

Application Review

Issue Date: ??

Region: Washington Regional Office
County: Craven
NC Facility ID: 2500104
Inspector's Name: Kurt Tidd
Date of Last Inspection: 08/23/2021
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): International Paper - New Bern Mill</p> <p>Facility Address: International Paper - New Bern Mill 1785 Weyerhaeuser Road Vanceboro, NC 28586</p> <p>SIC: 2611 / Pulp Mills NAICS: 32211 / Pulp Mills</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: 02D .0516, 02D .0614; 02Q .0504, NSPS: Subpart BB NESHAP: Subpart DDDDD PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: Removed: Boiler MACT (112(j) Case-by-case MACT); 02Q .0317: Avoidance Conditions (For 02Q .0700: toxic air pollutant procedures)</p>
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Contact Data			Application Data
<p style="text-align: center;">Facility Contact</p> <p>Paul Rodock Sr. Environmental Engineer (252) 633-7459 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p style="text-align: center;">Authorized Contact</p> <p>Adam Miklos Mill Manager (252) 633-7229 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p style="text-align: center;">Technical Contact</p> <p>Jacquelyn Taylor EHS Leader, Global Cellulose Fibers (252) 633-7427 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p>Application Number: 2500104.20A, 2500104.20B Date Received: 02/03/2020 Application Type: Modification Application Schedule: TV-Sign-501(b)(2) Part II Existing Permit Data Existing Permit Number: 02590/T57 Existing Permit Issue Date: 10/13/2020 Existing Permit Expiration Date: 04/30/2023</p>

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2020	113.00	528.62	440.73	572.51	62.85	115.20	59.60 [Methanol (methyl alcohol)]
2019	82.37	561.87	419.75	629.06	49.78	111.43	59.08 [Methanol (methyl alcohol)]
2018	1.22	512.22	593.45	290.68	35.54	263.01	203.84 [Methanol (methyl alcohol)]
2017	1.16	521.29	493.21	535.43	70.58	259.12	200.81 [Methanol (methyl alcohol)]
2016	287.13	718.62	467.67	450.38	76.95	263.15	202.33 [Methanol (methyl alcohol)]

<p>Review Engineer: Brian Bland</p> <p>Review Engineer's Signature: _____ Date: ??</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue 02590/T58 Permit Issue Date: ?? Permit Expiration Date: 04/30/2023</p>
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I. Introduction and Purpose of Application

International Paper - New Bern Mill (IP New Bern) operates an integrated bleached kraft pulp mill near New Bern, North Carolina. The primary activity at the facility is pulp production and operations include multiple fuel-fired boilers, chemical recovery operations, wood pulping and bleaching operations, and additional operations and equipment necessary to support these operations.

Application No. 2500104.20A: This application was submitted to satisfy the 15A NCAC 02Q .0501(b)(2) requirement to submit a complete Title V Air Permit application within twelve (12) months after commencing operation of the emission sources in Application Nos. 2500104.18A and 2500104.18B. This application will be processed as the “second step” of two-step 15A NCAC 02Q .0501(b)(2) significant modification for both applications.

On November 16, 2018, the facility received their 1st step permit (Permit No. 02590T55) pursuant to the rules at 15A NCAC 02Q .0501(b)(2) and 02Q .0504 “to convert the continuous digester (ID No. ES 402-141) to downflow cooking and modify the recovery boiler (ID No. ES 445-001).” As the review document for this application contains a full discussion of the modification, these details will not be included as part of this review. However, a Word copy of the review document for Application No. 2500104.18B has been attached to this review.

On December 21, 2018, the facility received their 1st step permit (Permit No. 02590T55) pursuant to the rules at 15A NCAC 02Q .0501(b)(2) and 02Q .0504 “to replace the existing smelt dissolving tank (ID No. ES 445-121) with a new tank.” As the review document for this applications contains a full discussion of the modification, these details will not be included as part of this review. However, a Word copy of the review document for Application No. 2500104.18A has been attached to this review.

In addition to the procedural part II for Application Nos. 2500104.18A and 2500104.18B. IP New Bern also requested several corrections and rewording for clarity changes (not included in this list) as well as the following changes

- Update nominal chilled water injection rate in description of Packed Tower Type Wet Scrubber (CD 430-531) to reflect manufacturer’s recommendation.
- Remove No. 6 fuel oil as a permitted fuel for the Recovery Boiler and the Lime Kiln. Remove No. 4 fuel oil as a permitted fuel for the Recovery Boiler. Remove, now unnecessary, permit requirements associated with these fuels.
- For the Recovery Boiler and Lime Kiln, change the Compliance Assurance Monitoring (CAM) General Criteria/ Indicator Range to 20% to standardize with the corrective action level in 40 CFR 63.864(k)(1)(i).
- As there is no decrease in performance associated with a higher flow rate, remove maximum flow rate limit for wet scrubber (ID No. CD-455-408)

No further discussion in necessary regarding these changes, so this review will not include a detailed analysis of them.

Application No. 2500104.20B: This application was submitted as a 502(b)(10) Notification received on March 25, 2020, detailed IP New Bern’s plans to replace the heater component of the HSC 2 Concentrator (ID No. ES 440-852). This application is being consolidated with Application No. 2500104.20A.

II. Application Chronology

November 16, 2018	Air Permit No. 02590T55 for converting the continuous digester (ID No. ES 402-141) to downflow cooking and modifications to the recovery boiler (ID No. ES 445-001) was issued pursuant to Application No. 2500104.18B.
December 21, 2018	Air Permit No. 02590T56 for the replacement of a smelt dissolving tank (ID No. ES 445-121) was issued pursuant to Application No. 2500104.18A
February 3, 2020	Application No. 2500104.20A to complete two-step significant modification process initiated with Application Nos. 2500104.18A and 2500104.18B was received and considered administratively complete.

March 25, 2020 A 502(b)(10) Notification that IP New Bern plans to replace the heater component of the HSC 2 Concentrator (ID No. ES 440-852) was received. This change was assigned Application No. 2500104.20B and later consolidated with Application No. 2500104.20A.

April 28, 2022 Draft permit and review document forwarded to IP New Bern personnel for comments.

April 28, 2022 Draft permit and review document forwarded to the Washington Regional Office (WaRO) for comments.

May 4, 2022 Comments on draft permit and review document received from IP New Bern personnel. The noted minor corrections and a request to correct the description of ID No. IES-206-049-70 where made, however the marked updates that were outside the scope of this modification are planned to be made as part of the upcoming permit renewal.

May 5, 2022 Comments on draft permit and review document received from WaRO.

