



July 23, 2020

Mr. Jaricus Whitlock, P.E.
Air II Branch Manager
Environmental Permits Division
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225-2261

Dear Mr. Whitlock:

Subject: PSD Construction Permit Application
Vicksburg Forest Products LLC, Waltersville Lumber Mill
Air Facility No. 2780-00004
AI No. 1536
Vicksburg, Warren County, Mississippi

Vicksburg Forest Products, LLC is submitting the attached application request to construct two continuous dual path steam heated kilns (DPKs) and add a small log sawmill line at the facility. Steam will be supplied to the new DPKs with the existing boiler and no additional steam capacity is being added.

The projected emissions increase for the project has been evaluated and it has been determined that the increase in VOC emissions will exceed the PSD significant emission rates. A PSD review for VOC only has been documented in the application. The facility is also requesting limits on PM/PM₁₀/PM_{2.5} to remain below the PSD significant emission rate.

Your consideration in this matter is greatly appreciated. If you have any questions or comments, please contact Mr. Chris Barnett at 601-429-6443 or Mr. Bruce Ferguson of FC&E Engineering at 601-824-1860.

Regards,

William J Van Devender, Jr.
Assistant Manager
Vicksburg Forest Products, LLC

Enclosure(s): 3-copies of PSD Air Construction Permit Application
Electronic Copy on USB Drive
Secretary of State Letter of Good Standing



Michael Watson

SECRETARY OF STATE

This is not an official certificate of good standing.

Name History

Name	Name Type
Vicksburg Forest Products, LLC	Legal

Business Information

Business Type:	Limited Liability Company
Business ID:	1141421
Status:	Good Standing
Effective Date:	03/12/2018
State of Incorporation:	Mississippi
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Application for a Prevention of Significant Deterioration (PSD) Air Construction Permit

Vicksburg Forest Products

1725 North Washington Street
Vicksburg, Mississippi



July 17, 2020

Prepared by:

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Contents

1.0	Introduction	1
1.1	Purpose	1
1.2	Technical Conclusions	1
1.3	Permit Request	2
1.4	Permitting History	2
2.0	Site and Project Description.....	3
2.1	Sawmill and Planer Mill.....	3
2.2	Lumber Treatment Station.....	3
2.3	Dry Kilns	3
2.4	Miscellaneous Coatings.....	4
2.5	Boiler Area.....	4
3.0	PSD Applicability Analysis	5
3.1	Significant Emissions Increase	5
3.2	Baseline Period Selection.....	7
3.3	Baseline Emissions	7
3.3.1	Planer Mill Baghouse (AA-001)	7
3.3.2	Wood Fired Boiler (AA-002).....	7
3.3.3	Sawmill (AA-006).....	8
3.3.4	Road Emissions (AA-007)	8
3.3.5	Lumber Treatment (AA-009) and End Coating (AA-010)	8
3.3.6	Truck Loadout (AA-013)	8
3.4	Future Emissions	9
3.4.1	Steam Heated Dual Path Kilns (DPK-1, DPK-2).....	9
3.4.2	Planer Mill Cyclone (AA-001)	9
3.4.3	Wood Fired Boiler (AA-002)	9
3.4.4	Sawmill (AA-006).....	10
3.4.5	Road Emissions (AA-007)	10
3.4.6	Truck Loadout (AA-013)	11
4.0	Regulatory Applicability	12
4.1	Federal Air Quality Regulations	12

4.1.1	Applicable Regulations.....	12
4.2	Mississippi Air Quality Regulations	14
4.2.1	Applicable Federally Enforceable State Regulations.....	15
4.2.2	State Only Regulations	15
5.0	Best Available Control Technology Analysis	17
5.1	Introduction	17
5.2	Kiln Exhaust Characteristics	17
5.3	Top-Down BACT Approach.....	17
5.3.1	Control Technologies	18
5.3.2	Control Technologies Eliminated Based on Feasibility	20
5.4	Evaluation of Control Options.....	22
6.0	Source Impact Analysis	23
6.1	Existing Air Quality	23
6.2	Air Quality Monitoring Requirements.....	23
6.3	Dispersion Modeling	23
6.4	Vegetation and Soils Impact	24
6.5	Associated Growth.....	24
6.6	Class I Impact	24
7.0	Proposed Emissions Limits and Permit Conditions.....	25
7.1	Steam-heated Dual Path Kilns (DPK-1 & DPK-2)	25
7.2	Wood-fired Boiler (AA-001)	25
7.2.1	Source Obligation 52.21(r)(6).....	25
7.2.2	Information Requirements	26

Figures

Figure 1 - Site Layout

Figure 2 - Facility Location

Figure 3 - Process Flow

Figure 4 - VOC Emissions in Warren County by Sector, 2014 National Emissions Inventory

Figure 5 - VOC Emissions in Hinds County by Sector, 2014 National Emissions Inventory

Tables

Table 1 – Project Emissions Increase

Table 2 – Emissions Increase by Emission Unit

Appendices

Appendix A - Mississippi Consolidated Air Application

Appendix B - Emissions Calculations

Appendix C - Emission Factor Reference

Appendix D - Baseline Emissions Reference

Appendix E - RBLC Report

1.0 Introduction

1.1 Purpose

Vicksburg Forest Products is proposing to install two steam-heated dual path kilns (DPKs). The existing boiler will be used to supply the steam to the new DPKs. The DPKs will have a nominal maximum capacity of 82.06 MMBF/yr each. This nominal maximum capacity was used in the analysis, although at the targeted product mix, the kilns will have a capacity of approximately 76 MMBF/yr each.

In addition to the installation of DPKs, the facility is proposing to install a small log sawmill. The modification will include a tandem ring debarker in the stem/log merchandiser which will feed to the existing headrig operation and the new small log sawmill. The existing debarker will be retained for oversized logs. The planer shavings pneumatic transfer system will be modified to remove the baghouse and cyclone which currently transfer to the boiler fuel silo. A new cyclone will be installed to transfer the planer shavings to a truck bin prior to shipment off-site for use by others. The facility will no longer retain the ability to produce hardwood products and will remove the end coating and lumber dip stations. Proposed changes are summarized in the following table:

EP No.	Description	Added	Removed	Modified
DPK-1	Steam heated dual path kiln	X		
DPK-2	Steam heated dual path kiln	X		
AA-001	Pneumatic wood residual handling system serving the planer mill			X
AA-002	94.8 MMBtu/hr wood-fired boiler			X ¹
AA-006	Sawmill operations			X
AA-009	Lumber chemical treatment station		X	
AA-010	Miscellaneous coating operations		X	
AA-100	Facility wide			X

The facility haul roads (AA-007) and truck loadout operations (AA-013) were determined to be affected by the proposed changes. These affected units were included in the permitting analysis. The existing batch kilns (AK-001 through AK-028) are unaffected by the proposed changes.

1.2 Technical Conclusions

The following is a summary of the technical and regulatory conclusions that constitute this permit application:

- The facility is currently an area source for Hazardous Air Pollutants and will become a major source after the modification. The facility will become subject to the Major Source Boiler MACT (40 CFR Part 63 Subpart DDDDD) and the PCWP MACT (40 CFR Part 63 Subpart DDDD) and will no longer be subject to the Area Source Boiler MACT (40 CFR Part 63 Subpart JJJJJ).

¹ There is no physical modification of the boiler. The facility is requesting a revision to the PM emission limits

- The facility is currently a PSD major source and PSD review is required for emissions increases exceeding the PSD significant emission rates. PSD review will be required for volatile organic compounds (VOC). The facility is requesting PSD avoidance limits on the boiler to avoid PSD review for PM/PM₁₀/PM_{2.5}.
- Compliance with the Major Source Boiler MACT may require additional controls for PM which would result in future emissions decreases for PM/PM₁₀/PM_{2.5}. Compliance with the Major Source Boiler MACT is not required until 3 years after becoming a major source, which is outside of the netting contemporaneous period and would not qualify for netting purposes.
- The HAP major source avoidance limit on facility wide emissions (AA-100) will need to be removed from the permit.

1.3 Permit Request

Vicksburg Forest Products LLC currently operates under Title V Permit No. 2780-00004, which was issued May 11, 2020, and expires April 30, 2025. The facility is requesting a permit to construct under MS Title 11, Part 2, Chapter 2 and Chapter 5..

The following is included in this application for permit Review:

- Mississippi Consolidated Air Application (Appendix A)
- Emissions Calculations (Appendix B)
- Emission Factor Reference (Appendix C)
- Baseline Emissions Reference (Appendix D)
- RBLC Report (Appendix E)

1.4 Permitting History

The Vicksburg Forest Products– Waltersville Lumber Mill was acquired from the Anderson Tully Lumber Company in 2018. The Anderson Tully Lumber Company manufactured hardwood products. After the acquisition, Vicksburg Forest Products requested a change in the method of operation for the mill to utilize the existing batch kilns and produce softwood products while retaining the capability to produce hardwood products. With the change in operation to produce softwood, the facility requested a production limit on the batch kilns of 115 MMBF/yr of softwood to remain a minor source of HAPs. Additionally, the modification avoided PSD review due to the limit in production. This change was made under the construction permit issued October 3, 2018.

The changes were incorporated into the Title V permit No. 2780-00004 and the permit was simultaneously renewed on May 11, 2020. The Title V operating permit expires April 30, 2025.

2.0 Site and Project Description

The Vicksburg Forest Products facility is in Warren County within the city limits of Vicksburg, MS. The facility falls under the Standard Industrial Classification (SIC) codes of 2421 for general sawmills and planing mills. The facility currently falls under 2426 for hardwood dimension and flooring mills, and 2491 for wood preserving, however, the facility does not have plans to process hardwood and emission units associated with hardwood production are being removed. The location of the air emission sources at the facility on an aerial photograph and the location of the facility on a topographic map are illustrated in Figure 1 and Figure 2.

Figure 3 depicts a block flow diagram for the lumber manufacturing process.

2.1 Sawmill and Planer Mill

Lumber production starts with the logs being sent to the de-barker to remove bark and then to the cut-off saws to be cut to length. From the cut-off saws, logs enter the sawmill and are cut into green dimensional lumber. The sawmill operates a bark hog and two chippers. Hogged bark and sawdust are mechanically conveyed to the boiler fuel storage silos or the truck loadout area. Chips are conveyed to the truck loadout area. The green lumber is then sorted, stacked, and directed to lumber storage. From the kilns, the lumber is transferred to the planer mill where it is planed, graded, packaged, and placed in storage for loading and shipment by truck.

The facility is proposing to add a small log line to the sawmill. A tandem ring debarker will be installed in the stem/log merchandiser line that will feed both the small log sawmill and the existing headrig. Emissions associated with the small log line will be fugitive in nature and can be included with the existing sawmill (AA-006).

The wood residual transfer system (AA-001) handling the residuals generated at the planer mill will be modified. Planer shavings will no longer be transferred to the boiler fuel silos. The existing cyclone and baghouse will be removed and a new cyclone will be installed to pneumatically transfer the shavings to a truck bin for off-site shipment.

2.2 Lumber Treatment Station

Based on customer specifications, currently hardwood may be dipped in a fungicide, insecticide, and anti-staining solution (AA-009). After the dipping solution has dried, the lumber may be placed on the lumber yard, in one of sixty blow boxes, or in one of the dry kilns. The facility is proposing to remove the processing of hardwood from the permit and the lumber treatment station will be decommissioned. Vicksburg Forest Products has not processed hardwood since acquiring the mill and no longer has plans to process hardwood in the future.

2.3 Dry Kilns

The facility maintains twenty-eight (28) batch dry kilns (AK-001 through AK-028) to reduce the moisture content in the lumber based on customer specifications. The facility is proposing the installation of two steam-heated dual path dry kilns (DPKs). Steam for both the batch kilns and new proposed DPKs will be

supplied by the existing boiler (AA-002). The DPKs will be more efficient than the existing batch kilns and steam demand for the DPKs will be steady state, reducing cycling of the boiler to meet steam demands. The combined maximum capacities of the DPKs is 164 MMBF/yr.

