increases in the maximum permitted heat input rates for Unit CT-2B from 880 to 950 MMBtu per hour when firing natural gas and from 950 to 1060 MMBtu per hour when firing distillate oil. The combustion turbine is installed at the Hardee Power Station, which is an existing electrical generating power plant (SIC No. 4911). The facility is located in Hardee County at 6695 North County Road 663 North in Fort Green Springs, Florida. The UTM coordinates are Zone 17, 405.02 km East, and 3057.18 km North.

#### STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Parts 60 and 63 of the Code of Federal Regulations (CFR).

(DRAFT)		
Joseph Kahn, Director	-	Effective Date
Division of Air Resource Management		

#### REVISED DRAFT PERMIT CONDITIONS

This permitting action revises the following specific condition in air construction Permit No. PSD-FL-140A (Project No. 0490015-002-AC). All other conditions in that permit remain unchanged.

#### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

3. 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 880 950 MMBTU per hour of heat input from firing natural gas nor 950 1060 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% of 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, shall be provided to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C.]

# HARDEE POWER PARTNERS LIMITED

Invenergy

Via DHL

June 4, 2007

Mr. Jeffery F. Koerner, P.E. Bureau of Air Management – Air Permitting North Florida Department of Environmental Protection 111 South Magnolia Street, Suite 23 Tallahassee, FL 32301

Re:

Hardee Power Partners - Hardee Power Station Combustion Turbine CT-2B Heat Input Request Project No. 0490015-008-AC (PSD-FL-140A) Responses to Request for Additional Information

Dear Mr. Koerner:

RECEIVED

JUN 06 2007

BUREAU OF AIR REGULATION

Hardee Power Partners (HPP) received your letter dated March 9, 2007 requesting additional information with regards to HPP's request to increase the permitted heat input rates for the Hardee Power Station's Combustion Turbine CT-2B. This correspondence provides a response to each specific question raised by the Department of Environmental Protection (Department).

The requested increase in CT-2B heat input rates for natural gas and distillate fuel oil firing represents an administrative correction to the original performance estimates provided by the CT vendor – General Electric. There will be no physical changes or changes to the method of operation of CT-2B. CT-2B is a peaking unit that operates in response to demand from the power grid. The administrative correction in permitted heat input rates will not affect the future operation of CT-2B. Accordingly, actual emission rates will not change due to the administrative correction in heat input rates.

For your convenience, the Department's comments and HPP's responses are provided below.

#### Department Comment No. 1

Please provide actual capacity information for Unit 2B to support your request for an increase in the permitted heat input rate. Provide actual short-term heat input rates that validate the requested level.

#### **HPP Response:**

Annual CT performance and emissions test data was utilized to calculate actual operating heat input rates corrected to ISO conditions (59 °F, 14.7 psia, 60% relative humidity [RH]). Based on the actual operating heat input rates, revised heat input limits were determined using the methodology that the limit should be 5% higher than the actual average to allow for testing uncertainties (± 2%), variations in ambient conditions, and uncertainties associated with applying correction curves. The correction curve utilized in the analysis of heat input is the 8/17/98 I Levine Curve 522HA283 Rev2 previously provided to the Department.

Mr. Jeffery F. Koerner, P.E. June 4, 2007 Page -2-

The requested gas and oil firing heat input limits for CT-2B were derived as follows:

#### Natural Gas - CT Plant Performance Testing

Plant Performance Test Results CT-2B, Natural Gas All results corrected to 59 °F, 14.7 psi, 60% RH (ISO conditions) Design Heat Input is 880 MMBtu/hr, lower heating value (LHV)

Year	Power Output (kW)	Heat Rate (Btu/kWhr)	Calculated Heat Input (MMBtu/hr, LHV)
2006	83,183	10,626	884
2005	83,714	10,651	892
2004	83,095	10,752	893
2003	84,074	11,082	932
2002	82,055	11,079	909
2001	82,829	10,863	900
2000	85,191	10,632	906
Averages	83,449	10,812	902

#### Natural Gas - CT Emission Tests

Emission Test Results CT-2B, Natural Gas All results corrected to 59 °F, 14.7 psi, 60% RH (ISO conditions) Design Heat Input is 880 MMBtu/hr, lower heating value (LHV)

Year	Heat Input (MMBtu/hr, LHV)
2006	905
2000	895
Average	900

Based upon the performance test results above, and the emissions tests results for which sufficient data was available to calculate the corrected heat input at design conditions, a permitted heat input level approximately

Mr. Jeffery F. Koerner, P.E. June 4, 2007 Page -3-

5% higher than the average actual heat input when firing natural gas is requested; i.e., a natural gas heat input limit of 950 MMBtu/hr (LHV) at ISO conditions is requested.

#### Distillate Fuel Oil – CT Plant Performance Testing

Plant Performance Test Results CT-2B, Distillate Fuel Oil All results corrected to 59 °F, 14.7 psi, 60% RH (ISO conditions) Design Heat Input is 950 MMBtu/hr, lower heating value (LHV)

Year	Power Output (kW)	Heat Rate (Btu/kWhr)	Calculated Heat Input (MMBtu/hr, LHV)
2000	87,312	10,946	956

#### <u>Distillate Fuel Oil – CT Emission Tests</u>

Emission Test Results CT-2B, Distillate Fuel Oil All results corrected to 59 °F, 14.7 psi, 60% RH (ISO conditions) Design Heat Input is 950 MMBtu/hr, lower heating value (LHV)

Year	Heat Input (MMBtu/hr, LHV)
2001	1,027
2000	1,024
Average	1,026

As can be seen, the CT performance and emissions test data did not agree as well as the natural gas data. Due to this variability, a permitted heat input level that results in the actual average heat input being between approximately 90% and 97% of the permit limit when firing distillate fuel oil is requested; i.e., a distillate fuel oil heat input limit of 1,060 MMBtu/hr (LHV) at ISO conditions is requested.

Mr. Jeffery F. Koerner, P.E. June 4, 2007 Page -4-

#### Department Comment No. 2

Provide the actual annual fuel firing rates and heat input rates for Unit 2B for the last 5 years of operation.

#### **HPP** Response:

Annual fuel firing rates for CT-2B are summarized in the following table.

