

Facility Name: **McManus Steam-Electric Generating Plant**
 City: Brunswick
 County: Glynn
 AIRS #: 04-13-12700004

Application #: TV-40595
 Date Application Received: November 19, 2020
 Permit No: 4911-127-0004-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: McManus Steam-Electric Generating Plant
2. Parent/Holding Company Name: The Southern Company, Georgia Power Company
3. Previous and/or Other Name(s): No other previous names identified
4. Facility Location: 1 Crispen Island, Brunswick, Glynn County, Georgia 31523-1464
5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in Glynn County, Georgia 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
4911-127-0004-V-05-0	June 27, 2016	Title V Renewal
4911-127-0004-V-05-0	June 27, 2016	Retired Unit Exemption for Acid Rain

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

Plant McManus burns fossil fuel to generate electricity. This facility includes nine simple cycle combustion turbines, which primarily burn No. 2 fuel oil and each combustion turbine has its own exhaust, which ranges from 33.75 to 38.75 ft. tall.

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 because it has potential emissions of PM, SO₂, NO_x, VOC, and CO greater than 100 tpy (it is one of the 28 named source categories under PSD). The facility was originally constructed before the PSD regulations were effective.

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 ₁₀	y	✓		
PM _{2.5}	y	✓		
SO ₂	y	✓		
VOC	y	✓		
NO _x	y	✓		
CO	y	✓		
TRS	n			✓
H ₂ S	n			✓
Individual HAP	y	✓		
Total HAPs	y	✓		

3. MACT Standards

The final rule for this MACT promulgated on June 15, 2004 exempts existing emergency stationary RICE from the requirements of Subpart ZZZZ and Subpart A of 40 CFR 63 (40 CFR 63.6590(b)(3)).

The nine combustion turbines at the facility are not subject to the Combustion Turbine MACT 40 CFR 63 subpart YYYY as they are existing units and are not affected sources under the final rule promulgated on March 5, 2004 (40 CFR 63.6090(b)(4)).

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

None 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
CT3A	Combustion Turbine Unit 3A	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT3B	Combustion Turbine Unit 3B	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT3C	Combustion Turbine Unit 3C	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT4A	Combustion Turbine Unit 4A	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT4B	Combustion Turbine Unit 4B	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT4C	Combustion Turbine Unit 4C	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT4D	Combustion Turbine Unit 4D	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT4E	Combustion Turbine Unit 4E	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A
CT4F	Combustion Turbine Unit 4F	391-3-1-.02(2)(b), (g), and CSPAR	None	N/A

B. Equipment & Rule Applicability

Visible emissions from each turbine cannot exceed forty (40) percent in agreement with Georgia Rule 391-3-1-.02(2)(b). Since the combustion turbines burns only distillate fuel oil, visible emissions should be very low.

The allowable sulfur content for the fuel combusted by this heater is specified in Georgia Rule 391-3-1-.02(2)(g), namely 2.5 weight percent.

C. Permit Conditions

Permit Condition 3.2.1 prohibits the Permittee from firing any fuel other than No. 2 fuel oil as defined by ASTM D396 or ASTM D975, in combustion turbines with emission unit IDs CT4A, CT4B, CT4C, CT4D, CT4E, and CT4F.

Permit Condition 3.4.1 prohibits the Permittee from discharging or causing the discharge into the atmosphere from any combustion turbine (emission unit IDs CT3A, CT3B, CT3C, CT4A, CT4B, CT4C, CT4D, CT4E, CT4F) any gases, which exhibit opacity equal to or greater than 40 percent.

Permit Condition 3.4.2 prohibits the Permittee from firing any fuel in combustion turbines (emission unit IDs CT3A, CT3B, and CT3C) whose sulfur content exceeds 3.0 percent by weight.
[391-3-1-.02(2)(g)2]

Permit Condition 3.4.3 prohibits the Permittee from discharging, or causing the discharge, into the atmosphere from each combustion turbine (emission unit IDs CT4A, CT4B, CT4C, CT4D, CT4E, and CT4F), SO₂ in an amount equal to or exceeding 0.8 pounds per million Btu of heat input.

[391-3-1-.02(2)(g)1.(i)]

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

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

None applicable.

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

Permit Condition 6.2.1 requires the Permittee to obtain from the supplier of the No. 2 fuel oil, a statement certifying that the oil complies with specifications of No. 2 fuel oil contained in ASTM D396 or ASTM D975. As an alternative to the procedure described above, the Permittee may, for each shipment of No. 2 fuel oil received, obtain a sample for analysis of the sulfur content.

Permit Condition 6.2.2 requires the Permittee to submit with the semiannual reports required by Condition 6.1.4, verification that the fuel oil burned in the combustion turbines (CT3A, CT3B, CT3C, CT4A, CT4B, CT4C, CT4D, CT4E and CT4F) during the reporting period meets the specifications of No. 2 fuel oil as defined by ASTM D396 or ASTM D975.

Permit Condition 6.2.3 allows the Permittee to submit via electronic media, any report required by Part 6.0 of this permit provided such format has been approved by the Division.

Permit Condition 6.2.4 requires the Permittee to retain monthly records of all fuel burned in the combustion turbines (emission unit IDs CT3A, CT3B, CT3C, CT4A, CT4B, CT4C, CT4D, CT4E and CT4F). The records shall be available for inspection or submittal to the Division, upon request, and contain the quantity (gallons) of No. 2 fuel oil burned.

VII. Specific Requirements

A. Operational Flexibility

Not Applicable.

B. Alternative Requirements

Not Applicable.

C. Insignificant Activities

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

D. Temporary Sources

Not Applicable.

E. Short-Term Activities

Permit Condition 7.6.1 requires the Permittee to maintain records of the duration and frequency of the following short-term activities: sandblasting and asbestos removal.

F. Compliance Schedule/Progress Reports

Not Applicable.

G. Emissions Trading

Not Applicable.

H. Acid Rain Requirements

Not Applicable.

I. Stratospheric Ozone Protection Requirements

Not Applicable.

J. Pollution Prevention

Not Applicable.

K. Specific Conditions

Not Applicable

L. Cross State Air Pollution Rule (CSAPR) Allowance Trading Program Requirements

The Clean Air Interstate Rule (CAIR) has been replaced by the Cross State Air Pollution Rule (CSAPR) [40 CFR Part 97] per the Federal Implementation Plan (FIP) and is no longer in effect. Please find additional details about the promulgation of CSAPR at the following EPA website.

<https://www.epa.gov/csapr>

CSAPR replaced a 2005 rule known as the Clean Air Interstate Rule (CAIR). A December 2008 court decision kept the requirements of CAIR in place temporarily, but directed EPA to issue a new rule to implement the Clean Air Act requirements concerning the transport of air pollution across state boundaries. This Cross-State Air Pollution Rule was designed to implement these Clean Air Act requirements and respond to the court's concerns. The CSAPR took effect January 1, 2015.

Permit Condition 7.15.1 identifies the units subject to CSAPR and the applicable CSAPR Programs.

Permit Condition 7.15.2 outlines the Annual NO_x, SO₂ and Ozone Season NO_x Emissions Requirements

Permit Condition 7.15.3 outlines the monitoring, reporting and recordkeeping requirements associated with CSAPR.

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.//