III. Changes to Existing Air Permit

New Page	Section	Description of Change(s)
All	All	Updated dates and permit revision number
3	N/A	List of Acronyms Attachment moved to in front of Section 1 of the air permit
4	1	Updated description of Packed Tower Type Wet Scrubber (ID No. CD 430-531) to 50 gallon per minute to align with manufacturer Recommendation ¹ Removed No. 4 and No. 6 fuel oils as permitted fuels for Recovery Boiler (ID No. ES 445-001) ¹ Removed * footnote and associated emission source tags for the Recovery Boiler (ID No. ES 445-001) and Continuous Digester (ID No. ES 402-141) Removed ** footnote and associated emission source tag for Smelt Dissolving Tank (ID No. ES 445-121) Removed No. 6 fuel oil as permitted fuel for Lime Kiln (ID No. ES 455-061) ¹
16	2.1 B.3.d	Updated wording for clarity ¹
19	2.1 C.5.a	Added “than” to correct historical typo ¹
34	2.1 I	Removed No. 4 and No. 6 fuel oils from Recovery Boiler (ID No. ES 445-001) description ¹ Removed 15A NCAC 02D .0516 requirements associated with No. 4 and No. 6 fuel oils ¹ Updated NSPS Subpart BB reporting requirements to be consistent with similar facilities and following the Technical Services Section October 27, 2020 memorandum ¹
37	2.1 I.7	Changed General Criteria - Indicator Range from 15% to 20% opacity to standardize with corrective action level in 40 CFR 63.864(k)(l)(i) ¹ Updated General Criteria - Quality Improvement Plan (QIP) Threshold wording to improve clarity ¹
N/A	2.1 J.6	Removed “15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT” permit application requirement

New Page	Section	Description of Change(s)
43	2.1 K	Removed No. 6 fuel oil from Lime Kiln (ID No. ES 455-061) description Removed 15A NCAC 02D .0516 requirements associated with No. 6 fuel oil Updated NSPS Subpart BB reporting requirements to be consistent with similar facilities and following the Technical Services Section October 27, 2020 memorandum ¹
46	2.1 K.5	Changed General Criteria - Indicator Range from 15% to 20% opacity to standardize with corrective action level in 40 CFR 63.864(k)(l)(i) ¹ Updated General Criteria - Quality Improvement Plan (QIP) Threshold wording to improve clarity ¹
48	2.1 L.1.d.ii	Removed maximum flow rate for wet scrubber (ID No. CD-455-408)
54	2.1 N	Corrected citations that referred to Section 2.1 O ¹
67	2.2 B.1	Removed requirements that applied prior to October 11, 2019 and now unnecessary “after October 11, 2019” qualifiers ¹
N/A	2.2 C	Removed 112(j) Case-by-case MACT requirements
N/A	2.2 D.6	Removed “15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT” permit application requirement
N/A	2.3 A.2	Removed 15A NCAC 02Q .0317 requirement associated with No. 4 and No. 6 fuel oils
86	3 (was Attachment)	Insignificant Activities per 15A NCAC 02Q .0503(8) Attachment moved to Section 3 of the air permit Corrected description of ID No. IES-206-049-70 as fully described in AD#3696
89	4 (was Section 3)	Updated General Conditions to current version

¹ Changes made pursuant to Attachment B “Requested Permit Language Updates” of the permit application

IV. Modification Description

The status of the modifications was described in Application No. 2500104.20A as follows:

Smelt Dissolving Tank Project (Part I was Application No. 2500104.18A)

“IP New Bern operates a single recovery boiler and smelt dissolving tank to process black liquor. The recovery boiler was upgraded in 2009 to the current permitted capacity of 4.5 million pounds of black liquor solids per day (MM lb BLS/day). During the upgrade, a single carbon steel smelt dissolving tank was installed to replace the two old smelt dissolving tanks. Reliable operation the smelt dissolving tank is critical to Mill operation. Weld thinning and floor thinning resulted in significant repair costs during outages and concerns about tank integrity.

Therefore, in 2019, IP New Bern replaced the existing smelt dissolving tank with a new Duplex Stainless Steel tank in the same location and on the existing foundation. The Mill installed three new side mount agitators and motors, and relocated the electrical lines. The Mill reused the existing instrumentation in the same location, and reused all previously existing supply and discharge piping and pumps, and smelt spout hoods and shatter jets. The existing wet scrubber was also reused, and the primary operating scenario is still to route the smelt dissolving tank exhaust through the recovery boiler. The new vessel has not, and will not, increase the capacity of the smelt tank, the recovery boiler, or the recausticizing area.”

Pulp Increase Project (Part I was Application No. 2500104.18B)

“In 2019, IP New Bern modified the recovery boiler by adding heat input controls and making improvements in the air system design. This project also included a request to convert the continuous digester (ES 402-141) to downflow cooking with a new cold blow cooler; however this conversion has not yet occurred. The project results in a maximum actual finished pulp increase of 21,000 air dried metric tons per year (ADMT/yr) and a steam gain from the recovery boiler. The modifications resulted in an actual increase in black liquor solids production; however, the

modifications have not, and will not, cause an increase over the current permitted hourly or annual capacity based on 4.5 million pounds of black liquor solids per day. The recovery boiler changes also improved the margin of compliance with the 300 parts per million (ppm) carbon monoxide (CO) Best Available Control Technology (BACT) limit due to improvements to the combustion air delivery system.”

Replacement of HSC 2 Concentrator heater component Project (Submitted as a 502(b)(10) Notification and processed as Application No. 2500104.20B)

The 502(b)(10) Notification received on March 25, 2020 indicated that IP New Bern plans to replace the heater component of the HSC 2 Concentrator (ID No. ES 440-852) as soon as seven days after the submittal of the Notification. After finding that the current material (304L stainless steel) was susceptible to erosion and corrosion at the operating conditions of the heater, it was determined that the heater will be replaced with a unit constructed of an appropriate material(s). IP New Bern does not anticipate any change to actual or potential emissions. The replacement is said to not change actual or potential throughput from any upstream or downstream processes. No changes to the permit were required as the result of this modification.

Regulatory concerns associated with the heater replacement include:

New Source Performance Standards (NSPS)

In the current permit, IP New Bern is subject to NSPS Standards under 40 CFR Part 60, Subpart BB for the new heater, which is a component of the HSC Concentrator. Should this change be considered reconstruction or modification as defined under 40 CFR Part 60, the new heater could potentially be subject to NSPS Standards under 40 CFR Part 60, Subpart BBa. The fixed capital cost of the new heater is much less than 50% of the capital cost for a new evaporator system, therefore would not be considered reconstruction under NSPS. As such, IP New Bern will continue to comply with NSPS Subpart BB.

