Company Name:	International Paper – Georgetown Mill	**Permit Writer:**	Katharine K. Buckner
Permit Number:	1140-0002-DK	**Date:**	November 17, 2022

DATE APPLICATION RECEIVED: June 22, 2022
DATE OF OCRM APPROVAL: August 1, 2022

FACILITY DESCRIPTION (2611, 2621 / 322110, 322121)
International Paper (IP-Georgetown) operates an integrated Kraft pulp and paper mill (IP-Georgetown Mill) adjacent to the city of Georgetown, Georgetown County, in eastern South Carolina on the banks of the Sampit River. The Mill began operations in 1937. The primary activities at International Paper's Georgetown pulp and paper mill are pulp production (Standard Industrial Classification [SIC] code 2611) and paper production (SIC code 2621). The facility produces both hardwood and softwood Kraft pulps from purchased chips and chips processed from roundwood received at the mill. Operations at the mill include multiple fuel-fired boilers, electricity generation (internal use only), wood and wood chip processing, Kraft process pulping, Kraft pulp bleaching, Kraft chemical recovery, bleached and unbleached papermaking (two paper machines), market pulp (one pulp machine), and additional operations and equipment necessary to support these operations. The current nominal annualized pulp capacity of the mill is 2,190 oven dried tons of pulp per day (ODTP/d).

PROJECT DESCRIPTION
IP-Georgetown is requesting to remove the two baghouses associated with the two ash silos that are part of the Ash Handling and Loading System, EU ID 01, equipment ID ASHH, control device IDs Ash Baghouse. The two ash handling systems (ASHH) will now be insignificant activities based on the uncontrolled emissions.

Particulate emissions generated by the combustion of solid fuels in the two Power Boilers (equipment IDs PB01 and PB02) are controlled by cyclones and electrostatic precipitators (ESPs). The collected particulates (fly ash) are managed by the Ash Handling and Loading System (ASHH) and sent to two ash silos, one for each power boiler. The ash is mechanically conveyed from the boilers' cyclones and ESPs via the ash handling system to the ash storage silos. Each silo is equipped with a baghouse to control particulate matter emissions.

The baghouses were installed prior to Title V regulations and were included in the initial Title V application because the emissions estimation methodology at the time of the initial Title V permit application resulted in inaccurately high particulate emissions.

Both baghouses have since been replaced. The baghouse on the No. 1 Power Boiler ash handling system was replaced in May 2021 and the baghouse on No. 2 Power Boiler's ash handling system was replaced in March 2022. Since replacement, the mill has been experiencing some operational and safety issues with the continued operation of the baghouses. International Paper - Georgetown has installed variable speed drives on the induced draft fans as an interim, short-term mitigating measure.

SINGLE SOURCE DETERMINATION
IP-Georgetown Mill and International Paper Georgetown Container (1140-0044) have previously been determined to be a single source for Title III, Title V, and PSD/NSR.

EMISSIONS
The emissions for the Ash Handling System have been updated with this project. The facility considers the emission estimates for the initial TV OP, issued in 2001, to be inaccurately high. Also, an error in the number of drop points used previously in the calculations was discovered during this submittal. Previous estimates, in the 2019 TV OP

renewal and the two 502b10 requests to replace each baghouse, accounted for one drop point. There are two boilers, each having an ash system. This project accounts for 6 drop points for each ash handling system.

Emissions were estimated using AP-42 Section 13.2.4, Equation 1 for Aggregate Handling and Storage Piles.

E = k(0.0032) x [(U/5)^1.3 / (M/2)^1.4] = lb/ton

k, PM = 0.74
k, PM_{10} = 0.35
k, $PM_{2.5}$ = 0.053
Moisture, M = 27% moisture for flyash, Table 13.2.4-1
Wind Speed, U = 8.5 mph (Charleston AP, TANKS 4.09d)

Maximum total Ash System throughput = 153,147 tons ash/year. However, neither system individually can accommodate this total ash throughput.

