

**HARDEE POWER
PARTNERS LIMITED**

Invenergy

July 17, 2006

Mr. Jeff Koerner, P.E.
Professional Engineer Administrator
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia Drive, Suite 23
Tallahassee, Florida 32301

RECEIVED

JUL 19 2006

BUREAU OF AIR REGULATION

**Re: Hardee Power Partners
Hardee Power Station
FDEP FINAL Permit No.: 0490015-005-AV
Request for Permit Revision**

Dear Mr. Koerner:

The Department issued Title V Air Operation Permit Renewal FINAL Permit No.: 0490015-005-AV effective January 1, 2005 to Hardee Power Partners (HPP) authorizing continuing operation of the Hardee Power Station, located in Hardee County, Florida. This Title V permit contains monitoring requirements that are obsolete as a result of the July 4, 2004 revisions to New Source Performance Standard (NSPS) Subpart GG. Accordingly, HPP requests the following changes to the current Title V permit and previously issued Prevention of Significant Deterioration (PSD) Permit No. PSD-FL-140:

Permit Revision Request No. 1

Current Condition:

A.10. CMS Requirements. The Permittee shall install, operate, and maintain a continuous monitoring system (CMS) to monitor and record the fuel consumption, the ratio of water to fuel being fired in the turbine. The system shall be accurate to within ± 5.0 percent and shall be approved by the Department.
[40 CFR 60.334(a); and, PSD-FL-140]

Requested Condition:

A.10. CMS Requirements. The Permittee shall install, operate, and maintain a continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. The system shall be accurate to within ± 5.0 percent and shall be approved by the Department.
[40 CFR 60.334(a); and, PSD-FL-140]

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The revisions to NSPS Subpart GG include removal of the requirement that the water-to-fuel ratio continuous monitoring system (CMS) be accurate to ± 5.0 percent.

Permit Revision Request No. 2

Current Condition:

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

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

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

Requested Condition:

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

1. Monitoring of the nitrogen content of No. 2 fuel oil is not required. The sulfur content of distillate fuel oil shall be determined for each shipment of No. 2 fuel oil received; and,
2. Monitoring of the nitrogen content of pipeline natural gas is not required. The sulfur content of pipeline natural gas will be monitored using the applicable monitoring procedures specified in 40 CFR Part 60.334(h) based on twice monthly analyses provided by the natural gas supplier.

[40 CFR 60.334(~~h~~)(1) & (2)]

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The revisions to NSPS Subpart GG include several options for monitoring fuel sulfur content.

Permit Revision Request No. 3

Current Condition:

A.19. Sulfur Content. The Permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D 2880-96, or more recent version, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or more recent versions, shall be used for the sulfur content of gaseous fuels (incorporated by reference - see 40 CFR 60.17).

The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Department.

[40 CFR 60.335(d); and, PSD-FL-140]

Requested Condition:

A.19. Sulfur Content. The Permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) using the applicable test methods and procedures specified in 40 CFR 60.335 as follows: ~~ASTM D 2880-96, or more recent version, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or more recent versions, shall be used for the sulfur content of gaseous fuels (incorporated by reference - see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Department.~~

[40 CFR 60.335(d); and, PSD-FL-140]

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The revisions to NSPS Subpart GG include several options for monitoring fuel sulfur content.

Permit Revision Request No. 4

Current Condition:

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

[40 CFR 60.335(e)]

Requested Condition:

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

[40 CFR 60.335(e)]

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The above Subpart GG citations are obsolete.

Permit Revision Request No. 5

Current Condition:

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

[40 CFR 60.334(a)]

Requested Condition:

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

[40 CFR 60.334(a)]

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The revisions to NSPS Subpart GG include removal of the requirement that the water-to-fuel ratio continuous monitoring system (CMS) be accurate to ± 5.0 percent.