Year	Natural Gas Firing Rates (10 <sup>6</sup> ft <sup>3</sup> /yr)	Fuel Oil Firing Rates (10 <sup>3</sup> gal/yr)	Gas Heat Input (MMBtu/hr, LHV)	Oil Heat Input (MMBtu/yr, LHV)
2006	149.0	8.9	140,060	1,166
2005	175.3	161.7	164,782	21,183
2004	96.3	140.5	90,522	18,406
2003	537.9	59.8	505,626	7,834
2002	1,232.1	443.1	1,158,174	58,046

Fuel firing rates shown above were taken from the Annual Operating Reports (AORs). Heat input rates were calculated based on a natural gas heat content of 940 Btu/ft<sup>3</sup> (LHV), and distillate fuel oil heat content of 131,000 Btu/gal (LHV).

#### Department Comment No. 3

Provide vendor information supporting the requested heat input rate.

#### **HPP Response:**

As noted above, the requested increase in CT-2B heat input rates for natural gas and distillate fuel oil firing represents an administrative correction to the original performance estimates provided by the CT vendor – General Electric.

#### Department Comment No. 4

Provide the manufacturer's guaranteed CO emission for natural gas and distillate oil firing (ppmvd @ 15% 0<sub>2</sub> and 15% 0.

#### **HPP Response:**

The manufacturer's (i.e., General Electric) original estimated performance emissions data, taken from the PSD air construction permit application submitted to the Department in June 1999, is provided as Attachment A. Note that HPP is not requesting any changes to the currently authorized CT-2B CO emission rates.

Mr. Jeffery F. Koerner, P.E. June 4, 2007 Page -5-

#### Department Comment No. 5

Provide annual CO emission test data for the past five years.

#### **HPP Response:**

Annual CO emissions data for CT-2B are summarized in the following table.

Year	CO Emissions (ton/yr)
2006	0.43
2005	0.30
2004	0.20
2003	1.93
2002	3.68

#### Department Comment No. 6

Provide the manufacturer's guaranteed  $NO_x$  emission for natural gas and distillate oil firing (ppmvd @ 15%  $0_2$  and lb/hr @ 59°F).

#### **HPP Response:**

The manufacturer's (i.e., General Electric) original estimated performance emissions data, taken from the PSD air construction permit application submitted to the Department in June 1999, is provided as Attachment A. Note that HPP is not requesting any changes to the currently authorized CT-2B NO<sub>x</sub> emission rates.

Mr. Jeffery F. Koerner, P.E. June 4, 2007 Page -6-

#### Department Comment No. 7

Summarize the actual NO<sub>x</sub> emissions from Unit 2B for the last 5 years

#### **HPP Response:**

Annual NO<sub>x</sub> emissions data for CT-2B are summarized in the following table.

Year	NO <sub>x</sub> Emissions (ton/yr)
2006	2.49
2005	5.02
2004	4.97
2003	7.01
2002	23.03

#### Department Comment No. 8

Provide actual  $N0_x$  data supporting operation at the increased heat input rate.

#### **HPP Response:**

The requested increase in CT-2B heat input rates for natural gas and distillate fuel oil firing represents an administrative correction to the original performance estimates provided by the CT vendor – General Electric. There will be no physical changes or changes to the method of operation of CT-2B. CT-2B is a peaking unit that operates in response to demand from the power grid. The administrative correction in permitted heat input rates will not affect the future operation of CT-2B. Accordingly, actual NO<sub>x</sub> emission rates will not change due to the administrative correction in heat input rates.

#### Department Comment No. 9

Please estimate the emissions increases expected from the increase in heat input. Compare the projected actual emissions to baseline emissions as defined in 62-210.200, 62-210.370, and 62-212.30000, F.A.C. Will the predicted increases exceed the PSD significant emissions rates?

#### **HPP Response:**

The requested increase in CT-2B heat input rates for natural gas and distillate fuel oil firing represents an administrative correction to the original performance estimates provided by the CT vendor – General Electric. There will be no physical changes or changes to the method of operation of CT-2B. CT-2B is a peaking unit that operates in response to demand from the power grid. The administrative correction in permitted heat input rates will not affect the future operation of CT-2B. Accordingly, actual emission rates will not change

Mr. Jeffery F. Koerner, P.E. June 4, 2007 Page -7-

due to the administrative correction in heat input rates.

As requested, a professional engineer certification is also attached (Attachment B). The Department's continued expeditious processing of this request for an increase in the permitted heat input rates for CT-2B will be appreciated.

Sincerely,

Alex C. George Vice President

Attachments

# ATTACHMENT A GE ESTIMATED EMISSIONS PERFORMANCE

Load Condition Ambient Temp. Fuel Type Fuel LHV Fuel Temperature Output Heat Rate (LHV) Heat Cons. (LHV) X 10 <sup>6</sup> Auxiliary Power Output Net Heat Rate (LHV) Net Exhaust Flow X 10 <sup>3</sup> Exhaust Temp. Exhaust Heat (LHV) X 10 <sup>6</sup>	Deg F.  Btu/lb Deg F kW Btu/kWh Btu/h kW kW Btu/kWh lb/h Deg F. Btu/h	BASE 32. Cust Gas 20,802 90 91,440. 10,340. 945.5 665 90,780. 10,420. 2499. 981. 597.7	75% 32. Cust Gas 20,802 90 68,580. 11,080. 759.9 665 67,920. 11,190. 1955. 1021.	65% 32. Cust Gas 20,802 90 59,440. 11,800. 701.4 665 58,780. 11,930. 1793. 1048. 470.6
EMISSIONS				
NOx NOx AS NO2 CO CO UHC UHC VOC VOC Particulates PM10	ppmvd @ 15% O2 lb/h ppmvd lb/h ppmvw lb/h ppmvw lb/h lb/h	9. 35. 25. 57. 7. 10. 1.4 2. 5.0 10.0	9. 28. 29. 52. 7. 8. 1.4 1.6 5.0 10.0	9. 25. 26. 42. 7. 7. 1.4 1.4 5.0
EXHAUST ANALYSIS	% VOL.			
Argon Nitrogen Oxygen Carbon Dioxide Water		0.89 75.20 13.86 3.26 6.79	0.90 75.16 13.75 3.31 6.89	0.89 75.15 13.74 3.32 6.90
SITE CONDITIONS				
Elevation Site Pressure Inlet Loss Exhaust Loss Relative Humidity Application Combustion System	ft. psia in Water in Water %		Cooled Gen I Combusto	

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Sulfur Emissions Based On 0.00036 WT% Sulfur Content in the Fuel.

