

Air Permit Review

Permit Issue Date: **January 22, 2010**

Region: Raleigh Regional Office
County: Person
NC Facility ID: 7300052
Inspector's Name: Steve Hall
Date of Last Inspection: 09/16/2008
Compliance Code: 3 / In Compliance – Insp.

Facility Data			Permit Applicability
Applicant: Georgia - Pacific Wood Products, LLC - Roxboro 1000 North Park Drive Roxboro, NC 27573			SIP: 2D .0504, .0512, .0515, .0516, .0521, and .0958 NSPS: Not Applicable NESHAP: MACT DDDD and ZZZZ PSD: Not Applicable PSD Avoid.: Not Applicable NC Toxics: 2D .1100 and 2Q .0705/.0711 112(r): Not Applicable Other: 2D .1806
SIC: 2439 / Structural Wood Members, Nec NAICS: 321213 / Engineered Wood Member (except Truss) Manufacturing			
Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	
Ashley Wright Env. Coordinator (336) 599-1000 1000 North Park Drive Roxboro, NC 27573	Michael Golden Plant Manager (336) 599-1000 1000 North Park Drive Roxboro, NC 27573	Cliff Bowling Sr. Env. Engineer (434) 283-6211 P O Box 340 Brookneal, VA 24528	Application Number: 7300052.08A Date Received: 12/31/2007 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 07668/T19 Existing Permit Issue Date: 04/11/2008 Existing Permit Expiration Date: 11/30/2008
Review Engineer: David Putney Review Engineer's Signature: _____ Date: _____			Comments / Recommendations: Issue 07668/T20 Permit Issue Date: January 22, 2010 Permit Expiration Date: December 31, 2014

I Reason for Application:

Facility Description: Georgia-Pacific Wood Products, LLC operates laminated veneer lumber (LVL) and I-beam manufacturing operations at the Roxboro facility. Oriented strand lumber (OSL) operations were conducted in this facility until removed in 1997. Logs are trucked to the mill in various lengths. The logs pass through a debarker followed by cut-off saws which cut the logs to 104 inches. The operations are briefly described below [taken from the review associated with application 730052A5.A for initial Title V Permit No. 07668T10]:

I-beam Process

LVL billets that have been “ripped” lengthwise to the desired width or lumber purchased from an off-site source are utilized as flanges (i.e. the top and bottom portions of an I-Beam). Oriented strand board (OSB) purchased from an off-site source is utilized as the web (i.e. the middle portion of the I-Beam). A router is used to put a groove in the flanges. Glue is inserted into the grooves and the web is inserted to create the I-Beam, which is then heated to cure the glue.

LVL Process

Logs kicked from the log deck are placed in log tunnels for several hours where they are conditioned by showering them with hot water to raise moisture content and temperature to a point that facilitates smooth peeling on the lathe. Logs are reduced to veneer by the lathe, checked for defects, then moved to the veneer dryer. After being dried, the veneer is graded for strength. Graded sheets are placed on the LVL line and “laid-up” into what is termed a LVL billet. To lay-up a billet of LVL, each of veneer passes through a glue curtain coater that applies adhesive to the sheet. Following this, one sheet is placed on top of another until the correct number of layers has been placed. After the full number of sheets is laid, the billet then indexes forward so that a similar lay-up

can be made on the trailing end of the previous until the length is 100 feet. The uncured billet is then placed into a hot press for curing. The billet is kept under pressure and temperature for a time sufficient to achieve an adequate glue bond. Once the cured billet exits the press, it can go either to be cut to finished size or it may be forwarded for further processing as plank or I-beam assembly.

Requested Permit Modifications: The Permittee submitted permit application 7300052.08A to renew (without any facility or equipment modifications) Permit No. 07668T19.

II Regulatory review for rules that apply to emissions from individual source categories:

A. Wood residuals/bark-fired boiler and hot oil heater (70 million Btu per hour heat input; ID No. ES-1) and associated multicyclone (54 nine-inch diameter tubes; ID No. CD-1)

This source provides process steam for use in the log conditioning spray chest (ID No. IF-4), the roller jet green veneer dryer (ID No. ES-4F), the LVL Line 1 press (ID No. ES-5D), and the veneer conditioning chamber (ID No. F-3). This source commenced operation in June of 1986.

i. 2D .0504 “Particulates from Wood Burning Indirect Heat Exchangers”

This rule applies to source ES-1 and limits the allowable PM emissions (E) from this indirect heat exchanger to those described in the following equations:

$$E = \begin{matrix} 0.15 & \text{If } Q \geq 10,000, \\ 0.70 & \text{If } Q \leq 10, \text{ and} \\ 1.1698(Q)^{-0.2230} & \text{If } Q \text{ is any other value} \end{matrix}$$

Where: E = allowable emissions (lb PM/10⁶ Btu); and
Q = maximum heat input (10⁶ Btu/hr)

For source ES-B1, Q is equal to 70 (10⁶ Btu/hr) and E is equal to 0.45 (lb PM/10⁶ Btu).

The Permittee most recently conducted stack testing on source ES-1 on 07/14/04. That testing indicated that the PM emission rate from source ES-1 was 0.30 (lb PM/10⁶ Btu), indicating compliance.

According to Table 1.6-1 of Supplement G to the 5th edition of the AP-42 document, the uncontrolled combustion of bark (i.e. the worst-case fuel for this source) in a boiler is expected to result in total (condensable and filterable) PM emissions of 0.577 (lb/10⁶ Btu). Therefore, Permit No. 07668T20 will include the standard shell language for the emission limits associated with 2D .0504 and will require testing once during the permit term (since the previous testing indicated emissions at only 67% of allowable emissions) to demonstrate compliance with the emission limits of 2D .0504.

Permit No. 07668T20 will require monthly external ductwork and multicyclone monitoring and annual internal multicyclone monitoring. The Permittee must maintain records of the monitoring and submit semiannual summary reports. The permit will also require the Permittee to submit the results of maintenance performed on the multicyclone within 30 days of a written request by DAQ.

ii. 2D .0516 “Sulfur Dioxide Emissions from Combustion Sources”

This rule applies to this source (ID No. ES-1) and limits the SO₂ emissions from this device to 2.3 (lb/10⁶ Btu). According to Table 1.6-2 of Supplement G to the 5th edition of the AP-42 document, the uncontrolled combustion of wet or dry wood in a boiler is expected to result in SO₂ emissions of 0.025 (lb/10⁶ Btu), indicating compliance, without control.

Therefore, for source ES-1, Permit No. 07668T20 will include the standard language for the emission limits of 2D .0516 and the methods of testing for compliance (if required by DAQ) but will not (since the permitted fuels are inherently compliant) require any additional testing or any MRR to demonstrate compliance with 2D .0516.

iii. 2D .0521 “Control of Visible Emissions”

The boiler (ID No. ES-1) was manufactured after 07/01/71. Therefore, except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from this source be less than or equal to 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87% opacity; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

For boiler ES-B1, Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. Further, Permit No. 07668T20 will require (as does current Permit No. 07668T19) weekly VE monitoring and recordkeeping for this source and semiannual summary reporting to DAQ.

iv. 2D .0614 “Compliance Assurance Monitoring” (CAM)

According to Table 1.6-1 of Supplement G to the 5th edition of the AP-42 document, the uncontrolled combustion of bark and wood in a boiler is expected to result in total (condensable and filterable) PM emissions of 0.517 (lb/10⁶ Btu). This would result in predicted potential emissions of PM10 as follows:

$$PM_{10} = \left[\frac{0.517 \text{ lb PM}}{10^6 \text{ Btu}} \right] \left[\frac{70 \times 10^6 \text{ Btu}}{\text{hour}} \right] \left[\frac{8,760 \text{ hours}}{\text{year}} \right] \left[\frac{\text{ton}}{2,000 \text{ lbs}} \right] = 158.5 \left(\frac{\text{ton PM}_{10}}{\text{year}} \right)$$

Therefore, boiler ES-1 does meet the emissions threshold for applicability of CAM. However, in application 7300052.08A the Permittee argues that CAM does not apply to boiler ES-1 because they consider multicyclone CD-1 to be inherent process equipment associated with boiler ES-1 and therefore not a control device. The argument is as follows:

1. The definition of control device found in 40 CFR §64.1 specifically excludes any inherent process equipment;
2. The definition of inherent process equipment in 40 CFR §64.1 includes equipment that is necessary for the proper or safe functioning of the process that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations;
3. The Permittee states that multicyclone CD-1 installed on boiler ES-1 serves the dual primary purposes of safety (i.e. operation of a wood and bark-fired boiler without a multicyclone would result in emissions of large quantities of hot flyash and partially consumed, but still burning, char) and protection of equipment (i.e. the induced draft fan of boiler ES-1 would be rapidly destroyed by flyash and char from the boiler if operated without the multicyclone); and
4. The US EPA adds gravitas to the Permittee’s argument via footnote c of Table 6.1-1 which states, in reference to the “no control” PM emission factor for wood/bark-fired boilers, “Factor represents boilers with no controls, Breslove separators, Breslove separators with reinjection, and mechanical collectors with reinjection. Mechanical collectors include cyclones and multiclones.”