Permit Revision Request No. 6

Current Condition:

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

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

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

Requested Condition:

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

1. Monitoring of the nitrogen content of No. 2 fuel oil is not required. The sulfur content of distillate fuel oil shall be determined for each shipment of No. 2 fuel oil received; and,
2. Monitoring of the nitrogen content of pipeline natural gas is not required. The sulfur content of pipeline natural gas will be monitored using the applicable monitoring procedures specified in 40 CFR Part 60.334(h)~~based on twice monthly analyses provided by the natural gas supplier.~~

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

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The revisions to NSPS Subpart GG include several options for monitoring fuel sulfur contents.

Permit Revision Request No. 7

Current Condition:

B.16. Fuel Records.

(a) Natural Gas. The permittee shall demonstrate compliance with the fuel sulfur limit for natural gas specified in this permit by maintaining records of the sulfur content of the natural gas being supplied for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D3246-81, or equivalent methods. These methods shall be used to determine the sulfur content of the natural gas fired in accordance with any EPA-approved custom fuel monitoring schedule (see Alternate Monitoring Plan: specific condition **B.17.**) or natural gas supplier data or the natural gas sulfur content referenced in 40 CFR 75, Appendix D. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e). However, the permittee is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used to determine the fuel sulfur content for compliance with the 40 CFR 60.333 SO₂ standard.

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

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

Requested Condition:

B.16. Fuel Records.

(a) Natural Gas. The permittee shall demonstrate compliance with the fuel sulfur limit for natural gas specified in this permit by maintaining records of the sulfur content of the natural gas being supplied using the applicable monitoring procedures specified in 40 CFR Part 60.334(h)~~for each month of operation.~~ Methods for determining the sulfur content of the natural gas shall be made using the applicable test methods and procedures specified in 40 CFR 60.335~~ASTM methods D4084-82, D3246-81, or equivalent methods.~~ These methods shall be used to determine the sulfur content of the natural gas fired in accordance with any EPA-approved custom fuel monitoring schedule (see Alternate Monitoring Plan: specific condition **B.17.**) or

natural gas supplier data or the natural gas sulfur content referenced in 40 CFR 75, Appendix D. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335~~(e)~~. However, the permittee is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used to determine the fuel sulfur content for compliance with the 40 CFR 60.333 SO₂ standard.

(b) Low Sulfur Distillate Oil. For all bulk shipments of low sulfur distillate oil received at this facility, the permittee shall obtain from the fuel vendor an analysis identifying the sulfur content. Methods for determining the sulfur content of the distillate oil shall be made using the applicable test methods and procedures specified in 40 CFR 60.335-ASTM D129-91, D2622-91, or D4294-90, or equivalent methods. Records shall specify the test method used and shall comply with the requirements of 40 CFR 60.335~~(d)~~. [Rules 62-4.070(3) and 62-4.160(15), F.A.C.]

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The revisions to NSPS Subpart GG include several options for monitoring fuel sulfur contents.

Permit Revision Request No. 8

Current Condition:

B.17. Alternate Monitoring Plan.

1. The following alternate monitoring may be used to demonstrate compliance.

a) The NO_x CEMS data may be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. Subject to EPA approval, the calibration of the water-to-fuel ratio-monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS.

(b) The NO_x CEMS data shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG.

(c) When requested by the Department, the CEMS emission rates for NO_x on this unit shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard established in 40 CFR 60.332.(d) A **custom fuel monitoring schedule** pursuant to 40 CFR 75, Appendix D, for natural gas, may be used in lieu of the daily sampling requirements of 40 CFR 60.334(b)(2) provided the following conditions are met.

(1) The permittee shall apply for an Acid Rain Permit within the deadlines specified in 40 CFR 72.30.

(2) The permittee shall submit a monitoring plan, certified by signature of the Authorized Representative, that commits to using a primary fuel of pipeline supplied natural gas containing no more than 2 grains of sulfur per 100 SCF of gas pursuant to 40 CFR 75.11(d)(2).

(3) Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

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

[40 CFR 60, Subpart GG; and, PSD-FL-140A]

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

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

be kept by the facility for a five year period for regulatory agency inspection purposes.

