

# **Prevention of Significant Air Quality Deterioration Review**

## **Final Determination**

April 2025

Facility Name: Georgia-Pacific Savannah River LLC

City: Rincon

County: Effingham

AIRS Number: 04-13-10300007

Application Number: 873390

Date Application Received: October 14, 2024



State of Georgia  
Department of Natural Resources  
Environmental Protection Division  
Air Protection Branch

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## **BACKGROUND**

On October 14, 2024, Georgia-Pacific Savannah River LLC (hereafter SRM) submitted an application for an air quality permit to improve energy efficiency and reliability with regard to steam production. The facility is located at 437 Old Augusta Road South, Rincon, in Effingham County. The project is for the installation of 285 MMBtu/hr natural gas fired Boiler No. 7 (Source Code BO07), modification of existing Boiler No. 3 (Source Code BO01) to burn additional wastewater treatment residuals (WWTR) and natural gas with existing permitted fuels, modification of existing Boiler No. 5 (Source Code BO03) to burn only WWTR and natural gas, and miscellaneous support changes including silos, a new WWTR steam dryer, and a new ammonia tank..

On February 25, 2025, the Division issued a Preliminary Determination stating that the modifications described in Application No. TV-873390 should be approved. The Preliminary Determination contained a draft Air Quality Permit for the construction and operation of the modified equipment.

The Division requested that SRM place a public notice in a newspaper of general circulation in the area of the existing facility notifying the public of the proposed construction and providing the opportunity for written public comment. Such public notice was placed in The Effingham Herald (legal organ for Effingham County) on March 3, 2025. The public comment period expired on April 4, 2025.

During the comment period, comments were received from the facility. There were no comments received from the U.S. EPA Region IV or the general public.

A copy of the final permit is included in Appendix A. A copy of written comments received during the public comment period is provided in Appendix B.

**U.S. EPA REGION 4 COMMENTS**

No comments were received from U.S. EPA Region 4.

**Georgia-Pacific Savannah River Mill LLC COMMENTS**

Comments were received from Mary K. Hoffmann, Strategic Environmental Air Engineer, by email on March 27, 2025.

**Comment 1**

Section 1.3 Page 2:

Proposed language to allow lime as a bed material in Boiler 5 (BO03) in addition to sand and added the surge bin to the WWTR feeding system. No impact on emissions.

**EPD Response.**

The language has been updated as the facility requested. The relevant section of the Process Description of Modification original read:

“The existing solid fuel silos will be removed from Boiler No. 5. The existing limestone silo will be repurposed for sand storage (LM03 to SAND) for Boiler No. 5. A total of five metering bins will be added to store feed WWTR (FS09) to both Boiler Nos. 3 and 5. The WWTR conveyors to the boilers are completely enclosed.

The passage now reads as follows:

“The existing solid fuel silos will be removed from Boiler No. 5. The existing limestone silo utilized for sulfur reduction will be repurposed for sand/lime storage (LM03 to SAND) for Boiler No. 5 furnace floor material. A total of six metering bins will be added to feed WWTR (FS09) to both Boiler Nos. 3 and 5. The WWTR conveyors to the boilers are completely enclosed.”

**Comment 2**

Conditions 4.2.11, 4.2.13, 6.2.27:

To ensure compliance, asked for clarification of “modified” for initial performance testing and initial start-up notifications. The natural gas equipment is expected to be installed in both Boiler 3 (BO01) and Boiler 5 (BO03) at different times in the first and second quarter 2026. Boiler 3 will be able to burn its existing permitted fuels and have the ability to burn only natural gas. The equipment installation associated with handling and burning WWTR in Boiler 3 and in Boiler 5 is not expected to be completed until fourth quarter 2026 allowing both boilers to burn the WWTR and natural gas fuel mix. The WWTR feed rate will be increased incrementally over time to ensure proper operation. Should GP test/notify after the natural gas modifications while burning natural gas only? Should GP test/notify again after the ability to burn WWTR/natural gas mix with dryer and conveyor installation? Or test/notify once after all modifications are complete?

**EPD Response.**

No changes were made to the permit. The testing is required after all modifications are complete.

**Comment 3**

Conditions 4.2.12, 4.2.14:

GP currently has a certified NO<sub>x</sub> CEM that is maintained and calibrated per Part 60 regulations for Boiler 3 and Boiler 5 demonstrating compliance with the 30-day rolling average. The NO<sub>x</sub> CEM will be operating after start-up to measure emissions. Is another initial performance test necessary for an existing CEMs?

**EPD Response.**

No changes have been made as a result of this comment. 40 CFR 60 Subpart Db does not contain exemptions for 40 CFR 60.46b(e)(1) when modifying a boiler.

**Comment 4**

Condition 4.2.15

Remove reference to Condition 4.2.8 for subsequent PM performance testing for Boiler 7 (BO07).

**EPD Response.**

The reference to Condition 4.2.8 has been removed from Condition 4.2.15 as requested. The language was included in error. The original condition read as follows:

“Within 180 days after the startup of Boiler No. 7 (Source Code BO07), the Permittee shall conduct an initial performance test for PM emissions while burning fuel that is representative of normal operation to demonstrate compliance with Condition 3.4.15. Subsequent performance testing shall be conducted as specified in Condition 4.2.8.”

The condition now reads:

“Within 180 days after the startup of Boiler No. 7 (Source Code BO07), the Permittee shall conduct an initial performance test for PM emissions while burning fuel that is representative of normal operation to demonstrate compliance with Condition 3.4.15.”

**Comment 5**

Conditions 5.2.21, 5.2.22, 5.2.23, 6.1.7.b.i:

Request to remove SO<sub>2</sub> monitoring for modified Boiler 5 as both natural gas and WWTR are low sulfur fuels. Propose alternative demonstration of SO<sub>2</sub> lb/hr daily average limit compliance by providing calculated emissions from fuel analysis and max fuels burned similar to 5.2.23 b.

$$\text{SO}_2 \text{ (lb/hr)} = \text{Max fuel burned lb/hr} * (\text{max fuel sulfur content \%} / 100) * 64/32 \text{ (molecular weight ratio of SO}_2\text{/S)}$$

**EPD Response.**

No changes have been made as a result of this comment. The EPD is willing to revisit these changes in a future permit modification after the modifications are complete and fuel mixes are finalized.

**Comment 6**

Condition 6.1.7.c.iii.:

Correct typographical error.

**EPD Response.**

The Permittee is referring to 6.1.9.c.iii. The typographical error has been corrected. The word “alterative” has been corrected to “alternative”.

**Comment 7**

Conditions 6.2.38, 6.2.39, 6.2.40, 6.2.41:

Asked for clarification of “modified for baghouse preventative maintenance plan updates and baghouse pressure drop ranges. The actual boiler modifications will be completed when the ability to burn natural gas only is available in both units. The WWTR equipment (steam dryer and conveying/feeding system) is auxiliary to the boilers, but the units will not be able to burn the larger amount of WWTR and the WWTR/natural gas mix until WWTR equipment is commissioned. The baghouse pressure drop may differ when burning natural gas only and when burning the natural gas/sludge mix

**EPD Response.**

No changes were made to the permit. The testing is required after all modifications are complete.

**General Public COMMENTS**

No comments were received from the general public.

**EPD CHANGES**

EPD did not make any changes to the draft outside of previously documented comments and responses.

## **APPENDIX A**

### **AIR QUALITY PERMIT**

**2621-103-0007-V-06-1**

## **APPENDIX B**

### **WRITTEN COMMENTS RECEIVED DURING COMMENT PERIOD**