The permit writer agrees with the Permittee and **CAM is not applied to boiler ES-1 and multicyclone CD-1** for the reasons cited above and since:

1. Multicyclone CD-1 is not operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard and is therefore not disqualified as inherent process equipment (as defined in 40 CFR §64.1);
2. Boiler ES-1 will likely be subject to the boiler MACT once promulgated. The associated PM emission standard will likely be more restrictive than the standard under 2D .0504 and, although exempt from CAM pursuant to 2D .0614(b)(1)(A), will require the Permittee to install PM controls; and
3. Non-application of CAM to a wood residuals/bark-fired boiler equipped with a multicyclone is consistent with prior findings of NC DAQ (e.g. see Permit No. 01837T13 issued to the Georgia-Pacific Wood Products, LLC facility in Ahoskie, NC and the associated technical review).

B. Timber (log) preparation and wood residuals handling operations, including:

Log preparation operations including one ring-type log debarker and one log cut-off saw (ID No. F-2B);

Green veneer chipper (ID No. ES-4D) and one associated simple cyclone (96 inches in diameter; ID No. CD-4D);

Veneer composer chipper (ID No. ES-6) and associated transfer cyclone (72 inches in diameter; ID No. CD-6);

Trim system for LVL Lines 1 and 3 (ID No. ES-13) and associated simple cyclone (132 inches in diameter; ID No. CD-13D) in series with one bagfilter (3,296 square feet of filter area; ID No. CD-13D1);

Truck loadout bin for LVL Lines 1 and 3 (ID No. F-13E); and

Trim system for LVL Line 2 (ID No. ES-12) and associated simple cyclone (136 inches in diameter; ID No. CD-12E) in series with one bagfilter (3,296 square feet of filter area; ID No. CD-12E1);

Truck loadout bin for LVL Line 2 (ID No. F-12F);

Dry wood dust storage silo for header operations and I-Beam assembly (ID No. ES-10) and associated bagfilter (382 square feet of filter area; ID No. CD-10); and

Truck loadout bin for header operations and I-Beam assembly (ID No. ES-10B) and associated bagfilter (854 square feet of filter area; ID No. CD-10B)

The log debarker and cut-off saw are used to prepare the timber (i.e. cut to the desired length and remove the bark) for processing in the facility. This source commenced operation in 1986.

Green veneer chipper ES-4D reduces unusable veneer from the lathe into chips which are then shipped off-site or subsequently used as boiler fuel. This source commenced operation in 1986.

Veneer composer chipper ES-6 reduces unusable veneer from the veneer composers into chips, which are conveyed to truck loadout bin ES-10B. This source commenced operation in 2004.

The LVL trim systems cut the LVL panels to the desired dimensions either for use in other parts of the facility (i.e. for use as flanges/headers in I-Beams) or for shipment offsite to customers. Trim systems ES-12 and ES-13 first operated in 1995 and 1999, respectively.

Wood dust storage silo ES-10 stores scrap materials from the header operations and I-Beam assembly (ID No. ES-8) for subsequent loading into truck trailers via truck loadout bin ES-10B. Sources ES-10 and ES-10B commenced operation in 1995.

Truck loadout bins F-13E and F-12F store trim waste generated in the LVL lines for subsequent loadout into truck trailers. These sources commenced operation in 1999 and 1987, respectively.

i. 2D .0512 “Particulates from Wood Products Finishing Plants”

This rule applies to the above-listed sources (ID Nos. F-2B, ES-4D, ES-6, ES-10, ES-10B, F-13E, F-12F, ES-12, and ES-13) and requires that the Permittee “shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged ... into the environment without providing ... adequate ductwork and properly designed collectors ...” Compliance with this rule is expected for sources F-2B, F-13E, and F-12F due to the materials in question [i.e. relatively heavy materials (bark and wet wood particles of large diameter or veneer chips about 1.5 inch x 1 inch)], the enclosure associated with the debarker, the ductwork associated with the loadout bins, and mechanical conveyance of the chips. Compliance with this rule is expected for sources ES-4D, ES-6, ES-10, ES-10B, ES-12, and ES-13 due to the associated ductwork, cyclones, and bagfilters.

For sources F-2B, F-13E, and F-12F: Permit No. 07668T20 will include the standard shell language for the control requirements of 2D .0512 but will not include any associated MRR requirements associated with these sources.

For sources ES-4D, ES-6, ES-10, ES-10B, ES-12, and ES-13: Permit No. 07668T20 will require monthly external ductwork, cyclone and bagfilter monitoring and annual internal bagfilter monitoring. The Permittee must maintain records of the monitoring and submit semiannual summary reports. The Permittee must also submit the results of maintenance performed on the cyclone and/or bagfilters within 30 days of a written request by DAQ.

ii. 2D .0521 “Control of Visible Emissions”

The above-listed sources (ID Nos. F-2B, ES-4D, ES-6, ES-10, ES-10B, F-13E, F-12F, ES-12 and ES-13) were manufactured after 07/01/71. Therefore, except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under rule 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from these sources be less than or equal to 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87% opacity; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

For these sources, Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. Further, Permit No. 07668T20 will require weekly VE monitoring and recordkeeping for each of these sources and semiannual summary reporting to DAQ.

C. Veneer preparation operations, including:

Steam-heated veneer conditioning chamber (ID No. F-3); and

Steam-heated roller jet green hardwood veneer dryer (12,500 square feet per hour drying capacity on a 3/8 inch basis; ID No. ES-4F)

The Permittee utilizes the veneer preparation operations to prepare veneers for use in LVL Lines 1, 2, and 3 (see Section II D, below). The conditioning chamber is a fugitive batch operation used to equalize the moisture content of a stack of veneers. Higher moisture veneers and dryer veneers are alternately stacked within the chamber. Hot air then circulates within the conditioning chamber to equalize the moisture content. This source first operated in 1998.

The veneer dryer reduces the moisture content of the veneer from about 50% to about 5%. This source first operated in 1986.

i. 2D .0512 “Particulates from Wood Products Finishing Plants”

This rule applies to the veneer conditioning chamber and the roller jet veneer dryer (ID Nos. F-3 and ES-4F) and requires that the Permittee “shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged ... into the environment without providing ... adequate ductwork and properly designed collectors ...” Compliance with this rule is expected due to exhausting of F-3 within the building enclosure and the presence of the ductwork associated with ES-4F.

Permit No. 07668T20 will include the standard shell language for the control requirements of 2D .0512 but will not include any associated MRR requirements for these sources.

ii. 2D .0515 “Particulates from Miscellaneous Industrial Processes”

Current Permit No. 07668T19 applies 2D .0515 (as opposed to 2D .0512) to source ES-4F. However, since this dryer is steam-heated (that is, emissions are from woodworking only as opposed to woodworking and combustion), the PM emissions are subject to 2D .0512 (as opposed to 2D .0515) – refer to the discussion on page 5-10 of version S-9 of the appendices to the NC DAQ rules. Therefore, Permit No. 07668T20 will apply 2D .0512 (as opposed to 2D .0515) to source ES-4F (see discussion in Section II C.i, above).

iii. 2D .0521 “Control of Visible Emissions”

The veneer conditioning chamber and the roller jet veneer dryer (ID Nos. F-3 and ES-4F) were manufactured after 07/01/71. Therefore, except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from these sources be less than or equal to 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87% opacity; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

For source ES-4F: Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. Further, Permit No. 07668T20 will require weekly VE monitoring and recordkeeping for this source and semiannual summary reporting to DAQ.

