



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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COMMONWEALTH OF VIRGINIA
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STATEMENT OF LEGAL AND FACTUAL BASIS

Georgia-Pacific Wood Products LLC
Emporia Plywood Facility
634 Davis Street, Emporia, Virginia
Permit No. PRO50283

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Georgia-Pacific Wood Products LLC has applied for a Title V Operating Permit for its Emporia Plywood facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: Alison Sinclair Date: April 3, 2014
Alison Sinclair
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Air Permit Manager James E. Kyle, P.E. Date: 4/3/2014
James E. Kyle, P.E.

Deputy Regional Director: Kyle I. Winter, P.E. Date: 04 April 2014
Kyle I. Winter, P.E.

FACILITY INFORMATION

Permittee/Facility

Georgia-Pacific Wood Products LLC – Emporia Plywood
634 Davis Street
Emporia, Virginia 23847

County-Plant Identification Number: 51-081-0020

SOURCE DESCRIPTION

NAICS 321212 – Softwood Plywood Manufacturing
SIC 2436 – Softwood Plywood Manufacturing

The facility manufactures 3/8" softwood plywood. The facility's process starts where logs are received in the log yard. The logs are cut to size, debarked and then soaked to loosen fibers for peeling in the lathes. The green veneer is then sorted, clipped, and dried in one of the three direct-fired veneer dryers. The veneer dryers are indirectly heated using steam generated by the boiler. The dryer lowers the moisture content of the veneers to 12% by weight. The moisture removed from the veneers contains a significant amount of VOCs. Any residuals from the veneer cutting process are chipped for use in the steam boiler or for shipment off-site.

The dried veneer panels are glued and pressed in one of the three plywood presses. In addition to green veneer dried on-site, the facility also purchases dried veneer from outside sources to increase their production rate. The plywood boards are then cooled and transported to the plywood trim panel saw to trim the edges. Sawdust generated from this process is collected in a vacuum system located above each saw, and transported to the Central Dry Waste System. Finished packs of panels are stenciled with the Georgia-Pacific logo and shipped off-site via truck or rail.

The facility is a Title V major source of PM, PM10, PM2.5, NOx, and CO emissions and is also a PSD-sized major source due to the permitted emissions limits from its wood-fired boilers and dryers. It is located in an attainment area for all pollutants.

The facility is subject to 40 CFR 63 MACT Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; and 40 CFR 63 MACT Subpart DDDD, National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. The facility is in compliance with MACT Subpart DDDD; and the facility is required to comply with the requirements of MACT DDDDD when those requirements are finalized.

The facility's two existing NSR permits were combined into one NSR permit issued on September 18, 2013.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
WWB	BS	Wood-fired Stoker Boiler (1978)	179.4 MMBtu/hr (20 tons of wood waste/hr)	- Western Precipitation (Model 12VM, Size 50-5), multicyclone - Burnstead-Woolford (12-foot diameter) scrubber	B1 B2	PM, PM ₁₀ , and PM _{2.5}	9/18/2013
Cut Up and Green End							
CUS	-	Cut-up Saws in The Log Preparation Area	2,877 tons/hr	-	-	-	-
DB1	EP13a	Log Debarkers 1 and 2	2,877 tons/hr	-	-	-	-
DB2	EP13b						
CS	EP1 EP2	Chi Transfer System	50 tons/hr	Bruning and Federle cyclone	C1 C2	PM, PM ₁₀ , and PM _{2.5}	-
Veneer Dryers							
VD1	TCO-1	Coe Dryer, Steam-Heated Veneer Dryer, No. 1	11,200 ft ² /hr 3/8" Basis	Pro-Environmental 2 canister RCO/RTO	RCO/RTO-1	PM, PM ₁₀ , PM _{2.5} , VOC, and Volatile HAPs	9/18/2013
VD2	TCO-1	Coe Dryer, Steam-Heated Veneer Dryer, No. 2	20,400 ft ² /hr 3/8" Basis	- Pro-Environmental 2 canister CO/RTO - Derand cyclone	RCO/RTO-1 C4	PM, PM ₁₀ , PM _{2.5} , VOC, and Volatile HAPs	9/18/2013
VD3	TCO-1	Coe Dryer, Steam-Heated Veneer Dryer, No. 3	20,400 ft ² /hr 3/8" Basis	- Pro-Environmental 2 canister CO/RTO - Derand cyclone	RCO/RTO-1 C4	PM, PM ₁₀ , PM _{2.5} , VOC, and Volatile HAPs	9/18/2013
Veneer Dryers Cooling Zone							
VDC-1	VD1-5 VD1-6	Cooling Vents of Veneer Dryer No. 1	11,200 ft ² /hr (3/8" Basis)	-	-	-	9/18/2013

