

Prevention of Significant Air Quality Deterioration Review

Final Determination

July 2014

Facility Name: Georgia-Pacific Wood Products LLC (Madison, GA Plywood Facility)

City: Madison

County: Morgan

AIRS Number: 04-13-211-00013

Application Number (PSD, Title V): 22349

Date Application Received: December 30, 2013

Review Conducted by:

State of Georgia-Department of Natural Resources
Environmental Protection Division - Air Protection Branch
Stationary Source Permitting Program

Prepared by:

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Modeling Approved by:

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BACKGROUND

Georgia-Pacific Wood Products LLC (Madison, GA Plywood Facility) (a.k.a. Georgia-Pacific) submitted a PSD application to increase the production capacity of the existing plywood manufacturing plant. The application was received on December 30, 2013. Georgia-Pacific updated the application on April 23, 2014. Details regarding the proposed modification are provided in the following tables:

Proposed Modification

Phase I of Project
Enclose debarker which is part of Source Group ID No. 100. <u>Remove</u> from site the existing 24-Section Veneer Dryer #1 and associated cooling vents. <u>Add new</u> 23-Section Veneer Dryer #1 and associated cooling vents. The dryer hot zones are to exhaust through the existing VOC control device with ID No. TCO. <u>Replacement</u> of dryer tubes on the 20-section dryer (ID No. 302). <u>Add new</u> glue line to Source Group ID No. 400. <u>Upgrade and automate</u> existing glue line in Source Group ID No. 400. <u>Upgrade</u> existing presses in Source Group ID No. 400. <u>Modify</u> the existing Biomass Boiler (Emission Unit ID No. 800) to handle the needed increase in steam load. <u>Upgrade</u> the combustion air system (both overfired air and under grate air) and <u>replace</u> the sander dust and natural gas burners in the existing biomass boiler (Emission Unit ID No. 800). <u>Upgrade</u> Source Group ID No. 100 as described in Application No. 21468. <u>Modify</u> dry waste transfer system (PFS) by replacing trim saw (Emission Unit ID No. 501). <u>Add</u> a backup dust collection system servicing the glue line flying saw and core saw.

Phase II of Project
The existing 20-Section Veneer Dryer #2 and associated cooling vents is to be <u>rebuilt</u> as a 10-Section Veneer Dryer #2 and associated cooling vents or replace this existing dryer with a new dryer. The dryer hot zones are to exhaust through the existing VOC control device with ID No. TCO. Georgia-Pacific may install a new 10-Section Veneer Dryer #2 and associated cooling vents instead of rebuilding the existing 20-Section Veneer Dryer #2 and associated cooling vents. <u>Add new</u> 18-Section Veneer Dryer and associated cooling vents. The dryer hot zones are to exhaust through the existing VOC control device with ID No. TCO. <u>Remove</u> from service the existing 16-Section Veneer Dryer #3 and associated cooling vents. <u>Remove</u> from service the existing 10-Section Veneer Dryer #4 and associated cooling vents. <u>Add new</u> press to Source Group ID No. 400.

Phase II of Project
<u>Modify</u> dry waste transfer system (PF2) by adding a flying saw.

On May 23, 2014, the Division issued a Preliminary Determination stating that the modifications described in Application No. 22349 should be approved. The Preliminary Determination contained a draft Air Quality permit for the construction and operation of the new and modified equipment.

The Division requested that Georgia-Pacific place a public notice in a newspaper of general circulation in the area of the existing facility notifying the public of the proposed construction and providing the opportunity for written public comment. Such public notice was placed in the *Morgan County Citizen* (legal organ for Morgan County) on June 5, 2014. The public comment period expired on July 7, 2014.

There were no comments received from the general public during the public comment period. Comments were received from Georgia-Pacific and EPA Region 4.

A copy of comments received from Georgia-Pacific and EPA Region 4 and the final permit are included as separate documents to this narrative.

REVIEW OF COMMENTS

Comments from Georgia-Pacific dated June 27, 2014:

1. Draft Condition 1.3 Process Description of Modification: Descriptions of Phase I and Phase II of the proposed modifications are presented in both the Preliminary Determination and draft permit. Georgia-Pacific is requesting revisions to these project descriptions to align with the project as it has evolved. The requested revisions do not impact emission calculations for either Phase I or Phase II.

1.3 Process Description of Modification

The Madison Plant proposes to conduct an expansion project to increase production to ~~10.6~~ 551 million square feet (MMSF) (3/8" basis) per ~~week~~ year according to the following phased construction schedule:

Phase I Project

Enclose debarker which is part of Source Group ID No. 100.

Remove from ~~site~~ service the existing 24-Section Veneer Dryer #1 and associated cooling vents.

Add new 23-Section Veneer Dryer #1 and associated cooling vents. The dryer hot zones are to exhaust through the existing VOC control device with ID No. TCO.

~~Replace dryer tubes on the 20-section dryer ID No. 302~~

Add new glue line to Source Group ID No. 400.

Upgrade and automate existing glue line in Source Group ID No. 400.

Modify the boiler (Emission Unit ID No. 800) to ~~handle the needed increase in steam load~~
operate at manufacturer rated capacity.

Upgrade the combustion air system (both overfired air and under grate air) and replace the sander dust and natural gas burners in the boiler (Emission Unit ID No. 800).

Upgrade existing presses in Source Group ID No. 400.

Modify dry waste transfer system PF2: ~~by replacing~~ replace trim saw (Emission Unit ID No. 501), and add a flying saw.

~~Add a backup dust collection system serving the glue line flying saw and core saw.~~

Upgrade Source Group ID No. 100 as described in Application No. 21468 (contemporaneous project).

Add new lathe (not an emission unit).

Phase II Project

The existing 20-Section Veneer Dryer #2 and associated cooling vents is to be rebuilt as a 10-Section Veneer Dryer #2 and associated cooling vents. The dryer hot zones are to exhaust through the existing VOC control device with ID No. TCO. Georgia-Pacific may install a new 10-Section Veneer Dryer #2 and associated cooling vents instead of rebuilding the existing 20-Section Veneer Dryer #2 and associated cooling vents.

Add new 18-Section Veneer Dryer and associated cooling vents. The dryer hot zones are to exhaust through the existing VOC control device with ID No. TCO.

Remove from service the existing 16-Section Veneer Dryer #3 and associated cooling vents ~~(allowed to run during new dryer installation and 20-section dryer rebuild/replacement).~~

Remove from service the existing 10-section Veneer Dryer #4 and associated cooling vents ~~(allowed to run during new dryer installation and 20-section dryer rebuild/replacement).~~

Add new press to Source Group ID No. 400.

~~Modify dry waste transfer system PF2 adding a flying saw.~~

Georgia EPD Response: Georgia EPD agrees to incorporate this change in Condition 1.3.