Particulates represent solid filterables of 10 microns; PM10 represents Solid filterable particulate matter of 10microns plus condensables (Front & Back half)

IPS- 80901 version code- 1.5.1 Opt: N 71210696 DARGUSFR 6/15/99 13:57 teco 32 gas 6\_9\_99Rev 1.dat

Load Condition Ambient Temp. Fuel Type Fuel LHV Fuel Temperature Output Heat Rate (LHV) Heat Cons. (LHV) X 10 <sup>6</sup> Auxiliary Power Output Net Heat Rate (LHV) Net Exhaust Flow X 10 <sup>3</sup> Exhaust Temp. Exhaust Heat (LHV) X 10 <sup>6</sup>	Deg F.  Btu/lb Deg F kW Btu/kWh Btu/h kW kW Btu/kWh lb/h Deg F. Btu/h	BASE 59. Cust Gas 20,802 90 83,760. 10,510. 880.3 665 *83,100. *10,590. 2352. 999. 561.0	75% 59. Cust Gas 20,802 90 62,820. 11,390. 715.5 665 62,160. 11,510. 1854. 1047. 472.9	65% 59. Cust Gas 20,802 90 54,450. 12,150. 661.6 665 53,790. 12,300. 1702. 1075. 449.2
EMISSIONS				
NOx NOx AS NO2 CO CO UHC UHC VOC VOC Particulates PM10	ppmvd @ 15% O2 lb/h ppmvd lb/h ppmvw lb/h ppmvw lb/h lb/h	*9. 32. *25. 54. *7. 9. *1.4 1.8 *5.0 *10.0	9. 26. 25. 42. 7. 7. 1.4 1.4 5.0	9. 24. 25. 39. 7. 7. 1.4 1.4 5.0 10.0
EXHAUST ANALYSIS Argon Nitrogen Oxygen Carbon Dioxide Water	% VOL.	0.89 74.91 13.87 3.22 7.12	0.90 74.86 13.73 3.28 7.24	0.91 74.85 13.70 3.29 7.26
SITE CONDITIONS Elevation Site Pressure Inlet Loss Exhaust Loss Relative Humidity Application Combustion System	ft. psia in Water in Water %		Cooled Ger V Combusto	

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

#### \* Guarantee Data

Sulfur Emissions Based On 0.00036 WT% Sulfur Content in the Fuel.

Particulates represent solid filterables of 10 microns; PM10 represents Solid filterable particulate matter of 10microns plus condensables (Front & Back half)

IPS- 80901 version code- 1.5.1 Opt: N 71210696 DARGUSFR 6/15/99 13:55 teco 59 gas 6\_9\_99Rev1.dat

Load Condition		BASE	75%	65%
Ambient Temp.	Deg F.	95.	95.	95.
Fuel Type		Cust Gas	Cust Gas	Cust Gas
Fuel LHV	Btu/lb	20,802	20,802	20,802
Fuel Temperature	Deg F	90	90	90
Output	kW	73,080.	54,810.	47,500.
Heat Rate (LHV)	Btu/kWh	10,860.	11,960.	12,770.
Heat Cons. (LHV) X 10 <sup>6</sup>	Btu/h	793.6	655.5	606.6
Auxiliary Power	kW	665	665	665
Output Net	kW	72,420.	54,150.	46,840.
Heat Rate (LHV) Net	Btu/kWh	10,960.	12,110.	12,950.
Exhaust Flow X 10 <sup>3</sup>	lb/h	2152.	1704.	1588.
Exhaust Temp.	Deg F.	1023.	1087.	1100.
Exhaust Heat (LHV) X 10 <sup>6</sup>	Btu/h	513.5	442.3	419.8
<b>EMISSIONS</b>				
NOx	ppmvd @ 15% O2	9.	9.	9.
NOx AS NO2	lb/h	29.	24.	22.
CO	ppmvd	25.	25.	25.
CO	lb/h	49.	39.	36.
UHC	ppmvw	7.	7.	7.
UHC	lb/h	9.	7.	6.
VOC	ppmvw	1.4	1.4	1.4
VOC	lb/h	1.8	1.4	1.2
Particulates	lb/h	5.0	5.0	5.0
PM10	lb/h	10.0	10.0	10.0
EXHAUST ANALYSIS	% VOL.			
Argon		0.89	0.88	0.87
Nitrogen		73.83	73.75	73.78
Oxygen		13.70	13.48	13.56
Carbon Dioxide		3.15	3.25	3.22
Water		8.44	8.64	8.57
SITE CONDITIONS		•		
Elevation	ft.	120.0		
Site Pressure	psia	14.64		•
Inlet Loss	in Water	3.5		
Exhaust Loss	in Water	7.75		
Relative Humidity	%	45		
Application		7A6 Air-	Cooled Ger	nerator
Combustion System		9/42 DL1	N Combusto	Σ
•				

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Sulfur Emissions Based On 0.00036 WT% Sulfur Content in the Fuel.

Particulates represent solid filterables of 10 microns; PM10 represents Solid filterable particulate matter of 10microns plus condensables (Front & Back half)

IPS- 80901 version code- 1 . 5 . 1 Opt: N 71210696 DARGUSFR 6/15/99 14:00 teco 95 gas 6\_9\_99Rev 1.dat