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
VDC-2	VD2-5 VD2-6 VD2-7	Cooling Vents of Veneer Dryer No. 2	20,400 ft ² /hr (3/8" Basis)	-	-	-	9/18/2013
VDC-3	VD3-5 VD3-6 VD3-7	Cooling Vents of Veneer Dryer No. 3	20,400 ft ² /hr (3/8" Basis)	-	-	-	9/18/2013
Plywood Presses							
P1 P2 P3	EP9	Williams-White Plywood Presses	62,030 ft ² /hr 3/8" Basis each	-	-	-	9/18/2013
Glue Lines							
GL1 and GL2	-	Glue Lines	62,030 ft ² /hr (3/8" Basis) 395 MMSF/yr (3/8" Basis)	-	-	-	9/18/2013
Specialty Lines							
CTL	EP6	Dry Waste Transfer System	1.5 tons/hr	- Peerless Division cyclone - Carter Day baghouse	C6 BH2	PM, PM ₁₀ , and PM _{2.5}	-
SDR	EP7	Sander (Finishing)	58,237 ft ² /hr	- Cyclone - Carter Day baghouse	C5 BH1	PM, PM ₁₀ , and PM _{2.5}	-
SC-1	Fugitive	Moisture Sealant Surface Coating Line	58,000 ft ² /hr	-	-	-	9/18/2013
Storage of Wood Residuals							
CTLB	Fugitive	Central Truck Loading Bin	1.5 tons/hr	-	-	-	-

EMISSIONS INVENTORY

A copy of the 2012 permit application emission inventory is attached. Emissions are summarized in the following tables.

2012 Actual Emissions

2012 Criteria Pollutant Emission In Tons/Year					
Emission Unit	VOC	CO	SO ₂	PM ₁₀	NO _x
Wood-Fired Boiler (WWB)	18.1*	985.5	26.8	104	218.3
Veneer Dryers (VD1, VD2, VD3)	7.8	1.0	-	11.8	0.8
Veneer Dryers Cooling Sections (VD1-C, VD2-C, and VD3-C)	6.8	6.3	-	-	-
Chip Transfer System (CS)	-	-	-	0.69	-
Plywood Presses (P1, P2, P3)	26.23	-	-	15.7	-
Moisture Sealant Coating Line (SC-1)	-	-	-	-	-
Dry Waste Transfer System (CTL)	8.4	-	-	14.9	-
Sander (SDR)	11.3	-	-	7.4	-
Total:	78.6	991.8	26.8	154.5	219.1

Note: *VOC as propane

2012 Hazardous Air Pollutant Emissions

Pollutant	2012 Hazardous Air Pollutant Emissions in Tons/Year
Organics:	
Acetaldehyde	12.6
Acetophenone	0.00174
Acrolein	0.66
Bis(2-ethylhexyl)phthalate	0.0000438
Bromomethane	0.0143
1,3-Butadiene	0.118
Benzene	3.5
Carbon-Disulfide	0.0119
Carbon Tetrachloride	0.0157
Chlorobenzene	0.0684
Chloroform	0.111
Chloromethane	0.0167
Cumene	0.0275
Dichlorobenzene	0.0000252
1, 2-Dichloroethane	0.99
1,2-Dichloropropane	0.0314
Di-n-Butyl Phthalate	0.0314
Dinitro-2-methylphenol-4,6	0.00198

Pollutant	2012 Hazardous Air Pollutant Emissions in Tons/Year
Dinitrophenol-2,4	0.000123
Ethyl Benzene	0.0166
Formaldehyde	19.9
Hexachlorobenzene	0.000971
Hexane	0.309
Hydrochloric Acid	1.18
Methanol	92.8
Methyl Isobutyl Ketone (MIK)	2.13
Methylene Chloride	0.0314
Naphthalene	0.269
Nitrophenol-4	0.0000879
Pentachlorophenol	0.000574
Phenol	8.27
POM	0.0993
Propionaldehyde	0.389
Styrene	1.98
Tetrachloroethene	0.036
Toluene	0.184
Trichloroethane-1,1,1	0.158
Trichloroethylene	0.0183
Trichlorophenol-2,4,6	0.000257
Vinyl Chloride	0.0174
Xylenes	0.93
Metals:	
Antimony	0.00047
Arsenic	0.00328
Beryllium	0.0000358
Cadmium	0.00213
Chromium	0.0132
Cobalt	0.00511
Manganese	0.178
Mercury	0.00144
Nickel	0.00454
Phosphorus	0.295
Selenium	0.00142
Total HAPs:	147.4

EMISSION UNIT APPLICABLE REQUIREMENTS – [Emission Unit ID No. WWB]

There are two sources of specific applicable requirements for the wood-fired boiler: 1) The NSR permit dated September 18, 2013 and 2) Chapter 50 for new stationary sources.