For source F-3: Permit No. 07668T20 will include the standard language for the 2D .0521 emission limits and the prescribed methods of testing for compliance if/when required by DAQ. However, since this source exhausts within a building structure, Permit No. 07668T20 will not include any MRR requirements pursuant to 2D .0521.

D. Laminated veneer lumber (LVL) production operations, including:

Curtain coater for LVL Line 1 (ID No. F-5B);

Steam-heated press for LVL Line 1 (ID No. ES-5D);

Surface coating spray booth for LVL Line 1 (ID No. F-SCSBa);

Curtain coater for LVL Line 2 (ID No. F-12B);

Oil-heated press for LVL Line 2 (ID No. ES-12A);

Surface coating spray booth for LVL Line 2 (ID No. F-SCSBb);

Curtain coater for LVL Line 3 (ID No. F-13B);

Oil-heated press for LVL Line 3 (ID No. ES-13A); and

Surface coating spray booth for LVL Line 3 (ID No. F-SCSBc);

The curtain coaters apply a thermosetting resin to the veneer sheets prior to the LVL presses. The curtain coaters for LVL Line 1, LVL Line 2, and LVL Line 3 were installed in 1994, 1995, and 1999, respectively.

The LVL presses apply heat and pressure to stacks of veneer sheets to produce LVL panels. Boiler ES-1 provides steam to LVL Line 1 press whereas hot oil heaters IES-9 and IES-11 provide hot oil to LVL Lines 2 and 3 presses, respectively. LVL Lines 1, 2, and 3 presses first operated in 1986, 1995, and 1999, respectively.

The surface coating spray booths apply a surface sealer coating (to keep out moisture) to the top and bottom surfaces of the LVL panels. Booth F-SCSBb first operated in 1998 whereas booths F-SCSBa and F-SCSBc first operated in 1999.

i. 2D .0512 “Particulates from Wood Products Finishing Plants”

Current Permit No. 07668T19 does not apply 2D .0512 to the LVL presses or the surface coating spray booths. However, since these sources are utilized in the finishing of a wood product, the PM emissions are subject to 2D .0512. Therefore, Permit No. 07668T20 will apply 2D .0512 to these sources.

This rule applies to the nine above-listed sources (ID Nos. ES-5D, ES-12A, ES-13A, F-5B, F-12B, F-13B, F-SCSBa, F-SCSBb, and F-SCSBc) and requires that the Permittee “shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged ... into the environment without providing ... adequate ductwork and properly designed collectors ...” Compliance with this rule is expected due to the ductwork associated with the LVL presses and the operation of the fugitive sources (i.e. the curtain coaters and surface coating spray booths) within a building structure.

Permit No. 07668T20 will include the standard shell language for the control requirements of 2D .0512 for each of these sources but will not include any associated MRR requirements.

ii. 2D .0521 “Control of Visible Emissions”

The nine above-listed sources (ID Nos. ES-5D, ES-12A, ES-13A, F-5B, F-12B, F-13B, F-SCSBa, F-SCSBb, and F-SCSBc) were manufactured after 07/01/71. Therefore, except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from these sources be less than or equal to 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87% opacity; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

For sources F-5B, F-12B, F-13B, F-SCSBa, F-SCSBb, and F-SCSBc: Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. However, since these fugitive sources are located within a building structure, Permit No. 07668T20 will not include any MRR requirements pursuant to rule 2D .0521 for these sources.

For sources ES-5D, ES-12A, and ES-13A: Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. Further, Permit No. 07668T20 will require weekly VE monitoring and recordkeeping for each of these sources and semiannual summary reporting to DAQ.

E. Header operations and I-Beam assembly (ID No. ES-8) and associated bagfilter (5,767 square feet of filter area; ID No. CD-8);

Two I-Beam assembly glue applicators; and (ID Nos. F-14a and F-14b); and

Natural gas direct-fired I-Beam curing tunnel (two burners with 4.25 million Btu per hour maximum heat input rate, each; ID No. F-9)

LVL panels produced in this facility or lumber purchased from an offsite vendor is used for the I-Beam flanges (headers). The saws and routers in source ES-8 cut the headers to the desired dimensions and add a groove for the OSB web. Once glue is inserted into the groove via the two glue applicators, the OSB web and headers are assembled. This source first operated in 1986.

The two glue applicators insert glue into the groove in the I-Beam headers prior to assembly of the I-Beam. The assembled I-Beam then passes through the curing tunnel to cure the glue. These sources first operated in 1986.

i. 2D .0512 “Particulates from Wood Products Finishing Plants”

This rule applies to the header operations and I-Beam assembly (ID No. ES-8) and the glue applicators (ID Nos. F-14a and F-14b) and requires that the Permittee “shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged ... into the environment without providing ... adequate ductwork and properly designed collectors ...” Compliance is expected due to the ductwork and bagfilter associated with ES-8 and operation of F-14a and F-14b within a building structure.

For source ES-8: Permit No. 07668T20 will require monthly external ductwork and bagfilter monitoring and annual internal bagfilter monitoring for source ES-8. The Permittee must maintain records of the monitoring and submit semiannual summary reports. The permit will also require the Permittee to submit the results of maintenance performed on the bagfilter within 30 days of a written request by DAQ.

For sources F-14a and F-14b: Permit No. 07668T20 will include the standard shell language for the control requirements of 2D .0512 but will not include any associated MRR requirements for these sources.

ii. 2D .0515 “Particulates from Miscellaneous Industrial Processes”

Since curing oven F-9 is direct-fired (that is, emissions are from woodworking and combustion as opposed to woodworking only), Permit No. 07668T20 will apply 2D .0515 (as opposed to 2D .0512) to this source (refer to the discussion on page 5-10 of version S-9 of the appendices to the NC DAQ rules). This rule limits the allowable PM emissions (E) from this source to those described in the following two equations:

$$E \leq 4.10(P)^{0.67} \quad \text{If } P \leq 30 \text{ (ton/hr), or}$$
$$E \leq 55.0(P)^{0.11} - 40 \quad \text{If } P > 30 \text{ (ton/hr)}$$

Where: P = the process weight rate (ton/hr), and
E = allowable emissions (lb PM/hr).

Form B9 of application 7300052.08A cites maximum hourly rates of 42,000 linear feet of header; 17,500 square feet of OSB web; and 590 pounds (0.30 tons) of resin for ES-8. The Permittee indicated (see letter dated 11/02/09) that the header weighs 1.45 pounds (0.00073 tons) per linear foot and the OSB web weighs 1.04 pounds (0.00052 tons) per square foot. Therefore, we can calculate the maximum process weight rate, P, of F-9 as follows:

$$P \left(\frac{\text{ton}}{\text{hour}} \right) = \left[42,000 \left(\frac{\text{ft header}}{\text{hour}} \right) \right] \left[0.0007 \left(\frac{\text{tons}}{\text{ft header}} \right) \right] + \left[17,500 \left(\frac{\text{ft}^2 \text{ web}}{\text{hour}} \right) \right] \left[0.0005 \left(\frac{\text{tons}}{\text{ft}^2 \text{ web}} \right) \right] + 0.30 \left(\frac{\text{ton resin}}{\text{hour}} \right)$$
$$= 38.5 \text{ tons per hour.}$$

Further, we can calculate the maximum allowable emissions, E, as follows:

$$E \left(\frac{\text{lb PM}}{\text{hour}} \right) = 55.0 \times \left[38.5 \left(\frac{\text{ton}}{\text{hour}} \right) \right]^{0.11} - 40 = 42.2 \left(\frac{\text{lb PM}}{\text{hour}} \right)$$

The only source of PM emissions from curing oven F-9 is combustion of natural gas. Table 1.4-2 of Supplement D to the 5th edition of the AP-42 document predicts total PM emissions of 7.6 (lb/10⁶ ft³) from natural gas combustion. If we assume a natural gas heat value of 1,020 (Btu/ft³) then we can calculate PM emissions of

$$PM \left(\frac{\text{lb}}{\text{hour}} \right) = \left[\frac{7.6 (\text{lb PM})}{10^6 \text{ ft}^3} \right] \left[\frac{\text{ft}^3}{1,020 \text{ Btu}} \right] \left[\frac{2 \times 4.25 \times 10^6 (\text{Btu})}{\text{hour}} \right] = 0.063 \left(\frac{\text{lb PM}}{\text{hour}} \right)$$

Therefore, for source F-9, Permit No. 07668T20 will include the standard language for the emission limits of 2D .0515 and the methods of testing for compliance (if required by DAQ) but will not (since compliance is demonstrated by a large margin without controls) require any additional testing or any MRR to demonstrate compliance with 2D .0515.

iii. 2D .0521 “Control of Visible Emissions”

Each of the above-listed sources (ID Nos. ES-8, F-9, F-14a, and F-14b) were manufactured after 07/01/71. Therefore, except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from these sources be less than or equal to 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87% opacity; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

For source ES-8: Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. Further, Permit No. 07668T20 will require weekly VE monitoring and recordkeeping for this source and semiannual summary reporting to DAQ.