TPS Hardee Power Station					
ESTIMATED PERFORMANCE PG7121(EA)					
Load Condition		BASE	75%	50%	
Ambient Temp.	Deg F.	32.	32.	32.	
Output	kW	94,570.	70,930.	47,290.	
Heat Rate (LHV)	Btu/kWh	10,810.	11,640.	13,870.	
Heat Cons. (LHV) X 10 <sup>6</sup>	Btu/h	1,022.3	825.6	655.9	
Auxiliary Power	kW	749	749	749	
Output Net	kW	93,820.	70,180.	46,540.	
Heat Rate (LHV) Net	Btu/kWh	10,900.	11,760.	14,090.	
Exhaust Flow X 10 <sup>3</sup>	lb/h	2555.	1940.	1575.	
Exhaust Temp.	Deg F.	975.	1056.	1100.	
Exhaust Heat (LHV) X 10 <sup>6</sup>	Btu/h	612.8	514.8	441.7	
Water Flow	lb/h	47,530.	35,930.	25,450.	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	•	
<b>EMISSIONS</b>	*****				
NOx	ppmvd @ 15% O2	42.	42.	42.	
NOx AS NO2	lb/h	179.	143.	113.	
CO	ppmvd	20.	20.	20.	
CO	lb/h	46.	35.	29.	
UHC	ppmvw	7.	7.	7.	
UHC	lb/h	10.	8.	6.	
VOC	ppmvw	3.5	3.5	3.5	
VOC	lb/h	5.	4.	3.	
SO2	ppmvw	9.0	10.0	10.0	
SO2	lb/h	53.0	43.0	34.0	
SO3	ppmvw	1.0	1.0	0.0	
SO3	lb/h	4.0	3.0	2.0	
Sulfur Mist	lb/h	6.0	5.0	4.0	
Particulates	lb/h	10.0	10.0	10.0	
PM10	1b/h	26.0	25.0	24.0	
WY	0/ 1/01				
EXHAUST ANALYSIS	% VOL.	0.05	A 00	0.00	
Argon		0.87	0.88	0.89	
Nitrogen		73.73	73.65	73.99	
Oxygen		13.18	12.80	13.11	
Carbon Dioxide		4.58	4.83	4.68	
Water		7.64	7.84	7.34	
SITE CONDITIONS					
Elevation	ft.	120.0			
Site Pressure	psia	14.64			
Inlet Loss	in Water	3.5			
Exhaust Loss	in Water	7.75			
Relative Humidity	%	98 Distillate	U/C Dada	of 1 0	
Fuel Type Fuel LHV	Btu/lb	18300 @	H/C Ratio	01 1.0	
	מנשוט		90 °F Cooled Ger	arato-	
Application					
Combustion System		9/42 DLF	V Combusto	)[	

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Distillate Fuel is Assumed to have 0.015% Fuel-Bound Nitrogen, or less. FBN Amounts Greater Than 0.015% Will Add to the Reported NOx Value. Sulfur Emissions Based On 0.05 WT% Sulfur Content in the Fuel. Particulate represent solid filterables of 10microns; PM10 represents Solid filterable particulate matter of 10microns plus condensables (Front & Back half)

TPS	Hardee	<b>Power</b>	Station	
TOTAL	A A TETETO I	DEDECT	DATABLOTE	

ESTIMATED PERFORMA	ANCE PG7121(EA)	1		
Load Condition		BASE	75%	50%
Ambient Temp.	Deg F.	59.	59.	59.
Fuel Type	1	Dist.	Dist.	Dist.
Fuel LHV	Btu/lb	18,300	18,300	18,300
Fuel Temperature	Deg F	90	90	90
Liquid Fuel H/C Ratio	•	1.8	1.8	1.8
Output	kW	86,640.	64,980.	43,320.
Heat Rate (LHV)	Btu/kWh	10,960.	11,890.	14,190.
Heat Cons. (LHV) X 106	Btu/h	949.6	772.6	614.7
Auxiliary Power	kŴ	749	749	749
Output Net	kW	*85,890.	64,230.	42,570.
Heat Rate (LHV) Net	Btu/kWh	*11,060.	12,030.	14,440.
Exhaust Flow X 10 <sup>3</sup>	lb/h	2403.	1858.	1528.
Exhaust Temp.	Deg F.	994.	1066.	1100.
Exhaust Heat (LHV) X 10 <sup>6</sup>	Btu/h	574.1	487.4	418.5
Water Flow	lb/h	42,800.	32,160.	22,410.
, 2101 1 10 W	10/14	12,000.	52,100.	22, 110.
<b>EMISSIONS</b>				
NOx	ppmvd @ 15% O2	*42.	42.	42.
NOx AS NO2	1b/h	167.	134.	106.
CO	ppmvd	*20.	20.	20.
CO	lb/h	43.	34.	28.
UHC	ppmvw	<b>*</b> 7.	7.	7.
UHC	lb/h	9.	7.	6.
VOC	ppmvw	*3.5	3.5	3.5
VOC	1b/h	4.5	3.5	3.
SO2	ppmvw	9.0	10.0	9.0
SO2	lb/h	49.0	40.0	32.0
SO3	ppmvw	1.0	0.0	1.0
SO3	lb/h	4.0	3.0	2.0
Sulfur Mist	lb/h	5.0	4.0	3.0
Particulates	lb/h	*10.0	10.0	10.0
PM10	lb/h	*25.0	24.0	23.0
EXHAUST ANALYSIS	% VOL.			
Argon		0.88	0.88	0.88
Nitrogen		73.54	73.53	73.92
Oxygen		13.21	12.94	13.32
Carbon Dioxide		4.52	4.71	4.52
Water		7.85	7.94	7.36
CIMP COMPINIONS				
SITE CONDITIONS	•			
Elevation	ft.	120.0		
Site Pressure	psia	14.64		
Inlet Loss	in Water	3.5		
Exhaust Loss	in Water	7.75		
Relative Humidity	%	60		
Application			Cooled Ger	
Combustion System		9/42 DLN	V Combusto	or

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Particulate represent solid filterables of 10microns; PM10 represents Solid filterable particulate matter of 10microns plus condensables (Front & Back half)

Distillate Fuel is Assumed to have 0.015% Fuel-Bound Nitrogen, or less.

FBN Amounts Greater Than 0.015% Will Add to the Reported NOx Value.

Sulfur Emissions Based On 0.05 WT% Sulfur Content in the Fuel.