The boiler was installed prior to the affected facility date of NSPS, Subpart Db, and therefore does not have Db as an applicable requirement.

The boiler was installed prior to the affected facility date of PSD and has not been modified; therefore, it does not have a PSD permit.

The boiler will be subject to the requirements of 40- CFR 63 Subpart DDDDD when those requirements become finalized.

Limitations

Condition 10 of the 09/18/13 NSR permit (Condition 1 of the Title V permit) requires the use of a multicyclone followed by a scrubber to control the PM emissions from the wood fired boiler. *This is BACT.*

Condition 16 of the 09/18/13 NSR permit (Condition 2 of the Title V permit) allows the wood fired boiler to use wood residuals as fuel. *This is an enforceable limit for emissions.*

Condition 17 of the 09/18/13 NSR permit (Condition 3 of the Title V permit) requires the wood residuals burned in the wood-fired boiler (WWB) to meet the following specifications: "minimum as-fired heat content 4485 BTU/lb as determined by ASTM 2015 or DEQ-approved equivalent method." *This makes the hourly rated capacity of the unit (which was based on 179.4 MMBtu/hr ÷ 0.004485 MMBtu/lb = 40,000 lbs/hr = 20 tons/hr) and the annual throughput limit of 175,200 tons/yr (20 tons/hr x 8760 hrs/yr) enforceable.*

Condition 18 of the 09/18/13 NSR permit (Condition 4 of the Title V permit) limits the consumption of wood residuals to no more than 175,200 tons per year. *This provides an enforceable parameter for the emission limits in Condition 25.*

Condition 24 of the 09/18/13 NSR permit (Condition 5 of the Title V permit) requires that the emission factors listed in Attachment A of the September 18, 2013 NSR permit be used to calculate annual emissions from the wood-fired boiler (WWB). *This makes the emissions calculations consistent.*

Condition 25 of the 09/18/13 NSR permit (Condition 6 of the Title V permit) restricts the criteria pollutants emissions from the wood fired boiler on a pound per hour and a ton per year basis. *Compliance with these limits is based on compliance with the fuel throughput, emission controls, and heat content of the wood, as well as periodic stack testing.*

Condition 28 of the 09/18/13 NSR permit (Condition 7 of the Title V permit) limits the opacity from the wood-fired boiler. *This condition is based on 9 VAC 5-50-80 standard for visible emissions.*

Condition 8 of the Title V permit requires the use of proper operation and maintenance to control boiler emissions and that the boiler operators be trained in the proper operation of the equipment. *This ensures proper operation of the boiler to minimize emissions.*

Condition 9 of the Title V permit is based on the Maximum achievable control technology standards (MACT), Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, requirements by reference.

Monitoring

The conditions listed below were placed in the Title V permit in the absence of any underlying permitted applicable requirements in order to ensure proper operation of the emission unit and air pollution control equipment.

Condition 10 of the Title V permit requires the permittee to perform an annual internal inspection on the multicyclone by the permittee to insure structural integrity.

Condition 11 of the Title V permit requires the permittee to monitor the pressure drop of the multicyclone to make sure it is operating at the optimum level, and , if not, to correct the problem.

Condition 12 of the Title V permit requires that the scrubber flow rate on the wood boiler scrubber (PCD ID# B2) be monitored to make sure it is operating at the optimum level, and , if not, to correct the problem.

Condition 13 of the Title V permit requires the permittee to monitor the visible emission from the wood-fired boiler stack on a weekly basis to determine if the boiler is operating abnormally. If so, a Method 9 VEE will be performed, recorded, and to describe any corrective action taken.

Condition 14 of the Title V permit requires the permittee to use appropriate emission factors and throughput data to verify, on a monthly basis, that the hourly and annual (12-month) emission limits for particulate matter are not exceeded.

