

Facility Name: **Boulevard Combustion Turbine-Electric Generating Plant**
City: Savannah
County: Chatham
AIRS #: 04-13-051-00017

Application #: TV-40582
Date Application Received: March 14, 2019
Permit No: 4911-051-0017-V-06-0

Program	Review Engineers	Review Managers
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Introduction

This narrative is being provided to assist the reader in understanding the content of referenced 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. The 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 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: Boulevard Combustion Turbine-Electric Generating Plant
2. Parent/Holding Company Name: The Southern Company, Georgia Power Company
3. Previous and/or Other Name(s): Savannah Electric & Power Company, Boulevard Combustion Turbine-Electric Generating Plant
4. Facility Location: Staley Avenue, Savannah, Chatham County Georgia 31402
5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in Chatham County, which is in attainment 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: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/Effectiveness	Purpose of Issuance
4911-051-0017-V-05-0	September 19, 2014	Title V Renewal

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)

The facility produces electricity for sale.

3. Overall Facility Process Description

The facility has one simple cycle combustion turbine. The combustion turbine's primary fuel is No. 2 fuel oil. The combustion turbine is connected to its own generator rated at approximately 17 MW and has its own exhaust stack which is 33 feet tall. Actual heat input and load may vary. This description should not be construed as a limit on heat input or load.

The facility originally had three simple cycle combustion turbines. Combustion Turbine Unit 2 and Combustion Turbine Unit 3 were decertified in July 2013.

4. Overall Process Flow Diagram

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

E. Regulatory Status

1. PSD/NSR

Boulevard Combustion Turbine-Electric Generating Plant is a major source under PSD because it has potential emissions of NO_x and CO greater than 250 tpy (it is not one of the 28 named source categories under PSD). The facility was originally constructed before the PSD regulations were in effect.

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	✓			✓
PM ₁₀	✓			✓
PM _{2.5}	✓			✓
SO ₂	✓			✓
VOC	✓			✓
NO _x	✓	✓		
CO	✓	✓		
TRS	n/a			✓
H ₂ S	✓			✓
Individual HAP	✓			✓

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	✓			✓

3. MACT Standards

The facility is minor for hazardous air pollutants. 40 CFR 63 Subpart YYYYY National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines only applies to major sources of HAPs.

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	No
Program Code 8 – Part 61 NESHAP	No
Program Code 9 - NSPS	No
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

Not applicable.

C. Compliance Status

The facility did not indicate any non-compliance issues in the application.

D. Permit Conditions

None applicable.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
CT01	Combustion Turbine Unit 1	391-3-1-.02(2)(b) and (g)	none	n/a

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards are intended as a compliance tool and may not be definitive.

B. Equipment & Rule Applicability

Emission Unit CT01

Combustion turbine CT01 is permitted to only burn No. 2 fuel oil. The simple cycle combustion turbine is subject to Georgia Rules 391-3-1-.02(2)(g) and (b). The turbine is not subject to Georgia Rule (d) because it does not meet the definition of “fuel burning equipment” in the Georgia Rules. In addition, the turbine is not subject to 40 CFR 60 Subpart GG because it was constructed before October 3, 1977, and this New Source Performance Standard (NSPS) only applies to gas turbines that were constructed after that date.

The turbine is rated at 327 MMBtu/hr at 0° F and was constructed before January 1, 1972. Hence, it is subject to the fuel sulfur limit specified in Georgia Rule 391-3-1-.02(2)(g)2, which is 3.0 percent by weight. The turbine is subject to Georgia Rule 391-3-1-.02(2)(b) because it is subject to another emission limitation under 391-3-1-.02(2). Rule (b) limits visible emissions to 40 percent opacity. Since the combustion turbine burns only distillate fuel oil, visible emissions should be very low.

C. Permit Conditions

Condition 3.4.1 states that the fuel burned in the combustion turbine may not be equal to or exceed 40 percent opacity according to Georgia Rule (b).

Condition 3.4.2 states that the fuel burned in the combustion turbine may not exceed 3.0 percent sulfur by weight according to Georgia Rule (g); however, it is unlikely that fuel with this high sulfur content will be burned. Historically, the combustion turbine has burned No. 2 fuel oil with a sulfur content by weight of no more than 0.5 percent.

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

Not 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

Combustion turbine CT01 is subject to Georgia Rules 391-3-1-.02(2)(b) and (g) for visible emissions (VE) and for SO₂ emissions. The turbine normally burns a fuel oil whose sulfur content does not exceed 0.5 percent, by weight (No. 1 or No. 2 fuel oil); therefore, the sulfur content of these fuels are well within the allowable limit of Georgia Rule (g), 3.0 percent sulfur, by weight. Compliance will be demonstrated through supplier certifications. Since No. 1 and No. 2 fuel oils are very clean burning fuels, the likelihood of violating Georgia Rule (b) is minimal. Thus no periodic monitoring for verification of compliance with Georgia Rule (b) is included in the permit.

C. Compliance Assurance Monitoring (CAM)

Not Applicable.

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 semiannual basis.

B. Specific Record Keeping and Reporting Requirements

Condition 6.2.1 requires supplier certifications for each shipment on No. 1 or No. 2 fuel oil received.

VII. Specific Requirements**A. Operational Flexibility**

Other than the standard conditions (7.1.1, 7.2.1, and 7.2.2), operational flexibility provisions have not been incorporated into this Title V Permit. The applicant did not include any alternative operating scenarios in their Title V application or request any specific operational flexibility conditions.

B. Alternative Requirements

There are no alternative requirements that need to be incorporated into the Title V Permit.

C. Insignificant Activities

See Permit Application on GEOS website.
See Attachment B of the permit

D. Temporary Sources

None applicable. The facility may add temporary sources provided that the facility follows any necessary regulatory procedures for the operation of such sources, which may include amending the Title V Permit.

E. Short-Term Activities

Boulevard Combustion Turbine-Electric Generating Plant stated that they have the following short-term activities: painting for maintenance purposes, sand blasting for maintenance purposes, and asbestos removal in accordance with Georgia Rule 391-3-1-.02(9)(b)7. See Section D5 of the Title V application for a more complete description.

Other than asbestos removal, which is subject to Georgia Rule 391-3-1-.02(9)(b)7, these operations are not subject to any state or federal air quality requirements other than the general provisions of the Georgia Rules for Air Quality Control. The general provisions and the requirement to keep records of the frequency and duration of these activities has been included in Section 7.6 of the permit.

F. Compliance Schedule/Progress Reports

No compliance schedule or progress reports are required.

G. Emissions Trading

This facility is not involved in any emission trading programs.

H. Acid Rain Requirements

This facility is not subject to requirements in Title IV of the Clean Air Act because the turbine commenced operation before November 15, 1990 and is thus not considered an affected unit, in accordance with 40 CFR 72.6(b)(1).

I. Stratospheric Ozone Protection Requirements

The standard permit condition pursuant to 40 CFR 82 Subpart F has been included in their Title V Permit. These Title VI requirements apply to all air conditioning and refrigeration units containing ozone-depleting substances regardless of the size of the unit or of the source. At the very least, Boulevard Combustion Turbine-Electric Generating Plant has some air conditioners, chillers, and refrigerators; therefore Subpart F is an applicable requirement.

J. Pollution Prevention

There are no pollution prevention provisions incorporated into this Title V Permit.

K. Specific Conditions

The facility is not subject to the Cross-state Air Pollution Rule (CSAPR), as the combustion turbine CT01 is rated at less than 25 megawatts (MW).

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.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//