For sources F-9, F-14a, and F-14b: Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. However, since these are fugitive sources located within a building structure, Permit No. 07668T20 will not include any MRR requirements pursuant to 2D .0521 for these sources.

F. Group 1 Miscellaneous Coating Operations, including:

Trademark applicator for LVL (ID No. F-15b)

Edge coating spray booth for LVL (ID No. F-ECSB); and

Trademark applicator for I-Beams (ID No. F-15a)

The edge coating spray booth applies a sealer coating to the edges of the LVL panels. This source first operated in 1997.

The two trademark applicators apply trademarks to the final I-Beam and LVL products. These sources first operated in 1998.

Note that current Permit No. 07668T19 includes the three LVL surface coating spray booths (ID Nos. F-SCSBa, F-SCSBb, and F-SCSBc) with the group 1 miscellaneous coatings. However, these sources qualify as “miscellaneous coating operations” but not “group 1 miscellaneous

coating operations” as defined in 40 CFR §63.2292. The same argument applies to the three LVL curtain coaters (ID Nos. F-5B, F-12B, and F-13B) and the two I-Beam glue applicators (ID Nos. F-14a and F-14b). Therefore, these sources are grouped with the other LVL or I-Beam sources in Permit No. 07668T20 (see discussions in Sections II D and E, above).

i. 2D .0512 “Particulates from Wood Products Finishing Plants”

Current Permit No. 07668T19 does not apply 2D .0512 to the edge coating spray booth for LVL or the trademark applicators (i.e. sources F-ECSB, F-15a, and F-15b). However, since these sources are utilized in the finishing of a wood product, the PM emissions are subject to 2D .0512. Therefore, Permit No. 07668T20 will apply 2D .0512 to these sources.

This rule applies to the three above-listed sources (ID Nos. F-ECSB, F-15a, and F-15b) and requires that the Permittee “shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged ... into the environment without providing ... adequate ductwork and properly designed collectors ...” Compliance with this rule is expected due to the operation of these fugitive sources within a building enclosure.

Since each of these sources is a fugitive source operated within a building enclosure, Permit No. 07668T20 will include the standard shell language for the control requirements of rule 2D .0512 but will not include any associated MRR requirements for these sources.

ii. 2D .0521 “Control of Visible Emissions”

The three above-listed sources (ID Nos. F-ECSB, F-15a, and F-15b) were manufactured after 07/01/71. Therefore, except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under rule 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from these sources be less than or equal to 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87% opacity; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

Permit No. 07668T20 will include the standard language for the emission limits of, and the prescribed methods of testing for compliance (if/when required by DAQ) with, 2D .0521. However, since these are fugitive sources located within a building structure, Permit No. 07668T20 will not include any MRR requirements pursuant to 2D .0521 for these sources.

G. One diesel-fired emergency use fire pump (185 horsepower maximum rated power output; ID No. ES-P12)

The diesel-fired emergency water pump would be utilized in the event of a fire to provide water for fire suppression. This source is added to Permit No. 07668T20 as a result of the information provided by the Permittee in their letter dated 08/19/09. The Permittee replaced this fire pump in December of 2008 with an identical model, originally constructed in 1984.

i. 2D .0516 “Sulfur Dioxide Emissions from Combustion Sources”

This rule applies to the diesel-fired emergency use fire pump (ID No. ES-P12) and limits the associated SO₂ emissions to 2.3 (lb/10⁶ Btu). Table 3.3-1 of the 5th edition of the AP-42 document predicts SO_x emissions from diesel fuel combustion in small industrial engines (i.e. < 600 hp) of 0.29 (lb/10⁶ Btu).

Permit No. 07668T20 will include the standard language for the emission limits of, and the methods of testing (if/when required by DAQ) for compliance with, this rule. However,

since the permitted fuel (i.e. diesel fuel) is inherently compliant with the emission limit, Permit No. 07668T20 will not include any MRR requirements associated with 2D .0516 for the diesel-fired emergency use fire pump.

ii. 2D .0521 “Control of Visible Emissions”

This rule requires that the Permittee “prevent, abate and control emissions generated from fuel burning operations and industrial processes where an emission can reasonably be expected to occur...” Except for those visible emissions (VEs) occurring during startup, shutdown and malfunctions that are regulated under 2D .0535, paragraph 2D .0521(d) requires that the 6-minute average VEs from the diesel-fired emergency use fire pump (ID No. ES-P12) be \leq 20% opacity with the following exceptions:

- One six-minute average VE per hour may exceed 20% opacity as long as that VE does not also exceed 87%; and
- Up to four six-minute average VEs per 24-hour period may exceed 20% opacity as long as those VEs do not also exceed 87% opacity.

For 2D .0521 (as applicable to this source), Permit No. 0768T20 will include the standard language for the emission limits of, and the methods of testing for compliance (if/when required by DAQ) with, this rule. However, since operation of an emergency device is limited and since non-compliance with this rule is considered unlikely for this diesel-fired source, no MRR requirements for 2D .0521 will appear in the permit for this source.

iii. 2D .0524 “New Source Performance Standards”

The NSPS for the stationary compression ignition internal combustion engines (CI ICE) source category found in 40 CFR Part 60, Subpart IIII apply to owners and operators of stationary CI ICE that: [§60.4200(a)]

- Commence construction after 07/11/05 where the stationary CI ICE are:
 - Manufactured after 04/01/06 and are not fire pump engines; or
 - Manufactured as a certified NFPA fire pump engine after 07/01/06.
- Modify or reconstruct their stationary CI ICE after 07/11/05.

The diesel-fired emergency use fire pump (ID No. ES-P12) at this facility qualifies as a CI ICE. However, although this source was installed after 07/11/05, it is a relocated fire pump that was originally manufactured in 1984 (i.e. before 04/01/06). Therefore, this source **is not subject** to the NSPS requirements [see 40 CFR §60.14(e)(6)].

iv. 2D .1111 “Maximum Achievable Control Technology”

Diesel-fired emergency use fire pump (ID No. ES-P12) is subject to 2D .1111 due to the applicability of 40 CFR Part 63, Subpart ZZZZ (i.e. the MACT for reciprocating internal combustion engines - RICE).

In accordance with §63.6590(a)(1)(ii) and (iv), since this diesel-fired emergency use fire pump was constructed before 06/12/06 it is considered an existing source. Further, in accordance with §63.6590(b)(3), this diesel-fired emergency water pump has no applicable requirements under Subparts ZZZZ or A (no initial notification is required). Therefore, Permit No. 07668T20 will indicate the applicability of Subpart ZZZZ to this source and that there are **no associated applicable requirements**.