2. Preliminary Determination Tables 1-4: Listing of Emission Factor References and Conclusion of Review of PSD Applicability: Georgia-Pacific requests deletion of the phrase “*Not approved by GA EPD*” for each occurrence in Table 1-4.

In addition, Georgia-Pacific requests deletion of the following statement: “*As some of the emission factors used by Georgia-Pacific are from unapproved source testing, the net emissions increase for PM_{2.5} may exceed 10 tpy if Georgia-Pacific emission factors used in Application No. 21174 are used for the veneer dryer cooling zones and presses.*”

Georgia-Pacific did not provide any substantiation to back up their request.

Georgia EPD Response: Comment so noted.

3. Preliminary Determination-PSD Applicability Analysis: Georgia-Pacific requests the deletion of the phrase “Georgia-Pacific did not calculate the boiler CO emissions which could have been accommodated during the baseline correctly.” Georgia-Pacific did not provide any substantiation to back up their request.

Georgia EPD Response: Comment so noted.

4. Preliminary Determination Tables 1-6, 1-7, 1-9, and 1-10: These tables present the “Step 1” and “Step 2” net emissions increase for the various components of the project. The numerical values found in these tables were computed by Georgia EPD based on data supplied in Appendix B. Georgia EPD’s emission estimates do not match exactly with Georgia-Pacific’s estimates for some reason.

Georgia-Pacific requests that their numerical values be used instead of Georgia EPD’s.

Georgia EPD Response: Georgia EPD presents Georgia-Pacific’s request below as this will not change the outcome of the PSD Applicability Analysis nor the final permit.

Table 1-6: Step 1 Project Net Emissions Increase for Phase I – Revised Using Georgia-Pacific’s values									
Source ID	Description	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	VOC (tpy)	SO ₂ (tpy)	NOx (tpy)	CO (tpy)	CO ₂ e (tpy)
100	Green Wood Production	9.33 7.46	3.39 3.06	1.15 1.08	5.82	0.0	0.0	0.0	0.0
300	Veneer Dryers Hot Zones	1.95	9.97	9.97	61.92	0.02	2.13	26.18	3,480
300	Veneer Dryers Cooling Zones	4.06	4.00	3.32	21.37	0.0	0.0	13.87	0.0
400	Glue Lines and Presses	0.85	0.29	0.29	57.43	0.0	0.0	0.0	0.0
	Dry Waste Transfer System	14.106 13.73	0.86 0.81	0.54 0.60	11.86	0.0	0.0	0.0	0.0
700	Specialty Machine System	0.41 0.42	0.30 0.35	0.0 0.33	10.81	0.0	0.0	0.0	0.0
600	Sander System	1.11	0.30 0.34	0.28	14.29	0.0	0.0	0.0	0.0
800	Boiler	1.8 1.72	5.7	5.5	12.88	3.25	34.09	42.0 0.0	58,111 54,630
	Roads	0.5 0.4	0.0 0.09	0.0 0.02	0.0	0.0	0	0.0	0.0
	Ash Bins	0.05 0.04	0.02	0.00071 0.003	0.0	0.0	0	0.0	0.0
	PCWP Misc. Coatings	0.0	0.0	0.0	10.79	0.0	0.0	0.0	0.0
	Total	34.16 31.7	24.8 24.6	21.05 21.4	207.17	3.27	36.23	28.13 40.1	61,594 58,111

Table 1-6: Step 1 Project Net Emissions Increase for Phase I – Revised Using Georgia-Pacific's values									
Source ID	Description	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	VOC (tpy)	SO ₂ (tpy)	NOx (tpy)	CO (tpy)	CO _{2e} (tpy)
PSD Threshold		25	15	10	40	40	40	100	75,000
Triggers PSD?		Yes	Yes	Yes	Yes	No	No	No	No

Table 1-7: Step 1 Project Net Emissions Increase for Phase I + Phase II – Revised Using Georgia-Pacific's values									
Source ID	Description	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	VOC (tpy)	SO ₂ (tpy)	NOx (tpy)	CO (tpy)	CO _{2e} (tpy)
100	Green Wood Production	7.66	3.15	1.10	8.47	0.0	0.0	0.0	0.0
300	Veneer Dryers Hot Zones	3.09	15.78	15.78	63.54	0.02	2.19	26.85	3,993
300	Veneer Dryers Cooling Zones	7.95	7.85	6.50	21.92	0.0	0.0	14.22	0.0
400	Glue Lines and Presses	1.12 1.09	0.39 0.43	0.38 0.35	79.47 95.7	0.0	0.0	0.0	0.0
	Dry Waste Transfer System	14.18	0.912	0.67	16.64	0.0	0.0	0.0	0.0
700	Specialty Machine System	0.42	0.35	0.33	11.25	0.0	0.0	0.0	0.0
600	Sander System	1.11	0.34	0.28	14.84	0.0	0.0	0.0	0.0
800	Boiler	1.82	6.18	6.01	13.43	3.36	38.13	-41.8	59,596
	Roads	0.35	0.08	0.02	13.43 typo 0.0	0.0	0.0	0.0	0.0
	Ash Bins	0.05	0.02	0.0	0.0	0.0	0.0	0.0	0.0
	PCWP Misc. Coatings	0.0	0.0	0.0	-3.10	0.0	0.0	0.0	0.0
	Total	37.75	35.05	31.07	239.89 227.4	3.38	40.32	-0.73	63,589
PSD Threshold		25	15	10	40	40	40	100	75,000
Triggers PSD?		Yes	Yes	Yes	Yes	No	Yes	No	No

Table 1-9: Step 2 Project Net Emissions Increase for Phase I – Revised Using Georgia-Pacific's values									
Source ID	Description	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	VOC (tpy)	SO ₂ (tpy)	NOx (tpy)	CO (tpy)	CO _{2e} (tpy)
100	Green Wood Production	9.33 7.46	3.39 3.06	1.15 1.08	5.82	0.0	0.0	0.0	0.0
300	Veneer Dryers Hot Zones	1.95	9.97	9.97	61.92 61.95	0.02	2.13	26.18	3,480
300	Veneer Dryers Cooling Zones	4.06	4.00	3.32	21.37	0.0	0.0	13.87	0.0
400	Glue Lines and Presses	0.85	0.29	0.29	57.43	0.0	0.0	0.0	0.0
	Dry Waste Transfer System	14.106 13.73	0.86	0.54	11.86	0.0	0.0	0.0	0.0