Compliance Assurance Monitoring (CAM) Requirements (Conditions 15-22 of the Title V permit)

A Compliance Assurance Monitoring (CAM) Plan for PM emission from the wood-fired boiler (WWB) is included in the Title V Permit. This is due to the fact that the PM emissions from the wood-fired boiler (WWB) are controlled by a scrubber, are subject to an emission limitation, and the uncontrolled PM emissions are above major source thresholds.

There is no CAM plan associated with the multicyclone collector associated with the wood-fired boiler (WWB). The multicyclone collector is not a "control device" but is considered "inherent process equipment" (or "recovery equipment").

Recordkeeping

Condition 30 of the 9/18/13 NSR permit (Condition 23 of the Title V permit) includes requirements for maintaining records of all emission data and operating parameters necessary to demonstrate compliance with this permit.

Condition 24 of the Title V permit requires the permittee to also maintain records of training as well as written operating procedures and a maintenance schedule for the boiler (WWB). This requirement ensures that the boiler is properly operated and maintained which keeps emissions to an optimum level.

Compliance Assurance Monitoring (CAM) Recordkeeping

Condition 25 of the Title V permit requires that records be kept of monitoring data that can assure compliance with permit limits (CAM).

Testing

The permit does not require source emissions testing. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The following conditions were included in the Title V permit to provide notification to DEQ of any stack test or visible emission evaluation results:

Condition 26 of the Title V permit requires the permittee to report the results of any 40 CFR Part 60, Appendix A Method 9 visible emissions evaluation of the boiler that is performed in accordance with the requirement in the permit, and any corrective action taken as a result of exceedance of the opacity limit.

Conditions 27 and 28 of the Title V permit require that the permittee submit semi-annual reports of any excess emissions or excursions of the monitoring equipment or measured parameters.

Streamlined Requirements

None.

EMISSION UNIT APPLICABLE REQUIREMENTS – [Emission Units ID Nos. DB1, DB2, CS, CTL, SDR, and CTLB]

The equipment located in the Cut-Up and Green End (ID Nos. DB1, DB2, and CS) consists of existing equipment that do not have any new source review permit-related applicable requirements. Although DB2 was installed as a replacement in 1979, and DB1 was installed, also as a replacement, in 1987, there was no debottlenecking or net increase in emissions above PSD significance levels as a result of either installation, and the equipment installations were not subject to permitting. The only requirements placed upon the process by the Title V permit are the existing source visible emissions limits (Rule 4-1) and the emission limits from Rule 4-4. The grain loading requirements of Rule 4-17 (*Emission Standards for Woodworking Operations*) have been incorporated for the chip screen.

There are currently no permit limits on the Dry Waste Transfer System (ID No. CTL) and the Specialty Lines Sander (ID No. SDR). They were both installed prior to the effective date of the regulations. Only the existing source opacity limits (Rule 4-1), Process Weight Rule (Rule 4-4)

limits, and the grain-loading limits of Rule 4-17 are applicable. The particulate limits are much higher than the potential emissions; therefore, only the grain-loading limit is included in the Title V permit.

Limitations

Condition 29 of the Title V permit limits opacity for the Cut-Up and Green End, Debarkers, Dry Waste Transfer System, Specialty Lines Sander, and Central Truck Loading Bin, (CUS, DB1, DB2, CTL, SDR, and CTLB). *This was included based on the Existing Source Regulations for Opacity 9 VAC 5-40-80 (Rule 4-1):*

Conditions 30, 31, 32, 33 and 34 of the Title V permit include particulate matter emission limits for the debarkers (DB1 and DB2), the chip screen (CS), dry waste transfer system (CTL), sander (SDR) and Central Truck Loading Bin (CTLB). *Emission limits for the chip screen, dry waste transfer system, and sander are based on the standard for PM of 0.05 gr/dscf found in 9 VAC 5-40-2270 for Woodworking Operations (Rule 4-17). Emission limits for the debarkers and truck loading bin were derived from 9 VAC 5-40-270 for General Process Operations (Rule 4-4).*

Monitoring

Conditions 35 requires weekly monitoring of the visible emissions from the debarkers (ID Nos. DB1 and DB2), the chip screen (ID No. CS), the dry waste transfer system baghouse (PCD ID No. BH2), the sander baghouse (PCD ID No. BH1), and the Central Truck Loading Bin (ID No. CTLB).to ensure that the visible emissions are not above normal. If above normal emissions are observed, a Method 9 VEE shall be required and corrective action shall be taken.