III Regulatory review for rules that apply to aggregate emissions from multiple source categories:

A. Facility-wide sources emitting odorous emissions and/or utilizing volatile organic compounds as solvents, carriers, material processing media, etc., including:

- **Wood residuals/bark-fired boiler and hot oil heater (ID No. ES-1);**
- **Steam-heated veneer conditioning chamber (ID No. F-3);**
- **Steam-heated roller jet veneer dryer (ID No. ES-4F);**
- **Three LVL curtain coaters (ID Nos. F-5B, F-12B, and F-13B);**
- **Three LVL presses (ID Nos. ES-5D, ES-12A, and ES-13A);**
- **Three LVL surface coating spray booths (ID Nos. F-SCSBa, F-SCSBb, and F-SCSBc);**
- **Two I-Beam assembly glue applicators (ID Nos. F-14a and F-14b);**
- **Natural gas direct-fired I-Beam curing tunnel (ID No. F-9);**
- **Eight resin and wax storage tanks (ID Nos. ST1 through ST8); and**
- **Group 1 Miscellaneous Coating Operations (ID Nos. F-ECSB, F-15a, and F-15b)**

The resin storage tanks (ID Nos. ST1 through ST3 with 10,400 gallon capacity, each; and ID Nos. ST5 through ST8 with 6,186 gallon capacity, each) store resins for subsequent use in LVL production. The Permittee does not currently utilize the wax storage tank (8,000 gallon capacity; ID No. ST4). Storage tanks ST1 through ST5 first operated in 1986 whereas tanks ST6 through ST8 first operated in 1995.

Descriptions of the other sources listed in Section III A can be found in Sections II C, D, E, and F, above, as applicable.

i. 2D .0958 “Work Practices for Sources of Volatile Organic Compounds”

This rule applies to the operations in this facility that use VOCs as solvents, carriers, material processing media, etc. and requires the Permittee to follow certain procedures when using or storing the VOC-containing materials or cleaning or draining the equipment used to apply these materials. Permit No. 07668T20 includes the standard language for work practice standards and MRR associated with this rule for the facility-wide affected sources.

ii. 2D .1806 “Control and Prohibition of Odorous Emissions”

This rule requires the Permittee to prevent odorous emissions from the facility from causing or contributing to objectionable odors [as defined at 2D .1801(9)] beyond the facility’s boundary. The Permittee conducts operations that would reasonably be expected to create objectionable odors but does not have a history of violations of this rule. Therefore, Permit No. 07668T20 includes this rule, but with only the standard shell language.

B. Facility-wide sources emitting toxic air pollutants, including:

- **Wood residuals/bark-fired boiler and hot oil heater (ID No. ES-1);**
- **Veneer conditioning chamber (ID No. F-3);**
- **Steam-heated roller jet hardwood veneer dryer (ID No. ES-4F)**
- **Three LVL curtain coaters (ID Nos. F-5B, F-12B, and F-13B);**
- **Three LVL presses (ID Nos. ES-5D, ES-12A, and ES-13A);**
- **Three LVL surface coating spray booths (ID Nos. F-SCSBa, F-SCSBb, and F-SCSBc);**
- **Two I-Beam assembly glue applicators (ID Nos. F-14a and F-14b); and**
- **Natural gas direct-fired I-Beam curing tunnel (two burners with 4.25 million Btu per hour maximum heat input rate, each; ID No. F-9)**

Descriptions of the sources listed in Section III B can be found in Sections II A, C, D, and E, above, as applicable.

i. 2D .1100 “Control of Toxic Air Pollutants”

Current Permit No. 07668T19 includes a condition associated with 2D .1100 for several TAPs from this facility developed from a facility-wide toxics demonstration (using AERMOD) received by DAQ in October of 2007 and approved by AQAB (see memo from Jerry Freeman dated 10/30/07). That toxics demonstration was performed using potential emission rates and resulted in maximum off-site impacts of 80% or less of the associated AALs. The 2D .1100 condition in current Permit No. 07668T19 does not include any associated MRR requirements. The permit renewal requested via application 7300052.08A will not increase emissions of any TAP. Therefore, the existing 2D .1100 condition is maintained in Permit No. 07668T20 except that the subject sources’ descriptions are modified for clarity.

ii. 2Q .0705 “Existing Facilities and SIC Calls”

Current Permit No. 07668T19 includes the standard permit condition requiring the Permittee to submit a facility-wide toxics demonstration for this facility when they submit their application to comply with the last MACT (other than the combustion source MACT) that applies to this facility, in accordance with 2Q .0705(b). However, since the Permittee burns adulterated fuels in their boiler (wood dust is used occasionally to clean up oil spills and is then burned in boiler ES-1), the boiler does not qualify as a “combustion source” as defined in 2Q .0703(6) and the last MACT to apply to this facility *will be* the combustion source MACT, potentially including a NC DAQ implemented 112(j) MACT “hammer.” Therefore, this permit condition is modified in Permit No. 07668T20 to indicate that the Permittee must submit a facility-wide toxics demonstration for this facility with either, as applicable: (1) the application submitted to comply with the combustion source MACT generated by NC DAQ pursuant to 112(j) and 2D .1109, or (2) the application submitted to comply with the EPA-generated revised combustion source MACT.

iii. 2Q .0711 “Emission Rates Requiring a Permit”

Current Permit No. 07668T19 includes the standard permit condition listing those TAP that are emitted from the facility at rates below their associated TPER and requiring the Permittee to either (1) maintain records demonstrating that facility-wide emissions of these TAP are below the associated TPER, or (2) obtain a permit to emit a TAP before exceeding the TPER associated with that TAP. These permit requirements are maintained but are merged into the 2Q .0705 condition in Permit No. 07668T20.

C. Facility-wide sources subject to 40 CFR Part 63, Subpart DDDD, including:

- **Log preparation operations (ID No. F-2B);**
- **Veneer conditioning chamber (ID No. F-3);**
- **Green veneer chipper (ID No. ES-4D);**
- **Steam-heated roller jet hardwood veneer dryer (ID No. ES-4F);**
- **Veneer composer chipper (ID No. ES-6);**
- **Three LVL curtain coaters (ID Nos. F-5B, F-12B, and F-13B);**
- **Three LVL presses (ID Nos. ES-5D, ES-12A, and ES-13A);**
- **Three LVL surface coating spray booths (ID Nos. F-SCSBa, F-SCSBb, and F-SCSBc);**
- **Trim system for LVL Line 2 (ID No. ES-12);**
- **Truck loadout bin for LVL Line 2 (ID No. F-12F);**

- **Trim system for LVL Lines 1 and 3 (ID No. ES-13);**
- **Truck loadout bin for LVL Lines 1 and 3 (ID No. F-13E);**
- **Header operations and I-Beam assembly (ID No. ES-8);**
- **Two I-Beam assembly glue applicators (ID Nos. F-14a and F-14b);**
- **Natural gas direct-fired I-Beam curing tunnel (ID No. F-9);**
- **Dry wood dust silo for header operations and I-Beam assembly (ID No. ES-10);**
- **Truck loadout bin for header operations and I-Beam assembly (ID No. ES-10B);**
- **Eight resin and wax storage tanks (ID Nos. ST1 through ST8); and**
- **Group 1 Miscellaneous Coating Operations (ID Nos. F-ECSB, F-15a, and F-15b)**

Descriptions of the sources listed in Section III C can be found in Sections II B, II C, II D, II E, II F, and III A, above, as applicable.

Note that the list of sources in Section III C differs somewhat from the list of sources cited as subject to 40 CFR Part 63, Subpart DDDD in current Permit No. 07668T19. Specifically, in accordance with the definition of affected source found in 40 CFR §63.2232, the list of sources in Section III C includes 7 sources (ID Nos. F-3, F-5B, F-9, F-12B, F-13B, F-14a, and F-14b) that have historically been considered insignificant activities (see discussion in Section IX, below) and 7 sources (ID Nos. ES-6, ES-12, F-12F, ES-13, F-13E, ES-10, and ES-10B) that were listed in current Permit No. 07668T19 but were not considered part of the affected source under 40 CFR Part 63, Subpart DDDD.

**i. 2D .1111 “Maximum Achievable Control Technology”
[40 CFR Part 63, Subpart DDDD]**

Applicability: The Permittee is subject to this rule pursuant to 2D .1111 and 40 CFR Part 63, Subpart DDDD (i.e. Subpart DDDD, the NESHAP for Plywood and Composite Wood Products - PCWP) because the Permittee owns and operates a PCWP facility which is located at a major source of HAP emissions. [§63.2231]

Subpart DDDD includes work practices that apply to the group 1 miscellaneous coating operations (ID Nos. F-ECSB, F-15a, and F-15b) and the steam-heated roller jet veneer dryer (ID No. ES-4F). All other sources at this facility that are subject to Subpart DDDD are subject only to the associated initial notification requirements. [§63.2252]

Affected Source: The affected source is the collection of dryers, refiners, blenders, formers, presses, board coolers, and other process units associated with the manufacturing of PWCP. The affected source includes, but is not limited to, green end operations, refining, drying operations (including any combustion unit exhaust stream routinely used to direct fire process units), resin preparation, blending and forming operations, pressing and board cooling operations, and miscellaneous finishing operations (such as sanding, sawing, patching, edge sealing, and other finishing operations not subject to other NESHAP).