Load Condition		BASE	75%	50%
Ambient Temp.	Deg F.	95.	95.	95.
Output	kW	75,340.	56,500.	37,670.
Heat Rate (LHV)	Btu/kWh	11,250.	12,330.	14,810.
Heat Cons. (LHV) X 10 <sup>6</sup>	Btu/h	847.6	696.6	557.9·
Auxiliary Power	kW	749	749	749
Output Net	kW	74,590.	55,750.	36,920.
Heat Rate (LHV) Net	Btu/kWh	11,360.	12,500.	15,110.
Exhaust Flow X 10 <sup>3</sup>	lb/h	2192.	1736.	1459.
Exhaust Temp.	Deg F.	1019.	1082.	1100.
Exhaust Heat (LHV) X 10 <sup>6</sup>	Btu/h	522.9	450.2	388.5
Water Flow	lb/h	33,600.	24,920.	16,770.
EMISSIONS				
NOx	ppmvd @ 15% O2	42.	42.	42.
NOx AS NO2	lb/h	149.	121.	96.
CO	ppmvd	20.	20.	20.
CO	lb/h	39.	31.	26.
UHC	ppmvw	7.	7.	7.
UHC	lb/h	9.	7.	6.
VOC	ppmvw	3.5	3.5	3.5
VOC	lb/h	4.5	3.5	3.
SO2	ppmvw	9.0	9.0	9.0
SO2	lb/h	44.0	36.0	29.0
SO3	ppmvw	1.0	1.0	0.0
SO3	lb/h	3.0	3.0	2.0
Sulfur Mist	lb/h	5.0	4.0	3.0
Particulates	lb/h	10.0	10.0	10.0
PM10	lb/h	25.0	24.0	23.0
EXHAUST ANALYSIS	% VOL.			
Argon		0.88	0.87	0.88
Nitrogen		72.77	72.85	73.28
Oxygen		13.17	13.02	13.49
Carbon Dioxide		4.41	4.53	4.28
Water		8.78	8.74	8.07
SITE CONDITIONS				
Elevation	ft.	120.0		
Site Pressure	psia	14.64		
Inlet Loss	in Water	3.5		
Exhaust Loss	in Water	7.75		
Relative Humidity	%	45		
Fuel Type		Distillate	, H/C Ratio	of 1.8
Fuel LHV	Btu/lb	18300@		
Application			Cooled Ger	nerator
Combustion System		9/42 DL1	N Combuste	or
• •				

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Distillate Fuel is Assumed to have 0.015% Fuel-Bound Nitrogen, or less. FBN Amounts Greater Than 0.015% Will Add to the Reported NOx Value. Sulfur Emissions Based On 0.05 WT% Sulfur Content in the Fuel.

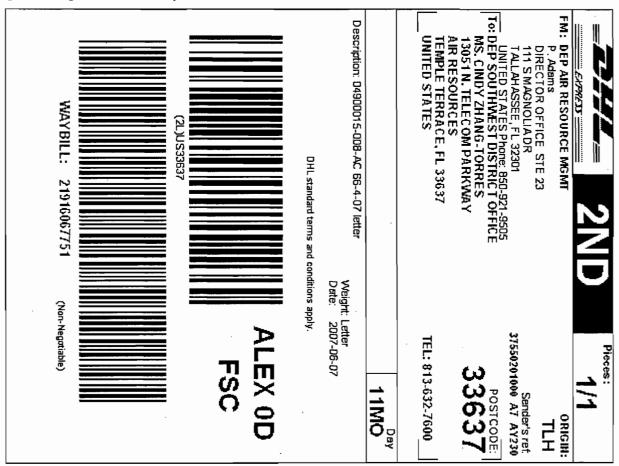
Particulate represent solid filterables of 10microns; PM10 represents Solid filterable particulate matter of 10microns plus condensables (Front & Back half)

# ATTACHMENT B PROFESSIONAL ENGINEER CERTIFICATION

# HARDEE POWER PARTNERS HARDEE POWER STATION CT-2B HEAT INPUT INCREASE REQUEST

# **Professional Engineer Certification**

Professional Engineer Statement:	
I, the undersigned, hereby certify, except as partic	ularly noted herein, that:
(1) To the best of my knowledge, the information p Request for Additional Information dated Man Partners request for an increase in heat inpu complete; and	rch 9, 2007 regarding the Hardee Power
(2) To the best of my knowledge, any emission submittal are true, accurate, and complete techniques available for calculating emissions information and calculations provided with the	and are either based upon reasonable ons or, for emission estimates of air unit, based solely upon the materials,
Signature G. A.	Date



#### **PEEL HERE** PEEL HERE Please fold or cut in half DO NOT PHOTOCOPY Using a photocopy could delay the delivery of your package and will result in additional shipping charge SENDER'S RECEIPT Waybill #: 21916067751 Rete Estimate: Not Required 04900015-008-AC 66-4-07 letter Protection: To(Company): OEP Southwest District Office Air Resources 13051 N. Telecom Parkway Description: Weight (lbs.): Letter 0 x 0 x 0 Temple Terrace, FL 33637 UNITED STATES Ship Ref: 37550201000 A7 AY230 Service Level: 2nd Day (2nd business day by 5 PM) Ms. Cindy Zhang-Torres 813-632-7600 Attention To: Phone#: Special Svc: Sent By: Phone#: P. Adams 850-921-9505 6/6/2007 Date Printed: Bill Shipment To: Bill To Acct: Sender 778941286 DHL Signature (optional) Route Date For Tracking, please go to www.dhl-usa.com or call 1-800-225-5345 Thank you for shipping with DHL Print waybill Create new shipment View pending shipments





# Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

March 9, 2007

#### ELECTRONIC MAIL - RECEIVED RECEIPT REQUESTED

Alex C. George, Vice President Hardee Power Partners Limited One South Wacker Drive, Suite 2020 Chicago, Illinois 60606

Re: Request for Additional Information

Project No. 0490015-008-AC (PSD-FL-140A) Combustion Turbine 2B Heat Input Increase

#### Dear Mr. George:

On February 7, 2007, the Department received your application for an air construction permit to increase the maximum heat inputs to combustion turbine 2B approximately 10 percent at Hardee Power Station. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the items below require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

#### Heat Input

- 1. Please provide actual capacity information for Unit 2B to support your request for an increase in the permitted heat input rate. Provide actual short-term heat input rates that validate the requested level.
- 2. Provide the actual annual fuel firing rates and heat input rates for Unit 2B for the last 5 years of operation.
- 3. Provide vendor information supporting the requested heat input rate.

#### **CO** Emissions

- 4. Provide the manufacturer's guaranteed CO emission for natural gas and distillate oil firing (ppmvd @ 15% O<sub>2</sub> and lb/hr @ 59°F).
- 5. Provide annual CO emission test data for the past five years.

#### NO<sub>x</sub> Emissions

- 6. Provide the manufacturer's guaranteed  $NO_x$  emission for natural gas and distillate oil firing (ppmvd @ 15%  $O_2$  and lb/hr @ 59°F).
- 7. Summarize the actual  $NO_x$  emissions from Unit 2B for the last 5 years.
- 8. Provide actual NO<sub>x</sub> data supporting operation at the increased heat input rate.

#### **Projected Emissions**

9. Please estimate the emissions increases expected from the increase in heat input. Compare the projected actual emissions to baseline emissions as defined in 62-210.200, 62-210.370, and 62-212.30000, F.A.C. Will the predicted increases exceed the PSD significant emissions rates?