Emission rates for the total ash system (one for each of the two boilers) were multiplied by the number of drop points; a total of 6 drop points since each system has 6 drop points and the total ash is split between the two systems.

PROJECT EMISSIONS						
Pollutant	**Uncontrolled**		**Controlled**		**PTE**	
	lb/hr	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
PM	1.30E-02	5.67E-02	N/A	N/A	1.30E-02	5.67E-02
PM_{10}	6.13E-03	2.68E-02	N/A	N/A	6.13E-03	2.68E-02
$PM_{2.5}$	9.28E-04	4.06E-03	N/A	N/A	9.28E-04	4.06E-03

Notes:
- N/A, for not applicable, under the controlled emissions column indicates emissions from this source are not controlled.

PROJECT EMISSIONS						
Pollutant	**Prior to Construction**			**Post Construction**		
	Uncontrolled	**Controlled**	**PTE**	**Uncontrolled**	**Controlled**	**PTE**
	TPY	**TPY**	**TPY**	**TPY**	**TPY**	**TPY**
PM	5.67E-02	5.67E-04	5.67E-04	5.67E-02	N/A	5.67E-02
PM_{10}	2.68E-02	2.68e-04	2.68e-04	2.68E-02	N/A	2.68E-02
$PM_{2.5}$	4.06E-03	4.06e-05	4.06e-05	4.06E-03	N/A	4.06E-03

Notes:
- N/A, for not applicable, under the controlled emissions column indicates emissions from this source are not controlled.

OPERATING PERMIT STATUS

This facility operates under Title V Operating Permit; issued on January 28, 2015; effective on April 1, 2015; expires on March 31, 2020. A complete and timely title V operating permit renewal application was received on August 23, 2019.

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To allow the facility to physically remove the equipment prior to the TV OP being renewed, this permit will be public noticed in accordance with SC Regulation 61-62.70.7 and 70.8 so that this project can be incorporated into the TV OP as an administrative permit amendment.

Changes to the TV OP will be:

- Remove all references of the Ash Handling and Loading System, Equipment ID, and Control Device IDs from the equipment and control device tables, conditions, and Attachment - Approved Control Device Performance Indicators and Operational Ranges since this source now qualifies as an insignificant activity based on the emissions rates.

REGULATORY APPLICABILITY REVIEW

<table>
<tr><th>Regulations</th><th>Comments/Periodic Monitoring Requirements</th></tr>
<tr><td>Section II(E) – Synthetic Minor</td><td>Not Applicable
There are no current synthetic minor limitations on the Ash Handling and Loading System. The removal of the baghouses from the silos will not result in the need for new synthetic minor limitations since the increase in the uncontrolled PM, PM_{10}, and $PM_{2.5}$ rates are less than the significant levels for Standard No. 7. Therefore, this regulation does not apply.</td></tr>
<tr><td>Standard No. 7</td><td>Not Applicable
The Ash Handling and Loading System is not currently subject to any PSD/BACT limits. The removal of the baghouses will not cause an increase of PM, PM_{10}, and $PM_{2.5}$ greater than the significant levels. Therefore, this regulation does not apply.</td></tr>
<tr><td>Standard No. 1</td><td>Not Applicable
This regulation pertains to opacity, PM, and SO_2 emissions from fuel burning operations. Neither the Ash Handling and Loading System, nor the baghouses are fuel burning operations.</td></tr>
<tr><td>Standard No. 4</td><td>Applicable but exempt
The Ash Handling and Loading System is considered a process industry that emits particulate matter. The opacity limit for the system remains at 40% since the system was installed pre-1985 and no modifications to the system have occurred.

The maximum process weight rate for the Ash Handling and Loading System is based on the total ash handled by the system, 153,147 tons ash/year.