The affected source also includes onsite storage and preparation of raw materials used in the manufacture of plywood and/or composite wood products, such as resins; onsite wastewater treatment operations specifically associated with plywood and composite wood products manufacturing; and miscellaneous coating operations. The affected source includes lumber kilns at PCWP manufacturing facilities and at any other kind of facility. [§63.2232]

Compliance Date: The Permittee owns/operates an existing affected source and therefore has a compliance date of 10/01/07. [§63.2233]

General Requirements: The general requirements of Subpart DDDD that are applicable to sources at this facility include:

- General control/operating requirements include the requirements to: [§63.2250]
 1. Operate the affected source in compliance with the applicable compliance options, operating requirements, and work practice standards except during periods of non-operation; and
 2. Operate and maintain the affected source according to the provisions of §63.6(e)(1)(i). That is, the Permittee must operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times. However, the Permittee is not required to achieve the otherwise applicable limit(s) of 40 CFR Part 63, Subpart DDDD or to make any further efforts to reduce emissions if the otherwise applicable limit(s) of Subpart DDDD is achieved.
- The process units that are not subject to the compliance options or work practice requirements of 40 CFR Part 63, Subpart DDDD (e.g. the LVL presses) are not subject to any requirements under 40 CFR Part 63, Subpart Subparts A or DDDD other than the initial notification requirements of §63.9(b). [§63.2252]

Compliance Requirements: The specific compliance requirements of Subpart DDDD that are applicable to sources at this facility include:

- **Compliance Options:** The Permittee has opted to operate the roller jet veneer dryer (ID No. ES-4F) as a hardwood veneer dryer as defined at 40 CFR §63.2292 (i.e. a veneer dryer that dries less than 30 percent softwood species on an annual volume basis). Therefore, no emission standards or compliance options apply to this veneer dryer. [40 CFR §§63.2240 and .2292 and Tables 1A, 1B, and 2]
- **Work Practices:** The steam-heated roller jet veneer dryer and the group 1 miscellaneous coating operations (e.g. application of edge seals, logo paint, and/or trademarks) are subject to certain work practice requirements found in Subpart DDDD. [40 CFR §63.2241 and Table 3]

Specifically, the Permittee must use only non-HAP coatings (as defined in 40 CFR §63.2292) in the group 1 miscellaneous coating operations and process less than 30 volume percent softwood species on an annual basis in the veneer dryer.

- **Initial Compliance Demonstrations:** The Permittee has made the initial compliance demonstrations for the affected sources as required in Table 6 of Subpart DDDD and 40 CFR §§63.2260, .2261, .2264, .2271.
- **Continuous Compliance Demonstrations:** The Permittee must demonstrate continuous compliance as follows: [40 CFR§63.2271 and Table 8]
 1. **For veneer dryer ES-4F:** The Permittee must maintain the volume percent softwood species processed through the veneer dryer below 30 percent AND keep records of the volume percent softwood species processed.
 2. **For group 1 miscellaneous coating operations:** The Permittee must continue to use (and maintain records that they are using) non-HAP coatings in the group 1 miscellaneous coating operations.

Notifications: The notifications required from the Permittee include: [40 CFR §63.2280]

- Initial Notification required by 40 CFR §63.9(b)(2); and
- Notification of Compliance Status as required in 40 CFR §63.9(h)(2)(ii).

Reports: The Permittee must submit semiannual compliance reports that include the following information: [40 CFR §63.2281]

- The company name and address, the date of the report, and the dates defining the period covered by the report.
- A statement by a responsible official (with their name, title, and signature) certifying the truth, accuracy, and completeness of the content of the report.
- A statement that there were no deviations from the applicable Subpart DDDD requirements for the affected sources during the reporting period, if applicable.
- For each deviation from the applicable Subpart DDDD requirements for the affected sources during the reporting period, the report must include: (1) the total operating time of each affected source during the reporting period; and (2) information on the number, duration, and cause of the deviation (including unknown cause, if applicable), as applicable, and the corrective action taken.

Records: The Permittee must maintain the records described below in a form suitable and readily available for expeditious review as specified in 40 CFR §63.10(b)(1) (i.e. in written or electronic format) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records must be maintained on site for at least the first 2 years of this 5 year period – but may be maintained offsite for the remainder of the 5 year period. [40 CFR §§63.2282 and .2283]

- A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDD, including any documentation supporting the Initial Notification or Notification of Compliance Status, as required by 40 CFR §63.10(b)(2)(xiv); and
- Records of monitoring required to show continuous compliance with each applicable work practice requirement.

IV NSPS/NESHAP/PSD/Toxics/112(r)/CAM/RACT Applicability:

NSPS: No source at this facility is subject to New Source Performance Standards (NSPS) pursuant to rule 2D .0524 and 40 CFR Part 60. Potentially applicable NSPS are summarized briefly below:

- **Subpart Dc** for Small Steam Generating Units: This regulation **does not apply** to the boilers at this facility (ID Nos. ES-1, IES-9, IES-10, and IES-11). The heat input capacity of boilers IES-9, IES-10, and IES-11 (i.e. 5.0, 6.3, and 5.0 million Btu per hour, respectively) are outside the range of heat input capacities addressed by the regulation (i.e. from 10 million Btu per hour to 100 million Btu per hour). Boiler ES-1 pre-dates this rule.
- **Subpart Kb** for volatile organic liquid (VOL) storage vessels: This regulation applies to VOL storage tanks that were constructed, reconstructed or modified after 07/23/84 and have storage capacities greater than or equal to 75 m³ (i.e. 19,817 gallons). The resin storage tanks ST1 through ST3 and ST5 through ST8 have capacities of 10,400 gallons or less. The wax storage tank ST4 does not store VOL and has a capacity of 8,000 gallons. Therefore, these tanks are **not subject** to NSPS Subpart Kb.
- **Subpart CCCC** for commercial and industrial solid waste incineration units (CISWI): The boiler (ID No. ES-1) is **not subject** to this regulation. Boiler ES-1 predates this regulation and is not considered a “new incineration unit” [see 40 CFR §60.2010(a) and §60.2015(a)].
- **Subpart IIII** for Compression Ignition Internal Combustion Engines (CI ICE): The diesel-fired emergency use fire pump (ID No. ES-P12) **is not subject** to this regulation since it pre-dates the rule (refer to the discussion in Section II F.iii, above).

NESHAP: Several sources at this facility are subject to National Emission Standards for Hazardous Air Pollutants pursuant to rule 2D .1111 and 40 CFR Part 63, as summarized below:

- **Subpart DDDD** for Plywood and Composite Wood Products: Many sources at this facility **are subject** to this regulation, however, only sources ES-4F, F-15a, F-15b, F-ECSB, F-SCSBa, F-SCSBb, and F-SCSBc are subject to MACT DDDD requirements other than initial notification (see discussion in Section III C.i, above).
- **Subpart OOOO** for Surface Coating of Wood Building Products: The Permittee **is not subject** to this regulation because this facility does not manufacture any of the wood building products named in the regulation [refer to 40 CFR §63.4681(a)]. Note that application of company logo and edge sealing, which is conducted in this facility, is specifically exempted from applicability of this regulation – see 40 CFR §63.4681(c).
- **Subpart ZZZZ** for Reciprocating Internal Combustion Engines (RICE): The diesel-fired emergency use fire pump (ID No. ES-P12) **is subject** to this regulation but with **no applicable requirements** (see discussion in Section II F.iv, above).

NSR/PSD: This facility is located in Person County, which is an attainment area for all pollutants. This facility does not fall into one of the PSD categories listed at 40 CFR §51.166(b)(1)(i)(a) with a 100 ton per 12-consecutive month period threshold and does not have the potential to emit more than 250 tons of any regulated pollutant per 12-consecutive month period (see form D1 of application 7300052.08A) and is therefore classified as minor for PSD purposes under 40 CFR §51.166(b)(1)(i)(b). Application 7300052.08A is a renewal without equipment modification and does not represent a major modification for PSD purposes – therefore a PSD review is not triggered.