Table 1-9: Step 2 Project Net Emissions Increase for Phase I – Revised Using Georgia-Pacific's values									
Source ID	Description	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	VOC (tpy)	SO ₂ (tpy)	NO _x (tpy)	CO (tpy)	CO _{2e} (tpy)
700	Specialty Machine System	0.41	0.30	0.0	10.81	0.0	0.0	0.0	0.0
600	Sander System	1.11	0.30 0.34	0.28	14.29	0.0	0.0	0.0	0.0
800	Boiler	1.8 1.72	5.7	5.5	12.88	3.25	34.09	42.0 0.0	58,111 54,630
	Roads	0.5 0.4	0.0	0.0	0.0	0.0	0	0.0	0.0
	Ash Bins	0.05 0.04	0.02	0.00071 0.003	0.0	0.0	0	0.0	0.0
	PCWP Misc. Coatings	0.0	0.0	0.0	10.79	0.0	0.0	0.0	0.0
	Total	34.16 31.7	24.8 24.6	21.05 21.4	207.17	3.27	36.23	28.13 40.1	61,591 58,111
Debarker enclosure		-6.89	-3.79	-1.31	0.0	0.0	0.0	0.0	0.0
Shutdown of Veneer Dryer #1 (24-Section)		-7.88	-11.9	-11.9 -10.74	-6.95 -19.44	0.0	0.0	0.0	0.0
Panel Oil (NOX Crete)		0.0	0.0	0.0	14.6	0.0	0.0	0.0	0.0
Removal of RF Oven		-0.05	-0.09	-0.09	-3.15	0.0	0.0	0.0	0.0
Removal of Lily Pad Chipper		-0.16	-0.08	-0.08	0.0	0.0	0.0	0.0	0.0
Rebuild of Glueline		0	0	0	-0.65	0	0	0	0
Total		19.18 16.8	8.94 8.77	7.67 9.22	211.02 198.6	3.27	36.23	28.13 40.1	61,591 58,111
PSD Threshold		25	15	10	40	40	40	100	75,000
Triggers PSD?		No	No	No	Yes	No	No	No	No

Table 1-10: Step 2 Project Net Emissions Increase for Phase I + Phase II – Revised Using Georgia-Pacific's values									
Source ID	Description	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	VOC (tpy)	SO ₂ (tpy)	NO _x (tpy)	CO (tpy)	CO _{2e} (tpy)
100	Green Wood Production	7.66	3.15	1.10	8.47	0.0	0.0	0.0	0.0
300	Veneer Dryers Hot Zones	3.09	15.78	15.78	63.54	0.02	2.19	26.85	3,993
300	Veneer Dryers Cooling Zones	7.95	7.85	6.50	21.92	0.0	0.0	14.22	0.0
400	Glue Lines and Presses	1.12 1.09	0.39 0.43	0.38 0.35	80.46 95.7	0.0	0.0	0.0	0.0
	Dry Waste Transfer System	14.18	0.912	0.67	16.64	0.0	0.0	0.0	0.0
700	Specialty Machine System	0.42	0.35	0.33	11.25	0.0	0.0	0.0	0.0
600	Sander System	1.11	0.34	0.28	14.84	0.0	0.0	0.0	0.0
800	Boiler	1.82	6.18	6.01	13.43	3.36	38.13	41.8 0.0	59,596
	Roads	0.35	0.08	0.02	0.0	0.0	0.0	0.0	0.0
	Ash Bins	0.05	0.02	0.0	0.0	0.0	0.0	0.0	0.0
	PCWP	0.0	0.0	0.0	-3.10	0.0	0.0	0.0	0.0

Table 1-10: Step 2 Project Net Emissions Increase for Phase I + Phase II – Revised Using Georgia-Pacific's values									
Source ID	Description	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	VOC (tpy)	SO ₂ (tpy)	NO _x (tpy)	CO (tpy)	CO _{2e} (tpy)
	Misc. Coatings								
	Total	37.75	35.05	31.07	227.45	3.38	40.32	-0.73 41.1	63,589
	Debarker enclosure	-6.89	-3.79	-1.31	0.0	0.0	0.0	0.0	0.0
	Shutdown of Veneer Dryer #1 (24-Section)	-7.88	-11.9	-11.9 -10.74	-6.95 -19.44	0.0	0.0	0.0	0.0
	Panel Oil (NOX Crete)	0.0	0.0	0.0	14.6	0.0	0.0	0.0	0.0
	Removal of RF Oven	-0.05	-0.09	-0.09	-3.15	0.0	0.0	0.0	0.0
	Removal of Lily Pad Chipper	-0.16	-0.08	-0.08	0.0	0.0	0.0	0.0	0.0
	Rebuild of Glueline	0	0	0	-0.65	0	0	0	0
	Shutdown of Veneer Dryers #3 and #4	-8.35	-12.6 -13.76	-11.37	-20.58	0.0	-1.46	0.0	0.0
		14.42	6.59	6.32 7.51	210.72 198.8	3.38	38.86	-0.73 41.1	63,589
	PSD Threshold	25	15	10	40	40	40	100	75,000
	Triggers PSD?	No	No	No	Yes	No	No	No	Yes

5. Preliminary Determination – Section 3.0: Georgia-Pacific requests a revision to the discussion for Georgia Rule 391-3-1-.02(2)(d). Georgia-Pacific requests that the narrative reflect “*filterable PM emissions*” as the regulated component of this state rule instead of “*total PM emissions*.” The applicant did not provide any substantiation to this request.

Georgia EPD Response: The boiler is subject to Georgia Rule 391-3-1-.02(2)(d) [Georgia Rule (d)] and this state rule regulates *particulate matter* which is defined as follows: *means any airborne, finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers*. This definition of *particulate matter* reflects both the filterable and condensable (liquid) components. Georgia EPD has, on occasion, required the determination of filterable plus condensable particulate matter from a fuel-burning device when there is cause to believe that there is a condensable component in the emitted particulate matter. In this case, Georgia EPD believes that the boiler, when fired with biomass, will emit both filterable and condensable particulate matter.

6. Preliminary Determination – Section 3.0: Georgia-Pacific requests the following revisions to the NSPS Db applicability table:

Pollutant Regulated by NSPS Db	Emissions Before Project ¹ (lb/hr)	Emissions After Project ² (lb/hr)
SO ₂	0.56 0.40	1.64
PM (assuming total assuming filterable)	0.825 25	1.49 35.5
NO _x	46.25 85	60.35 120.7

¹ Georgia EPD emissions estimated computed based on 250 MMBtu/hr maximum heat input for the boiler and applicable emission factors found in Appendix B of the application.

² Georgia EPD emissions estimated computed based on 355 MMBtu/hr maximum heat input for the boiler. NO_x emissions based on 0.17 lb/MMBtu rather than 0.34 lb/MMBtu as used by Georgia-Pacific.

$SO_2 = (0.00159 \text{ lb/MMBtu}) * (250 \text{ MMBtu/hr}) = 0.40 \text{ lb/hr}$
 $PM \text{ (before)} = (0.1 \text{ lb/MMBtu}) * (250 \text{ MMBtu/hr}) = 25 \text{ lb/hr}$
 $PM \text{ (after)} = (0.1 \text{ lb/MMBtu}) * (335 \text{ MMBtu/hr}) = 35.5 \text{ lb/hr}$
 $NOx \text{ (before)} = (0.34 \text{ lb/MMBtu}) * (250 \text{ MMBtu/hr}) = 85 \text{ lb/hr}$
 $NOx \text{ (after)} = (0.34 \text{ lb/MMBtu}) * (335 \text{ MMBtu/hr}) = 120.7 \text{ lb/hr}$

In addition, Georgia-Pacific wants the following phrase struck from the NSPS Db applicability table, “Assuming this limit for filterable PM only.”