153,147 ton/yr / 8,760 hr/yr = 17.5 ton/hr

<table>
<tr><th>Process</th><th>Max Process Weight Rate (tons/hr)</th><th>PM Allowable at Max (lb/hr)</th><th>Uncontrolled Emissions PM (lb/hr)</th><th>Controlled Emissions PM (lb/hr)</th><th>Monitoring</th></tr>
<tr><td>ASHH</td><td>17.5</td><td>27.90</td><td>1.30E-02</td><td>N/A</td><td>None</td></tr>
<tr><td colspan="6">Notes:</td></tr>
</table>
</td></tr>
</table>

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Regulations	Comments/Periodic Monitoring Requirements
	- N/A, for not applicable, under the controlled emissions column indicates emissions from this source are not controlled. However, the maximum uncontrolled emission rates have been recalculated and are now less than 1.14 lb/hr, 5.0 tpy. This source is now an insignificant activity.
Standard No. 3 (state only)	**Not Applicable** This project does not involve any waste reduction or waste combustion activities.
Standard No. 5	**Not Applicable** There are no VOC emissions from the Ash Handling and Loading System. Therefore, this regulation does not apply.
Standard No. 5.2	**Not Applicable** This regulation pertains to NOx emissions from fuel combustion sources. There are no NOx emissions from the Ash Handling and Loading System. Therefore, this regulation does not apply.
61-62.6	**Applicable** This facility shall ensure the state-wide requirements of this regulation are met (Section III). Fugitive emissions shall be minimized to the maximum extent practical.
40 CFR 60 and 61-62.60	**Not Applicable** None of the subparts of this regulation apply to the handling or storage of ash. Therefore, this regulation does not apply.
40 CFR 61 and 61-62.61	**Not Applicable** None of the subparts of this regulation apply to the handling or storing of ash. Therefore, this regulation does not apply.
40 CFR 63 and 61-62.63	**Not Applicable** None of the subparts of this regulation apply to the handling or storage of ash. Therefore, this regulation does not apply.
61-62.68	**Not Applicable** The Ash Handling and Loading System does not involve the use, processing, or storage of any RMP-regulated chemicals.
40 CFR 64 (CAM)	**Not Applicable** Currently, the Ash Handling and Loading System, with baghouses, is not subject to CAM since the uncontrolled emissions are not greater than 100 ton/year. As a result of this project, the Ash Handling and Loading System will no longer be equipped with baghouses for control. CAM does not apply to sources that are not equipped with control devices.

AMBIENT AIR STANDARDS REVIEW	
Regulations	**Comments/Periodic Monitoring Requirements**
Standard No. 2	**Applicable but exempt**

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AMBIENT AIR STANDARDS REVIEW	
Regulations	**Comments/Periodic Monitoring Requirements**
	The emission rates after removal of the baghouses are less than 1.14 lb/hr for PM_{10} and $PM_{2.5}$, each. Therefore, this source is now exempt from the requirements to address air dispersion modeling.
Standard No. 8 (state only)	**Not Applicable** There are no toxic air pollutant emissions from the Ash Handling and Loading System.

PUBLIC NOTICE

This construction permit has undergone a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II(N), SC Regulation 61-62.70.7(h), SC Regulation 61-62.70.8, and SC Regulation 61-62.70.7(d)(1)(v). The comment period was open from August 9, 2022 to September 7, 2022 and was placed on the BAQ website during that time period. Comments were received during the comment period.

The facility is requesting to remove two control devices. Traditionally, a significant modification is required to remove equipment from the Title V operating permit. IP-Georgetown's TV is expired and cannot be modified. Therefore, this "preconstruction review permit" will be public noticed with "procedural requirements substantially equivalent to the requirements of 70.7 and 70.8 that would be applicable to the change if it were subject to review as a [significant] permit modification. The facility can then submit an Administrative Permit Amendment to physically remove the equipment prior to the issuance of the Title V operating permit renewal.

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.