Toxics: The Permittee submitted a facility-wide toxics demonstration in October of 2007 that was subsequently approved by DAQ. Permit No. 07668T20 includes a requirement for the Permittee to submit an updated facility-wide toxics demonstration with their application to comply with the boiler MACT (i.e. the last MACT for this facility) pursuant to 2Q .0705(b) (refer to the discussion in Section III B.ii, above).

112(r): According to Section A3 of application 7300052.08A, this facility does not store any substances regulated under 112(r) in quantities above the associated thresholds and is therefore not subject to the requirements of Section 2D .2100 “Risk Management Program” or 40 CFR Part 68 “Chemical Accident Prevention Provisions” other than General Duty.

CAM: No sources at this facility are subject to the requirements of 40 CFR Part 64 “Compliance Assurance Monitoring” pursuant to 2D .0614 “Compliance Assurance Monitoring” [refer to the discussion in Section II A.iv of this document, above, and the Summary of CAM Applicability (Attachment A to this document) for more information].

RACT: This facility is not located in one of the areas listed in 2D .0902(e) or 2D .1402(d) and is therefore not subject to the existing source RACT requirements.

V Application Fee/Zoning Consistency:

No application fee or zoning consistency determination is required for the permit renewal without modification requested via application 7300052.08A.

VI Compliance Status:

The facility was most recently inspected on 08/26/09 by Steve Carr of RRO and David Putney of RCO and appeared to be operating in compliance with DAQ requirements during that inspection.

VII Permit Modifications/Changes:

The following table summarizes the changes to Permit No. 07668T20 resulting from Permit Application No. 7300052.08A:

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
Global	Global	N/A	<ul style="list-style-type: none"> • Change the issuance/effective dates of the permit; • Change the application number and complete date; • Change permit revision number to T20; • Modify/expand descriptions of sources and control devices for clarity/correctness and to include control dimensions (e.g. cyclone diameter); • Modify reporting requirements to allow for delivery “by hand” in addition to via mail; • Add the regulatory basis for each emission standard; • Specify that veneer dryer ES-4F has been designated to be a hardwood veneer dryer; • Change testing regulatory basis to 2D .2601; and • Update the monitoring associated with 2D .0521 [i.e. add “(Method 9) for 12 minutes” and specify that weekly monitoring must be done each week]
3 - 4	3 - 4	Equipment List	<ul style="list-style-type: none"> • Add detail to (e.g. cite the associated LVL line), and/or correct (e.g. ES-8) the descriptions of sources, when appropriate; • Remove the dry veneer scarfing operation (ES-12C); • Modify ID Nos. to indicate that a source is fugitive (i.e. change “ES-XX” to “F-XX”) when applicable; • Add sources F-3, F-5B, F-9, F-12B, F-13B, F-14a, F-14b, F-12F, and F-13E due to MACT DDDD applicability and ES-P12 due to MACT ZZZZ applicability (all are existing sources); and • Add “MACT DDDD” designations to the emission sources subject to 2D .1111
5	5	2.1 A	<ul style="list-style-type: none"> • Modify the source description to show combustion of wood residuals and bark in ES-1; and • Modify the limits/standards summary table to also include 2D .1100, 2D .1806, 2Q .0705, and 2Q .0711
5	5	2.1 A.1.b (07668T19)	Combine the prohibition of flyash reinjection into condition 2.1 A.1.a in Permit No. 07668T20
5	5	2.1 A.1.b	Modify the required testing frequency under 2D .0504 to once per permit term
7 - 9	7 - 9	2.1 B	Modify this section to include sources ES-4D, ES-6, ES-10, ES-10B, ES-12, F-12F, ES-13, and F-13E in addition to F-2B (i.e. combine log/veneer preparation and wood residuals handling into this section)
N/A	7	2.1 B.1.b	Specify that no 2D .0512 MRR requirements apply to the fugitive sources (ID Nos. F-2B, F-12F and F-13E)
N/A	7 - 8	2.1 B.1.c - f	Add 2D .0512 MRR requirements for sources ES-4D, ES-6, ES-10, ES-10B, ES-12, and ES-13.
9 - 11	9 - 10	2.1 C	Modify this section to remove source ES-4D (now in 2.1 B) and include source F-3 in addition to ES-4F

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
9	9	2.1 C	Modify the limits/standards summary table to also include 2D .0958, 2D .1806, 2Q .0705, and 2Q .0711; and to remove 2D .0515
9 - 10	9	2.1 C.1.b	Modify to show applicability of 2D .0512 (as opposed to 2D .0515) to ES-4F and specify that no associated MRR requirements apply
10	N/A	2.1 C.2 (07668T19)	Remove the 2D .0515 MRR requirements formerly associated with ES-4F
11 - 12	10 - 11	2.1 D	<ul style="list-style-type: none"> Modify this section to include sources F-5B, F-12B, F-13B, F-SCSBa, F-SCSBb, F-SCSBc, ES-12A, and ES-13A in addition to ES-5D (i.e. consolidate the LVL production into this section); and Modify the limits/standards summary table to also include 2D .0512, 2D .1100, 2D .1806, 2Q .0705, and 2Q .0711
N/A	11	2.1 D.1	Add a condition to show applicability of 2D .0512 and specify that no associated MRR requirements apply
12	11	2.1 D.2.c	Specify that the 2D .0521 MRR requirements do not apply to the 6 fugitive sources (ID Nos. F-5B, F-12B, F-13B, F-SCSBa, F-SCSBb, and F-SCSBc)
13 - 15	11 - 14	2.1 E	<ul style="list-style-type: none"> Modify this section to include sources F-9, F-14a, and F-14b in addition to ES-8 (i.e. consolidate the header/I-Beam operations into this section); and Modify the limits/standards summary table to also include 2D .0515, 2D .1100, 2D .1806, 2Q .0705, and 2Q .0711
13 - 14	12 - 13	2.1 E.1.b - f	Modify conditions to show applicability of 2D .0512 to sources F-14a, and F-14b and specify that no associated MRR requirements apply to those sources
14 - 15	13	2.1 E.2	Add a condition for 2D .0515 MRR requirements due to applicability to source F-9
15 - 17	14	2.1 F	<ul style="list-style-type: none"> Modify this section to include sources F-15a, F-15b, and F-ECSB and remove source ES-10 (i.e. put the MACT DDDD group 1 miscellaneous coating operations into this section); and Modify the limits/standards summary table to also include 2D .0958, 2D .1111, 2D .1806, 2Q .0705, and 2Q .0711
15	14	2.1 F.1.b	Modify condition to show applicability of 2D .0512 to sources F-15a, F-15b, and F-ECSB and specify that no associated MRR requirements apply to those sources
15 - 16	N/A	2.1 F.1.c - e (07668T19)	Remove the 2D .0512 MRR requirements formerly associated with source ES-10 in this section
16	14	2.1 F.2.b	Modify condition to show applicability of 2D .0521 to sources F-15a, F-15b, and F-ECSB and specify that no associated MRR requirements apply to those sources