Based on the definition of modification under NSPS, this change is not considered a modification under NSPS as the project will not result in the increase in hourly increase in TRS emissions nor the emission of an air pollutant not previously emitted.

National emission standards for hazardous air pollutants (NESHAP)

IP New Bern is subject to NESHAP under 40 CFR Part 63, Subpart S for existing sources. New source standards under Subpart S apply to new pulping or bleaching lines or reconstruction of the pulping or bleaching system. The Part 63 definition of reconstruction is similar to the NSPS definition; a change is considered reconstruction if the fixed capital cost of the new source is greater than 50 percent of a new source. As the project does not involve the installation of a new pulping or bleaching line or reconstruction off the pulping or bleaching system, new source MACT is not triggered and IP New Bern will continue to comply with Subpart S.

Prevention of Significant Deterioration (PSD)

There is no increase in actual or potential emissions as a result of this modification, so PSD Review is not required. Additionally, as potential emissions from the HSC 2 concentrator are negligible, no 15A NCAC 02D .0530(u) tracking condition for projected actual emissions is required.

V. Facility Compliance Status

The last full inspection of this facility was completed on April 29, 2022 by Kurt Tidd of the WaRO. At the time of inspection, the facility appeared to operate in compliance with all applicable Federal and State rules, regulations and permit conditions.

VI. Other Regulatory Concerns

A P.E. seal was not required for this modification.

IP New Bern is located in an area without zoning. Notification requirements were addressed in Application Nos. 2500104.18A and 18B pursuant to 15A NCAC 02Q .0113. No zoning consistency was required for Application No. 2500104.20B.

The required application fee of \$947 was received for Application No. 2500104.20A. No application fee was required for Application No. 2500104.20B.

Craven County has triggered increment tracking under PSD for PM₁₀, SO₂ and NO_x. However, any changes to increment associated with this modification were accounted for in Part I the respective permit revisions. With respect to the removal of residual fuel oils as permitted fuels for the Recovery Boiler and Lime Kiln, because these fuels are not have not been fired significantly recently (last fired in the Recovery Boiler in 2012 according to emission inventory records), no increment expansion was accounted for as a result of this change to the permit.

Public notice and EPA review is required for the completion of this two-step significant process. A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 15A NCAC 02Q .0521 above. The associated dates are included in the Application Chronology in Section 3 above.

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Application Review

Issue Date: November 16, 2018

Region: Washington Regional Office
County: Craven
NC Facility ID: 2500104
Inspector's Name: Betsy Huddleston
Date of Last Inspection: 06/01/2018
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): International Paper - New Bern Mill</p> <p>Facility Address: International Paper - New Bern Mill 1785 Weyerhaeuser Road Vanceboro, NC 28586</p> <p>SIC: 2611 / Pulp Mills NAICS: 32211 / Pulp Mills</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: 15A NCAC 02Q .0504 and 02D .0530(u) NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: N/A</p>
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Contact Data			Application Data
<p style="text-align: center;">Facility Contact</p> <p>Jacquelyn Taylor EHS Leader, Global Cellulose Fibers (252) 633-7427 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p style="text-align: center;">Authorized Contact</p> <p>John Ashley Mill Manager (252) 633-7242 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p style="text-align: center;">Technical Contact</p> <p>Jacquelyn Taylor EHS Leader, Global Cellulose Fibers (252) 633-7427 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p>Application Number: 2500104.18B Date Received: 08/22/2018 Application Type: Modification Application Schedule: TV-Sign-501(b)(2) Part I</p> <p style="text-align: center;">Existing Permit Data</p> <p>Existing Permit Number: 02590/T54 Existing Permit Issue Date: 05/14/2018 Existing Permit Expiration Date: 04/30/2023</p>

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2017	1.16	521.29	485.90	535.43	70.58	259.12	200.81 [Methanol (methyl alcohol)]
2016	287.13	718.62	467.67	450.38	76.95	263.15	202.33 [Methanol (methyl alcohol)]
2015	265.65	684.79	454.89	691.32	73.64	258.41	200.37 [Methanol (methyl alcohol)]
2014	266.27	689.85	452.56	305.61	70.80	255.72	199.20 [Methanol (methyl alcohol)]
2013	292.00	750.03	489.45	516.39	76.16	268.98	204.14 [Methanol (methyl alcohol)]

<p>Review Engineer: Brian Bland</p> <p>Review Engineer's Signature: _____ Date: 11/16/2018</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue 02590/T55 Permit Issue Date: 11/16/2018 Permit Expiration Date: 04/30/2023</p>
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1. Introduction and Purpose of Application

Located in Vanceboro, Craven County, International Paper - New Bern Mill (IP-NBM) manufactures "fluffed pulp" from softwood and has been in operation for more than 45 years. In addition, the pulping process also produces saleable turpentine and tall oil.

Application No. 2500104.18B, considered administratively complete on August 22, 2018, proposes to convert the continuous digester (ID No. ES 402-141) to downflow cooking and modify the recovery boiler (ID No. ES 445-001). The proposed modification constitutes a significant modification of the Title V Air Quality Permit. IP-NBM has chosen to use the two-step significant modification procedures pursuant to 15A NCAC 02Q .0501(b). This first step modification is being processed in accordance with state permitting procedures. Within 12 months of start-up of any of the modified equipment, IP-NBM will be required to submit a complete Title V application.

2. Changes to Permit /Application Chronology

The following table describes the modifications to the current permit

Page(s)	Section	Description of Change(s)
All	All	Updated dates and permit revision number
3 – end	All	Updated permit revision number in header
3	1	Add footnote * and tag associated emission sources
79	2.2 D	Added Continuous Digester (ID No. ES 402-141) to list of applicable emission sources
82	2.2 D.5	Added 15A NCAC 02D .0530(u) condition for use of projected actual emissions
83	2.2 D.6	Added 15A NCAC 02Q .0504 condition for completion of the two-step significant modification
98	3	Updated General Conditions to current version

August 22, 2018	DAQ receives Permit Application No. 2500104.18B for a two-step significant modification.
October 26, 2018	Draft permit forwarded to IP – NBM and AECOM.
October 30, 2018	Draft permit and review document forwarded to Washington Regional Office (WaRO) for comments.
October 30, 2018	Comments received from WaRO, including minor changes to the review document and a suggestion to more clearly link the 15A NCAC 02Q .0504 permit condition to this application were incorporated.
October 31, 2018	AECOM responds that they and IP – NBM have no comments on the draft permit.