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. requires applicants to

Hardee Power station March 8, 2007 Page 2 of 2 Request for Additional Information Project No. 0490015-008-AC Unit 2B Heat Input Increase

respond to requests for information within 90 days or provide a written request for an additional period of time to submit the information.

If you have any questions regarding this matter, please call the project engineer, Bruce Thomas, at 850/921-7744 or Jeff Koerner at 850/921-9536.

Sincerely,

Jeffery F. Koerner, P.E. BAR - Air Permitting North

Sent by Electronic Mail to the following persons:

Alex C. George, Hardee Power Partners (ageorge@invenergyllc.com)

Thomas W. Davis, ECT (tdavis@ectinc.com)

Frank Sarduy, Hardee Power Partners (<u>fsarduy@invenergyservices.com</u>)

Cindy Zhang-Torres, (Cindy.Zhang-Torres@dep.state.fl.us)

Mr. Gregg Worley, EPA Region 4 (worley.gregg@epamail.epa.gov)



# Department of Environmental Protection

RECEIVED

FEB 07 2007

# Division of Air Resource Management SUREAU OF AIR REGULATION APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

**Air Construction Permit** – Use this form to apply for any air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes to establish, revise, or renew a plantwide applicability limit (PAL).

**Air Operation Permit** – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial/revised/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Ide	Identification of Facility				
1.	Facility Owner/Company Name: Hardee Po	ower Partners			
2.	Site Name: Hardee Power Station				
3.	Facility Identification Number: <b>0490015</b>				
4.	Facility Location				
	Street Address or Other Locator: 6695 Cou	inty Road 663 North			
	City: Fort Green Springs County: H	Tardee Zip Code: 33834			
5.	Relocatable Facility?	6. Existing Title V Permitted Facility?			
	Yes X No	X Yes No			
<u>A</u> r	oplication Contact				
1.	Application Contact Name: Frank Sarduy,	, Environmental Manager			
2.	Application Contact Mailing Address				
	Organization/Firm: Hardee Power Partner	rs Limited			
	Street Address: 10150 Highland Mano	or Drive, Suite 200			
	City: Tampa Sta	ate: Florida Zip Code: 33610			
3.	. Application Contact Telephone Numbers				
	Telephone: (813) 314-2459 ext. Fax: (813) 433-5485				
4.	4. Application Contact Email Address: fsarduy@invenergyservices.com				
Ar	Application Processing Information (DEP Use)				
1.	. Date of Receipt of Application: $1/1/1$ 3. PSD Number (if applicable):				
2.	Project Number(s): 049 0013 - 005 - Ac 4. Siting Number (if applicable):				

1

0490015 -009-AV

DEP Form No. 62-210.900(1) - Form

# **Purpose of Application**

This application for air permit is submitted to obtain: (Check one)
Air Construction Permit
☐ Air construction permit.
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.
Air Operation Permit
☐ Initial Title V air operation permit.
☐ Title V air operation permit revision.
☐ Title V air operation permit renewal.
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)
Air construction permit and Title V permit revision, incorporating the proposed project.  Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:
<b>x</b> I hereby request that the department waive the processing time
requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.
Application Comment
Request is for permit condition revisions to PSD Permit No. PSD-FL-140 and FINAL Permit No. 0490015-005-AV as described in the attached correspondence.

DEP Form No. 62-210.900(1) - Form

# **Scope of Application**

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
001	CT-1A with an associated unfired HRSG	N/A	N/A
002	CT-1B with an associated unfired HRSG	N/A	N/A
003	CT-2A	N/A	N/A
005	CT-2B	N/A	N/A
		<u> </u>	
			· · · · · · · · · · · · · · · · · · ·
	·		

<b>Application Processing Fee</b>	•
Check one: [ ] Attached - Amount: \$	[ •] Not Applicable
A permit processing fee is not required Rule 62-213.205(4), F.A.C.	for a modification to a Title V source pursuant to



# Owner/Authorized Representative Statement

Co	implete if applying for an air co	nstruction permit or a	an initial FESOP.
1.	Owner/Authorized Representative	ve Name :	
2.	Owner/Authorized Representative	ve Mailing Address	
	Organization/Firm:		
	Street Address:		
	City:	State:	Zip Code:
3.	Owner/Authorized Representative	ve Telephone Numbers	
Te	lephone: ( ) ext. Fax:	( )	
4.	Owner/Authorized Representative	ve Email Address:	
5.	Owner/Authorized Representative	ve Statement:	
	this air permit application. I her reasonable inquiry, that the state complete and that, to the best of application are based upon reas pollutant emissions units and air will be operated and maintained of air pollutant emissions found Department of Environmental P identified in this application to v granted by the department, cann	reby certify, based on it ements made in this apoing the knowledge, any estonable techniques for a repollution control equit is as to comply with a in the statutes of the Statutes of the Statutes the facility is subject to the facility is subject to the department in the technotify the department in the statutes of the statutes.	pment described in this application all applicable standards for control ate of Florida and rules of the thereof and all other requirements ject. I understand that a permit, if

# **Application Responsible Official Certification**

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1.	Application Responsible Official Name:				
	Alex C. George, Vice President				
2.	Application Responsible Official Qualification (Check one or more of the following				
	options, as applicable):  For a corporation, the president, secretary, treasurer, or vice-president of the corporation in				
	charge of a principal business function, or any other person who performs similar policy or				
	decision-making functions for the corporation, or a duly authorized representative of such				
	person if the representative is responsible for the overall operation of one or more				
	manufacturing, production, or operating facilities applying for or subject to a permit under				
	Chapter 62-213, F.A.C.				
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.				
	For a municipality, county, state, federal, or other public agency, either a principal executive				
	officer or ranking elected official.  The designated representative at an Acid Rain source.				
3.	Application Responsible Official Mailing Address  Organization/Firm: Hardee Power Partners Limited				
	~				
	Street Address: One South Wacker Drive, Suite 2020				
	City: Chicago State: IL Zip Code: 60606				
4.	Application Responsible Official Telephone Numbers				
	Telephone: (312) 224-1415 ext. Fax: (312) 224-1444				
5.	Application Responsible Official Email Address: ageorge@invenergyllc.com				
6.	Application Responsible Official Certification:				
	Application Responsible Official Certification:  I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. 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 and all other applicable requirements identified in this application to which the Title V source is subject. 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 the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.				
	Signature Date				

DEP Form No. 62-210.900(1) - Form

Pr	ofessional 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: Florida Zip Code: 32606-5004			
3.	Professional Engineer Telephone Numbers			
	Telephone: (352) 332-0444 ext. Fax: (352) 332-6722			
4.	Professional Engineer Email Address: <u>tdavis@ectinc.com</u>			
5.	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.			
	(3) If the purpose of this application is to obtain a Title V 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 plan and schedule is submitted with this application.			
	(4) If the purpose of this application is to obtain an air construction permit (check here, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check			
	here x, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.			
300	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here if it is it			
73	11 home 2 3/100			
	Signature			
۷۰°۰ مرزن	(seal)			

Attach any exception to certification statement.