2.4 Miscellaneous Coatings

Hardwood may be, currently, end coated based on the customer needs. As mentioned previously the ability to process hardwood is being requested to be dropped from the permit. Pine lumber is not end coated; however, the dimensioned and dried pine lumber may contain logo painting and grade stamping.

2.5 Boiler Area

The mill utilizes one existing boiler fired by wood residuals (AA-002). The existing boiler is used to produce steam to heat the existing batch dry kilns indirectly and is equipped with a multi-clone. The boiler is permitted to combust wood fuel. During maintenance periods the current operating permit allows for the use of up to two portable boilers while the facility boiler is being serviced. These portable boilers may be fueled by either natural gas or fuel oil.

By-products produced at the mill include bark, sawdust, chips, planer shavings, and dry trim. Except for the wood chips, all these residuals can be transferred to the boiler fuel silos. After the proposed project is complete, the planer shavings will be transferred to a truck loading bin prior to off-site shipment. The proposed modified transfer system will not accommodate transfer of the planer shavings to the fuel silo and planer shavings will no longer be used as boiler fuel.

No physical modifications are being made to the boiler, however, a limit of PM/PM₁₀/PM_{2.5} emissions is being requested with this application. With the addition of the DPKs, the boiler will operate under more steady state conditions. The steam demand for DPKs is consistent because product is being fed through the kilns on a continuous basis and energy is transferred to the lumber entering the kiln.

3.0 PSD Applicability Analysis

Major stationary source means any of the 28 source categories which emits or has the potential to emit 100 tons or more of any regulated NSR pollutant, any stationary source which emits 250 tons per year or more of a regulated NSR pollutant or any physical change that would occur at a stationary source not otherwise qualifying as a major stationary source, if the changes would constitute a major stationary source by itself. The Vicksburg Forest Products facility is not one of the 28 source categories and the potential to emit for the facility is greater than 250 tpy of VOC and PM. The facility qualifies as a major source regarding the PSD regulations.

Major modification means any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase of a regulated NSR pollutant; and a significant net emissions increase of that pollutant from the major stationary source. The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.

3.1 Significant Emissions Increase

The procedure for calculating (before beginning actual construction) whether a significant emissions increase (i.e., the first step of the process) will occur depends upon the type of emissions units being modified; projects that only involve existing emissions units, projects that only involve construction of a new emissions unit(s) or projects that involve multiple types of emissions units (hybrid).

The hybrid test [40 CFR 52.21(a)(iv)(f)] applies for this application because the proposed project includes both new and existing units. Under the hybrid test, a significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the actual to projected actual or actual to potential method as applicable with respect to each emissions unit, unit equals or exceeds the significant amount for that pollutant.

The proposed DPKs, planer mill cyclone, tandem ring-debarker and small log sawmill will be new units subject to the actual to potential test. The emissions increase in the actual to potential test is the potential to emit from the new emissions unit following completion of the project.

The existing sawmill, boiler, roads, and fugitive residual handling sources are affected sources in the emissions increase determination. The affected units are existing units subject to the actual to projected actual test. The emissions increase for the actual to projected actual test is the difference between the projected actual emissions and the baseline actual emissions.

Historically, in the first step of the applicability process, only project increases are considered. The EPA Memo of March 13, 2018, however, interprets that decreases are allowed as “project accounting” in the first step. The baghouse (AA-001), the Lumber Treatment Station (AA-009), and the edge sealing or end coating of hardwood lumber included in the Miscellaneous Coating (AA-010) will be discontinued. Shut down of these units and the existing debarker would qualify as “project accounting” in the EPA Memo.

The facility will become subject to the boiler MACT with this proposed change and compliance will require a decrease in the PM emissions at the boiler (AA-002) which will result in a decrease in total PM/PM₁₀/PM_{2.5} emissions. Compliance is not required with the boiler MACT until 3 years after becoming subject to the standard. Given that PM emissions will have to be reduced to comply with the boiler MACT, the facility is requesting that Federally Enforceable ton per year limits be placed on the boiler to keep the PM/PM₁₀/PM_{2.5} emissions below the PSD significant emission rates to ensure PSD is not triggered prior to demonstrating compliance with the Boiler MACT. These requested limits are included in the calculation of the significant increase. The December 7, 2017, EPA NSR Policy Memo² addresses the issue of factoring into the projected emissions an intent to actively manage future emissions from the project on an ongoing basis to prevent a significant emissions increase or a significant net emissions increase from occurring. The memo states that EPA intends to apply the NSR regulations such that the intent of an owner or operator to manage emissions from a unit in that manner after a project is completed represents relevant information in the context of projecting future actual emissions from that unit that could be considered along with other relevant information in making an emissions projection, as provided in the NSR regulations.

Although it is not necessary to make future projections enforceable in a permitting action, inclusion of the projections in the permit will alleviate the source obligation requirements of 52.21(r)(6) in that the agreed monitoring requirements to assure that a significant increase does not occur will be included in the permit.

The project emission increases are summarized in Table 1. Increases by emission unit can be seen in Table 2. PSD review requirements are triggered for VOC only.

Table 1 – Project Emissions Increase

Pollutant	Increase (TPY)	PSD SER	PSD Review
PM – Particulate Matter	17.82	25	N
PM ₁₀ – PM less than 10 microns	14.14	15	N
PM _{2.5} – PM less than 2.5 microns	9.90	10	N
VOC – Volatile Organic Compounds	355.95	40	Y
SO ₂ – Sulfur Dioxide	1.11	40	N
NO _x – Oxides of Nitrogen	13.33	40	N
CO – Carbon Monoxide	41.61	100	N
Lead – Lead and Lead Compounds	0.00	7	N
CO ₂ e – Greenhouse Gas Carbon Dioxide Equivalent	16,735	75,000	N

² New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability, E. Scott Pruitt, December 7, 2017

3.2 Baseline Period Selection

Baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Administrator (MDEQ) for a permit required, whichever is earlier.

Past Annual Emissions Reporting Forms (AERF) submitted by Anderson Tully were review from the 10-year lookback window to determine the baseline period. The calendar years 2014 and 2015 were selected for all pollutants. Baseline emissions were developed using the AERF reports which are included in Appendix D. Where provided in the AERF, production data was used to calculate the baseline emissions using the same methodology and emission factor reference as used to determine the projected actuals.

3.3 Baseline Emissions

3.3.1 Planer Mill Baghouse (AA-001)

The existing wood handing system consists of a single baghouse and is a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}). During the baseline period, emission point AA-001 consisted of four baghouses. Emissions are dependent on the amount of material transferred. The AERF reports did not detail the residual throughput and only identified the PM₁₀ emissions and the hours of operation.

The baseline emissions used were those reported in the AERF reports for AA-001(D). This is the baghouse and cyclone emission source which filled the boiler fuel silo. PM and PM_{2.5} were estimated from the reported PM₁₀ value reported in the AERF report. PM and PM_{2.5} were determined using the fractional distribution reported in the EPA Technical Memoranda for Sawmills³. For Pneumatically conveyed material through a cyclone to bin exhausted through baghouse, this guidance lists PM₁₀. as 99.5 % PM and PM_{2.5} as 99% of PM.

3.3.2 Wood Fired Boiler (AA-002)

The boiler is a source of the PSD criteria pollutants Carbon Monoxide (CO), Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), Particulate Matter less than 2.5 microns (PM_{2.5}), Sulfur Dioxide (SO₂), Nitrogen Dioxide (NO₂) and Volatile Organic Compound (VOC). The boilers are also sources of greenhouse gas emissions (GHG).

Baseline emissions were established on the annual heat input reported in the AERF and the stack test results from the compliance stack test performed April 24, 2014. This test included all relevant pollutants except for condensable particulate matter (CPM) lead and GHG. CPM emissions were estimated using the emission factor listed in AP-42 Table 1.6-1. "Emission Factors for PM from Wood Residue Combustion."

³ Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, May 8, 2014.

Lead emissions were estimated using the emission factor listed in AP-42 Table 1.6-4. "Emission Factors for Trace Elements from Wood Residue Combustion." GHG emissions were estimated from the emission factors listed in AP-42 Table 1.6-3. "Emission Factors for Speciated Organic Compounds, TOC, VOC, Nitrous Oxide, And Carbon Dioxide from Wood Residue Combustion" and the global warming potentials listed in Table A-1 to Subpart A of Part 98.

3.3.3 Sawmill (AA-006)

The sawmill consists of fugitive emission sources and is a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}).

Baseline emissions for the sawmill were based on the log use reported in the AERF reports and the emission factors used for the projected emissions. Residuals generated were assumed to be like current residual generation rates based on the log weight. Emission factors applied to determine the baseline emissions were the same as those used to determine the current projected actual emissions and are from EPA Technical Memoranda for Sawmills. The debarking emission factor in the EPA Technical Memoranda is for a drum debarker. Debarking emissions from the ring debarker were assumed to be 10% of the drum debarker. Log bucking was considered to be 90% controlled also, as the log merchandiser is partially enclosed.

3.3.4 Road Emissions (AA-007)

Haul roads are a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}).

The AERF reported haul road emissions based on 1 lb/hr and the number of operating hours for the boiler. The number of log trucks was estimated in the AERF. The number of residual trucks was estimated from the "Power Plant Sales" residuals divided by 26 tons per load. Emissions were calculated using the determined vehicles and the methodology from AP 42 Section 13.2.1 for paved roads and Section 13.2.2 for unpaved roads. A speed limit control efficiency of 57% for speed limits of 15 mph and below was used based on the "WRAP Fugitive Dust Handbook, 2006" given that the roads are not open roads and have short distances. The default silt value was obtained from the EPA worksheet found at https://www3.epa.gov/ttn/chief/ap42/ch13/related/r13s0202_dec03.xls which lists the default silt values by State. Silt loading for paved roads was taken as the lower end of the range for Municipal Solid Waste landfills.

3.3.5 Lumber Treatment (AA-009) and End Coating (AA-010)

The lumber treatment and end coating units are sources of Volatile Organic Compounds (VOCs). These units are to be decommissioned and are included in the baseline under "project accounting". The VOCs reported in the AERF reports were based on materials use and were used as reported for the baseline emissions.

3.3.6 Truck Loadout (AA-013)

The truck loadout is a source a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}).

The emissions were determined using the residual amount sold reported in the AERF and the emission factors used to determine the projected emissions. Emission factors used were from EPA Technical Memoranda for Sawmills for a drop of “wet” material.

3.4 Future Emissions

3.4.1 Steam Heated Dual Path Kilns (DPK-1, DPK-2)

The proposed dual path kilns are a source of Volatile Organic Compounds (VOCs), Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}).

VOC emissions were based on the selected BACT of 4.43 lb-VOC/MBF as WPP1 and the potential annual throughput for the kilns. PM emissions were based on the emission factor for indirect heated kilns found in the North Carolina Emission Estimation Spreadsheets for Woodwork (Lumber Kilns)⁴ of 0.022 lb/MBF and the potential annual throughput for the kilns. PM₁₀ and PM_{2.5} were assumed to be equal to PM.

3.4.2 Planer Mill Cyclone (AA-001)

The planer mill cyclone is a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), Particulate Matter less than 2.5 microns (PM_{2.5}), and Volatile Organic Compounds (VOCs).

Emissions from the cyclone have been calculated based on the projected lumber throughput at the planer mill and the resulting residuals to be transferred in the pneumatic system. Particulate emission factors used were from EPA Technical Memoranda for Sawmills for pneumatically conveyed material through high efficiency cyclone to a bin. The EPA Technical Memoranda for Sawmills does not include VOCs from cyclones. The VOCs were estimated using factors from similar facilities permitted in Mississippi.