3. Modification Discussion

The application describes the proposed project as “IP New Bern is proposing to convert the continuous digester (ES 402-141) to downflow cooking with a new cold blow cooler and to modify the recovery boiler (ES 445-001) by adding heat input controls and making improvements in the air system design. The modification will result in a maximum actual finished pulp increase of 21,000 air dried metric tons per year (ADMT/yr) and a steam gain from the recovery boiler. The modification will result in an actual increase in black liquor solids production; however, the modification will not cause an increase over the current permitted hourly or annual capacity based on 4.5 MM lb BLS/day. The recovery boiler changes will also improve the margin of compliance with the 300 ppm CO BACT limit due to improvements to the combustion air delivery system.”

4. New Source Review (NSR)/Prevention of Significant Deterioration (PSD) Review

PSD regulations apply to new major stationary sources or existing major sources that propose a major modification. Kraft paper mills are listed as one of the 28 source categories under federal PSD regulation as being subject to regulation with potential emissions greater than 100 tpy of any PSD-regulated pollutant. As such, IP-NBM is a major source under PSD.

Appendix B of the application includes tables detailing the calculated project emissions. These demonstrate that project emission increases for all compounds are below the PSD significant emission rates. As explained in the application, “Projected Actual emissions are calculated based on a maximum projected increase of 21,000 ADMT/yr. The proposed project assumes that the incremental steam increase will be met with improvements to the recovery boiler; therefore, the power boiler is an unaffected source.”

To calculate emissions increases from the project, a baseline actual to projected actual analysis was performed. After a review of monthly production data, a baseline of 2016-2017 was selected for all compounds.

Section 3.3 of the permit application describes the process of determining Projected Actual Emissions for this project as “Projected actual emissions are defined by 51.166(b)(40)(i) as ‘the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated NSR pollutant, and full utilization of the unit would result in a significant emissions increase, or a significant net emissions increase at the major stationary source.’ To determine the maximum annual rate, a source must consider all relevant information, including historical operational data, the company's expected business activity and the company's highest projections of business activity for the five-year period after implementation of the project.

To determine the post project maximum annual production rate, the mill considered historical operational data and the company's highest projections of business activity 5 years post implementation of the project... Projected actual emissions are based on the sum of the baseline actual emissions plus emissions generated from the increase in finished pulp production. A ratio of baseline to projected finished pulp production is applied to all affected sources in order to estimate projected throughputs and emissions.”

	Emissions, tpy											
	VOC	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	CO ₂ e	Lead	H ₂ SO ₄	H ₂ S	TRS
Baseline Actual Emissions	300.61	184.80	69.68	50.67	23.80	502.24	671.11	878,525	4.22E-03	3.66	8.49	12.83
Projected Actual Emissions	320.18	197.31	74.27	54.01	25.37	535.47	715.19	936,741	4.50E-03	3.90	9.08	13.69
Project Emissions Increase	19.70	12.51	4.59	3.34	1.56	33.23	44.07	58,216	2.80E-04	0.24	0.58	0.87
PSD SER	40	25	15	10	40	40	100	75,000	0.6	7	10	10
PSD Review Required	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

All project emissions increases are less than the significant emission rates established by the PSD rule. Pursuant to 15A NCAC 02D .0530(u), because the Permittee relied on projected actual emissions for the purposes of demonstrating that the modifications to the ESP did not result in significant emissions increases, the Permittee is required to maintain records of annual emissions, related to the modifications, in tons per year, for 5 years following resumption of regular operations after the modifications. This rule further requires the Permittee to submit annual reports, due within 60 days after the end of each year during which these records must be generated.

As detailed in Section 3.0 Project Emissions of the application, emission factors were obtained from multiple sources, including:

- National Council for Air and Stream Improvement (NCASI) Data;
- U.S. Environmental Protection Agency (EPA) publications, such as AP-42 Compilation of Air Emission Factors (5th Edition, Revised);
- U.S. EPA's Mandatory Greenhouse Gas Reporting Regulation (40 CFR 98), and
- Site Specific Data and Vendor Information

Because IP submitted two NSR minor projects in August 2018, both in the chemical recovery process area/equipment of the facility, an NSR circumvention analysis was performed:

EPA has issued guidance related to the implementation of multiple projects and their impact on NSR applicability (Maplewood Memo). In their guidance memorandum, EPA provided criteria to permitting and enforcement authorities to apply with making determinations whether a source is circumventing major NSR through the minor modification process. The following criteria were evaluated with respect to the IP - NBM projects and the DAQ assessment is included below.

1. *Filing of more than one minor source or minor modification application associated with emissions increases at a single plant within a short time period.* EPA stated that this may constitute strong evidence of an intent to circumvent the requirements of preconstruction review. EPA further stated that authorities should scrutinize applications that relate to the same process or units that the source files either before initial operation of the unit or after less than a year of operation.

DAQ Analysis: IP submitted permit applications for both of these projects in August 2018. Due to the short period of time between the submittal of these applications, DAQ evaluated the applications as to whether they relate to the same process or units at the mill. The description of each modification is as follows:

- Application No. 25000104.18A “Reliable operation of the current smelt dissolving tank is critical to mill operation. Recent weld thinning and floor thinning have resulted in significant repair costs during outages and concerns about tank integrity. The facility proposes to replace the existing smelt dissolving tank with a new Duplex Stainless Steel tank in the same location and on the existing foundation. The facility plans to install three new side mount agitators and motors, and to relocate the electrical lines. The facility will reuse the existing instrumentation in the same location, reuse all existing supply and discharge piping and pumps, and reuse existing smelt spout hoods and shatter jets. The existing wet scrubber will be utilized and the primary operating scenario will be to continue to route the smelt dissolving tank exhaust through the recovery furnace. The new vessel does not increase the capacity of the smelt tank, the recovery furnace, or the recausticizing area.”
- Application No. 25000104.18B “IP New Bern is proposing to convert the continuous digester (ID No. ES 402-141) to downflow cooking with a new cold blow cooler and to modify the recovery boiler (ID No. ES 445-001) by adding heat input controls and making improvements in the air system design. The modification will result in a maximum actual finished pulp increase of 21,000 ADMT/yr and a steam gain from the recovery boiler. The modification will result in an actual increase in black liquor solids production; however the modification will not cause an increase over the current permitted hourly or annual capacity based on 4.5 MM lb BLS/day. The recovery boiler changes will also improve the margin of compliance with the 300 ppm CO BACT limit due to improvements to the combustion air delivery system.”

Based on this information, it is apparent that that the processes and units being modified are both from the chemical recovery process area of the facility.

2. *Application of Funding.* EPA stated that applications for commercial loans should be scrutinized to see if the source has treated the projects as one modification for financial purposes. If the project would not be funded or if it would not be economically viable if operated on an extended basis without the other projects, this should be considered evidence of circumvention.

DAQ Analysis: According to the Application No. 2500104.18B, “Funding decisions were made independently and the implementation of one project is not dependent upon the other, making the two projects independently viable.”