DEP Form No: 62-210.900(1) - Form

#### II. FACILITY INFORMATION

#### A. GENERAL FACILITY INFORMATION

#### **Facility Location and Type**

1.	. Facility UTM Coordinates		2. Facility Latitude/Longitude				
	Zone 17 East (km) 405.02			Latitude (DD/MM/SS)			
	North (km) 3,057.18			Longitude (DD/MM/SS)			
3.	Governmental	4. Facility Status	5.	Facility Major	6. Facility SIC(s):		
	Facility Code:	Code:		Group SIC Code:			
	0	A		49	4911		
7.	Facility Comment:						

#### **Facility Contact**

1.	Facility	Contact	Name:
----	----------	---------	-------

Ralph E. Randall, Plant Manager

2. Facility Contact Mailing Address...

Organization/Firm: Hardee Power Partners Limited

Street Address: 6695 North County Road 663

City: Bowling Green State: Florida Zip Code: 33834-6817

3. Facility Contact Telephone Numbers:

Telephone: (863) 375 - 4711 ext. Fax: (863) 375 - 2092

4. Facility Contact Email Address: rrandall@invenergyservices.com

# Facility Primary Responsible Official N/A

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

	· · · · ·			
1.	Facility Primary Responsible	Official Name:		
2.	Facility Primary Responsible	Official Mailing Ad	ldress	
	Organization/Firm:	<b>.</b>		
	Street Address:			
	City:	State:	Zip Code:	
3.	Facility Primary Responsible	Official Telephone	Numbers	
	Telephone: ( ) - ext	. Fax: ( ) -		
4.	Facility Primary Responsible	Official Email Add	ress:	

DEP Form No. 62-210.900(1) - Form

#### **FACILITY INFORMATION**

### **Facility Regulatory Classifications**

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. Small Business Stationary Source	Unknown
2. Synthetic Non-Title V Source	
3. <b>x</b> Title V Source	
4. <b>x</b> Major Source of Air Pollutants, Other than Hazardous	s Air Pollutants (HAPs)
5. Synthetic Minor Source of Air Pollutants, Other than	HAPs
6. X Major Source of Hazardous Air Pollutants (HAPs)	
7. Synthetic Minor Source of HAPs	
8. <b>x</b> One or More Emissions Units Subject to NSPS (40 C	FR Part 60)
9. One or More Emissions Units Subject to Emission Gu	uidelines (40 CFR Part 60)
10. One or More Emissions Units Subject to NESHAP (4	0 CFR Part 61 or Part 63)
11. Title V Source Solely by EPA Designation (40 CFR 7	70.3(a)(5))
12. Facility Regulatory Classifications Comment:	
	· •···

DEP Form No. 62-210.900(1) - Form Effective: 2/2/06

## **FACILITY INFORMATION**



# **List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
		·
	·	

### **B. EMISSIONS CAPS**

N	/	A	
_ ,	,		•

# **Facility-Wide or Multi-Unit Emissions Caps**

1. Pollutant Subject to Emissions Cap	2.	Facility Wide Cap [Y or N]? (all units)	3.	Emissions Unit ID No.s Under Cap (if not all units)	4.	Hourly Cap (lb/hr)	5.	Annual Cap (ton/yr)	6. Basis for Emissions Cap
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			_	_					
				-					
_									
						·			
_		•		<del>-</del>					
_				-		<del> </del>			
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_					-				
7. Facility-W	ide o	or Multi-Uni	t E	missions Cap C	omi	nent:			
-				_					
						•			

10



# C. FACILITY ADDITIONAL INFORMATION

# Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within
	the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Previously Submitted, Date:
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Previously Submitted, Date:
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID:
A	dditional Requirements for Air Construction Permit Applications
1.	Area Map Showing Facility Location:  Attached, Document ID: Not Applicable (existing permitted facility)
2.	Description of Proposed Construction or Modification:  Attached, Document ID:
3.	Rule Applicability Analysis:  Attached, Document ID:
4.	List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):  Attached, Document ID:
5.	Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.):  Attached, Document ID: Not Applicable
6.	Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.):  Attached, Document ID: Not Applicable
7.	Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.):  Attached, Document ID: Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.):  Attached, Document ID: Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.):  Attached, Document ID: Not Applicable
10	. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):  Attached, Document ID: Not Applicable

DEP Form No. 62-210.900(1) - Form

## **FACILITY INFORMATION**

N/A

# **Additional Requirements for FESOP Applications**

1.	List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):				
	Attached, Document ID: Not Applicable (no exempt units at facility)				
Ad	Additional Requirements for Title V Air Operation Permit Applications				
1.	List of Insignificant Activities (Required for initial/renewal applications only):  Attached, Document ID: Not Applicable (revision application)				
2.	Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):  Attached, Document ID:  Not Applicable (revision application with no change in applicable requirements)				
3.					
	Attached, Document ID:  Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.				
4.	List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):  Attached, Document ID:				
	<ul><li>☐ Equipment/Activities On site but Not Required to be Individually Listed</li><li>☐ Not Applicable</li></ul>				
5.	Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only):				
	Attached, Document ID: Not Applicable				
6.	Requested Changes to Current Title V Air Operation Permit:  Attached, Document ID: Not Applicable				
Ad	Iditional Requirements Comment				

10/3/07

From:

Harvey, Mary

Sent:

Thursday, October 04, 2007 2:24 PM

To:

'Mr. Alex C. George, Hardee Power Partners'; 'Mr. Frank Sarduy, Hardee Power Partners'; 'Mr. Thomas W. Davis, ECT'; Zhang-Torres; Halpin, Mike; 'Ms. Katy Forney, EPA Region 4';

'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, NPS'

Cc:

Thomas, Bruce X.