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

Requested Condition:

B.17. Alternate Monitoring Plan.

1. The following alternate monitoring may be used to demonstrate compliance.

a) The NO_x CEMS data may be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. ~~Subject to EPA approval, the calibration of the water to fuel ratio monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS.~~

(b) The NO_x CEMS data shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG.

(c) When requested by the Department, the CEMS emission rates for NO_x on this unit shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard established in 40 CFR 60.332.(d) A **custom fuel monitoring schedule** pursuant to 40 CFR 75, Appendix D, for natural gas, may be used in lieu of the daily sampling requirements of 40 CFR 60.334(h)(2) provided the following conditions are met.

(1) The permittee shall apply for an Acid Rain Permit within the deadlines specified in 40 CFR 72.30.

(2) The permittee shall submit a monitoring plan, certified by signature of the Authorized Representative, that commits to using a primary fuel of pipeline supplied natural gas containing no more than 2 grains of sulfur per 100 SCF of gas pursuant to 40 CFR 75.11(d)(2).

(3) Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

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

[40 CFR 60, Subpart GG; and, PSD-FL-140A]

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

a. No. 2 Distillate Fuel Oil (or a superior grade). The sulfur content shall be determined on each occasion that fuel is transferred to the storage tanks from any other source. Records of these values shall be kept by the facility for a five year period for regulatory agency inspection purposes.

b. Natural Gas. ~~Monitoring shall be conducted in accordance with the applicable provisions of 40 CFR 60.334(h) and 60.335. Alternatively, pursuant to 40 CFR 60.334(h)(2), a custom fuel monitoring schedule for the determination of these values may~~ shall be followed for the natural gas fired at this facility and shall be as follows:

Basis for Request:

NSPS Subpart GG was revised by EPA on July 8, 2004. The revisions to NSPS Subpart GG include several options for monitoring fuel sulfur contents.

In support of this Title V permit revision request, a completed Application for Air Permit - Long Form (Facility Information section only, including Responsible Official and Professional Engineer certifications) is enclosed.

Please feel free to contact Frank Sarduy at (813) 314-2459 if you have any questions regarding this permit revision request.

Sincerely,

A handwritten signature in black ink, appearing to read "Alex C. George". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Alex C. George
Vice President

Enclosure

		GND		Pieces: 1/1
FM: DEP AIR RESOURCE MGMT P. Adams DIRECTOR OFFICE STE 23 111 S MAGNOLIADR TALLAHASSEE, FL 32301 UNITED STATES Phone: 850-921-9505 To: DEP SOUTHWEST DISTRICT OFFICE MS. MARA NASCA 8407 LAUREL FAIR CIRCLE AIR RESOURCES TAMPA, FL 33610 UNITED STATES		ORIGIN: TLH Sender's ret 37550201000 POSTCODE: 33610		TEL: 813-744-6100
Description: Lane Const., Crystal River, Hardee Power Part. Weight: 1 lbs for 1 pcs Date: 2006-08-04 DHL standard terms and conditions apply.		ALEX OD FSC		Day 07MO
 (2LJUS33610)		 (Non-Negotiable)		WAYBILL: 17289553750

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SENDER'S RECEIPT
 Waybill #: 17289553750
 To(Company):
 DEP Southwest District Office
 Air Resources
 8407 Laurel Fair Circle
 Tampa, FL 33610
 UNITED STATES
 Attention To: Ms. Mara Nasca
 Phone#: 813-744-6100
 Sent By: P. Adams
 Phone#: 850-921-9505

Rate Estimate: 3.1
 Protection: Not Required
 Description: Lane Const., Crystal River, Hardee Power Part.
 Weight (lbs.): 1
 Dimensions: 0 x 0 x 0
 Ship Ref: 37550201000
 Service Level: Ground (Est. delivery in 1 business day(s))
 Special Svc:
 Date Printed: 8/4/2006
 Bill Shipment To: Sender
 Bill To Acct: 778941286

DHL Signature (optional) _____ Route _____ Date _____ Time _____

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