Recordkeeping

Condition 36 of the Title V permit requires the source to keep records as necessary to demonstrate compliance with the conditions of this permit.

Testing

The permit does not require source emissions tests of the debarkers, chip screen, cut-up saw, dry waste transfer system, sander, and central truck loading bin. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Condition 37 of the Title V permit requires the permittee to report the results of any 40 CFR Part 60, Appendix A, Method 9 visible emissions evaluation performed in accordance with 35 of the Title V permit.

Streamlined Requirements

The process weight rule (Rule 4-4: *Emission Standards for General Process Operations*) could be applicable to the chip screen, but the 0.05 gr/scf standard contained in the woodworking rule (Rule 4-17) is more stringent.

EMISSION UNIT APPLICABLE REQUIREMENTS – [Emission Units ID Nos. VD1-VD3, P1-P3, and SC-1]

There are two sources of specific applicable requirements for the veneer dryers (VD1-VD3), presses (P1-P3), and moisture sealant surface coating line (SC-1): the 9/08/06 minor NSR permit and MACT, Subpart DDDD.

Limitations

The following limitations are MACT Subpart DDDD requirements that were primarily taken from the Minor NSR Permit issued on September 18, 2013:

Condition 2 of the 09/18/13 NSR permit (Condition 38 of the Title V permit) requires the use of a thermal catalytic oxidizer (PCD ID No. TCO-1) with a minimum destruction efficiency of 90% to control the VOC and HAPs emissions from the veneer dryers, heated zones (ID Nos. VD1, VD2, and VD3).

Condition 40 of the Title V permit requires fugitive emissions from the veneer dryers (VD1-VD3) to be kept to a minimum through the development of a plan to address fugitive emissions from those units.

Condition 4 of the 09/18/13 NSR permit (Condition 41 of the Title V permit) requires the TCO firebox temperature when operating in thermal control mode to be maintained at a temperature that is higher than the minimum firebox temperature determined in the thermal control mode performance test required by 40 CFR 63.2262, which maintains the minimum control efficiencies in Conditions 2 and 3 of the NSR permit.

Condition 5 of the 09/18/13 NSR permit (Condition 42 of the Title V permit) requires the TCO firebox temperature when operating in catalytic mode to be maintained at a temperature that is higher than the minimum firebox temperature determined in the catalytic control mode performance test required by 40 CFR 63.2262, which maintains the minimum control efficiencies in Conditions 2 and 3 of the NSR permit.

Condition 43 of the Title V permit allows for control device maintenance of not more than 0.5 percent of the annual operating uptime for the TCO.

Condition 8 of the 09/18/13 NSR permit (Condition 44 of the Title V permit) limits VOC from the moisture seal coatings to 0.03 lb/gal.

Condition 9 of the 09/18/13 NSR permit (Condition 45 of the Title V permit) requires that only non-HAP coatings shall be used in the moisture sealant surface coating line (ID No. SC-1). Records shall be kept showing that only non-HAP coatings are being used.

Condition 15 of the 09/18/13 NSR permit (Condition 46 of the Title V permit) states that the approved fuels for the thermal catalytic oxidizer are natural gas and propane and a change in the fuel may require a permit to modify and operate.

Condition 29 of the 09/18/13 NSR permit (Condition 57 of the Title V permit) requires that the facility shall be operated in accordance with 40 CFR 63 Subparts A and DDDD, requirements by reference.

The following limitations are based on requirements from the September 18, 2013 Minor NSR Permit:

Condition 3 of the 09/18/13 NSR permit (Condition 39 of the Title V permit) requires the use of a thermal catalytic oxidizer (PCD ID No. TCO-1) with a minimum control efficiency of 50 percent to control the PM emissions from the veneer dryers, heated zones (ID Nos. VD1, VD2, and VD3). *The TCO had been added to the dryers to meet the MACT Subpart DDDD for VOC HAP, however the TCO also controls particulate matter emissions and emissions were based on that level of control, so this condition was added to make the emission limit enforceable. This requirement is not BACT, nor is it a MACT standard.*

Condition 8 of the 09/18/13 NSR permit (Condition 44 of the Title V permit) requires volatile organic compound (VOC) emissions from the moisture sealant surface coating line (ID No. SC-1) to be controlled by the use of waterborne coatings. The VOC content of the waterborne coatings shall not exceed 0.03 lb/gal (as applied). *This limit is BACT.*