Georgia EPD Response: Georgia EPD agrees to these changes. Neither request changes the outcome of the NSPS Db applicability determination nor the final permit.

7. Draft Condition 3.2.4.e: Georgia-Pacific requests the following revision:

- e. New Emission Unit ID No. 303 or New Dryer #3: ~~4618~~-Section dryer and associated cooling vents will be constructed and operated as part of Phase II of the project,

Georgia EPD Response: Georgia EPD agrees to this change.

8. Draft Condition 3.3.10: Georgia Pacific requests the following revision:

- 3.3.10 Approval to construct **source or modification as defined in Application No. 22349** shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Director may extend the 18-month period upon a satisfactory showing that an extension is justified. ~~This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date.~~
 [40 CFR 52.21(r)(2)]

Georgia EPD Response: Georgia EPD agrees to this change.

9. Draft Condition 4.2.2: Georgia-Pacific requests the following revision:

- 4.2.2 After completion of the modifications for Phase I of the project described by Application No. 22349, within 60 days after achieving the maximum operating rate at which the facility will be operated at, but no later than 180 days after initial startup of Phase I of the project, the Permittee shall conduct the following performance tests:

Veneer Dryers

- a. On the TCO, which control emissions from the hot zones of the Veneer Dryer (Source Group ID No. 300), to determine the destruction efficiency for VOC emissions of the TCO to verify compliance with Condition No. 3.3.19. During any test, the plant shall be operated in such a way that the dryer is operating as closely as possible to its maximum design.
 [391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]

- b. On the TCO, which control emissions from the hot zones of the Veneer Dryer (Source Group ID No. 300), to determine the VOC emissions in pounds per thousand square feet (3/8" basis). This emission factor will be used to verify compliance with Condition ~~3.3.19~~ 3.3.20.
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]
- c. On the cooling zones of New Dryer #1 (23-Section, Emission Unit ID No. 301) for filterable PM emissions.
[391-3-1-.02(6)(b)1.(i), ~~391-3-1-.02(7)(b)(15)~~, 40 CFR 70.6(a)(3)(i)]
- d. On the cooling zones of New Dryer # 1 (23-Section, Emission Unit ID No. 301) for PM₁₀ emissions.
[391-3-1-.02(6)(b)1.(i), ~~391-3-1-.02(7)(b)(15)~~, 40 CFR 70.6(a)(3)(i)]
- e. On the cooling zones of New Dryer #1 (23-Section, Emission Unit ID No. 301) for PM_{2.5} emissions.
[391-3-1-.02(6)(b)1.(i), ~~391-3-1-.02(7)(b)(15)~~, 40 CFR 70.6(a)(3)(i)]
- f. On the cooling zones of New Dryer #1 (23-Section, Emission Unit ID No. 301) for VOC emissions to verify compliance with Condition No. ~~3.3.20~~ 3.3.21.
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]

Boiler

- g. On the boiler (Emission Unit ID No. 800) for VOC emissions, as propane to verify compliance with Permit Condition No. ~~3.3.25~~ 3.3.25.a;
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21 for VOC emissions]
- h. On the boiler (Emission Unit ID No. 800) for CO emissions to verify compliance with Permit Condition No. 3.2.5.b;
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and Avoidance of 40 CFR 52.21 for CO emissions]
- i. On the boiler (Emission Unit ID No. 800) for PM emissions to verify compliance with Permit Condition Nos. 3.3.12, and 3.4.1;
[391-3-1-.02(6)(b)1.(i), ~~391-3-1-.02(7)(b)(15)~~, 40 CFR 70.6(a)(3)(i), 40 CFR 60.46b(d) for filterable PM, 391-3-1-.02(2)(d), ~~391-3-1-.02(7)(b)(15)~~, for total PM]
- j. On the boiler (Emission Unit ID No. 800) for visible emissions to verify compliance with Permit Condition Nos. 3.3.12.b and 3.4.2.
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(2)(d), 40 CFR 70.6(a)(3)(i) and 40 CFR 60.46b(d)]

Presses

- k. On the Presses (Source Group: 403) for filterable PM emissions. The test plan should establish provisions for determination of capture efficiency.
[391-3-1-.02(6)(b)1.(i), ~~391-3-1-.02(7)(b)(15)~~, 40 CFR 70.6(a)(3)(i)]

- l. On the Presses (Source Group: 403) for PM₁₀ emissions. The test plan should establish provisions for determination of capture efficiency.
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(7)(b)(15), 40 CFR 70.6(a)(3)(i)]
- m. On the Presses (Source Group: 403) for PM_{2.5} emissions. The test plan should establish provisions for determination of capture efficiency.
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i)]
- n. On the Presses for VOC emissions in lb per thousand square feet (3/8" basis). The test plan should establish provisions for determination of capture efficiency. This determined emission factor shall be used to calculate VOC emissions from the presses as described in Condition Nos. 6.2.31 and 6.2.32.
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]

Georgia EPD Response: Georgia EPD agrees to make this requested change except for the following conditions:

- 4.2.2 After completion of the modifications for Phase I of the project described by Application No. 22349, within 60 days after achieving the maximum operating rate at which the facility will be operated at, but no later than 180 days after initial startup of Phase I of the project, the Permittee shall conduct the following performance tests:

Veneer Dryers

- a. On the TCO, which control emissions from the hot zones of the Veneer Dryer (Source Group ID No. 300), to determine the destruction efficiency for VOC emissions of the TCO to verify compliance with Condition No. 3.3.19. During any test, the plant shall be operated in such a way that the dryer is operating as closely as possible to its maximum design.
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]
- ~~b. b.~~ b. On the TCO, which control emissions from the hot zones of the Veneer Dryer (Source Group ID No. 300), to determine the VOC emissions in pounds per thousand square feet (3/8" basis). ~~This emission factor will be used to verify compliance with Condition 3.3.19 3.3.20.~~
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]
- c. On the cooling zones of New Dryer #1 (23-Section, Emission Unit ID No. 301) for filterable PM emissions.
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(7)(b)(15), 40 CFR 70.6(a)(3)(i)]
- d. On the cooling zones of New Dryer # 1 (23-Section, Emission Unit ID No. 301) for PM₁₀ emissions.
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(7)(b)(15), 40 CFR 70.6(a)(3)(i)]
- e. On the cooling zones of New Dryer #1 (23-Section, Emission Unit ID No. 301) for PM_{2.5} emissions.
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(7)(b)(15), 40 CFR 70.6(a)(3)(i)]

- g. On the cooling zones of New Dryer #1 (23-Section, Emission Unit ID No. 301) for VOC emissions. ~~to verify compliance with Condition No. 3.3.20 3.3.21.~~
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]

