**PERMIT AMENDMENT NO. 2819-245-0008-V-08-1**
**ISSUANCE DATE:** 09/28/2022

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

# Air Quality - Part 70 Operating Permit Amendment

**Facility Name:** **SSC Augusta, LLC**

**Facility Address:** **1580 Columbia Nitrogen Drive**
**Augusta, Georgia 30901, Richmond County**

**Mailing Address:** **1580 Columbia Nitrogen Drive**
**Augusta, Georgia 30901**

**Parent/Holding Company:** **Southern States Chemical LLC**

**Facility AIRS Number:** **04-13-245-00008**

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:
**A single absorption contact sulfuric acid plant.**

This Permit Amendment shall also serve as a final amendment to the Part 70 Permit unless objected to by the U.S. EPA or withdrawn by the Division. The Division will issue a letter when this Operating Permit amendment is finalized.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Amendment and Permit No. **2819-245-0008-V-08-0**. Unless modified or revoked, this Amendment expires upon issuance of the next Part 70 Permit for this source. This Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in App No. **688750** dated **August 11 2022**; any other applications upon which this Amendment or Permit No. **2819-245-0008-V-08-0** are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **3** pages.

STATE OF GEORGIA
CONSTITUTION
WISDOM
JUSTICE
MODERATION
1776

Richard E. Dunn, Director
Environmental Protection Division

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# PART 1.0 FACILITY DESCRIPTION

## 1.3 Process Description of Modification

SSC Augusta, LLC is reactivating a single absorption sulfuric acid plant (Source Code: K01) that was idled in November 2017. Given the time that has passed, the facility is treating the existing sulfuric acid plant as a "new major stationary source" under the requirements of 40 CFR 52.21. While the facility will still be capable of producing 1,200 tons of acid a day, in order to avoid a PSD review, the K01 sulfuric acid plant will be limited to 800 tpd by permit restrictions.

The facility will also remove the oleum process, including the SC-1 scrubber, and a new cooling tower will be installed. The facility also requested to drop the phrase "soda ash" from the name of the SC-2 scrubber, as both caustic as well as soda ash will be used in the scrubber.

Process Description

Sulfur is brought into the plant by railcar. To unload the rail car, the sulfur is heated to a molten state. The molten sulfur enters a sulfur burner where it is burned with air to form sulfur dioxide ($SO_2$). The gas enters a four-pass converter containing vanadium pentoxide catalyst, where the $SO_2$ reacts with excess oxygen ($O_2$) in the gas to form sulfur trioxide ($SO_3$). All the gas flows to the first pass of converter where the $SO_2$ in the gas is converted to $SO_3$, heat is removed and all the gas passes through the second pass of converter where more $SO_2$ is converted to $SO_3$, heat is removed, and the gas flow splits to enter the third and fourth passes for final conversion. All of the $SO_3$ gas formed in third pass flows to the Interpass Tower (IPAT) where any remaining $SO_3$ is absorbed in water to form sulfuric acid mist ($H_2SO_4$). The $SO_3$ gas leaving the fourth pass of the converter flows through the Final Absorbing Tower (FAT) where the $SO_3$ is absorbed in $H_2SO_4$.

The tail gas from the Final Tower and the Interpass Tower is scrubbed with soda ash or caustic in a $SO_2$ Scrubber (Source Code SC2) to produce a concentrated sodium bisulfite solution. The discharge gas then exhausts via stack (Stack S01) before being vented to the atmosphere. This stack has a Continuous Emissions Monitor (CEMS) for $SO_2$ emissions. This stack also has a pad-type entrainment separator (Source Code ES1) to reduce particulate matter and sulfuric acid mist emissions.

## PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

### 3.1.1 Updated Emission Units

| Emission Units | | Applicable Requirements/Standards | Air Pollution Control Devices | |
|---|---|---|---|---|
| ID No. | Description | | ID No. | Description |
| K01 | Sulfuric Acid Plant (Stack S01) | 391-3-1-.02(2)(a)1<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(j)<br>40 CFF 60 Subpart A<br>40 CFR 60 Subpart H | ~~SC-1~~<br>V04<br>SC-2<br>ES1 | ~~Oleum Tank Scrubber,~~<br>Mist Eliminators<br>~~Soda Ash~~ $SO_2$ Scrubber<br>Entrainment Separator |

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

### 3.2 Equipment Emission Caps and Operating Limits

MODIFIED CONDITION

3.2.1 The Permittee shall not produce more than ~~1,200~~ 800 tons per day of 100% sulfuric acid, calculated as a daily average over a 365-day rolling basis.
[Avoidance of 52.21 and 391-3-1-.03(2)(c)]

## PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

### 6.1 General Record Keeping and Reporting Requirements

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

[a. and c. – No changes]

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

MODIFIED CONDITION

i. Any day that the 365-day rolling average production level is more than ~~1,200~~ 800 tons of 100% sulfuric acid.