3.4.3 Wood Fired Boiler (AA-002)

The boiler is a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), Particulate Matter less than 2.5 microns (PM_{2.5}), Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Sulfur Dioxide (SO₂), Volatile Organic Compounds (VOC), Lead (Pb) and greenhouse gases (GHG).

Estimation of the projected actual emissions for the boiler were based on the average of the past three stack tests for the boiler conducted in 2020, 2018 and 2016, and the level of emissions increase necessary to stay below the PSD significant emission rates. These tests included PM, CO, NO_x, SO₂, and VOC. Estimates of filterable PM₁₀ and PM_{2.5} were made using AP-42 Table 1.6-5. Cumulative Particle Size Distribution and Size-Specific Emission Factors for Wood/Bark-Fired Boilers and considering a multicyclone with fly ash reinjection. CPM emissions were estimated using the emission factor listed in AP-42 Table 1.6-1. “Emission Factors for PM from Wood Residue Combustion” and were included in the estimates of PM₁₀ and PM_{2.5}. Lead emissions were estimated using the emission factor listed in AP-42 Table 1.6-4. “Emission Factors for Trace Elements from Wood Residue Combustion.” GHG emissions were estimated from the emission factors listed in AP-42 Table 1.6-3. “Emission Factors for Speciated Organic

⁴ <https://deq.nc.gov/about/divisions/air-quality/air-quality-permits/application-forms-instructions/application-forms-air-quality-permit-construct-operate-non-title-v-title-v-facilities/spreadsheets>

Compounds, TOC, VOC, Nitrous Oxide, And Carbon Dioxide from Wood Residue Combustion” and the global warming potentials listed in Table A-1 to Subpart A of Part 98.

The facility is requesting ton per year limits on the boiler for PM, PM₁₀, and PM_{2.5}. The facility will become subject to the Major Source Boiler MACT with this modification. Compliance with the boiler MACT will be required within 3 years of beginning operation, which is outside the contemporaneous period and would not be allowed in a netting analysis. These limits in conjunction with proposed monitoring will ensure that PSD review would not have been required for the period between construction and the demonstration of compliance with the Boiler MACT.

The boiler is an existing unit subject to the “actual-to-projected-actual” applicability test. In order to determine the projected increase that results from the particular change consistent with the definition of “major modification,” the owner or operator “[s]hall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit’s emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions that are also unrelated to the particular project. The boiler was tested at 70.9 MMBtu/hr during the 2014 stack test. The permit required that the unit be tested at representative operating conditions and should operating conditions exceed 10% above the tested rate, a retest could be required. Given that the stack test was performed at representative conditions, the boiler could have accommodated operation up to the tested level.

The accommodated emissions were determined based on the utilization of the boiler at 70.9 MMBtu/hr for continuous operation less the average annual use reported in the baseline period, or 84,040 MMBtu/yr. The emissions were determined using the same factors as described for the baseline emissions above.

3.4.4 Sawmill (AA-006)

The sawmill consists of fugitive emission sources and is a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}).

Emissions were based on the projected log use in the sawmill and the handling of wood residuals generated. Emission factors used were from the EPA Technical Memoranda for Sawmills. Debarking emissions were assumed to be 10% of the EPA emission factor which is for a drum debarker. The facility uses a ring debarker. Log bucking was considered to be 90% controlled, as the log merchandiser is partially enclosed. Residuals generated are mechanically conveyed and the emissions were estimated based on an average of 5 drops and the emission factor for the drop of “wet” material.

3.4.5 Road Emissions (AA-007)

Haul roads are a source Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}).

The haul road emissions were based on the estimated number of haul trucks to handle the projected log use and associated residuals generated. Emissions were calculated using the determined vehicles and the methodology from AP 42 Section 13.2.1 for paved roads and Section 13.2.2 for unpaved roads. A speed

limit control efficiency of 57% for speed limits of 15 mph and below was used based on the “WRAP Fugitive Dust Handbook, 2006.” The default silt value was obtain from https://www3.epa.gov/ttn/chief/ap42/ch13/related/r13s0202_dec03.xls which lists the default silt values by State. Silt loading for paved roads was taken as the lower end of the range for Municipal Solid Waste landfills.

3.4.6 Truck Loadout (AA-013)

The truck loadout is a source of Particulate Matter (PM), Particulate Matter less than 10 microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}).

The emissions were determined using the residual amount generated from the sawmill less the amount of residuals for boiler fuel plus the residuals generated from the planer mill. Emission factors used were from EPA Technical Memoranda for Sawmills for a drop of “wet” material for sawmill residuals and for a drop of “dry” material for the planer mill.

4.0 Regulatory Applicability

This section summarizes all federally enforceable and state-enforceable air regulations that will be applicable to the Project. Both applicable and important non-applicable regulations are addressed. Proposed compliance demonstration procedures are also discussed. Supporting process information for the proposed project is provided in the application forms contained in Appendix A. Information contained on the application forms are provided for determining regulatory applicability and demonstrating compliance with applicable requirements, and should not be considered proposed permit terms, limits or conditions unless specifically expressed.

4.1 Federal Air Quality Regulations

The federal regulations applicable to the proposed project are National Emission Standard for Hazardous Air Pollutants (NESHAP) contained in 40 CFR 63, and Title V Operating Permit regulations contained in 40 CFR 70. Of note, there are no New Source Performance Standards (NSPS) that apply to indirect-heat batch lumber dry kilns. A discussion of these applicable regulations, as well as key non-applicable regulations, is provided in this section.

4.1.1 Applicable Regulations

4.1.1.1 Prevention of Significant Deterioration (PSD) (40 CFR Part 52)

Under the prevention of significant deterioration (PSD) requirements, all new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA) must undergo a preconstruction review consistent with Section 165 of the Act prior to beginning actual construction. A “major stationary source” is defined as any one of 28 named source categories which has the potential to emit 100 tons per year (tpy) or more, or any other stationary source which has the potential to emit 250 TPY or more, of any pollutant regulated under the CAA. Vicksburg Forest Products is not one of the listed source categories with a 100 tpy threshold; therefore, the major source threshold for the proposed facility is 250 tpy of any regulated pollutant. Vicksburg Forest Products currently has the potential to emit VOC above the PSD threshold of 250 tpy. Therefore, the facility is classified as a PSD major stationary source and is subject to the PSD requirements.

4.1.1.2 New Source Performance Standards (40 CFR Part 60)

New Source Performance Standards have been promulgated to govern the emissions of certain sources of air pollutants modified, constructed, or reconstructed after the applicability dates of the regulations. None of the New Source Performance Standards apply to the project processes.

4.1.1.2.1 40 CFR 60 Subpart Db -Steam Generating Units (Not Applicable)

NSPS Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units applies to each steam generating unit that is capable of combusting greater than 100 MMBTU/hr of fuel and for which construction, reconstruction, or modification is commenced after June 19, 1984. The heat input capacity of the boiler (AA-002) of 98.4 MMBtu/hr is less than the 100 MMBtu/hr threshold. The boiler is not subject to NSPS Subpart Db.

4.1.1.2.2 40 CFR 60 Subpart Dc – Small Steam Generating Units

NSPS Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units applies to each steam generating unit that is capable of combusting between 10 and 100 MMBtu/hr (inclusive) of fuel, and for which construction, reconstruction, or modification is commenced after June 9, 1989. The facility boiler has a heat input capacity (98.4 MMBtu/hr) that falls within this range. The boiler was installed before June 9, 1989, and Subpart Dc does not apply.

4.1.1.2.3 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Not Applicable)

NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)¹⁴, was promulgated by EPA on July 11, 2006. This subpart applies to manufacturers, owners, and operators of stationary CI ICEs that commence construction after July 11, 2005, or those that are modified or reconstructed after July 11, 2005, according to 40 CFR 60.4200(a)(3),(4) dated June 28, 2011. No internal combustion engines are proposed or affected by the project.

4.1.1.3 National Emission Standards for Hazardous Air Pollutants (40 CFR Parts 61 and 63)

Potentially applicable subparts of the pollutant specific NESHAP (40 CFR 61) program or the Source Category NESHAP (40 CFR 63) are identified below.

4.1.1.3.1 40 CFR 61, Subpart M (Asbestos)

Subpart M is the pollutant-specific NESHAP for asbestos. This NESHAP is potentially applicable to the Vicksburg Forest Products facility and requires proper inspection, procedures, and documentation of any asbestos removal project. The project does not include the removal of any structures.

4.1.1.3.2 40 CFR 63, Subpart DDDD (Plywood and Composite Wood Products)

National Emission Standards for Hazardous Air Pollutants have been promulgated to govern the emissions of certain Hazardous Air Pollutants. 40 CFR 63.2230-2292, Subpart DDDD (Plywood and Composite Wood Products) applies to lumber kilns at major sources of hazardous air pollutants (HAPs). Upon construction of the proposed project, the facility will become a major source of HAPs and will be subject to Subpart DDDD. The only applicable requirement is the initial notification.

4.1.1.3.3 40 CFR 63 Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines) (Not Applicable)

The Reciprocating Internal Combustion Engine (RICE) NESHAP, Subpart ZZZZ, was promulgated on June 15, 2004, and was revised on January 15, 2013. Subpart ZZZZ regulates HAP emissions from RICE at facilities that are major sources of HAPs. The Mill does not operate RICE engines and accordingly, is not subject to Subpart ZZZZ.

4.1.1.3.4 40 CFR 63 Subpart DDDDD (Small Boilers & Process Heaters -Boiler MACT)

The Industrial-Commercial-Institutional Boilers and Process Heaters NESHAP, Subpart DDDDD, was signed February 26, 2004. This Subpart, also known as the Boiler MACT, regulates HAP emissions from solid, liquid, and gas-fired steam generating units. Subpart DDDDD regulates boilers and process heaters located at facilities that are major sources of HAPs. Upon construction and beginning of operation of the proposed project, the facility will be a major source of HAPs and will be subject to Subpart DDDDD.

Compliance with the requirements of Subpart DDDDD must be demonstrated within three years of beginning operation of the proposed project.

4.1.1.3.5 Subpart JJJJJ (Area Source Boiler MACT)

The Industrial, Commercial, and Institutional Boilers Area Sources NESHAP, Subpart JJJJJ, regulates HAP emissions from sources that operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195. As an area source, Vicksburg Forest Products is currently subject to and complies with Subpart JJJJJ. After the construction and operation of the proposed project, the facility will be a major source of HAPs and Subpart JJJJJ will no longer be applicable.

4.1.1.4 Compliance Assurance Monitoring (40 CFR Part 64)

Under 40 CFR Part 64, the Compliance Assurance Monitoring Regulations (CAM), facilities are required to prepare and submit monitoring plans for certain emission units with the Title V application. The CAM Plans provide an on-going and reasonable assurance of compliance with emission limits. Under the general applicability criteria, this regulation only applies to emission units that use a control device to achieve compliance with an emission limit and whose pre-controlled emission levels exceed the major source thresholds under the Title V permitting program. For an emission unit whose post-controlled emissions are less than the major source emission thresholds, a CAM plan is required to be submitted with the first Title V permit renewal application.

There are no sources at the facility that employ a control device as defined in the CAM regulations, and therefore, 40 CFR Part 64 does not currently apply. The Part will apply with any addition of a control device on the boiler (AA-002) as appropriate to comply with the Boiler MACT.

4.1.1.5 Chemical Accident Prevention Provisions (40 CFR Part 68)

Subpart B of 40 CFR 68 outlines requirements for risk management prevention plans pursuant to Section 112I of the Clean Air Act. Applicability to this subpart is determined based on type and quantity of chemicals stored at the Mill. The amount of Section 112I substances stored at the facility do not trigger applicability of the risk management plan regulations of 40 CFR 68 Subpart B.