Boiler

- h. On the boiler (Emission Unit ID No. 800) for VOC emissions, as propane. ~~to verify compliance with Permit Condition No. 3.3.25 3.3.25.a.~~
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21 for VOC emissions]
- i. On the boiler (Emission Unit ID No. 800) for CO emissions. ~~to verify compliance with Permit Condition No. 3.2.5.b.~~
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and Avoidance of 40 CFR 52.21 for CO emissions]
- j. On the boiler (Emission Unit ID No. 800) for PM emissions. ~~to verify compliance with Permit Condition Nos. 3.3.12, and 3.4.1;~~
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(7)(b)(15), 40 CFR 70.6(a)(3)(i), 40 CFR 60.46b(d) for filterable PM, 391-3-1-.02(2)(d), 391-3-1-.02(7)(b)(15), for total PM]
- k. On the boiler (Emission Unit ID No. 800) for visible emissions. ~~to verify compliance with Permit Condition Nos. 3.3.12.b and 3.4.2.~~
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(2)(d), 40 CFR 70.6(a)(3)(i) and 40 CFR 60.46b(d)]

Presses

- l. On the Presses (Source Group: 403) for filterable PM emissions. The test plan should establish provisions for determination of capture efficiency.
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(7)(b)(15), 40 CFR 70.6(a)(3)(i)]
- m. On the Presses (Source Group: 403) for PM₁₀ emissions. The test plan should establish provisions for determination of capture efficiency.
[391-3-1-.02(6)(b)1.(i), 391-3-1-.02(7)(b)(15), 40 CFR 70.6(a)(3)(i)]
- n. On the Presses (Source Group: 403) for PM_{2.5} emissions. The test plan should establish provisions for determination of capture efficiency.
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i)]
- ~~o.~~ o. On the Presses for VOC emissions in lb per thousand square feet (3/8" basis). The test plan should establish provisions for determination of capture efficiency. ~~This determined emission factor shall be used to calculate VOC emissions from the presses as described in Condition Nos. 6.2.31 and 6.2.32.~~
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and 40 CFR 52.21]

10. Draft Condition Nos. 4.2.3 and 4.2.12: Georgia-Pacific requests revision to draft condition 4.2.3 to be consistent with draft condition 4.2.12.

- 4.2.3 Should the dryer production rate or the steam production rate increase by ten(10) percent or more on a ~~90~~ 180 day average basis above the rate at which the acceptable performance test was carried out, as required by Condition No. 4.2.2,

the Permittee shall conduct all of the performance tests required by Condition No. 4.2.2 within 180 days.

[391-3-1-.02(6)(b)1.(i) and 40 CFR 70.6(a)(3)(i)]

Next, Georgia-Pacific requests deletion of Condition 4.2.12 because this condition is already included as draft Condition 4.2.3.

~~4.2.12 — Should the 180-day average dryer production rate or the steam production rate increase by ten (10) percent or more above the rate at which the acceptable performance test was carried out, as required by Condition No. 4.2.11, the Permittee shall conduct all of the performance tests required by Condition No. 4.2.11 for all equipment that exceeded the 10% threshold.
[391-3-1-.02(6)(b)1.(i) and 40 CFR 70.6(a)(3)(i)]~~

Georgia EPD Response: Condition 4.2.12 applies to the facility upon completion of Phase II and initial testing required by Condition 4.2.11. Condition 4.2.12 mimics Condition 4.2.3 for the facility upon completion of Phase II. Condition 4.2.3 is not revised. Condition 4.2.12 is revised as follows:

4.2.12 ~~Should the 180-day average~~ dryer production rate or the steam production rate increase by ten (10) percent or more on a 90 day average basis above the rate at which the acceptable performance test was carried out, as required by Condition No. 4.2.11, the Permittee shall conduct all of the performance tests required by Condition No. 4.2.11 and the tests required for Dryer #1 in Condition 4.2.1 within 180 days.
[391-3-1-.02(6)(b)1.(i) and 40 CFR 70.6(a)(3)(i)]

11. Draft Condition Nos. 4.2.14, 5.2.1.b, 5.2.1.c., 6.2.35 The current draft NOx PSD Avoidance conditions require the facility to install and operate a continuous emission monitoring system (CEMS). This compliance method is consistent with recently permitted biomass boilers subject to a NOx emissions avoidance limit.

Georgia-Pacific requests they not be required to install a NOx CEMS unless an SNCR is installed. Georgia-Pacific proposes to ensure compliance with the 161.9 tpy NOx Avoidance limit using a CEMS and a conservative Method 19 f-factor if an SNCR system is installed, or using the most recent stack test result and monitored fuel usage if an SNCR system is not installed.

Georgia-Pacific requests the following permit revisions

4.2.14 Within 180 days after initial startup of the modified boiler (Emission Unit ID No. 800), if a NOx CEMS is installed, the Permittee shall conduct performance evaluations of the continuous emissions monitoring systems (CEMS) required by Condition No. 5.2.1.b. The NOx CEMS required by Condition No. 5.2.1.b shall be used for determining compliance with Condition No. 3.2.8.a.
[391-3-1-.02(6)(b)1.(i) and 40 CFR 70.6(a)(3)(i)]

- 5.2.1.b ~~If an SNCR is required, The the~~ Permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for the measurement of nitrogen oxides (NOx) emissions from the boiler (Emission Unit ID No. 800). The NOx emission rate shall be recorded in pounds per million Btu heat input. The CEMS will be part of the official compliance determination method for NOx emissions from the boiler.
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i)]
- 5.2.1.c ~~If a NOx CEMS is installed, The the~~ Permittee shall, using the procedures of Appendix F, Procedure 1 (Quality Assurance Requirements for Gas Continuous Emissions Monitoring Systems Used for Compliance Determination) contained in the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**, assess the quality and accuracy of the data acquired by the CEMS required by Condition 5.2.1.b.
- 6.2.35 ~~If a NOx CEMS is installed, The the~~ Permittee shall use the data from the **NOx CEMS required by Condition No. 5.2.1.b**, to determine and record the monthly mass emission rate, in tons per month, of NOx emissions from the boiler (Emission Unit ID No. 800). These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21 Avoidance for NOx Emissions, 391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]

Georgia EPD Response: Georgia EPD agrees to the request that a NOx CEMS be installed only if an SNCR is installed to control NOx emissions from the boiler. Georgia EPD agrees to the requested changes for Draft Condition Nos. 4.2.14 and, 5.2.1.b, 5.2.1.c.

New Condition No. 4.2.2.k is added in order to require initial performance testing for NOx emissions from the boiler (Emission Unit ID No. 800). The latter portions of Condition No. 4.2.2 are renumbered accordingly.

