Facility Name: **Seagate Terminals Savannah, LLC**
City: Savannah
County: Chatham
AIRS #: 04-13-05100077

Application #: TV-272007
Date Application Received: October 24, 2018
Permit No: 2819-051-0077-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: Seagate Terminals Savannah, LLC

2. Parent/Holding Company Name: Seagate Terminals Savannah, LLC

3. Previous and/or Other Name(s): Southern States Phosphate & Fertilizer Company

4. Facility Location: 1600 East President Street, Savannah, Georgia 31404

5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in an attainment area.

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
2819-051-0077-V-05-0	July 11, 2018	Ownership and facility name change

D. Process Description

1. SIC Codes(s): 2819 Industrial Inorganic Chemicals

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 manufactures sulfuric acid in varying concentrations.

3. Overall Facility Process Description

Seagate Terminals Savannah, LLC consists of two separate sulfuric acid plants identified as Plants SA01 and SA02. Plant SA01 was constructed in 1965 and SA02 was constructed in 1969. The facility processes elemental sulfur in the production of sulfuric acid. Molten sulfur is burned and mixed with dry, sulfuric acid laden air to produce sulfur dioxide. These hot gases are cooled with a waste heat boiler prior to entering the catalytic converter that converts the sulfur dioxide to sulfur trioxide. The gas stream is then ducted to an absorbing tower which uses sulfuric acid mist (SAM) as a medium. A demister at the top of the absorbing tower eliminates any SAM carryover into the exhaust stack.

The absorbing tower in Plant SA02 exhausts through its own absorber vessel which control sulfur dioxide emissions. The absorbing tower no longer vents through a demister prior to the adsorber vessel.

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 was constructed prior to June 1, 1975 (i.e., prior to New Source Review regulation). The facility is one of the listed source categories in the definition of *major stationary source* [40 CFR 52.21(b)(1)] which means that the major source threshold for any criteria air pollutant is 100 tpy for a facility classification of a *major PSD/NSR source*. The facility reports potential emissions of sulfur dioxide at greater than 250 tpy with a maximum actual sulfur dioxide emissions rate of approximately 1,220 tpy. Such a sulfur dioxide emissions threshold classifies the facility as a major PSD source.

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	Yes			✓
PM_{10}	Yes			✓
$PM_{2.5}$	Yes			✓
SO_2	Yes	✓		
VOC	Yes			✓

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
NO_x	Yes			✓
CO	Yes			✓
TRS	Yes			✓
H_2S	Yes			✓
Individual HAP	No			
Total HAPs	No			

3. MACT Standards

The facility is not a major source of HAPs. Permit condition 3.2.1 has been removed. The facility is exempt from boiler permitting because of the size and exempt from 40 CFR Part 63 Subpart JJJJJJ (Boiler GACT) because the facility only burns natural gas.

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

No compliance issues were evident from review of the facility's compliance files.

D. Permit Conditions

No specific facility wide conditions are applicable.

III. Regulated Equipment Requirements

A. 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
SA01	Sulfuric Acid Plant No. 1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(j)	3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 6.1.7	SAM1	Brink Mist Eliminator #1
SA02	Sulfuric Acid Plant No. 2	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(j) 40 CFR 51.308	3.3.1, 3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.1, 5.2.3, 6.1.7	SOLV	Absorber Type Vessel

B. Equipment & Rule Applicability

Georgia Rule 391-3-1-.02(2)(e) - Particulate Emission from Manufacturing Processes
The existing Title V permit subjects both sulfuric acid plants to this state rule. The particulate matter emissions emitted from each plant is in the form of sulfuric acid mist (SAM) [per a memo from EPD ISMP to EPD SSPP dated May 12, 1999].

Georgia Rule 391-3-1-.02(2)(j) – Sulfuric Acid Plants
This state rule was approved by the Georgia DNR Board in 1972, and this state rule establishes emission standards for pre and post January 1, 1972 plants. Sulfuric acid plant Nos. 1 and 2 are subject to the pre-January 1, 1972 requirements of this state rule. Georgia Rule (j) limits sulfur dioxide emissions to less than 27.0 pounds of SO_2 per ton of 100% acid produced. Georgia Rule (j) also limits acid mist emissions to less than 0.15 pounds per ton of 100% acid produced.

Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions
This state rule applies because the existing processes are subject to an emission standard in Georgia Rule 391-3-1-.02(2). This state rule limits visible emissions from each exhaust point to less than forty (40) percent.

Georgia Regional Haze State Implementation Plan (SIP): Permit Condition No. 3.3.1 of the facility's current Title V Permit, dated March 26, 2010, requires the applicant to reduce its SO_2 emissions from Plant SA02 to less than 580 tons during any twelve consecutive month period. This emissions limit was added in Southern States' Permit in 2008 and is an emissions limit which helps the facility comply with the Georgia Regional Haze SIP in 40 CFR 51.308. This limit became effective January 1, 2014 which means that the first twelve month emission estimation is for calendar year 2014.

NESHAP for Industrial, Commercial, and Institutional Boilers Area Source (Part 63 Subpart JJJJJJ)
The facility is classified as an area source for emissions of individual and total hazardous air pollutants (in this case the facility emits zero tpy of HAPs). The facility operates three pieces of fuel burning equipment with a rated heat input capacity of less than 10 MMBtu/hr burning only natural gas so as not to be subject to 40 CFR Part 63 Subpart JJJJJJ (Boiler GACT).

A review of **NESHAP for Chemical Manufacturing Areas Sources (Part 63 Subpart VVVVVV)** was conducted. EPD has determined that this area source GACT is not applicable because the process does not use or produce any hazardous air pollutants (HAPs) specified in Table 1 to Part 63 Subpart VVVVVV.

A review of **NSPS Subpart H – Standards of Performance for Sulfuric Acid Plants** was conducted. Georgia EPD has determined that this NSPS does not apply because Plants SA01 and SA02 were constructed prior to 1971.

C. Permit Conditions

Condition 3.2.1 Deleted.

Condition 3.3.1 limits SO_2 emissions from Plant SA02.

Condition 3.4.1 limits the visible emissions from the process.

Condition 3.4.2 limits the SO_2 and acid mist resulting from acid production.

Condition 3.4.3 limits particulate matter emissions from the process.

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

Condition 4.2.1 for sulfur dioxide (SO_2) and sulfuric acid mist (SAM) is to verify compliance with the SO_2 and H_2SO_4 emission requirements of Georgia Rule 391-3-1-.02(2)(j). Existing testing frequency is at approximately one year intervals, but no longer than 13 months from the previous performance test.

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

Condition 5.2.1 requires Sulfuric Acid Plants SA01 and SA02 to have a continuous monitoring system (CMS) for SO_2. The facility utilizes one CMS for both acid plants. The percentage of diluent should be recorded.

Condition 5.2.2 requires monitoring of the pressure drop across the mist eliminator located at the top of absorbing tower for Plant SA02. These values are to be recorded weekly.

Condition 5.2.3 requires the facility to establish a conversion factor to convert SO_2 to SO_3 to allow monitoring data to be converted to units of pounds. Data from the CMS will be utilized to aid in determining the conversion factor. This condition also requires the conversion factor to be determined at least three times each day of operation.

Condition 5.2.4 requires the facility to use the given equation to calculate the pounds of SO_2 emitted per ton of 100% sulfuric acid produced.

Condition 5.2.5 prevents the facility from being subject to Compliance Assurance Monitoring (CAM) and ensures compliance with Condition 3.3.1.

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 6.1.7 specifies which excess emissions, exceedances and excursions must be reported.

Condition 6.1.7a requires the facility to report any excess SO_2 emissions from Sulfuric Acid Plant No. 1 and No. 2 (Source IDs: SA01 and SA02).

Condition 6.1.7b requires the facility to report any exceedance of acid mist from Sulfuric Acid Plant No. 1 and No. 2 (Source IDs: SA01 and SA02) and/or SO_2 from Sulfuric Acid Plant No. 2 (Source ID: SA02).

Condition 6.1.7c specifies the pressure drop range that would require a report of an excursion.

Condition 6.2.1 requires the facility to record SO_2 emissions from Plant SA02 in tons per month.

Condition 6.2.2 requires the facility to utilize results from Condition 6.2.1 to determine the twelve month total of emissions from Plant SA02.

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

Not Applicable.

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.

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.//