4.1.1.6 Stratospheric Ozone Protection (40 CFR Part 82)

The requirements originating from Title VI of the Clean Air Act, entitled Protection of Stratospheric Ozone, are contained in 40 CFR 82. Subparts A through E, Subpart G, and Subpart H of 40 CFR 82 are not applicable to the Mill. 40 CFR 82 Subpart F, Recycling and Emissions Reduction, potentially applies if the facility operates, maintains, repairs, services, or disposes of appliances that utilize Class I or Class II ozone depleting substances. Subpart F requires persons completing the repairs, service, or disposal be properly certified. All repairs, service, and disposal of ozone depleting substances from subject appliances at the facility are completed by certified technicians.

4.2 Mississippi Air Quality Regulations

The following paragraphs discuss MDEQ air quality control regulations and the applicability of these regulations to the project emission sources at the Mill. Further information on source-specific regulations is provided below.

4.2.1 Applicable Federally Enforceable State Regulations

4.2.2 State Only Regulations

4.2.2.1 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.3.A. – Smoke

Rule 1.3.A. limits startup opacity levels greater than 40% to no more than 15 minutes per startup in one hour and no more than three startups in any twenty-four-hour period. Additionally, emissions from soot blowing operations are allowed provided that 60% opacity shall not be exceeded and that during any twenty-four hour period, aggregate soot blowing does not exceed ten minutes per billion BTU gross heating value of fuel in anyone hour. This regulation applies to the existing wood-fired boiler (AA-002).

4.2.2.2 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.3.B.- Equivalent Opacity

Rule 1.3.B. restricts visible emissions from stationary sources (not including uncombined water droplets) to less than 40 percent opacity. This regulation applies to the proposed steam-heated dual path kilns and the wood handling transfer cyclone.

4.2.2.3 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.3.C. - - General Nuisances

Rule 1.3.C. pertains to general nuisances from particulate matter emissions. Precautions are to be taken to reduce unnecessary emissions from handling, transport, or storage of materials. If particulate matter emissions cause a nuisance on adjacent property or violate a regulation, control measures may be imposed by MDEQ. This requirement is applicable to the handling of wood residuals and the emissions from road traffic.

4.2.2.4 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.3.D. – Fuel Burning, Combination Boilers

The wood-fired boiler (AA-002) is subject to Rule 1.3.D.(2). This regulation limits particulate matter emissions to 0.3 grains/dscf when utilizing a mixture of combustibles such as, but not limited to, fossil fuels plus bark, or spent wood.

4.2.2.5 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.3.F. – Manufacturing Processes, General

Process emission sources are subject to Subsection Rule 1.3.F.(1). This regulation limits particulate matter emissions on the following equation, known as the process weight rule:

$$E = 4.1p^{0.67}$$

Where, E is the emission rate (lb/hr), and P is the process weight input rate (ton/hr).

MDEQ considers a process to consist of units that operate in sequential, direct, and relatively dependent fashion. For the Mill, the primary process is the lumber manufacturing. The weight of the logs used in the process area would be considered the process weight input rate for emission units involved in lumber production.

4.2.2.6 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.4.A. – Sulfur Dioxide Emissions from Fuel Burning

Rule 1.4.A. limits SO₂ emissions from fuel burning operations to 4.8 lbs/MMBtu and from modified units to 2.4lb/MMBtu. The wood-fired boilers (AA-002) is unmodified and are thus limited to 4.8 lb/MMBtu SO₂ emissions.

4.2.2.7 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.4.B.(1) – Sulfur Dioxide Emissions from Processes

Rule 1.4.B.(1) prohibits emissions of SO₂ in excess of 2000 parts per million by volume (ppmv) from existing process equipment and 500 ppmv from new process equipment. While this regulation applies to all process equipment, SO₂ emissions are negligible.

4.2.2.8 Mississippi Regulation Title 11, Part 2, Chapter 1, Rule 1.4.B.(2)- Hydrogen Sulfide Emissions from Processes

Rule 1.4.B.(2) prohibits emissions of hydrogen sulfide in excess of 1 grain/100 standard cubic feet (set) from any gas stream. Although this regulation applies to all emission sources at the facility, there is no quantifiable hydrogen sulfide emissions from any emission source expected.

4.2.2.9 Mississippi Regulation Title 11, Part 2, Chapter 5.- Requirements for PSD of Air Quality

Upon issuance of the construction permit for this permitting action, the facility will be a PSD major source and must evaluate PSD permitting applicability for all projects.

4.2.2.10 Mississippi Regulation Title 11, Part 2, Chapter 6.- Title V Operating Permit Regulations

The facility was reissued Title V Permit No. 2780-00004 on March 25, 2016, under the Title V operating permit program of Mississippi Regulation APC-S-6. The Title V operating permit will be expired on February 28, 2021.

5.0 Best Available Control Technology Analysis

5.1 Introduction

In accordance with PSD requirements listed in 40 CFR 51.166(J) and 52.21(J) and 11 Miss. Admin. Code Pt. 2, Ch. 5. Rule 5.1, a facility must apply Best Available Control Technology (BACT) for the control of each regulated air pollutant emitted in significant quantities from a new major stationary source or resulting from a major modification of an existing source located in an attainment area for that pollutant. The proposed project at the Vicksburg Forest Products, Waltersville Mill results in an actual-to-potential VOC emissions increase above the VOC significant emissions rate for major modifications, and therefore, this process change is subject to a BACT review for VOC.

The BACT requirements are intended to ensure that a proposed facility or major modification will incorporate air pollution control systems that reflect the latest demonstrated practical techniques for each particular emission unit, and will not result in the exceedance of a National Ambient Air Quality Standard (NAAQS), PSD Increment, or other standards imposed at the State level.

5.2 Kiln Exhaust Characteristics

Traditional batch lumber kilns are generally equipped with 10 to 20 individual roof vents spaced equidistantly following the ridge of the roof. An equal number of vents are located on each side of the kiln roof, and each set of vents reacts in unison during the kiln drying cycle. At any given time, one set of vents allow moisture to exhaust from the kiln while the other set of vents allow dry make-up air to enter from the atmosphere.

Dual Path Kilns (DPKs) have no vents and are enclosed structures except for the doors at each end. Each kiln has a double track that allows the lumber packages to travel through the kiln in opposite directions. Steam coils are in the ceiling and vertically along the center of the kilns. Multiple fans are located inside the kilns, and these fans circulate air within the kilns. Each end of the kilns is equipped with a powered vent stack which draws most of the exhaust to an elevated release to aid in visibility for worker safety.

5.3 Top-Down BACT Approach

EPA recommends a “top down” approach when evaluating available air pollution control technologies. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical source or source category. If it can be shown that this level of control is technically or economically infeasible for the unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until a control technology and associated emission level is determined that cannot be eliminated by any technical, environmental, or economic objections. The top-down BACT evaluation process is described in U.S. EPA’s draft document “New Source Review Workshop Manual” (U.S. EPA, October 1990). The five steps involved in a top-down BACT evaluation are:

- Step 1. Identify all control technologies;
- Step 2. Eliminate technically infeasible or unavailable technology options;
- Step 3. Rank the remaining control technologies by control effectiveness;

Step 4. Evaluate the most effective controls and document the results; if the top option is not selected as BACT, evaluate the next most effective control option;

Step 5. Select BACT

When conducting the BACT analysis, one must include consideration of the most stringent technologies. Any decision to require a lesser degree of emissions reduction must be justified by an objective analysis of energy, environmental, and economic impacts. Furthermore, if a facility is subject to a New Source Performance Standard (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP), the minimum control efficiency to be controlled in a BACT analysis must result in an emission rate less than or equal to the NSPS and/or NESHAP emission rate.

The “top down” approach has been employed in this analysis to evaluate available pollution controls for the proposed process modification.

5.3.1 Control Technologies

Available control technologies for the control of VOC emissions were identified through research of the RACT/BACT/LAER Clearinghouse (RBLC), literature review, and surveying of previous applications submitted for continuous kilns. A review of these sources did not reveal any facilities that use add on controls for lumber drying kilns. However, a search was also conducted for VOC control technologies for other processes that could potentially be applied for a lumber dry kiln. The control technologies evaluated are combustion (thermal and catalytic), adsorption, biofiltration, condensation, wet scrubbing, and good work practices.

5.3.1.1 Combustion

This technology may be applied using different approaches including regenerative thermal oxidation, or catalytic oxidation, boilers, and process heaters. VOC laden air streams are used as fuel sources and high VOC content streams can see destruction efficiencies as high as 99%; depending on the exact characteristic of the incoming air stream and the technology used.

Incineration has been successfully applied to aluminum chip dryers, petroleum processing and marketing operations, animal blood dryers, automotive brakeshoe debonding ovens, citrus pulp dryers, coffee roasters, wire enameling ovens, foundry core ovens, meat smokehouses, paint baking ovens, varnish cookers, paper printing and impregnating installations, pharmaceutical manufacturing plants, sewage disposal plants, chemical processing plants, and textile finishing plants.

5.3.1.2 Thermal Oxidization and Catalytic Oxidation

Regenerative Thermal Oxidizers or RTOs use a high-density media, such as ceramic-packed bed still hot from a previous cycle, to preheat an incoming VOC-laden waste gas stream. The preheated, partially oxidized gases then enter a combustion chamber where they are heated by auxiliary fuel (natural gas) combustion to a final oxidation temperature typically between 760 °C to 820 °C (1400 to 1500 °F) and maintained at this temperature to achieve maximum VOC destruction; however, temperatures of up to 1100 °C (2000 °F) may be achieved, if required, for very high control efficiencies of certain toxic VOC.

The purified, hot gases exit this chamber and are directed to one or more different ceramic-packed beds cooled by an earlier cycle. Heat from the purified gases is absorbed by these beds before the gases are

exhausted to the atmosphere. The reheated packed bed then begins a new cycle by heating a new incoming waste gas stream.

A Regenerative Catalytic Oxidizer or RCO operates in the same manner as an RTO; however, it uses a catalyst material rather than ceramic material in the packed bed. This allows for destruction of VOC at a lower oxidation temperature. An RCO uses a precious metal catalyst in the packed bed, allowing oxidation to occur at approximately 400 °C (800 °F). The lower temperature requirement reduces the amount of natural gas needed to fuel the VOC abatement system and the overall size of the incinerator. Catalysts typically used for VOC incineration include platinum and palladium.

VOC destruction efficiency depends upon design criteria. Typical regenerative incinerator design efficiencies range from 59 to 99% for RTO systems and 90 to 99% for RCO systems, depending on system requirements and characteristics of the contaminated stream. Lower control efficiencies are generally associated with lower concentration flows.

5.3.1.3 Adsorption

Adsorption is the use of a solid material to trap a gas. The material most commonly used is carbon, a highly porous material. Adsorption occurs in two ways: (1) physical adsorption, in which van der Waal's forces attract and hold gas molecules to the adsorbent surface, and (2) chemical adsorption, in which gas molecules are chemically bonded to the adsorbent. Additionally, within the capillaries of the porous solid, surface adsorption is supplemented by capillary condensation. The VOC is usually recovered by stripping the organic from the carbon by heating with steam.

Activated carbon is the most widely used adsorbent for recovering VOC. Carbon adsorption is usually more economical than combustion for the control of organic compounds in low concentrations where the cost of supplemental fuel can be very high. Depending on the application, carbon adsorption efficiencies can be at least 95 percent. In addition, this control technique offers recovery of adsorbed organic which can be recycled to the process or used as fuel. Recovery and reuse has gained greater favor by industries.

Adsorption systems have been used successfully in the following industries: organic chemical processing, varnish manufacture, synthetic rubber manufacture, production of selected rubber products, pharmaceutical processing, graphic arts operations, food production, dry cleaning, synthetic fiber manufacture, and some surface coating operations.