4.2.2.k. On the boiler (Emission Unit ID No. 800) for NOx emissions in pounds per million Btu.
[391-3-1-.02(6)(b)1.(i), 40 CFR 70.6(a)(3)(i), and Avoidance of 40 CFR 52.21 for NOx emissions]

New Condition No. 4.2.16 is added:

4.2.16 The Permittee shall conduct a Nitrogen Oxides (NOx) performance test on the boiler (Emission Unit ID No. 800) at approximately 24-month intervals not to exceed 25 months between tests. The 24-month clock begins upon successful completion of the source test required by Condition No. 4.2.2.k. This test will be used to determine the NOx emission factor to be used in the monthly computation of NOx emissions used in Condition No. 6.2.35. This condition becomes null and void upon the effective date of Condition Nos. 5.2.1.b and 5.2.1.c.
[Avoidance of 40 CFR 52.21 for NOx emissions, 391-3-1-.02(6)(b)1.(i), and 40 CFR 70.6(a)(3)(i)]

Draft Condition No. 6.2.35 is modified as follows:

~~6.2.35 The Permittee shall use the data from the CEMS required by Condition No. 5.2.1.b, to determine and record the monthly mass emission rate, in tons per~~

~~month, of NOx emissions from the boiler (Emission Unit ID No. 800). These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.~~

~~[40 CFR 52.21 Avoidance for NOx Emissions, 391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]~~

6.2.35 The Permittee shall use the NOx emissions data (lb/MMBtu) from the testing required by Condition No. 4.2.2.k or Condition No. 4.2.16, whichever is applicable, and the fuel usage records required by Condition No. 5.2.3.c, to determine and record the monthly mass emission rate, in tons per month, of NOx emissions from the boiler (Emission Unit ID No. 800). These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal. This condition becomes null and void upon the effective date of Condition Nos. 5.2.1.b and 5.2.1.c.
[40 CFR 52.21 Avoidance for NOx Emissions, 391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]

Draft Condition No. 6.2.36 is modified as follows:

~~6.2.36 The Permittee shall use the records required by Condition No. 6.2.35 to determine and record the twelve consecutive month total NOx emissions (in tons) from the boiler with Emission Unit ID No. 800. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.~~
~~[40 CFR 52.21 Avoidance for NOx Emissions, 391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]~~

6.2.36 The Permittee shall use the data from the CEMS required by Condition No. 5.2.1.b, and the fuel usage records required by Condition No. 5.2.3.c to determine and record the monthly mass emission rate, in tons per month, of NOx emissions from the boiler (Emission Unit ID No. 800). These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal. This condition becomes effective on the date that Condition Nos. 5.2.1.b and 5.2.1.c become effective.
[40 CFR 52.21 Avoidance for NOx Emissions, 391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]

12. Draft Condition 4.2.15: Georgia-Pacific requests a revision to this draft condition as noted below:

4.2.15 The Permittee shall determine the heat content of the green and dry wood residual, on a combined basis, (Fuel F factor) during the initial performance test of the modified boiler (Emission Unit ID No. 800) and ~~annually thereafter~~ each subsequent boiler test. The heat content (Fuel F factor) shall also be redetermined if there is a change in fuels for the boiler (Source Code: 800).
[391-3-1-.02(6)(b)1.(i) and 40 CFR 70.6(a)(3)(i)]

Georgia EPD Response: The language for Condition 4.2.15 was taken from recently issued permit for biomass boilers. Nonetheless Georgia EPD agrees to the requested change.

13. Draft Condition Nos. 5.2.3.c and 6.2.37: Georgia-Pacific requests a revision to this draft condition as noted below:

5.2.3.c The amount and type of fuel combusted in the boiler (Source Code: 800). The Permittee shall submit for the Division's review and approval the procedure proposed to monitor fuel usage within 60 days of the issuance of this Permit. The Permittee shall monitor and record the amount of fuel including fuel type combusted ~~daily~~ monthly.

6.2.37 The Permittee shall record and maintain records of the amounts of fuel combusted during each ~~day~~ month for the boiler (Emission Unit ID No. 800) and calculate the annual capacity factor. The annual capacity factor is determined on a twelve-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Records of the calculations shall be maintained in a form suitable for inspection by, or submittal, to the Division.
[40 CFR 60.41b(a) and 40 CFR 60.49b(d)(1)]

Georgia EPD Response: Georgia EPD agrees to the requested change. Note that Draft Condition No. 6.2.37 is now Final Condition No. 6.2.38.

14. Draft Condition 6.2.24: Georgia-Pacific requests a revision to this draft condition as noted below:

6.2.24 The Permittee shall maintain records of all VOC containing ~~products~~ glue used in the Glue Lines (Source Group ID No. 400) which specifies the percent VOC by weight of each VOC containing ~~product~~ glue.
[391-3-1-.02(6)(b)1. and 40 CFR 70.6(a)(3)(i)]

Georgia EPD Response: Georgia EPD agrees to the requested change.

15. Draft Condition 6.2.43.b: Georgia-Pacific requests a revision to this draft condition as noted below:

b. The tested emission rate for PM₁₀ from the presses (Source Group ID No. 400) is greater than ~~0.0038~~ 0.0040 lb/Msf (3/8" basis).

Georgia EPD Response: Georgia EPD agrees to the requested change.

16. Draft Condition 6.2.44.b: Georgia-Pacific requests a revision to this draft condition as noted below:

b. The tested emission rate for ~~PM₁₀~~ PM_{2.5} from the presses (Source Group ID No. 400) is greater than 0.0027 lb/Msf (3/8" basis).

Georgia EPD Response: Georgia EPD agrees to the requested change. Note the Final Condition No. is 6.2.45.

Comments from EPA Region 4 dated July 7, 2014:

1. EPA Region 4 Comment – Draft Condition 3.2.5.e: This Condition establishes a PSD avoidance limit of 161.9 tons per year (TPY) of nitrogen oxides (NO_x) from the boiler. The permit should also contain a condition to ensure that the boiler will be in compliance with the PSD avoidance conditions at all times. Therefore, the EPA recommends that an hourly or heat-input based permit limitation be included in the permit and this condition be identified as a PSD avoidance condition.

Georgia EPD Response: New Condition No. 6.2.51 has been added to increase the frequency of the compliance determination.

2. Draft Title V permit amendment Condition Nos. 3.3.20, 3.3.21 and 3.3.23 establish BACT limitations in TPY for VOC. The permit should also contain conditions to ensure that the facility will be in compliance with BACT limits at all times. Therefore, the EPA recommends that an hourly or heat input based permit limitation be included in the permit to accompany each of the BACT conditions listed above.

The applicant updated the VOC BACT discussion as it relates to “startup, shutdown, and malfunction” in a submittal to Georgia EPD on July 11, 2014. The following dialogue represents the application update.

Startup Shutdown Malfunction (SSM) and BACT. The 1990 NSR Manual outlines the “top-down” five step process for BACT. As outlined in the original permit application, these five steps were followed for all sources. For the reasons explained below, a specific, separate BACT limit was not established to apply during periods of SSM. This is consistent with the NSR manual guidance (p. B.2) for emissions that cannot be calculated.