Condition 12 of the 09/18/13 NSR permit (Condition 47 of the Title V permit) requires the veneer dryers (ID Nos. VD1 - VD3) to process no more than 375.0 million sq ft/yr (3/8" basis). *This provides and enforceable limit to restrict annual emissions from the dryers.*

Condition 13 of the 09/18/13 NSR permit (Condition 48 of the Title V permit) requires the presses (ID Nos. P1 - P3) to process no more than 395.0 million sq ft/yr (3/8" basis). *This provides and enforceable limit to restrict annual emissions from the presses.*

Condition 14 of the 09/18/13 NSR permit (Condition 49 of the Title V permit) requires the throughput of coatings to the moisture sealant surface coating line (ID Nos. SC-1) not to exceed 600,000 gallons per year. *This provides and enforceable limit to restrict annual emissions from the coating line.*

Condition 27 of the 09/18/13 NSR permit (Condition 50 of the Title V permit) requires that the visible emissions from the thermal catalytic oxidizer (PCD ID No. TCO-1) shall not exceed 10 percent. *This is BACT.*

Condition 26 of the 09/18/13 NSR permit (Condition 51 of the Title V permit) requires that the visible emissions from the cooling zone stacks (ID Nos. VDC-1 - VDC-3) and presses (ID Nos. P1 - P3) not exceed 20 percent. *This is BACT.*

Condition 19 of the 09/18/13 NSR permit (Condition 52 of the Title V permit) limits emissions from the operation of the veneer dryers (exhausted through the thermal catalytic oxidizer stack). *These emission limits are based on enforceable throughput and control conditions and are based on BACT.*

Condition 20 of the 09/18/13 NSR permit (Condition 53 of the Title V permit) limits the emissions from the operation of the veneer dryers cooling sections (EUs ID Nos. VDC-1 - VDC-3). *These emission limits are based on enforceable throughput and control conditions and are based on BACT.*

Condition 21 of the 09/18/13 NSR permit (Condition 54 of the Title V permit) limits the emissions from the operation of the presses (EUs ID Nos. P1 - P3). *These emission limits are based on*

enforceable throughput and control conditions and are based on BACT.

Condition 22 of the 09/18/13 NSR permit (Condition 55 of the Title V permit) limits the VOC emissions from the operation of the moisture sealant surface coating line (EU ID No. SC-1). *These emission limits are based on enforceable throughput and control conditions and are based on BACT.*

Condition 23 of the 09/18/13 NSR permit (Condition 56 of the Title V permit) limits VOC emissions from the operation of the glue lines (GL1 and GL2). These emissions are based on the throughput of plywood processed to the Presses (P1-P3) from Condition 13 of the NSR permit. *This is BACT.*

Monitoring

Condition 6 of the 9/18/13 NSR permit (Condition 58 of the Title V permit) requires the thermal catalytic oxidizer to be equipped with devices to continuously measure the firebox temperature. *This is a MACT Subpart DDDD requirement and ensures that the TCO is working properly.*

Condition 59 of the Title V permit requires the permittee to observe the exhaust from the thermal catalytic oxidizer visually at least once each calendar week to determine if its emissions, excluding condensed water vapor/steam, are normal. If they are not normal, the problem must be corrected or a Method 9 VEE must be done. *This is a requirement of 9 VAC 5-40-20 and helps to ensure the TCO is operating properly.*

Condition 60 of the Title V permit requires the permittee to observe the plywood presses (ID Nos. P1-P3) visually at least once each calendar week to determine if its emissions, excluding condensed water vapor/steam, are normal. *This is a requirement of 9 VAC 5-40-20 and helps to ensure the TCO is operating properly*

Compliance Assurance Monitoring (CAM) Requirements – Conditions 61 through 68 are CAM requirements.

A Compliance Assurance Monitoring (CAM) Plan for VOC is in place. This is due to the fact that the VOC emissions from the veneer dryers that are controlled by a thermal catalytic oxidizer are subject to an emission limitation and have uncontrolled PM emissions that are above major source thresholds. The permittee shall monitor, operate, calibrate and maintain the thermal catalytic oxidizer controlling the veneer dryers according to the following:

Monitoring, Frequency, Records	Performance Criteria	Indicator Range; Averaging Period
<ul style="list-style-type: none"> Continuously monitor the firebox temperature when in each mode (catalytic and thermal) Records shall be collected by a Data Acquisition System (DAS). 	<ul style="list-style-type: none"> Multiple temperature probes shall be utilized to ensure accurate readings. Temperature probes shall be replaced as necessary. 	<ul style="list-style-type: none"> Thermal mode and catalytic mode: The minimum firebox temperature for each mode shall be based on the 3-hour block average combustion chamber temperature at which the unit was operating during the most recent compliance test.