IP did not indicate whether the funding sources for the two projects were different. However, based on the information provided, it appears that the proposed projects are not being treated financially by IP as one modification for financial purposes. Although both projects involve the chemical recovery process area/equipment of the facility, it is the understanding of DAQ that each of the projects would be funded and economically viable without the other project, therefore would not be considered circumvention.

3. *Reports of consumer demand and projected production levels.* EPA stated that stockholder reports, reports to the Securities and Exchange Commission (SEC), utility board reports or business permit applications should be reviewed for projected operation or production levels. Authorities should evaluate whether reported levels are necessary to meet projected consumer demand but are higher than permitted levels.

DAQ Analysis: In their the Maplewood Memo, EPA states that reports on consumer demand and projected production or emissions levels may provide evidence that a facility is expected to modify regularly in response to consumer demands. In the application, IP describes the purposes of the projects “The smelt dissolving tank is being replaced due to recent weld and floor thinning that have resulted in significant repair costs and concerns about the tank integrity. The purpose of the project described in this application [Application No. 2500104.18B] is to increase actual pulp production at the mill due to growing market demand.” IP explains that the smelt tank replacement does not increase the capacity of the smelt tank, the recovery furnace, or the recausticizing area. The modifications to the digester and recovery boiler will result in an actual increase in black liquor solids production, however the modification will not cause an increase over the current permitted hourly or annual capacity based on 4.5 MM lb BLS/day.

4. *Statements of authorized representatives of the source regarding plans for operation.* Statements by representatives of the source to EPA or to State or local permitting agencies about the source’s plans for operation can be evidence to show intent to circumvent preconstruction review requirements.

DAQ Analysis: There has been limited discussion of the projects with the facility, but none of the statements made in the applications, or in the August 9, 2018 Smelt Tank alternative monitoring letter to EPA indicate that there is intent to circumvent preconstruction review requirements.

5. *EPA’s own analysis of the economic realities of the projects considered together.* EPA may determine that it is reasonable to expect that company management would coordinate the planning and execution of projects considering their intrinsic relationship with each other (physical proximity, stages of the production process, etc.) and their impact on economic viability of the plant (scheduling downtime, in light of production targets, economies of scale, etc.).

DAQ Analysis. As a designated authority for the State’s NSR/PSD program, DAQ is providing this analysis. The two proposed projects are related to each other in that they are both in the chemical recovery process area/equipment of the facility. The mill has operated for many years without the

modifications to the digester and recovery boiler. Reliable operation of the smelt tank is critical to mill operations. Although the scheduling for the two projects is a similar timeframe (scheduled as starting during the October 2018 mill outage, but delayed until the first quarter of 2019 due to impacts of Hurricane Florence), it is DAQ's understanding that a decision to halt either project would not impact the construction schedule for the other.

Based on the discussion above, DAQ agrees with IP-NBM's conclusion that the proposed projects are separate projects and do not need to be aggregated for the purposes of NSR/PSD applicability.

5. NSPS, NESHAP, CAM, Toxics

NSPS

The recovery boiler (ID No. ES 445-001) and the digester (ID No. ES 402-141) will remain subject to NSPS BB and the following emissions limits:

- i. 0.10 grams per dry standard cubic meter (g/dscm) (0.044 grains per dry standard cubic foot, gr/dscf) of particulate matter (filterable only) corrected to 8 percent oxygen. [§60.282(a)(1)(i)];
- ii. 35 percent opacity [§60.282(a)(1)(ii)]; and
- iii. 5 ppm of TRS by volume measured as hydrogen sulfide on a dry basis, corrected to 8 percent oxygen based on a 12-hour average [§60.283(a)(2) and §60.284(c)].

The digester will continue to be subject to the TRS emissions limit of 5 ppm of TRS by volume on a dry basis, corrected to 10 percent oxygen based on a 12-hour average [§60.283(a)(1)].

Section 4.1.2.1 of the application explains that the changes to these sources are not considered an NSPS modification or reconstruction under NSPS. "A "capital expenditure" is defined as an expenditure for a physical or operational change to an existing facility that exceeds the product, P, of the applicable "annual asset guideline repair allowance" as specified in the latest edition of the Internal Revenue Service (IRS) Publication 534 and the existing facility's basis as defined by Section 1012 of the IRS Code... the annual asset guideline repair allowance percentage for Asset Guideline Class 26.1, Manufacture of Pulp and Paper, is 10.0 percent.

The cost of the recovery boiler work is approximately \$2.6 million and the full cost of the recovery boiler is approximately \$275 million, while the cost of the digester work is approximately \$3.6 million and the cost of the digester system is \$155 million. The cost of each project is less than repair allowance percentage of 10%; therefore the work does not constitute a capital expenditure and is not an NSPS modification that would subject the units to NSPS Subpart BBa. Additionally, the fixed capital cost of the new components will not be greater than 50% of the fixed capital cost of a comparable new unit; therefore, reconstruction is not triggered under this rule."

NESHAP

The recovery boiler (ID No. ES 445-001) and the digester (ID No. ES 402-141) are subject to 40 CFR 63, Subpart S. From application Section 4.1.3.1, "A new source under Subpart S is defined as an additional pulping or bleaching line (see 40 CFR 63.440(c)). This project does not involve installation of a new pulping or bleaching line. Therefore, this project does not trigger new source MACT... This project will not require control of any additional sources or collection of additional condensates for MACT Subpart S compliance."

The recovery boiler (ID No. ES 445-001) is subject to 40 CFR 63, Subpart MM. As detailed above, in the NSPS BB discussion, the cost of the new components does not meet the 50% threshold for reconstruction, so the recovery boiler will remain an existing source under Subpart MM.

The recovery boiler (ID No. ES 445-001) will continue to be subject to the following emissions limit:

The particulate matter (PM, filterable only) emission rate from the recovery boiler (ID No. ES 445-001) shall be less than or equal to 0.044 grains per dry standard cubic foot (gr/dscf), corrected to 8% oxygen. [§63.862(a)(1)(i)(A)].

CAM

CAM applicability was addressed with the recent Title V renewal application (Permit No. 02590T54 issued May 2018). CAM does not apply to the digester system. As required by Section 2.1 I.7 of the current air permit, the recovery boiler utilizes a COM for compliance with CAM. No changes are required to this section as the result on this modification.

Toxics

The recovery furnace has been included in previous facility-wide toxics modeling (using the currently permitted capacity of 4.5 million pounds BLS/day). In reference to potential emissions, the application states that “TAP emissions are not expected to increase,” so revised air toxics modeling is not required at this time.