In addition, if the reviewing authority determines that there is no economically reasonable or technologically feasible way to accurately measure the emissions, and hence to impose an enforceable emissions standard, it may require the source to use design, alternative equipment, work practices or operational standards to reduce emissions of the pollutant to the maximum extent.

Because SSM events are of short duration and/or may be unplanned, particularly in the case of malfunction events, it is not feasible to test or quantify the emissions during these events³. In lieu of short term emission limits, work practice standards are proposed as BACT for the dryers and boiler for periods of SSM. The proposed work practice standards are to follow the SSM procedures developed to minimize emissions from the dryers and boiler during these periods. Specific details for the dryer and boiler VOC emissions during SSM events are discussed below. In addition, the proposed work practice standards for the dryers and boilers follow the PCWP MACT and Boiler MACT standards. Per the NSR Manual, the minimum standard for BACT is the NSPS and/or NESHAP.⁴

Dryer SSM emissions. The VOC emissions from the hot zones of the dryers are controlled by an RTO/RCO as required under the PCWP MACT regulation. The RTO/RCO is interlocked with the dryers and if the RCO is not operating, veneer is not fed to the dryer. During most malfunction events, hot zone emissions remain routed to the RTO/RCO. When the nature of the malfunction requires abort from the RTO/RCO, excess emissions typically last less than 10 minutes. Based on the limited number of such

³ EPA agreed with this assertion in the final Boiler MACT rule at 76 Fed Reg 15613.

⁴ The NSR Manual only refers to Part 60 and Part 61 as the Part 63 rules were not yet in place. See NSR Manual at p. B.2. It is assumed it would also apply to part 63.

events expected to occur and the cumulative periods of potential excess emissions associated with them, the total amount and duration of any excess emissions related to SSM events is expected to be a small fraction of total operating time as has been routinely demonstrated by the facility in its prior PCWP MACT semiannual compliance reports submitted to both EPD and EPA (on the order of 0.03% of operating time based on 2012 and 2013 reports). In addition, as part of the PCWP MACT, a startup shutdown malfunction plan is required to be developed to *“to minimize emissions ... from the affected sources to the greatest extent which is consistent with safety and good air pollution control practices.”*⁵ GP currently operates under their PCWP MACT SSM plan which minimizes the emissions during SSM events by assuring the RTO/RTO is operational and up to normal operating temperature before starting the dryer and discontinuing the feed of veneer when a dryer aborts, through interlocks. Further, as the best available control technology for the dryers is the RTO/RCO as described previously, the most effective method of minimizing emissions is to minimize the time that the dryer operates without the RCO. Based on a review of the RBLC, there are no separate BACT limits for any other similarly-situated facility that cover SSM periods for plywood dryers.

Boiler SSM emissions. During the startup and shutdown of the boiler, complete combustion may not be achieved as the boiler warms up and cools down. Although there is a theoretical potential for greater emissions during these times on a lb/MMBtu basis, due to scaled back fuel use, it is unlikely that the hourly emissions rate (lb/hr) for VOCs will increase during these periods; in fact we expect it to decrease. However, neither the facility nor the vendor has quantified these emissions, nor is it feasible to perform stack testing during the short-duration start up, shutdown, or malfunction events. The typical boiler startup may last up to seven hours and the typical shutdown may take four hours; it is expected that the total annual number of startups and shutdowns would be minimal, on the order of five or fewer.

A critical provision of the Boiler MACT is a work practice requirement to start up the boiler on “clean fuels”. GP Madison is planning to comply with this requirement by firing natural gas or propane. The VOC emissions from natural gas and propane combustion are significantly lower than wood which is the primary fuel. In addition, natural gas and propane combustion achieve stability and better combustion much more rapidly than solid fuels. Therefore, emissions during startup will be minimized through the firing of clean fuels due to inherently lower emitting fuels as well as better combustion properties.

Shutdown is achieved basically by pulling solid fuel from the boiler on an orderly basis but as quickly as possible. We have no reason to expect greater VOC emissions during shutdown sequences than those during normal operations, but in any case, based on the limited number and duration of shutdown events, the total amount of any such potential increases is minimal.

Although not strictly required by the Boiler MACT rule, GP Madison will also develop an SSM operating procedure to implement work practices to minimize the duration of SSM events. The SSM procedures will include mechanisms to limit emissions and return to good combustion conditions during SSM events. Good combustion practices were determined to be BACT for the normal operation of the boiler.

Although some recent biomass boilers have explicit permit requirements and limitations for SSM events, these limitations are solely related to control devices such as an ESP for particulate matter control or an SNCR for NOX control.⁶ These control devices require time to become fully functional. As there are no add-on controls for VOC, there is not a time period during which the VOC emissions are uncontrolled.

⁵ 40 CFR 63.2250 of PCWP rule; 40 CFR 63.6(e)(1)(i), MACT General Provisions

⁶ For example, January 2, 2013, Klausner Holdings Permit, http://www.scdhec.gov/Environment/docs/PermittingDecisions/Klausner/Klausner_Permits.pdf

Based on the information above, good combustion practices with a work standard of firing clean fuels upon startup and development of an SSM procedure to minimize SSM events is proposed as BACT. Separate alternative emission limits to apply during SSM periods are deemed to be infeasible for the reasons given above.

Georgia EPD Response:

Veneer Dryer Hot Zones: The short-term limit for Condition 3.3.20 is specified in Condition Nos. 3.3.18 and 3.3.19. New Condition No. 3.3.21 is added to address minimization of VOC emissions occurring during periods of startup, shutdown, and malfunction for the veneer dryer hot zones. New Condition No. 3.3.21 is a VOC BACT work practice standard. New Condition 6.2.46 is added to increase the compliance frequency for Condition No. 3.3.20.

Veneer Dryer Cooling Zones: Georgia-Pacific proposed a short-term VOC BACT limit of 0.080 lb/MSF (3/8" basis) on page 5-10 of their application. This short-term limit is more stringent than any RBLC determination for veneer dryer cooling zones. Georgia EPD accepts 0.080 lb/MSF (3/8" basis) as the short-term VOC BACT limit. New Condition No. 3.3.22a specifies the short-term VOC BACT for the Veneer Dryer cooling zones. This emissions unit operates uncontrolled and the short-term VOC BACT limit applies during startup, shutdown, and malfunction. New Condition 6.2.47 is added to increase the compliance frequency for Condition No. 3.3.22.b.

Presses: Georgia-Pacific proposed a short-term VOC BACT limit of 0.88 lb/MSF (3/8" basis) on page 5-14 of their application. This short-term limit compares well with RBLC entries for softwood plywood presses. Georgia EPD accepts 0.88 lb/MSF (3/8" basis) as the short-term VOC BACT limit. New Condition Nos. 3.3.23.a and 3.3.24.a specify the short-term VOC BACT for the plywood presses. This emissions unit operates uncontrolled and the short-term VOC BACT limit applies during startup, shutdown, and malfunction. New Condition Nos. 6.2.48 and 6.2.49 are added to increase the compliance frequency for Condition Nos. 3.3.23.b and 3.3.24.b.