Monitoring, Frequency, Records	Performance Criteria	Indicator Range; Averaging Period
		<ul style="list-style-type: none"> ◦ Excursion: A 3-hour block average value below the minimum firebox temperature. ◦ Data points shall be collected every 15 minutes, averaged over a 3-hour block period.

All boilerplate CAM conditions were placed in the Title V permit (the same ones as listed for the wood-fired boiler above).

Recordkeeping

Condition 30 of the 9/18/13 NSR permit (Condition 69 of the Title V permit) includes requirements for maintaining records of all emission data and operating parameters necessary to demonstrate compliance with this permit.

Condition 70 of the Title V permit requires a written startup, shutdown, and malfunction (SSM) plan be maintained, as stated in §63.6(e), that describes in detail procedures for operating and maintaining the affected sources shown below during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standards limited by this permit. *This is a MACT Subpart DDDD requirement.*

Emission Unit ID	Equipment
VD1 - VD3	Veneer Dryers
P1 - P3	Presses
SC-1	Moisture sealant surface coating line

Condition 71 of the Title V permit requires the source to maintain records of CAM monitoring, performance data, corrective actions taken, any written QIP required, activities undertaken to implement a QIP, and other supporting records.

Testing

The Department and the EPA have the authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Condition 7 of the 09/18/13 permit (Condition 72 of the Title V permit) requires periodic activity tests to be conducted on the thermal catalytic oxidizer catalyst to determine the ongoing activity level in terms of percent reduction of VOC. *This periodic testing ensures the optimum performance of the TCO and is based on requirements in MACT subpart DDDD.*

Reporting

Condition 73 of the Title V permit includes semi-annual compliance reporting requirements and the requirement to report the results of any 40 CFR Part 60, Appendix A Method 9 visible emissions evaluation performed in accordance with Conditions 59 and 60 of the Title V permit.

This requirement is based on MACT Subpart DDDD.

Condition 74 of the Title V permit requires the reporting of the results of the Method 9 VEE conducted as per conditions 59 and 60.

Condition 75 of the Title V permit requires semi-annual CAM reports to be submitted with the Title V monitoring reports.

Streamlined Requirements

None

EMISSION UNIT APPLICABLE REQUIREMENTS – Facility Wide Conditions

Limitations

Condition 76 of the Title V permit requires that the source develop a maintenance schedule and an inventory of spare parts for the air pollution control equipment and process equipment which generate emissions.

Condition 77 of the Title V permit requires the permittee to have available written operating procedures for the related air pollution control equipment and provide operator training.

Condition 78 of the Title V permit requires that except where otherwise specified in this permit, the permittee shall not cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.

Condition 79 of the Title V permit requires that start-up, shutdown, and malfunction – at all times, including periods of startup, shutdown and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

Monitoring and Recordkeeping

Condition 80 of the Title V permit requires the permittee to maintain records of emission data and operating parameters to demonstrate compliance with the conditions of this permit, including maintenance records, results of opacity tests, emissions data, and performance test results.

Testing

The permit does not require source tests. The Department and EPA have the authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Condition 82 of the Title V permit requires the facility to be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.

Condition 83 of the Title V permit requires the permittee to use the appropriate method(s) in accordance with procedures approved by the DEQ if testing is conducted in addition to the monitoring specified in this permit.

Reporting

Condition 81 of the Title V permit requires that the results of any stack tests required by Condition 83 be submitted to the Piedmont Region within 45 days from the date the testing is conducted.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

87. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 2-09".

This general condition cite(s) the Article(s) that follow(s):
Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:
9 VAC 5-80-80. Application
9 VAC 5-80-140. Permit Shield
9 VAC 5-80-150. Action on Permit Applications

91. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject

to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

This general condition cites the sections that follow:

9 VAC 5-50-50 Notification, Records, and Reporting

This general condition contains a citation from the Code of Federal Regulations as follows:

40 CFR 60.13 (h). Monitoring Requirements.

95. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50 Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190 Changes to Permits.

9 VAC 5-80-260 Enforcement.

9 VAC 5-80-1100 Applicability, Permits For New and Modified Stationary Sources

9 VAC 5-80-1790 Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

9 VAC 5-80-2000 Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

107. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

9 VAC 5-80-110. Permit Content

111. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:

40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.