5.3.1.4 Biofiltration

In biofiltration, off-gases containing biodegradable organic compounds are vented, under controlled temperature and humidity, through a biologically active material. The process uses a biofilm containing a population of microorganisms immobilized on a porous substrate such as peat, soil, sand, wood, compost, or numerous synthetic media. As an air stream passes through the biofilter, the contaminants in the air stream partition from the gaseous phase to the liquid phase of the biofilm. Once contaminants pass into the liquid phase, they become available for the complex oxidative process by the microorganisms inhabiting the biofilm.

5.3.1.5 Condensation

Condensation is the physical change from the vapor to liquid phase. Condensers operate in either of two ways: (1) the most common is a constant pressure system where the temperature of the gas stream is reduced to cause the desired condensable materials to liquefy, or (2) less common is the technique of increasing the pressure of a gas stream to cause the combustible material to liquefy. Condensation is also commonly applied to a gas stream to reduce VOC concentrations before the stream is routed to the other "add-on" devices.

Condensers have been used successfully in bulk gasoline terminals, petroleum refining, petrochemical manufacturing, dry cleaning, degreasing, and tar dripping.

The VOC efficiency achieved by a condenser, as a sole add-on control device, is a function of: 1) the heat capacity and temperature of the inlet exhaust stream, 2) the heat transfer characteristics of the condenser (including the heat transfer area and the heat transfer coefficient), and 3) the outlet temperature of the exhaust gas exiting the condenser.

Condensers are most effective in single component systems involving emission streams with a high percentage of a condensable VOC, because less heat must be removed from the exhaust gas to reduce the sensible heat of non-condensable gases and the required condenser temperature to achieve high levels of recovery. Unlike other VOC control devices for which quantifying control efficiency can require emissions testing, only the outlet exhaust gas temperature is required to estimate the VOC control efficiency of a condenser if the temperature, VOC concentration, and flow rate of the non-condensables in the inlet exhaust stream are all known. Since the control efficiency of a condenser is dynamic, based on the outlet temperature and inlet concentration of VOC in the exhaust stream, condensers exhibit a wide range of VOC control efficiency from as low as 50 percent to as high as 99 percent.

5.3.1.6 Wet Scrubbing

Scrubbing of gas or vapor pollutants from a gas stream is usually accomplished in a packed column (or other type of column) where pollutants are absorbed by countercurrent flow of a scrubbing liquid. Scrubbing liquid can be water, caustic solution, or other liquid media.

5.3.1.7 Proper Maintenance and Operating Practices

Proper maintenance and operating practices are comprised of work practice and operational standards and recordkeeping and reporting requirements. The establishment of these good operating practices is intended to minimize VOC emissions from the kilns to the extent practicable. This method involves no add-on pollution controls. However, written procedures of best management practices, proper maintenance and operating activities can be an effective abatement technique when combined with training of employees and appropriate recordkeeping.

5.3.2 Control Technologies Eliminated Based on Feasibility

5.3.2.1 Thermal Oxidation and Catalytic Oxidation

Thermal oxidation is typically done with a regenerative thermal oxidizer (RTO). To achieve destruction and removal efficiency greater than 90%, a temperature of approximately 1500 °F is required and a

minimum residence time of at least one second are required. The exit temperature from the kiln would be well below this required temperature. Furthermore, the resinous nature of the VOCs released during the drying operation inside the kiln would cause issues with the duct work and media in the device over time. Due to the high moisture content, resinous characteristics of the VOCs released and low exit temperature in the exhaust stream, thermal oxidation technology is technically infeasible to be used in this process.

Oxidation can also be achieved with a Regenerative Catalytic Oxidizer (RCO). The required temperature to achieve the desired destruction efficiency inside the RCO is 500-800°F. Even though the temperature is lower than required for an RTO, it is still higher than the typical temperature from the kiln exhaust. As with the RTO, the resinous nature of the VOCs released during the drying operation would create fouling issues in the duct work and the catalyst media. Catalytic oxidation is therefore technically infeasible to be used in this process.

5.3.2.2 Adsorption

Activated carbon can be used to adsorb the VOC in into the activated carbon substrate. However, the high moisture content of the exhaust and its resinous nature would reduce the capacity and efficiency of the carbon. At high moisture content, the water molecules and the VOC in the exhaust stream would compete for active adsorption site, rendering the system ineffective. Therefore, this control device is technically infeasible to be used in this process.

5.3.2.3 Condensation

Condensation requires that the exhaust stream be cooled to a low enough temperature to allow for the VOC to go from a gas phase to liquid phase. The primary constituent of the VOC in the exhaust stream from the lumber kilns is terpenes, which would require the temperature of the exhaust stream to be lowered to well below 0 °F in order to have a low enough vapor pressure to use condensation. Temperatures this low would cause the water vapor in the stream to freeze, and the ice would clog the unit. As such, condensation is not a technically feasible control technology.

5.3.2.4 Biofiltration

Microbial activity within the filter media is readily affected by temperature conditions. Mesophilic conditions (25-40°C) are ideal for biofiltration operations and most biofilters consequently operate in ambient temperatures. Some microbes are known to function effectively in thermophilic conditions (40-55°C). In cases of extreme temperatures, cell components can begin to decompose and proteins within enzymes can become denatured and ineffective. The temperature of the exhaust stream from the kilns will be approximately 150 °F (65°C) which exceeds the typical operational temperature of biofilters.

The primary constituent of the VOC in the exhaust stream is terpenes, which are highly viscous and would cause the biofilter to easily foul. Because of the nature of the long-chained hydrocarbons in the exhaust stream, a biofilter with a reasonable footprint/retention time, will have a reduced control efficiency. The microorganisms require a much longer retention time/size of a unit to provide an increased efficiency.

No installations of biofilters in lumber mills are known. Application of biofiltration technology for VOC removal from lumber kiln emissions has not been demonstrated. Due to the temperature requirement,

the large land requirement, and the unproven ability of biofiltration to operate successfully for VOC removal from lumber kiln emissions, this control technology is considered technically infeasible.

5.3.2.5 Wet Scrubbing

While some VOCs that will be present in the exhaust stream are highly soluble in water, other VOCs, most notably α -pinene, are only very slightly soluble in water. Lower solubility VOCs would require much longer residence time within a scrubber packed column and would eliminate this as a technically viable solution for the constant stream that would need to be handled by a continuous kiln. Wet scrubbing for VOC removal is also technically infeasible for application in drying kilns due to the disruption in air flow created by this type of add-on control. A vacuum blower would be necessary to route kiln emissions to the wet scrubber. The installation of a vacuum blower would affect the temperature and moisture content of the kiln atmosphere and degrade the quality of the lumber product.

5.3.2.6 Ranking of Control Technologies

Since all add on control devices have been demonstrated to be technically infeasible for the kilns, proper kiln design and operation remains the only feasible option for control of VOC emissions.

5.4 Evaluation of Control Options

Based on the top-down BACT analysis, Vicksburg Forest Products has determined proper kiln design, maintenance, and good operating practices are only feasible options, that are both technically and economically sound.

A search of the RACT/BACT/LAER database for the 2010-2020 showed a range of limits or basis for limits between 3.5 and 5.8 lb/MBF of VOC. The variability is due in part on how the VOC determination was made, how the VOC is expressed, whether the value has been corrected by adding formaldehyde and methanol as well as the variation in VOC content of lumber throughout the year, based on temperature and moisture content.

A BACT emission limit of 4.43 lb/MBF as WPP1 was chosen from this range as it representative of the industry. Vicksburg Forest will follow this initial operation maintenance plan outlined below:

1. Operation of the kilns in accordance with manufacturer's recommendations
2. Routines for preventative maintenance will be as detailed in a monitoring plan based on manufacturer's recommendations. The plan will at a minimum identify the frequency of maintenance for the following activities:
 - Walk around inspection.
 - Wet bulb proper operation
 - Entrance/exit baffles inspection
 - Grease kiln cart wheels and fan shaft bearings.
 - Check hydraulic oil levels
 - Calibration of moisture content equipment
 - Temperature probe calibration.

6.0 Source Impact Analysis

The owner or operator of a proposed source or modification is required to demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), will not cause or contribute to air pollution in violation of: 1) any national ambient air quality standard in any air quality control region; or 2) any applicable maximum allowable increase over the baseline concentration in any area.

6.1 Existing Air Quality

Any application for a permit under the Prevention of Significant Deterioration program is required to contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants: a) for the source, each pollutant that it would have the potential to emit in a significant amount; b) for the modification, each pollutant for which it would result in a significant net emissions increase.

The pollutant under consideration in the analysis is volatile organic compounds (VOC). The existing air quality is defined by the natural and human-generated sources of air pollution. The area surrounding the Warren County facility is a mixture of developed and undeveloped land. Overall, the area is rural and in attainment for all regulated pollutants.

6.2 Air Quality Monitoring Requirements

The ambient air quality analysis is required to contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase. The source may be exempt from the preconstruction monitoring requirements if the air quality impacts are less than the monitoring de minimis concentrations.

No de minimis air quality level is provided for ozone. However, any net emissions increase of 100 tons per year or more of volatile organic compounds or nitrogen oxides subject to PSD would be required to perform an ambient impact analysis, including the gathering of ambient air quality data. The emission increase from the project of 435 tons VOC per year is above the 100 ton per year threshold. Vicksburg Forest Products proposes to use the existing air quality monitor located in Jackson, MS to determine the background air quality in lieu of conducting preconstruction monitoring. The proposed monitor is in Hinds County, which is adjacent to Warren County, the county for the proposed modification. Figure 4 and Figure 5 illustrate the VOC emissions for the two counties. The emissions of VOC are comparable for the two counties by emissions sector. The population of Jackson, MS is approximately 164,000 and the population in Vicksburg is approximately 22,000. Given the population difference and the similar distribution of emission by sector, the Jackson monitor would be a conservative estimate of the air quality at the facility. The MDEQ 2019 Air Quality Data Summary indicates the design value for the Jackson monitor is 63 ppb. The monitor demonstrates compliance with the new ozone standard of 70 ppb.

6.3 Dispersion Modeling

In rural air in the southeast there are large sources of VOCs associated with emissions from forests that tend to lead to large VOC/NOx ratios. Consequently, the rural areas tend to be NOx sensitive.

The US EPA has recommended a significant impact level for the O₃ 8-hour standard of 1.0 ug/m³. Additionally, guidance has been issued that reflects the EPA's recommendations for how air agencies may conduct air quality modeling and related technical analyses to satisfy compliance demonstration requirements for ozone and secondary PM_{2.5} for permit-related assessments under the Prevention of Significant Deterioration (PSD) program. This guidance presents the EPA's modeling of hypothetical single source impacts on O₃ and secondary PM_{2.5}. The modeling performed by EPA accounts for variation across the domain due to sensitivity of local air shed air quality to precursor emissions and reflects the regional or local atmospheric conditions for particular situations.

EPA released the MERPs VIEW Qlik application (<https://www.epa.gov/scram/merps-view-qlik>) to provide access to EPA's hypothetical single source modeled impacts of O₃ and PM_{2.5} to support PSD applications. The most conservative MERP from the South Climate Zone (2307 TPY VOC) was used to estimate the impacts from the proposed project as:

$$\text{modeled air quality impact} = (\text{Critical Air Quality Threshold}) (\text{Project Emissions} / \text{MERP})$$

where the critical air quality threshold equals the ozone SIL of 1 ppb, the project emissions are 435 TPY VOC and the MERP is 2,307 TPY VOC, yielding a 0.0023 ppb worst case impact from the project. This value is well below the ozone significant impact level and the project will not cause a significant ambient impact for ozone.

6.4 Vegetation and Soils Impact

VOCs are regulated as precursors to tropospheric ozone. Elevated ground-level ozone concentrations can damage plant life and crop production. VOCs interfere with the ability of plants to produce and store food, making them more susceptible to disease, insects, or other pollutants and harsh weather. Ozone is formed by the interaction of NO_x, VOC, and sunlight in the atmosphere. As the project potential for ozone formation due to emissions from the facility is insignificant, no adverse impacts on soils and vegetation is anticipated.