6. Facility Compliance Status

The last full inspection of this facility was completed on June 1, 2018 by Betsy Huddleston of the WaRO. At the time of inspection, “The facility appeared to operate in compliance with all applicable regulations and permit conditions”

7. Other Regulatory Concerns

A P.E. seal was not required for this modification.

IP-NBM is located in an area without zoning. Pursuant to 15A NCAC 15A 02Q .0113, a legal notice was placed in a newspaper of general circulation in the area and a sign was posted for at least 30 days.

An application fee of \$947 was required and received for this modification.

No public notice or EPA review period is required for this 1st step of a two-part 15A NCAC 02Q .0501(b)(2) significant modification.

8. Draft Permit Review Summary

WaRO was provided a draft permit and draft permit review document on October 30, 2018.

Jacquelyn Taylor of IP-NBM and Claire Galie of AECOM were provided a draft permit for review on October 26, 2018.

Recommend issuance of Air Permit No. 02590T55.

Application Review

Issue Date: 12/21/2018

Region: Washington Regional Office
County: Craven
NC Facility ID: 2500104
Inspector's Name: Betsy Huddleston
Date of Last Inspection: 06/01/2018
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): International Paper - New Bern Mill</p> <p>Facility Address: International Paper - New Bern Mill 1785 Weyerhaeuser Road Vanceboro, NC 28586</p> <p>SIC: 2611 / Pulp Mills NAICS: 32211 / Pulp Mills</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: N/A NSPS: Subpart BBa NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: N/A</p>
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Contact Data			Application Data
<p style="text-align: center;">Facility Contact</p> <p>Jacquelyn Taylor EHS Leader, Global Cellulose Fibers (252) 633-7427 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p style="text-align: center;">Authorized Contact</p> <p>John Ashley Mill Manager (252) 633-7242 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p style="text-align: center;">Technical Contact</p> <p>Jacquelyn Taylor EHS Leader, Global Cellulose Fibers (252) 633-7427 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p>Application Number: 2500104.18A Date Received: 08/14/2018 Application Type: Modification Application Schedule: TV-Sign-501(b)(2) Part I</p> <p style="text-align: center;">Existing Permit Data</p> <p>Existing Permit Number: 02590/T55 Existing Permit Issue Date: 11/16/2018 Existing Permit Expiration Date: 04/30/2023</p>

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2016	287.13	718.62	467.67	450.38	76.95	263.15	202.33 [Methanol (methyl alcohol)]
2015	265.65	684.79	454.89	691.32	73.64	258.41	200.37 [Methanol (methyl alcohol)]
2014	266.27	689.85	452.56	305.61	70.80	255.72	199.20 [Methanol (methyl alcohol)]
2013	292.00	750.03	489.45	516.39	76.16	268.98	204.14 [Methanol (methyl alcohol)]
2012	346.01	708.88	685.17	418.23	40.18	297.66	235.63 [Methanol (methyl alcohol)]

<p>Review Engineer: Brian Bland</p> <p>Review Engineer's Signature: _____ Date: 12/21/2018</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue 02590/T56 Permit Issue Date: 12/21/2018 Permit Expiration Date: 04/30/2023</p>
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1. Introduction and Purpose of Application

Located in Vanceboro, Craven County, International Paper - New Bern Mill (IP-NBM) manufactures "fluffed pulp" from softwood and has been in operation for more than 45 years. In addition, the pulping process also produces saleable turpentine and tall oil.

As presented in application No. 2500104.18A, considered administratively complete on August 23, 2018, IP-NBM proposes to replace the existing smelt dissolving tank (ID No. ES 445-121) with a new tank. The replacement does not increase the capacity of the smelt tank, the recovery furnace, or the recausticizing area. The proposed modification constitutes a significant modification of the Title V Air Quality Permit. IP-NBM has chosen to use the two-step significant modification procedures pursuant to 15A NCAC 02Q .0501(b). This first step modification is being processed in accordance with state permitting procedures. Within 12 months of start-up of any of the modified equipment, IP-NBM will be required to submit a complete Title V application.

2. Changes to Permit /Application Chronology

Note: The replacement Smelt Dissolving Tank (ID No. ES 445-121) will also be subject to 15A NCAC 02D .0508, 15A NCAC 02D .0521 and 15A NCAC 02Q .0317 (avoidance condition for PSD), but no changes are necessary to these permit conditions as a result of this modification.

The following table describes the modifications to the current permit

Page(s)	Section	Description of Change(s)
All	All	Updated dates and permit revision number
3 – end	All	Updated permit revision number in header
9-10	1	Added NSPS BBa applicability for the smelt dissolving tank Added ** footnote and tagged smelt dissolving tank
39	2.1 J	Added NSPS BBa applicability to regulations summary table
40	2.1.J. 3	Updated citations from Subpart BBa
40	2.1 J.3.c	Updated testing requirements
41	2.1.J.3.f	Added ERT reporting to reporting requirements
41	2.1.J.3.g	Added affirmative defense information
41	2.1 J.4.b.2	Corrected historical error in minimum caustic addition rate
42	2.1.J.4.c	Added language for establishing new operating parameters
43	2.1 J.6	Added 15A NCAC 02Q .0504 condition for completion of the two-step significant modification
69	2.2.B.1.f. ii	Cleaned-up AOS operating language Added language for establishing new operating parameters

- August 14, 2018 DAQ received Permit Application No. 2500104.18A for a two-step significant modification.
- August 23, 2018 Permit fee associated with Application No. 2500104.18A received.
- August 29, 2018 Teleconference with the Division of Air Quality (DAQ) - Technical Services Section (TSS) and EPA Region 4 to confirm that TSS would review and approve or disapprove the Smelt Dissolving Tank (ID No. 445-121) AOS alternate monitoring request.
- November 30, 2018 DAQ - TSS approved facility's AOS monitoring request.

- December 11, 2018 Draft permit forwarded to Jacquelyn Taylor of IP-NBM and Claire Galie Corta of AECOM.
- December 11, 2018 Draft permit and review document forwarded to Washington Regional Office (WaRO) for comments.
- December 17, 2018 Claire Galie Corta responds that IP and AECOM have no comments on the draft permit.
- December 17, 2018 WaRO responds to the request for comments, mainly noting a historical error in the minimum caustic addition rate in Section 2.1 J.4. The Permittee was alerted to this error, and it was corrected.

3. Modification Discussion

The application describes the proposed project as “...replace the existing smelt dissolving tank with a new Duplex Stainless Steel tank in the same location and on the existing foundation. The facility plans to install three new side mount agitators and motors, and to relocate the electrical lines. The facility will reuse the existing instrumentation in the same location, reuse all existing supply and discharge piping and pumps, and reuse existing smelt spout hoods and shatter jets. The existing wet scrubber will be utilized, and the primary operating scenario will be to continue to route the smelt dissolving tank exhaust through the recovery furnace. The new vessel does not increase the capacity of the smelt tank, the recovery furnace, or the recausticizing area.”

