

Facility Name: **Hartwell Energy Facility**  
 City: Hartwell  
 County: Hart  
 AIRS #: 04-13-147-00021

Application #: TV-18994  
 Date Application Received: June 4, 2009  
 Permit No: 4911-147-0021-V-03-0

<b>Program</b>	<b>Review Engineers</b>	<b>Review Managers</b>
<b>SSPP</b>	Cynthia Dorrough	Furqan Shaikh
<b>ISMP</b>	Daniel McCain	DeAnna Oser
<b>SSCP</b>	Sang Park	James Eason
<b>Toxics</b>	N/A	N/A
<b>Permitting Program Manager</b>		Eric Cornwell

## Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Part 70 operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to **Hartwell Energy Facility** and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, the applicable requirements and their significance, and the methods for determining compliance with those applicable requirements. This narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

## I. Facility Description

### A. Facility Identification

1. Facility Name: Hartwell Energy Facility
2. Parent/Holding Company Name: Oglethorpe Power Corporation
3. Previous and/or Other Name(s): No previous names identified.
4. Facility Location: 415 Smith-McGee Highway 181  
Hartwell, Georgia (Hart County)
5. Attainment, Non-attainment Area Location, or Contributing Area

The facility location is designated as an attainment area for all criteria pollutants.

### B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

### C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/Effectiveness	Purpose of Issuance
4911-147-0021-V-02-0	August 4, 2004	Title V Renewal
4911-147-0021-V-02-1	September 17, 2009	CAIR Application

### D. Process Description

1. SIC Codes(s)

4911

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

Hartwell Energy Facility generates electricity for sale.

3. Overall Facility Process Description

This facility has two simple cycle combustion turbines each capable of generating 159 MW of electricity. Each combustion turbine can burn natural gas or distillate fuel oil. This facility also has two fuel oil storage tanks each with a capacity of 2.35 million gallons.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

The facility is a major source under PSD regulations because it has the potential emissions of NO<sub>x</sub> and SO<sub>2</sub> greater than 250 tons per year (it is not one of the 28 named source categories). The facility was originally permitted in 1992 and was permitted as a major source under the PSD regulations.

2. Title V Major Source Status by Pollutant

**Table 2: Title V Major Source Status**

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Y			✓
PM <sub>10</sub>	Y			✓
SO <sub>2</sub>	Y	✓		
VOC	Y			✓
NO <sub>x</sub>	Y	✓		
CO	Y	✓		
TRS	N/A			✓
H <sub>2</sub> S	N/A			✓
Individual HAP	Y			✓

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
Total HAPs	Y			✓

3. MACT Standards

The facility is not subject to any MACT standards.

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	yes
Program Code 8 – Part 61 NESHAP	no
Program Code 9 - NSPS	yes
Program Code M – Part 63 NESHAP	no
Program Code V – Title V	yes

## **Regulatory Analysis**

### **II. Facility Wide Requirements**

- A. Emission and Operating Caps:  
None applicable.
- B. Applicable Rules and Regulations  
None applicable.
- C. Compliance Status  
None applicable.
- D. Operational Flexibility  
None applicable.
- E. Permit Conditions  
None applicable.

### III. Regulated Equipment Requirements

#### A. Brief Process Description

A brief process description is specified in the initial narrative for Title V Permit No. 4911-147-0021-V-01-0. Please refer to this narrative.

Title V Permit Amendment No. 4911-147-0021-V-02-1 was issued to satisfy the requirements of 40 CFR 96 for Clean Air Interstate Rule (CAIR) for the SO<sub>2</sub> and NO<sub>x</sub> Annual Trading Programs for Emission Units H101 and H201 (denoted simply as Unit ID Nos. H101 and H202 in CAIR Permit Application) in Section 7.15 and Attachment E. The facility is required to comply with the CAIR requirements in accordance with the Georgia Rules 391-3-1-.02(12) and 391-3-1-.02(13), and 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321, and 96.322.