6.5 Associated Growth

There will be fifty new employees due to the project. This personnel will be selected from the existing work force in the area and there will be no additional demand on housing or public utilities. No growth due to support facilities is anticipated.

6.6 Class I Impact

The need to address air quality related values (AQRVs) in Class I areas is determined by the magnitude of the visibility impairing pollutants. The federal land manager guidance presumes that a project will have insignificant impacts if the maximum daily increase in visibility impairing pollutants expressed as tpy (Q) divided by the distance to the Class I in kilometers (D) is less than 10. The increase of visibility impairing pollutants due to the project are below the PSD significant emission rates and a Class I analysis on AQRVs is not necessary. There is no PSD increment for Ozone, therefore, no analysis is required for Class I increment impacts.

7.0 Proposed Emissions Limits and Permit Conditions

7.1 Steam-heated Dual Path Kilns (DPK-1 & DPK-2)

BACT was selected as 4.43 lb-VOC as WPP1 and good work practices which follow the manufacturer's recommendation and preventative maintenance.

7.2 Wood-fired Boiler (AA-001)

The boiler will become subject to the Major Source Boiler MACT with the proposed modification. A demonstration of compliance with the boiler MACT will be required within three years of beginning operation of the modification. Any decrease in emission from compliance with the boiler MACT will be outside of the contemporaneous period and not creditable. To ensure that PSD review is not triggered between beginning operation and complying with the boiler MACT the facility is proposing to actively managed the PM emissions from the boiler, as allowed by the NSR regulations. The ton per year limits at the boiler that would trigger significance are as follows:

- PM 108.35 tpy
- PM₁₀ 105.30 tpy
- PM_{2.5} 65.21 tpy

Although it is not necessary to make future projections enforceable in a permitting action, inclusion of the projections in the permit will alleviate the source obligation requirements of 52.21(r)(6) in that the agreed monitoring requirements to assure that a significant increase does not occur will be included in the permit.

The facility is currently required to track the rolling 52-week steam usage. It is proposed that the boiler will be stack tested within 6 months of beginning operation for PM, PM₁₀ and PM_{2.5} to develop emission factors related to the steam production. Compliance with the ton per year limits will be demonstrated by tracking the annual emissions by using the steam production and the developed emission factors.

Boiler efficiency will be determined during the stack test as Mlb-steam/MMBtu. The emissions of PM, PM₁₀, PM_{2.5} and CPM will be determined during the stack test as lb-Pollutant/MMBtu. The emission factor (EF) will then be determined based on the steam production during the test as lb-Pollutant/Mlb-steam. The emissions will then be determined on a 52-week rolling basis as:

$$TPY = (52\text{-wk steam production Mlb/yr})(EF \text{ lb-Pollutant/Mlb-steam})(\text{ton}/2000 \text{ lb})$$

Emissions for the remaining units can be assured to be below the determined projections by tracking the facility production.

7.2.1 Source Obligation 52.21(r)(6)

This section applies in circumstances where there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant. Based on the calculated emissions increase, there is a reasonable possibility that the significant emission rates could be exceeded. The requirements of 52.21(r)(6) are applicable.

7.2.2 Information Requirements

7.2.2.1 Project Description

A description of the proposed project is included in this application and satisfies the requirement.

7.2.2.2 Affected Emissions Units

The affected emissions units are identified in the application and accounted for in determining the project increases.

7.2.2.3 Applicability Test

The applicability test summarized in Table 2 illustrates the project increases by emission unit. The pollutants with a reasonable possibility of exceeding the PSD significant emission rates are PM, PM₁₀ and PM_{2.5}. Most of these emissions are from the boiler. Except for the planer cyclone, the remaining emission sources are fugitive.

7.2.2.3.1 Emissions Monitoring

Apart from the wood-fired boiler, the emissions will be monitored by tracking the facility production of produced lumber and calculating the emissions as presented in the applicability test. The boiler emissions will be determined by tracking the steam production and applying the developed emission factors from stack testing on an annual basis. The emissions will be tracked for a period of 5 years.

Figures

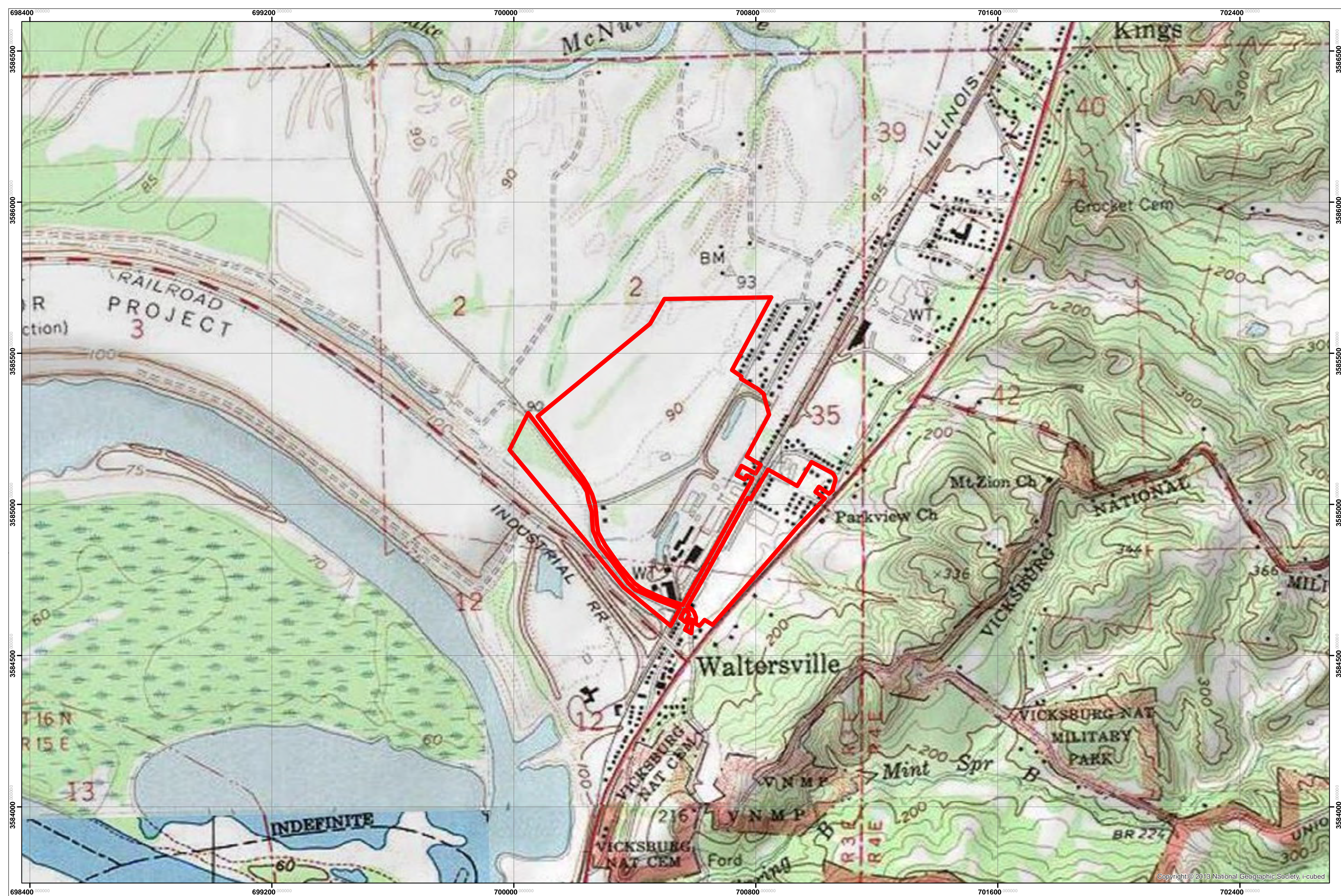
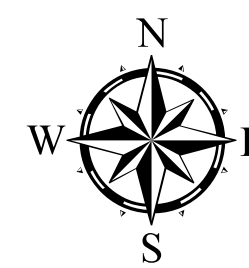
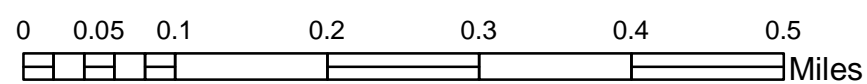
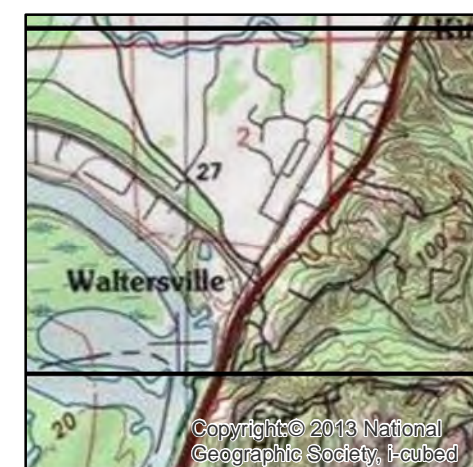


Figure 1 - Topographic Map
Vicksburg Forest Products LLC
Vicksburg, Mississippi



NAD83 UTM Zone 15



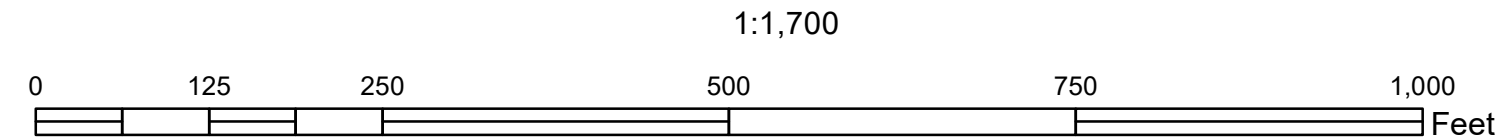
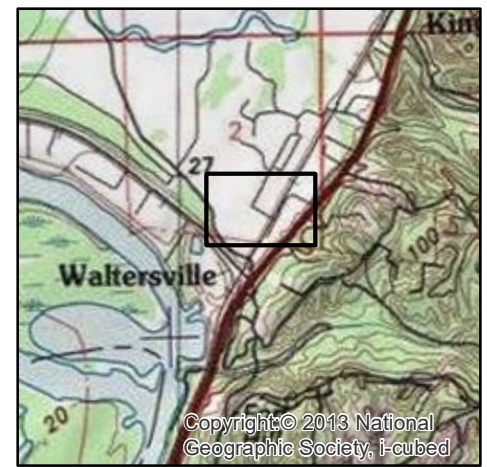


Figure 2 - Facility Layout
Vicksburg Forest Products LLC
Vicksburg, Mississippi



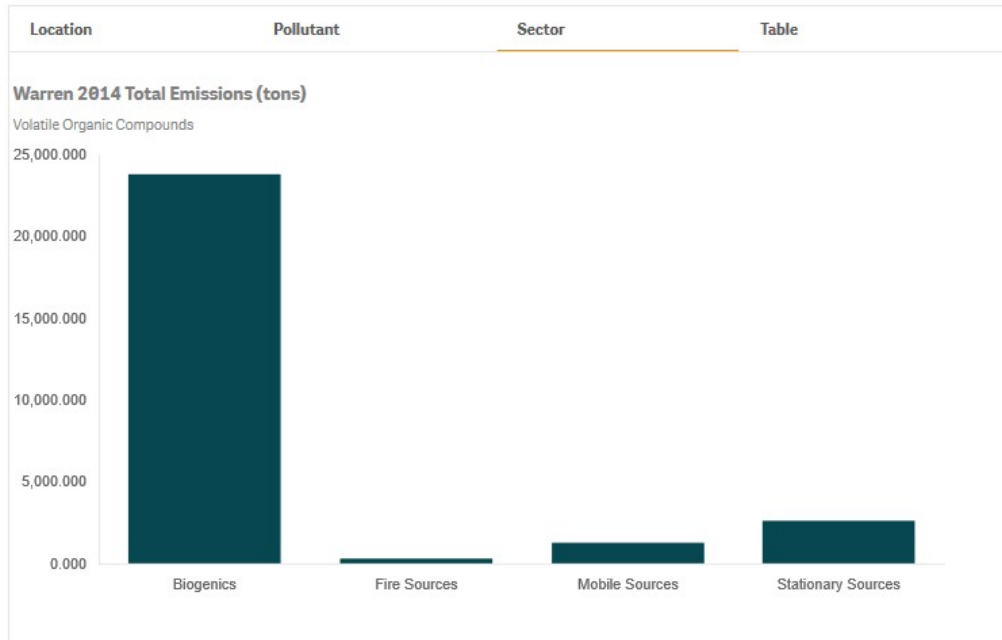


Figure 4 – VOC Emissions in Warren County by Sector, 2014 National Emissions Inventory