4. New Source Review (NSR)/Prevention of Significant Deterioration (PSD) Review

PSD regulations apply to new major stationary sources or existing major sources that propose a major modification. Kraft paper mills are listed as one of the 28 source categories under federal PSD regulation as being subject to regulation with potential emissions greater than 100 tpy of any PSD-regulated pollutant. As such, IP-NBM is a major source under PSD.

IP-NBM explained in the application that although the smelt tank replacement will not affect production or throughput, the project emissions were estimated as the baseline actual emissions subtracted from the potential emissions. As presented in Table 3-1 of the application, and reproduced below, the calculated project emissions demonstrate that project increases for all compounds are below the PSD significant emission rates.

	Emissions, tpy								
	CO	SO ₂	PM	PM ₁₀	PM _{2.5}	VOC	Pb	TRS	H ₂ S
Baseline Actual Emissions	2.91	0.04	0.03	0.88	0.87	0.81	2.45E-07	0.10	0.01
Potential Emissions	3.38	0.06	0.52	1.40	1.36	1.18	1.78E-06	0.34	0.01
Project Emissions Increase	0.46	0.02	0.49	0.53	0.48	0.37	1.54E-06	0.24	0.00
PSD SER	100	40	25	15	10	40	0.6	10	7
PSD Review Required	NO	NO	NO	NO	NO	NO	NO	NO	NO

The application included the follow details regarding the calculation of the emissions:

PM and speciated TRS compounds: January 29, 2011 stack test data was used to estimate actual PM and speciated TRS compound emissions from the smelt dissolving tank during the alternate operating scenario (discussed further in Section 5 – NSPS below). A 99.9% control efficiency is applied to PM emissions and a 98% control efficiency is applied to TRS compound emissions during the primary operating scenario. TRS actual emissions are calculated as

the sum of four TRS compounds as hydrogen sulfide (H₂S): H₂S, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide. The NSPS Bb PM and TRS limits are used to calculate potential PM emissions during the alternate operating scenario, with respective control efficiency applied during the primary operating scenario to represent control by the recovery furnace and ESP.

VOCs: The VOC emission factor is based on the sum of individual VOC compounds (from NCASI emission factors) to reflect total VOC emissions rather than VOC as carbon or propane.

Baseline Actual Emissions (BAE): Per 15A NCAC 02D .0530(b)(1)(A), baseline actual emissions are "the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period ... within the 5-year period immediately preceding the date that a complete permit application is received by the Division..." For this project, 5 years of monthly production data was reviewed and a baseline of 2016-2017 was selected for all compounds.

Potential Emissions (PE): Potential emissions for the smelt dissolving tank are based on black liquor solids potential throughput and the emission factors described above. The mill is authorized to operate under an alternate operating scenario when the mill periodically reduces the load and cleans the fan that sends the smelt tank gasses to the recovery furnace. This is a periodic maintenance activity that has occurred less than 2 hours/year for the past 3 years. For the purposes of estimating potential emissions, the calculations assume this activity is performed 8 hours per month for 12 months. Two operating scenarios were evaluated to determine the maximum annual emission rate by pollutant. The two operating scenarios were:

1. Primary Only - When 100% of the smelt tank emissions are routed through the recovery furnace, the maximum black liquor solids firing rate is 4.5 million lbs black liquor solids (BLS)/day for 365 days per year.
2. Primary + AOS - When a portion of the smelt dissolving tank emissions vent to the atmosphere after passing through the wet scrubber, the maximum black liquor solids firing rate is 2.18 million lbs BLS/day for 8 hours/month for 12 months and 4.5 million lbs BLS/day for the remainder of the year when routed through the recovery furnace.

Because IP submitted two NSR minor projects (Application Nos. 25000104.18A and 25000104.18B) in August 2018, both in the chemical recovery process area/equipment of the facility, an NSR circumvention analysis was performed:

EPA has issued guidance related to the implementation of multiple projects and their impact on NSR applicability (Maplewood Memo). In their guidance memorandum, EPA provided criteria to permitting and enforcement authorities to apply with making determinations whether a source is circumventing major NSR through the minor modification process. The following criteria were evaluated with respect to the IP - NBM projects and the DAQ assessment is included below.

6. *Filing of more than one minor source or minor modification application associated with emissions increases at a single plant within a short time period.* EPA stated that this may constitute strong evidence of an intent to circumvent the requirements of preconstruction review. EPA further stated that authorities should scrutinize applications that relate to the same process or units that the source files either before initial operation of the unit or after less than a year of operation.

DAQ Analysis: IP submitted permit applications for both of these projects in August 2018. Due to the short period of time between the submittal of these applications, DAQ evaluated the applications as to whether they relate to the same process or units at the mill. The description of each modification is as follows:

- Application No. 25000104.18A "Reliable operation of the current smelt dissolving tank is critical to mill operation. Recent weld thinning and floor thinning have resulted in significant repair costs during outages and concerns about tank integrity. The facility proposes to replace the existing smelt dissolving tank with a new Duplex Stainless Steel tank in the same location and on the existing foundation. The facility plans to install three

new side mount agitators and motors, and to relocate the electrical lines. The facility will reuse the existing instrumentation in the same location, reuse all existing supply and discharge piping and pumps, and reuse existing smelt spout hoods and shatter jets. The existing wet scrubber will be utilized and the primary operating scenario will be to continue to route the smelt dissolving tank exhaust through the recovery furnace. The new vessel does not increase the capacity of the smelt tank, the recovery furnace, or the recausticizing area.”

- Application No. 25000104.18B “IP New Bern is proposing to convert the continuous digester (ID No. ES 402-141) to downflow cooking with a new cold blow cooler and to modify the recovery boiler (ID No. ES 445-001) by adding heat input controls and making improvements in the air system design. The modification will result in a maximum actual finished pulp increase of 21,000 ADMT/yr and a steam gain from the recovery boiler. The modification will result in an actual increase in black liquor solids production; however the modification will not cause an increase over the current permitted hourly or annual capacity based on 4.5 MM lb BLS/day. The recovery boiler changes will also improve the margin of compliance with the 300 ppm CO BACT limit due to improvements to the combustion air delivery system.” On November 16, 2018, Air Permit No. 02590T55 was issued pursuant to Application No. 25000104.18B.

Based on this information, it is apparent that that the processes and units being modified are both from the chemical recovery process area of the facility.

7. *Application of Funding.* EPA stated that applications for commercial loans should be scrutinized to see if the source has treated the projects as one modification for financial purposes. If the project would not be funded or if it would not be economically viable if operated on an extended basis without the other projects, this should be considered evidence of circumvention.