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
16 - 17	N/A	2.1 F.2.c - e (07668T19)	Remove the 2D .0521 MRR requirements formerly associated with source ES-10 in this section
17 - 19	15	2.1 G	Modify this section to remove sources ES-12, ES-12A, ES-12C, and F-12F and instead include source ES-P12
17	15	2.1 G	Modify the limits/standards summary table to also include 2D .0516, 2D .1111 (MACT ZZZZ instead of MACT DDDD), and 2D .1806; and to remove 2D .0958
17 - 18	15	2.1 G.1	Modify this section to include the MRR requirements of 2D .0516 for emergency use fire pump ES-P12
18 - 19	15	2.1 G.2	Modify this section to include the MRR requirements of 2D .0521 for emergency use fire pump ES-P12
N/A	15	2.1 G.3	Modify this section to include the MRR requirements of 2D .1111 for emergency use fire pump ES-P12
19 - 24	N/A	2.1 H - K (07668T19)	Delete these sections from Permit 07668T20 since the sources have been incorporated into other sections
24 and 26 - 27	16 - 17	2.2 A	<ul style="list-style-type: none"> Modify section to remove requirements of 2D .1100 and instead include the requirements of 2D .0958 (found in Section 2.2 C.1 of Permit No. 07668T19) and 2D .1806 (not in Permit No. 07668T19); and Add more specific information on which sources are subject to these requirements
24 - 25 and 30	17 - 19	2.2 B	<ul style="list-style-type: none"> Modify section to also include the requirements of 2D .1100 and 2Q .0705 (found in Sections 2.2 A and 2.2 D.2 of Permit No. 07668T19); and Add more specific information on which sources are subject to these requirements
N/A	18	2.2 B.1.b	Specify that no MRR requirements apply to the sources subject to toxics pursuant to 2D .1100
N/A	19	2.2 B.2.f - h	Modify permit condition to include the requirements of both 2Q .0711 and 2Q .0705
26 - 30	20 - 24	2.2 C	<ul style="list-style-type: none"> Modify section to remove requirements of 2D .0958 and instead include requirements of 2D .1111 (found in Section 2.2 D.1 of Permit No. 07668T19); Modify list of MACT DDDD subject sources to also include F-3, F-5B, F-9, F-12B, F-12F, F-13B, F-13F, F-14a, F-14b, ES-6, ES-10, and ES-10B; and Expand the permit section to include details and the relevant definitions from MACT DDDD
27 - 30	N/A	2.2 D	Delete this section since the requirements of 2D .1111 and 2Q .0705 and are now found in Sections 2.2 C and 2.2 B of Permit No. 07668T20, respectively
31 - 40	25 - 32	3 A - NN	Update General Conditions to version 3.0

Note: Condition/Item numbers are as they appear in Permit No. 07668T20, unless otherwise noted.

VIII Title V Permit History:

The following table provides a brief summary of Title V permit revisions for this facility:

Permit No.	Issuance Date	Description of Revision
07668T10	12/31/03	Issue initial Title V permit (affective date of February 15, 2004)
07668T11	02/12/04	Administrative amendment to add sources to the list of insignificant activities and to correct MRR language associated with 2D .0521
07668T12	11/04/04	Minor modification to add a resin storage tank (ST-5), a pneumatic wood residuals collection system (ES-6), and a transfer cyclone (CD-6)
07668T13	08/29/05	Significant modification to reduce frequency of 2D .0521 monitoring for wood-fired boiler and oil heater (ID No. ES-1) from daily to weekly
07668T14	12/05/05	Administrative amendment to change the due date of semiannual reports
07668T15	02/23/07	Minor modification to: upgrade the LVL1 hydraulic system, the LVL2 pneumatic system, and the LVL3 layup line; make an ownership change; and to modify the facility-wide state air toxics limits
07668T16	04/27/07	Administrative amendment to remove the applicability of 2D .0512 and 2D .0515 from the presses
07668T17	07/11/07	A significant modification to clarify/correct 2D .0521 monitoring and to include the requirements of the Health Based Compliance Alternative of the (subsequently vacated) boiler MACT (i.e. Subpart DDDDD)
07668T18	08/03/07	Administrative amendment to remove all language associated with the vacated boiler MACT (i.e. 40 CFR 63, Subpart DDDDD)
07668T19	04/11/08	Significant modification to add specific conditions for the PWCP MACT (i.e. Subpart DDDD) and modify the state air toxics conditions
07668T20	01/22/10	<ul style="list-style-type: none"> • Renewal of Title V permit; and • Addition of 2D .1111 (MACT Subpart ZZZZ) to permit

IX Miscellaneous:

Equipment/Insignificant Activities Lists: The equipment list of Permit No. 07668T20 has been modified to include the following sources (previously found on the list of insignificant activities attached to current Permit No. 07668T19), due to MACT DDDD applicability (see the definition of affected source found in 40 CFR §63.2232): IES-3 (as F-3), IES-13a (as F-5B), IES-13b (as F-12B), IES-13c (as F-13B), IES-14a (as F-14a), IES-14b (as F-14b). Other sources that were previously considered insignificant activities but which are now added to the equipment list of Permit No. 07668T20 (due to MACT DDDD applicability) include F-9, F-12F, and F-13E).

Similarly, the existing emergency use fire pump (previously found on the list of insignificant activities attached to current Permit No. 07668T19 as IES-12) is added to the equipment list of Permit No. 07668T20 (as ES-P12) due to MACT ZZZZ applicability (see discussions in Sections II G.iv and III C, above).

Signature by Responsible Official: Mr. Ralph Cook (i.e. the responsible official for the subject Georgia-Pacific Wood Products, LLC facility at the time the application was submitted) provided the required signature on Form E5 of permit application 7300052.08A.

X Permit Review:

Draft Permit: A draft version of Permit No. 07668T20 and the associated review were sent to the Permittee and the RRO for a review and comment period on 11/17/09.

Public Participation: In accordance with 2Q .0521, NC DAQ must provide the opportunity for public participation during the renewal of a Title V permits (such as that represented by application

7300052.08A). NC DAQ met this obligation with the public notice posted in “a newspaper of general circulation in the area where the facility is located” and “mailed to persons who are on the Division’s mailing list for air quality permit notices” on 12/11/09.

EPA & Affected States Review: In accordance with 2Q .0522, NC DAQ must provide EPA and any Affected States [as defined at 2Q .0503(1)] the opportunity to review a proposed renewal of this Title V permit. NC DAQ met this obligation by sending those agencies a copy of Proposed Permit No. 07668T20 and the associated review on 12/11/09.

XI Recommendation:

The Title V Permit renewal application for the Georgia-Pacific Wood Products, LLC facility in Roxboro, Person County, North Carolina has been reviewed by NC DAQ personnel to determine compliance with all applicable procedures and requirements. NC DAQ personnel have determined that this facility is complying or will achieve compliance with all applicable requirements as specified in Permit No. 07668T20.

Issuance of Permit No. 07668T20 is recommended.

Attachment A: CAM Applicability Summary Table

Emission Source(s)	Control Device(s)	Controlled TV Pollutant(s)	Pre-Control PTE of Controlled TV Pollutant(s) (tons per year)	CAM Disqualification(s)/Exemption(s)	CAM Applicable?
Boiler ES-1	N/A	N/A	N/A	Do not meet criteria of 15A NCAC 2D .0614(a) [No control devices]	No
Log preparation operation ES-2B	N/A	N/A	N/A	Does not meet criteria of 15A NCAC 2D .0614(a) [No control device]	No
Wood residuals handling operations: ES-10, ES-10B, ES-12, F-12F, ES-13, and F-13E	Various cyclones and bagfilters	PM ₁₀	< 100	Do not meet criteria of 15A NCAC 2D .0614(a) [Emission less than major source thresholds]	No
Veneer chipper ES-4D	Cyclone CD-4D	PM ₁₀	< 100	Do not meet criteria of 15A NCAC 2D .0614(a) [Emission less than major source thresholds]	No
Veneer dryer ES-4F	N/A	N/A	N/A	Does not meet criteria of 15A NCAC 2D .0614(a) [No control device]	No
Veneer composer chipper	Cyclone CD-6	PM ₁₀	< 100	Do not meet criteria of 15A NCAC 2D .0614(a) [Emission less than major source thresholds]	No
I-beam assembly operations: ES-8, F-9, F-14a, and F-14b	Bagfilter CD-8	PM ₁₀	< 100	Do not meet criteria of 15A NCAC 2D .0614(a) [Emission less than major source thresholds]	No
LVL operations: F-5B, ES-5D, ES-12A, F-12B, ES-13A, F-13B, F-SCSBa, F-SCSBb, and F-SCSBc	N/A	N/A	N/A	Does not meet criteria of 15A NCAC 2D .0614(a) [No control device]	No
Group 1 misc. coating operations: F-ECSB, F-15a, and F-15b	N/A	N/A	N/A	Does not meet criteria of 15A NCAC 2D .0614(a) [No control device]	No
Resin and wax storage tanks: ST1 through ST8	N/A	N/A	N/A	Does not meet criteria of 15A NCAC 2D .0614(a) [No control device]	No
Emergency use fire pump ES-P12	N/A	N/A	N/A	Does not meet criteria of 15A NCAC 2D .0614(a) [No control device]	No