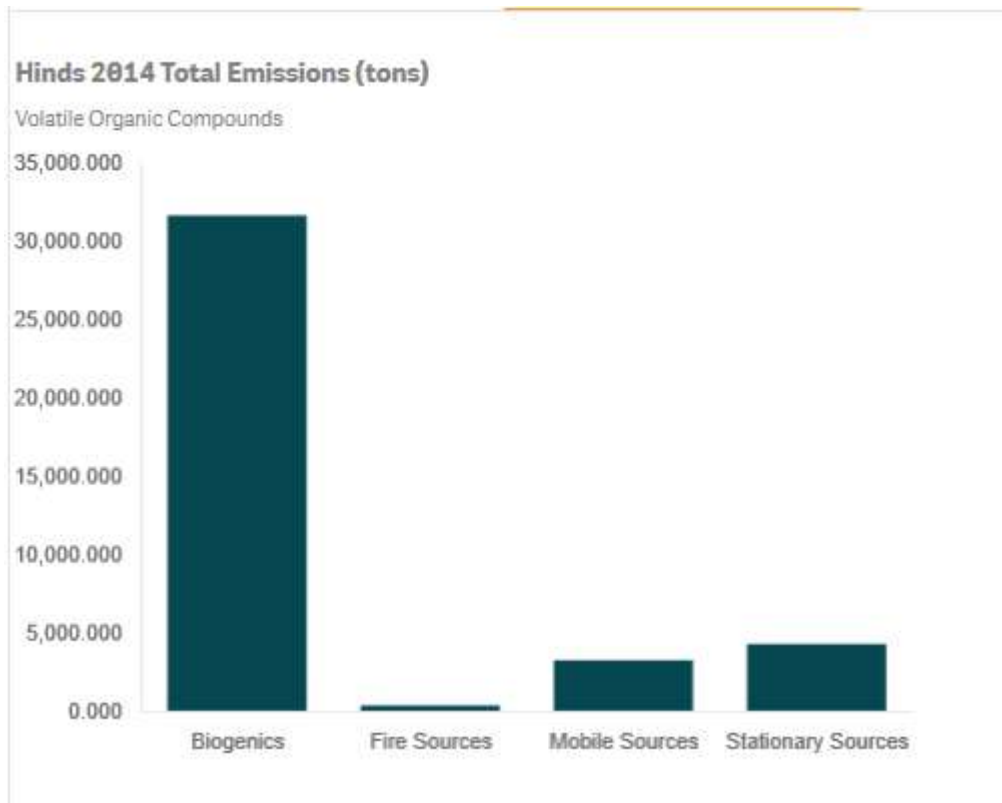


Figure 5 – VOC Emissions in Hinds County by Sector, 2014 National Emissions Inventory

https://edap.epa.gov/public/extensions/nei_report_2014/dashboard.html#sector-db

Tables

Table 1 – Project Emissions Increase

Pollutant	Increase (TPY)	PSD SER	PSD Review
PM – Particulate Matter	17.82	25	N
PM ₁₀ – PM less than 10 microns	14.14	15	N
PM _{2.5} – PM less than 2.5 microns	9.90	10	N
VOC – Volatile Organic Compounds	355.95	40	Y
SO ₂ – Sulfur Dioxide	1.11	40	N
NO _x – Oxides of Nitrogen	13.33	40	N
CO – Carbon Monoxide	41.61	100	N
Lead – Lead and Lead Compounds	0.00	7	N
CO ₂ e – Greenhouse Gas Carbon Dioxide Equivalent	16,735	75,000	N

Table 2 – Emissions Increase by Emission Unit

Emissions Unit	Pollutant	EF	Units	Reference	Projected Actual Emissions	Accomodated Emissions	Adjusted Projected Actual	Baseline Emissions			Emissions Increase		
								2015	2014	2-yr Avg			
Maximum Production Rate (MBF/yr)=====>>					164114		164114	0	0	0	164114		
New 2-Steam CDKs	PM	0.022	lb/MBF	North Carolina Emissions Estimation Spreadsheet Woodwork (Lumber Kilns) PM10 and PM2.5 assumed equal to PM	1.81		1.81				1.81		
	PM ₁₀	0.022	lb/MBF		1.81		1.81			1.81			
	PM _{2.5}	0.022	lb/MBF		1.81		1.81			1.81			
	VOC	4.43	lb/MBF	Selected BACT	363.51		363.51				363.51		
Projected Heat Input (MMBtu/yr)=====>>					788,937	84,040	704,897	480,230	593,858	537,044	167,853		
Projected Steam Input (Mlb/yr)=====>>					481,251	51,264	429,987	292,941	362,254	327,597	102,390		
AA-002 Boiler	PM	0.275	lb/MMBtu	Average of Boiler Tests 2016, 2018 & 2020	108.35	13.82	94.52	79.00	97.69	88.34	6.18		
	PM ₁₀	0.267	lb/MMBtu	91% of PM + 0.017 lb-CPM/MMBtu	105.30	13.29	92.01	75.97	93.95	84.96	7.05		
	PM _{2.5}	0.165	lb/MMBtu	54% of PM + 0.017 lb-CPM/MMBtu	65.21	8.18	57.03	46.74	57.80	52.27	4.76		
	VOC	0.010	lb/MMBtu	Average of Boiler Tests 2016, 2018 & 2020	4.09	0.14	3.95	0.41	0.68	0.55	3.40		
	SO2	0.004	lb/MMBtu		1.75	0.10	1.65	0.41	0.68	0.55	1.11		
	Nox	0.197	lb/MMBtu		77.84	9.25	68.59	45.14	65.38	55.26	13.33		
	CO	0.203	lb/MMBtu		80.21	2.37	77.84	55.71	16.75	36.23	41.61		
	Lead	4.80E-05	lb/MMBtu	AP-42	0.02	0.00	0.02	0.01	0.01	0.01	0.00		
	CO2e	1.99E+02	lb/MMBtu	AP-42 & Part 98	78656.59	8378.71	70277.89	47878.73	59207.39	53543.06	16734.83		
Projected Gross Production Rate (MBF)=====>>					187,500		187,500	27,428	25,867	26,648	160,852		
AA-001 Woodwaste Handling System with 1 Baghouse and Cyclone	PM	0.001	lb/BDT	Source to be removed.	0.00		0.00	0.15	0.33	0.24	-0.24		
	PM ₁₀	0.000995	lb/BDT		0.00		0.00	0.15	0.33	0.24	-0.24		
	PM _{2.5}	0.00099	lb/BDT		0.00		0.00	0.15	0.33	0.24	-0.24		
	VOC	0.12	lb/BDT		0.00		0.00	0.00	0.00	0.00	0.00		
AA-001 New Planer Cyclone	PM	0.20	lb/BDT	EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country" for high efficiency cyclone.	3.67		3.67				3.67		
	PM ₁₀	0.19	lb/BDT		3.53		3.53				3.53		
	PM _{2.5}	0.16	lb/BDT		2.97		2.97				2.97		
	VOC	0.12	lb/BDT	Weyerhaeuser Philadelphia Application	2.36		2.36				2.36		
AA-006 Sawmill Fugitives	PM	Calculations Worksheet			2.91		2.91	1.34	0.72	1.03	1.87		
	PM ₁₀				1.45		1.45	0.67	0.36	0.52	0.93		
	PM _{2.5}				0.71		0.71	0.33	0.18	0.26	0.46		
AA-007 Roads	PM	Calculations Worksheet			5.93		5.93	1.45	1.43	1.44	4.48		
	PM ₁₀				1.38		1.38	0.34	0.33	0.34	1.04		
	PM _{2.5}				0.18		0.18	0.04	0.04	0.04	0.14		
AA-009 Lumber Treatment	VOC	Source to be removed.			0.00		0.00	9.16	11.00	10.08	-10.08		
AA-010 End Coating	VOC	Source to be removed.			0.00		0.00	6.42	0.08	3.25	-3.25		
Production Rate (BDT)=====>>					166,125		166,125	17,958	30,751	24,354	141,771		
AA-013 Truck Loadout	PM	0.00075	lb/BDT	EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country" drop of wet material.	0.06		0.06	0.01	0.01	0.01	0.05		
	PM ₁₀	0.00035	lb/BDT		0.03		0.03	0.00	0.01	0.00	0.02		
	PM _{2.5}	0.00005	lb/BDT		0.00		0.00	0.00	0.00	0.00	0.00		
Totals				PM	122.72	13.82	108.89	81.96	100.19	91.07	17.82	25	N
				PM ₁₀	113.49	13.29	100.20	77.14	94.98	86.06	14.14	15	N
				PM _{2.5}	70.89	8.18	62.71	47.27	58.35	52.81	9.90	10	N
				VOC	369.96	0.14	369.82	15.99	11.76	13.87	355.95	40	Y
				SO2	1.75	0.10	1.65	0.41	0.68	0.55	1.11	40	N
				Nox	77.84	9.25	68.59	45.14	65.38	55.26	13.33	40	N
				CO	80.21	2.37	77.84	55.71	16.75	36.23	41.61	100	N
				Lead	0.02	0.00	0.02	0.01	0.01	0.01	0.00	7	N
				CO2e	78,657	8,379	70,278	47,879	59,207	53,543	16,735	75000	N

See Appendix B for Emissions Calculations

Appendix A

Mississippi Consolidated Air Application


FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT
Facility (Agency Interest) Information		Section A
1. Name, Address, and Location of Facility		
<p>A. Owner/Company Name: <u>Vicksburg Forest Products, LLC</u></p> <p>B. Facility Name (if different than A. above): <u>Vicksburg Forest Products LLC, Waltersville Lumber Mill</u></p> <p>C. Facility Air Permit No. (if known): <u>2780-00004</u></p> <p>D. Agency Interest No. (if known): <u>1536</u></p> <p>E. Physical Address</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1. Street Address: <u>1725 North Washington Street</u></p> <p>2. City: <u>Vicksburg</u></p> <p>4. County: <u>Warren</u></p> <p>6. Telephone No.: <u>601-429-6444</u></p> </div> <div style="width: 45%;"> <p>3. State: <u>MS</u></p> <p>5. Zip Code: <u>39183</u></p> <p>7. Fax No.: _____</p> </div> </div> <p>F. Mailing Address (if different from physical address)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1. Street Address or P.O. Box: <u>821338</u></p> <p>2. City: <u>Vicksburg</u></p> <p>3. State: <u>MS</u></p> </div> <div style="width: 45%;"> <p>4. Zip Code: <u>39182</u></p> </div> </div> <p>G. Latitude/Longitude Data</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1. Collection Point (check one): <input checked="" type="checkbox"/> Plant Entrance <input type="checkbox"/> Other: _____</p> <p>2. Method of Collection (check one): <input type="checkbox"/> GPS Specify coordinate system (NAD 83, etc.) _____ <input checked="" type="checkbox"/> Map Interpolation (Google Earth, etc.) <input type="checkbox"/> Other: _____</p> <p>3. Latitude (degrees/minutes/seconds): <u>32°22'50.00"N</u></p> <p>4. Longitude (degrees/minutes/seconds): <u>90°52'4.19"W</u></p> <p>5. Elevation: <u>106</u> feet</p> </div> <div style="width: 45%;"></div> </div> <p>H. SIC/NAICS Codes (primary code listed first)</p> <p>SIC: <u>2421</u></p> <p>NAICS: <u>321113</u></p> <p>(NAICS Code should correspond with the SIC Code directly above.)</p>		
2. Name and Address of Facility Contact		
<p>A. Name: <u>Chris Barnett</u> Title: <u>Environmental Manager</u></p> <p>B. Mailing Address</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1. Street Address or P.O. Box: <u>821338</u></p> <p>2. City: <u>Vicksburg</u></p> <p>4. Zip Code: <u>39182</u></p> <p>6. Telephone No.: <u>601-429-6443</u></p> </div> <div style="width: 45%;"> <p>3. State: <u>MS</u></p> <p>5. Email: <u>cbarnett@vicksburgfp.com</u></p> <p>7. Fax No.: <u>(601) 629-3626</u></p> </div> </div>		