DAQ Analysis: According to the Application No. 2500104.18B, “Funding decisions were made independently and the implementation of one project is not dependent upon the other, making the two projects independently viable.”

IP did not indicate whether the funding sources for the two projects were different. However, based on the information provided, it appears that the proposed projects are not being treated financially by IP as one modification for financial purposes. Although both projects involve the chemical recovery process area/equipment of the facility, it is the understanding of DAQ that each of the projects would be funded and economically viable without the other project, therefore would not be considered circumvention.

8. *Reports of consumer demand and projected production levels.* EPA stated that stockholder reports, reports to the Securities and Exchange Commission (SEC), utility board reports or business permit applications should be reviewed for projected operation or production levels. Authorities should evaluate whether reported levels are necessary to meet projected consumer demand but are higher than permitted levels.

DAQ Analysis: In their Maplewood Memo, EPA states that reports on consumer demand and projected production or emissions levels may provide evidence that a facility is expected to modify regularly in response to consumer demands. In the application, IP describes the purposes of the projects “The smelt dissolving tank is being replaced due to recent weld and floor thinning that have resulted in significant repair costs and concerns about the tank integrity. The purpose of the project described in this application [Application No. 2500104.18B] is to increase actual pulp production at the mill due to growing market demand.” IP explains that the smelt tank replacement does not increase the capacity of the smelt tank, the recovery furnace, or the recausticizing area. The modifications to the digester and recovery boiler will result in an actual increase in black liquor solids production, however the modification will not cause an increase over the current permitted hourly or annual capacity based on 4.5 MM lb BLS/day.

9. *Statements of authorized representatives of the source regarding plans for operation.* Statements by representatives of the source to EPA or to State or local permitting agencies about the source's plans for operation can be evidence to show intent to circumvent preconstruction review requirements.

DAQ Analysis: There has been limited discussion of the projects with the facility, but none of the statements made in the applications, or in the August 9, 2018 Smelt Tank alternative monitoring letter to EPA indicate that there is intent to circumvent preconstruction review requirements.

10. *EPA's own analysis of the economic realities of the projects considered together.* EPA may determine that it is reasonable to expect that company management would coordinate the planning and execution of projects considering their intrinsic relationship with each other (physical proximity, stages of the production process, etc.) and their impact on economic viability of the plant (scheduling downtime, in light of production targets, economies of scale, etc.).

DAQ Analysis. As a designated authority for the State's NSR/PSD program, DAQ is providing this analysis. The two proposed projects are related to each other in that they are both in the chemical recovery process area/equipment of the facility. The mill has operated for many years without the modifications to the digester and recovery boiler. Reliable operation of the smelt tank is critical to mill operations. Although the scheduling for the two projects is a similar timeframe (scheduled as starting during the October 2018 mill outage, but delayed until the first quarter of 2019 due to impacts of Hurricane Florence), it is DAQ's understanding that a decision to halt either project would not impact the construction schedule for the other.

Based on the discussion above, DAQ agrees with IP-NBM's conclusion that the proposed projects are separate projects and do not need to be aggregated for the purposes of NSR/PSD applicability.

5. NSPS, NESHAP, CAM

NSPS

The existing smelt dissolving tank is subject to NSPS Subpart BB, but the new smelt dissolving tank will subject to NSPS Subpart BBa. The smelt tank operates under two operating scenarios:

- (1) the primary where the smelt tank is controlled by the wet scrubber and the recovery furnace
- (2) the alternate where the smelt tank is controlled by the wet scrubber only, but with other operating restrictions as detailed in the permit.

The smelt tank will need to comply with Subpart BBa emission limits of 0.2 pounds filterable PM per ton of BLS and 0.033 pounds TRS per ton of BLS. IP-NBM requested approval from the EPA (via August 9, 2018 letter) and DAQ to continue to utilize alternate monitoring to demonstrate compliance with NSPS Subpart BBa when operating under the AOS. In a letter dated November 30, 2018, DAQ - TSS approved the request to continue to utilize the previously approved alternate monitoring. The approval notes that IP-NBM will conduct an initial performance test and re-establish operating parameters to demonstrate compliance during normal operations and the AOS when utilizing the alternate monitoring approach.

IP-NBM proposed to demonstrate compliance with the emission limits by conducting an initial performance test and subsequent performance tests every five years for the AOS. The minimum scrubbing liquid flow rate (or liquid supply pressure), minimum caustic addition flow rate, and reduced maximum black liquor solids firing rate during the AOS would be established during the performance test. Parameters will be continuously monitored and recorded to demonstrate compliance with the emission limits during the AOS.

NESHAP

IP-NBM is also subject to 40 CFR 63, Subpart MM. As described in the application, the new smelt tank will continue to be classified as an existing source. “This standard regulates air emissions from the chemical recovery system (recovery furnace, smelt tanks, and lime kiln) at the mill. According to the definition of affected source in §63.860(b), a smelt dissolving tank is only considered a new source if it is associated with a new NDCE recovery furnace. Because the New Bern Mill is only replacing the smelt dissolving tank vessel and not the recovery furnace, the smelt dissolving tank will continue to be classified as an existing source under Subpart MM.

The mill complies with the Subpart MM PM limits listed under §63.862(a). The existing source limit for PM emissions from the smelt dissolving tank is 0.2 pounds per ton of black liquor solids. Under the primary operating scenario, the Smelt Tank complies with Subpart MM (and NSPS BB) by exhausting into the Recovery Furnace and through its ESP. During the AOS, the mill complies with MACT Subpart MM (and NSPS BB) using DAQ approved alternate scrubber monitoring. Post project, the mill will continue to comply with this standard by routing emissions through the recovery furnace or by utilizing the AOS monitoring...”

CAM

CAM applicability was addressed with the recent Title V renewal application (Permit No. 02590T54 issued May 2018). CAM does not apply to the smelt dissolving tank as potential emissions of PM and TRS are less than 100 ton/yr.

6. Facility Compliance Status

The last full inspection of this facility was completed on June 1, 2018 by Betsy Huddleston of the WaRO. At the time of inspection, “The facility appeared to operate in compliance with all applicable regulations and permit conditions”

7. Other Regulatory Concerns

A P.E. seal was not required for this modification.

IP-NBM is located in an area without zoning. Pursuant to 15A NCAC 02Q .0113, a legal notice was placed in a newspaper of general circulation in the area and a sign was posted for at least 30 days.

An application fee of \$947 was required and received for Application No. 2500104.20A.

No public notice or EPA review period is required for this 1st step of a two-part 15A NCAC 02Q .0501(b)(2) significant modification.