40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.

40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

This general condition cites the regulatory sections that follow:

9 VAC 5-60-70 Designated Emissions Standards

9 VAC 5-80-110 Permit Content

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

- 9 VAC 5-50-140 Standard for odorous emissions for new and modified sources
- 9 VAC 5-40-340 Standard for odor for existing stationary sources
- 9 VAC 5-40-350 Standard for toxic pollutants existing stationary sources
- 9 VAC 5-40-2300 Standard for odor for woodworking operations
- 9 VAC 5-40-2310 Standard for toxic pollutants for woodworking operations

FUTURE APPLICABLE REQUIREMENTS

The facility must be in compliance with the applicable requirements in 40 CFR 63 (MACT) subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, by January 31, 2016.

INAPPLICABLE REQUIREMENTS

40 CFR 60, Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units is not currently applicable. This Subpart does not apply to the wood-fired boiler (WWB) since the construction of this unit commenced before June 19, 1984, and has not been "modified" according to the NSPS definition.

Article 3 Acid Rain Operating Permits is not currently applicable. The facility is not an affected source under the Acid Rain Operating Permit Program. This subpart only applies to wood-residual and fossil fuel fired boilers with fossil fuel heat input capacities of at least 250 MMBtu/hr.

Current inapplicable requirements identified by the applicant include the following requirements applicable only in nonattainment areas (The facility is located in Greenville County which is designated attainment for all criteria pollutants.):

- 9 VAC 5-50-270 Standard for major stationary sources (nonattainment areas)
- Chapter 70 Air Pollution Episode Prevention
- 40 CFR Subpart A 52.24 Statutory Restrictions on New Sources (NSR)

The applicant also identified the following inapplicable requirements that is applicable only when the applicant requests that an emission cap be established:

- 9 VAC 5-80-100 Emission caps.

The applicant also identified the following inapplicable requirements:

40 CFR Subpart D Standard of Performance for Fossil Fuel- Fired Steam Generators for Which Construction Is Commenced After August 17, 1971 is not currently applicable. This subpart is only applicable to wood-residual and fossil fuel fired boilers with fossil fuel heat input capacities of at least 250 MMBtu/hr:

40 CFR 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This subpart is only applicable to any device with a

design maximum heat input capacity equal to or less than 100 MMBtu/hr but equal to or greater than 10 MMBtu/hr that combusts fuel and produces steam or heats water or any other heat transfer medium.

COMPLIANCE PLAN

There is no compliance plan for the permit since the inspector found the facility to be in compliance in the last air inspection dated March 5, 2013.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
CS-C2	Chip Screen Relay Cyclones	9 VAC 5-80-720 B	PM/PM-10	--
CV-1 through CV-10	Conveyors	9 VAC 5-80-720 B	PM/PM-10	--
VD2, VD3 (C4)	Vacuum Exhaust Cyclone	9 VAC 5-80-720 B	PM/PM-10	--
T #'s	Tanks	9 VAC 5-80-720 B	VOC	varies
FH	Fuel House Bark Unloading	9 VAC 5-80-720 B	PM/PM-10	--
CTB	Chip Truck Bin	9 VAC 5-80-720 B	PM/PM-10	--
UPRD	Unpaved Roads	9 VAC 5-80-720 B	PM/PM-10	--
PM	Plywood Mill	9 VAC 5-80-720 B	PM/PM-10 VOC	--

Even though the permittee listed the glue lines as insignificant sources in the application and the glue lines were not listed in the "applicable requirements" section of the application; the glue lines are not listed as insignificant sources in the permit or in the SOB since there are applicable requirements for the glue lines in the facility's existing NSR permit. According to Chapter 3, Section C.3 of the Title V Air Permit Guidance Manual dated June 15, 1999 and updated on May 23, 2013:

"The insignificant activities definitions in 9 VAC 5-80-710 and -720 do not take into account the presence or absence of applicable requirements. Thus an emission unit can be an insignificant unit but still have an applicable requirement. If, the requirement in

question is specifically applicable to the insignificant emissions unit, then the application must include the unit, and the permit must have provisions addressing it. In this case, the unit effectively loses its insignificance."

Therefore, the glue lines lose its insignificance since there are State requirement in the facility's existing NSR permit specifically applicable to the glue lines.

The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit renewal public notice will be placed in the Independent Messenger on February 16, 2014 and the public comment period will last from February 16, 2014 to March 18, 2014. EPA will conduct a concurrent review until April 2, 2014.