The CAIR Permit Application has been included in the Appendix (Attachment E) to ensure that all applicable CAIR requirements are incorporated into the Title V Permit. The facility is required to comply with the all the permit requirements in the CAIR Permit Application, including the NO<sub>x</sub> emissions requirements, SO<sub>2</sub> emissions requirements, excess emissions requirements, and the monitoring, reporting and record keeping requirements.

On January 5, 2010, correspondence was received from Oglethorpe Power Corporation notifying Georgia EPD of a change in the parent company for Hartwell Energy Facility. Ownership of the facility has not changed and is still owned by Hartwell Energy Limited Partnership. The current parent company, Oglethorpe Power Corporation purchased Hartwell Energy Limited Partnership from the partnership of ANP Hartwell and TEVCO Cogeneration company on October 13, 2009.

#### B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
H101	Combustion Turbine Unit 01	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 40 CFR 52.21 40 CFR 60 Subpart GG 40 CFR Parts 72-78 40 CFR Part 96	3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 5.2.1, 5.2.5, 5.2.6, 6.1.7, 6.2.1, 6.2.2, 7.9.1- 7.9.8, 7.15.1, 7.15.2	WI01	Water Injection
H201	Combustion Turbine Unit 02	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 40 CFR 52.21 40 CFR 60 Subpart GG 40 CFR Parts 72-78 40 CFR Part 96	3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 5.2.1, 5.2.5, 5.2.7, 6.1.7, 6.2.1, 6.2.2, 7.9.1- 7.9.8, 7.15.1, 7.15.2	WI02	Water Injection

#### C. Equipment & Rule Applicability

Choose the applicable option(s) below:

Equipment and Rule Applicability specified in Permit No. 4911-147-0021-V-01-0 is discussed in the initial Title V permit narrative for this permit. Please refer to this narrative.

The two storage tanks, storing #2 Fuel Oil (Source Codes: H301 and H302), had been subject to the record keeping requirements of 40 CFR 60 Subpart Kb at the time of the original Title V permit was issued, but are no longer subject to it (as per rule amendment dated October 15, 2003 to exempt certain sizes of tanks with small vapor pressures). They are now exempted under 40 CFR 60.110b(b)(2) since both tanks are greater than 151 m<sup>3</sup> with a maximum true vapor pressure of less than 3.5 kPa (#2 fuel oil true vapor pressure is 0.009 at 70 °F). The facility is also subject to the Acid Rain Regulations (40 CFR Parts 72, 73, 74, and 75)

D. Compliance Status

There are no compliance related issues for the combustion turbines.

E. Operational Flexibility

None applicable.

F. Permit Conditions

Part 3.0 of the permit details the requirements for the emission units at the facility. Conditions 3.3.1 through 3.3.4 were carried over from initial Title V Permit No. 4911-147-0021-V-01-0 and Condition 3.3.5 was carried over from the Title V Renewal Permit No. 4911-147-0021-V-02-0.

**IV. Testing Requirements (with Associated Record Keeping and Reporting)****A. General Testing Requirements**

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

**B. Specific Testing Requirements****1. Individual Equipment**

Testing requirements specified in Permit No. 4911-147-0021-V-01-0 are discussed in the initial Title V permit narrative for this permit. Please refer to this narrative.

**2. Equipment Groups (all subject to the same test requirements):**

None applicable.

## V. Monitoring Requirements

### A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

### B. Specific Monitoring Requirements

#### 1. Individual Equipment:

Condition 5.2.1, Condition 5.2.5, Condition 5.2.7 through 5.2.9 of Permit No. 4911-147-0021-V-02-0 are discussed in the Title V Renewal narrative for this permit. Please refer to this narrative.

Conditions 5.2.2 through 5.2.4 in Permit No. 4911-147-0021-V-02-0 are the renumbered Old Conditions 5.2.1 through 5.2.3 of Permit No. 4911-147-0021-V-01-0 and were discussed in the initial Title V narrative for this permit.