Subject:

HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

Attachments: 0490015.008.AC.F pdf.zip

Tracking:

Mr. Alex C. George, Hardee Power Partners'
'Mr. Frank Sarduy, Hardee Power Partners'

'Mr. Thomas W. Davis, ECT'

Zhang-Torres

Halpin, Mike Delive

'Ms. Katy Forney, EPA Region 4'
'Mr. Jim Little, EPA Region 4'

'Mr. Dee Morse, NPS'

Thomas, Bruce X.

Delivery Read

Read: 10/4/2007 4:16 PM

Delivered: 10/4/2007 2:24 PM Read: 10/4/2007 3:12 PM

Read: 10/4/2007 2:35 PM

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The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: http://www.adobe.com/products/acrobat/readstep.html.

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Thank you,

DEP, Bureau of Air Regulation

From:

Dee\_Morse@nps.gov

Sent:

Thursday, October 04, 2007 4:52 PM

To:

Harvey, Mary

Subject:

HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

#### Return Receipt

Your

HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL -

document: PSD-FL-140B

Dee Morse/DENVER/NPS

received

by:

at:

10/04/2007 02:52:05 PM

From: Sent: Forney.Kathleen@epamail.epa.gov Thursday, October 04, 2007 3:01 PM

To:

Harvey, Mary

Subject:

Re: FW: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

Thanks

Katy R. Forney Air Permits Section EPA - Region 4 61 Forsyth St., SW Atlanta, GA 30024

Phone: 404-562-9130 Fax: 404-562-9019

> "Harvey, Mary" <Mary.Harvey@dep .state.fl.us>

> 10/04/2007 02:25 PM

To

Kathleen Forney/R4/USEPA/US@EPA cc

Subject

FW: HARDEE POWER STATION -FACILITY #0490015-008-AC-FINAL -PSD-FL-140B

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

From: Harvey, Mary

Sent: Thursday, October 04, 2007 2:24 PM

To: 'Mr. Alex C. George, Hardee Power Partners'; 'Mr. Frank Sarduy, Hardee Power Partners'; 'Mr. Thomas W. Davis, ECT'; Zhang-Torres; Halpin, Mike; 'Ms. Katy Forney, EPA Region 4'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, NPS'

Cc: Thomas, Bruce X.

Subject: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be

From:

Zhang-Torres

To:

Harvey, Mary

Sent:

Thursday, October 04, 2007 4:16 PM

Subject:

Read: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

#### Your message

To:

'Mr. Alex C. George, Hardee Power Partners'; 'Mr. Frank Sarduy, Hardee Power Partners'; 'Mr. Thomas W. Davis, ECT'; Zhang-

Torres; Halpin, Mike; 'Ms. Katy Forney, EPA Region 4'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, NPS'

Cc:

Subject:

Thomas, Bruce X.
HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

Sent:

10/4/2007 2:24 PM

was read on 10/4/2007 4:16 PM.

Re: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-14... Page 1 of 2

#### Harvey, Mary

From: Alex George [AGeorge@invenergyllc.com]

Sent: Thursday, October 04, 2007 3:36 PM

To: Harvey, Mary

Subject: Re: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

Alex C. George Invenergy LLC 312-504-6721 Mobile From my Blackberry

This electronic message and all

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---- Original Message -----

From: Harvey, Mary < Mary. Harvey@dep.state.fl.us>

To: Alex George

Cc: Thomas, Bruce X. <Bruce.X.Thomas@dep.state.fl.us>

Sent: Thu Oct 04 13:59:33 2007

Subject: FW: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

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From: Harvey, Mary

Sent: Thursday, October 04, 2007 2:24 PM

To: 'Mr. Alex C. George, Hardee Power Partners'; 'Mr. Frank Sarduy, Hardee Power Partners'; 'Mr. Thomas W. Davis, ECT'; Zhang-Torres; Halpin, Mike; 'Ms. Katy Forney, EPA Region 4'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, NPS'

Cc: Thomas, Bruce X.

Subject: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

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The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <a href="http://www.adobe.com/products/acrobat/readstep.html">http://www.adobe.com/products/acrobat/readstep.html</a>.

From: Alex George [AGeorge@invenergyllc.com]

To:

Sent:

Harvey, Mary
Thursday, October 04, 2007 3:12 PM
Read: FW: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-Subject:

FL-140B

Your message

To: AGeorge@invenergyllc.com

Subject:

was read on 10/4/2007 3:12 PM.

From: Tom Davis [tdavis@ectinc.com]

Sent: Thursday, October 04, 2007 3:05 PM

To: Harvey, Mary

Subject: RE: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

From: Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]

Sent: Thursday, October 04, 2007 2:24 PM

**To:** Mr. Alex C. George, Hardee Power Partners; Mr. Frank Sarduy, Hardee Power Partners; Mr. Thomas W. Davis, ECT; Zhang-Torres; Halpin, Mike; Ms. Katy Forney, EPA Region 4; Mr. Jim Little, EPA Region 4; Mr. Dee Morse. NPS

Cc: Thomas, Bruce X.

Subject: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

#### Dear Sir/Madam:

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Thank you,

#### DEP. Bureau of Air Regulation

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From:

Halpin, Mike

To:

Harvey, Mary

Sent:

Thursday, October 04, 2007 3:12 PM

Subject:

Read: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

4.4

#### Your message

To:

'Mr. Alex C. George, Hardee Power Partners'; 'Mr. Frank Sarduy, Hardee Power Partners'; 'Mr. Thomas W. Davis, ECT'; Zhang-

Torres; Halpin, Mike; 'Ms. Katy Forney, EPA Region 4'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, NPS'

Cc:

Thomas, Bruce X.

Subject:

HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

Sent:

10/4/2007 2:24 PM

was read on 10/4/2007 3:12 PM.

From: Thomas, Bruce X.

To: Harvey, Mary

Sent: Thursday, October 04, 2007 2:35 PM

Subject: Read: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

#### Your message

To: 'Mr. Alex C. George, Hardee Power Partners'; 'Mr. Frank Sarduy, Hardee Power Partners'; 'Mr. Thomas W. Davis, ECT'; Zhang-

Torres; Halpin, Mike; 'Ms. Katy Forney, EPA Region 4'; 'Mr. Jim Little, EPA Region 4'; 'Mr. Dee Morse, NPS'

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Subject: HARDEE POWER STATION - FACILITY #0490015-008-AC-FINAL - PSD-FL-140B

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was read on 10/4/2007 2:35 PM.