3. Draft Title V permit amendment Condition 3.3.25.a establishes a BACT limit for VOC of 0.023 pounds per million BTU heat input (as propane) excluding periods of start-up and shutdown. The permit should contain conditions to ensure that the facility will be in compliance with BACT limits during periods of start-up and shutdown. However, the final permit could also establish alternative BACT limits that are appropriate for these operating scenarios.

Georgia EPD Response: New Condition Nos. 3.3.27 and 6.2.52 address minimization of VOC emissions occurring during periods of SSM for the boiler. New Condition Nos. 3.3.27 and 6.2.52 represent VOC BACT as a work practice standard.

Comparison of Draft and Final Permits for Permit No. 2436-211-0013-V-03-1:

Draft Condition No.	Final Condition No.	Comments
1.3	1.3	Revised
3.1	3.1	Revised
3.2.2	3.2.2	No change
3.2.3	3.2.3	No change
3.2.4	3.2.4	Revised
3.2.5	3.2.5	No change
3.2.6	3.2.6	Revised
3.3.1	3.3.1	No change
3.3.9	3.3.9	No change
3.3.10	3.3.10	Revised
3.3.11	3.3.11	No change
3.3.12	3.3.12	No change
3.3.13	3.3.13	No change
3.3.14	3.3.14	No change
3.3.15	3.3.15	No change
3.3.16	3.3.16	No change
3.3.17	3.3.17	No change
3.3.18	3.3.18	No change
3.3.19	3.3.19	No change
3.3.20	3.3.20	No change
3.3.21	3.3.22.b	No change
NA	3.3.21	SSM BACT for VOC emissions from Veneer Dryer Hot Zones
NA	3.3.22.a	Short-term VOC BACT limit for Veneer Dryer Cooling Zones
NA	3.3.23.a	Short-term VOC BACT limit for Presses
3.3.22	3.3.23.b	No change
3.3.23	3.3.24.b	No change
NA	3.3.24.a	Short-Term VOC BACT for Presses
3.3.24	3.3.25	No change
3.3.25.a	3.3.26.a	No change
3.3.25.b	3.3.26.b	No change
NA	3.3.27	VOC BACT for periods of SSM
4.1.3	4.1.3	No change
4.1.4	4.1.4	No change
4.2.1	4.2.1	No change
4.2.2.a	4.2.2.a	No change
4.2.2.b	4.2.2.b	Revised
4.2.2.c	4.2.2.c	Legal authority revised
4.2.2.d	4.2.2.d	Legal authority revised
4.2.2.e	4.2.2.e	Legal authority revised
4.2.2.f	4.2.2.f	Revised
4.2.2.g	4.2.2.g	Revised
4.2.2.h	4.2.2.h	Revised

Draft Condition No.	Final Condition No.	Comments
4.2.2.i	4.2.2.i	Revised
4.2.2.j	4.2.2.j	Revised
4.2.2.k	4.2.2.l	No change
NA	4.2.2.k	Testing NOx emissions from boiler
4.2.2.l	4.2.2.m	No change
4.2.2.m	NA	Typo in formatting
4.2.2.n	4.2.2.n	No change
4.2.2.o	4.2.2.o	Revised
4.2.3	4.2.3	No change
4.2.11.a	4.2.11.a	No change
4.2.11.b	4.2.11.b	Revised
4.2.11.c	4.2.11.c	No change
4.2.11.d	4.2.11.d	No change
4.2.11.e	4.2.11.e	No change
4.2.11.f	4.2.11.f	Revised
4.2.11.g	4.2.11.g	No change
4.2.11.h	4.2.11.h	No change
4.2.11.i	4.2.11.i	No change
4.2.11.j	4.2.11.j	Revised
4.2.11p	4.2.11.k	Condition No. corrected
4.2.11.q	4.2.11.q	Condition No. corrected
4.2.11.r	4.2.11.m	Condition No. corrected
4.2.11.s	4.2.11n	Condition No. corrected
4.2.12	4.2.12	Revised
4.2.13	4.2.13	Revised
4.2.14	4.2.14	Revised
4.2.15	4.2.15	Revised
NA	4.2.16	New Condition for boiler and NOx emissions
5.2.1.a	5.2.1.a	No change
5.2.1.b	5.2.1.b	Revised
5.2.1.c	5.2.1.c	Revised
5.2.3.c	5.2.3.c	Revised
6.1.7.a.i	6.1.7.a.i	No change
6.1.7.b.ii	6.1.7.b.ii	No change
6.1.7.b.iii	6.1.7.b.iii	No change
6.1.7.b.iv	6.1.7.b.iv	No change
6.1.7.b.v	6.1.7.b.v	No change
6.1.7.b.vi	6.1.7.b.vi	No change
6.1.7.b.vii	6.1.7.b.vii	No change
6.1.7.b.viii	6.1.7.b.viii	No change
6.1.7.d.i	6.1.7.d.i	No change
6.1.7.d.ii	6.1.7.d.ii	No change
6.1.7.d.iii	6.1.7.d.iii	No change
6.1.7.d.iv	6.1.7.d.iv	No change
6.1.7.d.v	6.1.7.d.v	No change
6.1.7.d.vi	6.1.7.d.vi	No change

Draft Condition No.	Final Condition No.	Comments
6.1.7.d.vii	6.1.7.d.vii	No change
6.2.23.a	6.2.23	No change
6.2.24	6.2.24	Revised
6.2.25	6.2.25	No change
6.2.26	6.2.26	No change
6.2.27	6.2.27	No change
6.2.28	6.2.28	No change
6.2.29	6.2.29	No change
6.2.30	6.2.30	No change
6.2.31	6.2.31	No change
6.2.32	6.2.32	No change
6.2.33	6.2.33	No change
6.2.34	6.2.34	No change
NA	6.2.35	New Condition
6.2.35	6.2.36	Revised
6.2.36	6.2.37	No change
6.2.37	6.2.38	Revised
6.2.38	6.2.39	No change
6.2.39	6.2.40	No change
6.2.40	6.2.41	No change
6.2.41	6.2.42	No change
6.2.42	6.2.43	No change
6.2.43	6.2.44	No change
6.2.44	6.2.45	Revised
NA	6.2.46	New Condition
NA	6.2.47	New Condition
NA	6.2.48	New Condition
NA	6.2.49	New Condition
NA	6.2.50	New Condition
NA	6.2.51	New Condition
NA	6.2.52	New Condition
7.14.1	7.14.1	Revised
7.14.2	7.14.2	Revised
7.14.3	7.14.3	Revised
7.14.4	NA	Not included in final permit