Old Condition 5.2.4 in Permit No. 4911-147-0021-V-02-0 was moved to Section 6.2 in the permit to demonstrate consistency with other permits and reference to the Alternate Fuel Sampling Frequency for Gas Turbines subject to Subpart GG Approved by US EPA Region 4 and the Approval of Routine Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated Under New Source Performance Standards has been incorporated into the updated NSPS Subpart GG.

Old Condition 5.2.6 has been removed due to updates in NSPS GG. 40 CFR 60.3.34(b)(3)(ii) allows for a worst case ISO factor to be applied. Hourly recording is no longer needed. The remaining conditions were renumbered to reflect this change.

#### 2. Equipment Groups (all subject to the same monitoring requirements):

None applicable.

### C. Compliance Assurance Monitoring (CAM)

CAM requirements specified in Permit No. 4911-147-0021-V-02-0 are discussed in the Title V Renewal permit narrative for this permit. Please refer to this narrative.

**VI. Record Keeping and Reporting Requirements****A. General Record Keeping and Reporting Requirements**

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a [quarterly or semiannual] basis.

**B. Specific Record Keeping and Reporting Requirements**

Record keeping and reporting requirements specified in Permit No. 4911-147-0021-V-02-0 are discussed in the Title V Renewal permit narrative for this permit. Please refer to this narrative.

Old Condition 6.2.3 was removed from the permit because the facility fulfilled the requirements to derive and submit an equation to the Division to calculate the “maximum capacity” for each combustion turbine within 60 days of the issuance of Permit 4911-147-0021-V-02-0.

New Condition 6.2.3 was Old Condition 5.2.4 in Permit No. 4911-147-0021-V-02-0 and moved to Section 6.2 to demonstrate consistency with other permits.

**VII. Specific Requirements**

## A. Operational Flexibility

Not applicable.

## B. Alternative Requirements

Not applicable.

## C. Insignificant Activities

Refer to <http://airpermit.dnr.state.ga.us/GATV/default.asp> for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

## D. Temporary Sources

Not applicable.

## E. Short-Term Activities

Not applicable.

## F. Compliance Schedule/Progress Reports

Not applicable.

## G. Emissions Trading

Not applicable.

## H. Acid Rain Requirements

This facility is subject to requirements in Title IV of the Clean Air Act. They are subject to 40 CFR 72 (permits), 73 (sulfur dioxide), and 75 (monitoring). They are not subject to the nitrogen oxide provisions (40 CFR 76) of the Acid Rain regulations. 40 CFR 76 only applies to affected units that burn coal.

40 CFR 72.50(a)(1) allows a complete Phase II Permit Application to be attached to the Title V Permit as part of the Permit. Washington County's Phase II Permit Application is attached to the Title V Permit as part of the Permit to ensure that all Acid Rain applicable requirements are met.

I. Prevention of Accidental Releases

Not Applicable

J. Stratospheric Ozone Protection Requirements

Not applicable.

K. Pollution Prevention

Not applicable.

L. Specific Conditions

Not applicable.

M. Clean Air Interstate (CAIR) Requirements

Condition 7.15.1 requires the facility to comply with all the applicable requirements in the CAIR permit application. The CAIR permit application is attached as part of this Title V Permit.

Condition 7.15.2 requires the facility to comply with the CAIR facility wide annual NO<sub>x</sub> allowance allocations in accordance with 40 CFR 96 and Georgia Rule 391-3-1-.02(12).

The CAIR NO<sub>x</sub> allowances have been determined by the Division for years 2009 through 2012 based on historical operating data for each equipment, and this information is available on EPD's website at <http://www.georgiaair.org/airpermit/html/aqrules/caircamr/CAIR.html>. The CAIR allowances are not unit specific and the allowances are awarded for the entire facility for each calendar year.

**VIII. General Provisions**

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.