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT
Facility (Agency Interest) Information		Section A
3. Name and Address of Air Contact (if different from Facility Contact)		
<p>A. Name: _____ Title: _____</p> <p>B. Mailing Address</p> <p>1. Street Address or P.O. Box: _____</p> <p>2. City: _____ 3. State: _____</p> <p>4. Zip Code: _____ 5. Email: _____</p> <p>6. Telephone No.: _____ 7. Fax No.: _____</p>		
4. Name and Address of the Responsible Official for the Facility		
<p><i>The Responsible Official is defined as one of the following:</i></p> <p>a. <i>For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated in accordance with corporate procedures.</i></p> <p>b. <i>For a partnership or sole proprietorship: a general partner or the proprietor, respectively.</i></p> <p>c. <i>For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For purposes of these regulations, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA). A principal executive officer of a military facility includes the facility commander, chief executive officer, or any other similar person who performs similar policy or decision-making functions for the institution.</i></p> <p>A. Name: <u>William J Van Devender Jr</u> Title: <u>Assistant Manager</u></p> <p>B. Mailing Address</p> <p>1. Street Address or P.O. Box: <u>5327</u></p> <p>2. City: <u>Jackson</u> 3. State: <u>MS</u></p> <p>4. Zip Code: <u>39296</u> 5. Email: <u>william@claw-forestry.com</u></p> <p>6. Telephone No.: _____ 7. Fax No.: _____</p> <p>C. Is the person above a duly authorized representative <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No and not a corporate officer?</p> <p>If yes, has written notification of such authorization been submitted to MDEQ? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Request for authorization is attached </p>		

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT
Facility (Agency Interest) Information		Section A
5. Type of Permit Application (Check all that apply)		
<p>State Permit to Construct (i.e., non-PSD or PSD avoidance) <input type="checkbox"/> Initial Application <input type="checkbox"/> Modification</p> <p>New Source Review (NSR) Permit to Construct (includes both Prevention of Significant Deterioration (PSD) and Nonattainment) <input type="checkbox"/> Initial Application <input checked="" type="checkbox"/> Modification</p> <p>Title V Operating Permit <input type="checkbox"/> Initial Application <input type="checkbox"/> Re-issuance: <i>Are any modifications to the permit/facility being requested?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If yes, provide a separate sheet identifying the modification(s) and resulting change to emissions.)</i> <input type="checkbox"/> Modification (Specify type): <input type="checkbox"/> Significant <input type="checkbox"/> Minor <input type="checkbox"/> Administrative</p> <p>Synthetic Minor Operating Permit (Appendix B must be completed and attached.) <input type="checkbox"/> Initial Application <input type="checkbox"/> Re-issuance: <i>Are any modifications to the permit/facility being requested? If yes, address such on a separate sheet.</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Modification</p> <p>State Permit to Operate a Significant Minor Source (defined in 11 Miss. Admin. Code Pt. 2, R.2.1.C(25).) <input type="checkbox"/> Initial Application <input type="checkbox"/> Re-issuance: <i>Are any modifications to the permit/facility being requested? If yes, address such on a separate sheet.</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Modification</p> <p>True Minor Determination <input type="checkbox"/> Uncontrolled potential to emit air pollutants is below the Title V thresholds</p>		
6. Process/Product Details		
<p>A. List Significant Raw Materials (if applicable): <u>Pine Logs</u></p> <p>B. List All Products (if applicable): <u>Dimensional Lumber</u></p> <p>C. Brief Description of Principal Process(es): <u>Sawmill, Kiln Drying and Lumber Planing</u></p>		

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT																																								
Facility (Agency Interest) Information			Section A																																							
6. Process/Product Details (continued)																																										
<p>D. Maximum Throughput for Raw Material(s) <i>(if applicable)</i>:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 5px;">Raw Material</th> <th style="padding: 5px;">Throughput</th> <th style="padding: 5px;">Units</th> </tr> <tr> <td style="padding: 5px;">Pine Logs</td> <td style="padding: 5px;">830,625</td> <td style="padding: 5px;">Tons/yr</td> </tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> </table> <p>E. Maximum Throughput for Principal Product(s) <i>(if applicable)</i>:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 5px;">Product</th> <th style="padding: 5px;">Throughput</th> <th style="padding: 5px;">Units</th> </tr> <tr> <td style="padding: 5px;">Dimensional Lumber</td> <td style="padding: 5px;">187.5</td> <td style="padding: 5px;">MMBF/yr</td> </tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> <tr><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td><td style="padding: 5px;"> </td></tr> </table>				Raw Material	Throughput	Units	Pine Logs	830,625	Tons/yr																Product	Throughput	Units	Dimensional Lumber	187.5	MMBF/yr												
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<p>A. Attach a topographical map of the area extending to at least ½ mile beyond the property boundaries. The map must show the outline of the property boundaries.</p> <p>B. Attach a site map/diagram showing the outline of the property, an outline of all buildings and roadways on the site, and the location of each significant air emission source.</p>																																										

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT	
Facility (Agency Interest) Information			Section A
9. Zoning			
<p>A. Is the facility (either existing or proposed) located in accordance with any applicable city and/or county zoning ordinances? If no, please explain. <u>Yes</u></p> <p>B. Is the facility (either existing or proposed) required to obtain any zoning variance to locate/expand the facility at this site? If yes, please explain. <u>No</u></p>			
10. Risk Management Plan			
<p>A. Is the facility required to develop and register a risk management plan pursuant to Section 112(r), regulated under 40 CFR Part 68? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>B. If yes, to whom was the plan submitted? _____ Date submitted: _____</p>			
11. Is confidential information being submitted with this application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<p><i>If so, please follow the procedures outlined in the Mississippi Code Ann. Sections 49-17-39 and 17-17-27(6), as outlined in MCEQ-2 – “Regulation regarding the review and reproduction of public records”.</i></p>			
12. MS Secretary of State Registration / Certificate of Good Standing			
<p><i>No permit will be issued to a company that is not authorized to conduct business in Mississippi. If the company applying for the permit is a corporation, limited liability company, a partnership or a business trust, the application package should include proof of registration with the Mississippi Secretary of State and/or a copy of the company’s Certificate of Good Standing. The name listed on the permit will include the company name as it is registered with the Mississippi Secretary of State.</i></p> <p><i>It should be noted that for an application submitted in accordance with 11 Miss. Admin. Code Pt. 2, R. 2.8.B. to renew a State Permit to Operate or in accordance with 11 Miss. Admin. Code Pt. 2, R. 6.2.A(1)(c). to renew a Title V Permit to be considered timely and complete, the applicant shall be registered and in good standing with the Mississippi Secretary of State to conduct business in Mississippi.</i></p>			

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT	
Facility (Agency Interest) Information			Section A
13. Certification			
<p><i>Note: If approved by MDEQ, a duly authorized representative (DAR) may sign the air permit application. The DAR must be listed in Section 4 of this application.</i></p> <p><i>I certify that to the best of my knowledge and belief formed after reasonable inquiry, the statements and information in this application are true, complete, and accurate, and that as a responsible official, my signature shall constitute an agreement that the applicant assumes the responsibility for any alteration, additions, or changes in operation that may be necessary to achieve and maintain compliance with all applicable Rules and Regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.</i></p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;">  <hr style="width: 80%; margin: 0 auto;"/> Signature of Responsible Official/DAR </div> <div style="width: 45%; text-align: center;"> <p><i>July 23rd, 2020</i></p> <hr style="width: 80%; margin: 0 auto;"/> Date </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;"> <hr style="width: 80%; margin: 0 auto;"/> William J Van Devender Jr Printed Name </div> <div style="width: 45%; text-align: center;"> <hr style="width: 80%; margin: 0 auto;"/> Assistant Manager Title </div> </div>			

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<p>For the sections below, indicate the number that have been completed for each section as part of the application.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Section A <u> 1 </u></td> <td style="width: 33%;">Section L1 <u> </u></td> <td style="width: 33%;">Section M5 <u> </u></td> </tr> <tr> <td>Section B <u> 1 </u></td> <td>Section L2 <u> 1 </u></td> <td>Section M6 <u> </u></td> </tr> <tr> <td>Section C <u> 1 </u></td> <td>Section L3 <u> </u></td> <td>Section M7 <u> </u></td> </tr> <tr> <td>Section D <u> </u></td> <td>Section L4 <u> </u></td> <td>Section M8 <u> </u></td> </tr> <tr> <td>Section E <u> 3 </u></td> <td>Section L5 <u> </u></td> <td>Section M9 <u> </u></td> </tr> <tr> <td>Section F <u> </u></td> <td>Section L6 <u> </u></td> <td>Section M10 <u> </u></td> </tr> <tr> <td>Section G <u> </u></td> <td>Section L7 <u> </u></td> <td>Section N <u> 1 </u></td> </tr> <tr> <td>Section H <u> </u></td> <td>Section M1 <u> </u></td> <td>Appendix A <u> </u></td> </tr> <tr> <td>Section I <u> </u></td> <td>Section M2 <u> </u></td> <td>Appendix B <u> </u></td> </tr> <tr> <td>Section J <u> </u></td> <td>Section M3 <u> </u></td> <td>Appendix C <u> 1 </u></td> </tr> <tr> <td>Section K <u> </u></td> <td>Section M4 <u> </u></td> <td></td> </tr> </table> <p style="margin-top: 20px;">The following permit applications must contain the specified sections, at a minimum, to be considered administratively complete.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Permit Type</th> <th colspan="4" style="text-align: center;">Section</th> <th colspan="3" style="text-align: center;">Appendix</th> </tr> <tr> <th></th> <th style="text-align: center;">A</th> <th style="text-align: center;">B</th> <th style="text-align: center;">M</th> <th style="text-align: center;">N</th> <th style="text-align: center;">A</th> <th style="text-align: center;">B</th> <th style="text-align: center;">C</th> </tr> </thead> <tbody> <tr> <td>State Permit to Construct</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>New Source Review (PSD) Permit</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td style="text-align: center;">X</td> <td></td> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td>Title V Operating Permit</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Synthetic Minor Operating Permit</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>State Permit to Operate</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>True Minor Determination</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Section A <u> 1 </u>	Section L1 <u> </u>	Section M5 <u> </u>	Section B <u> 1 </u>	Section L2 <u> 1 </u>	Section M6 <u> </u>	Section C <u> 1 </u>	Section L3 <u> </u>	Section M7 <u> </u>	Section D <u> </u>	Section L4 <u> </u>	Section M8 <u> </u>	Section E <u> 3 </u>	Section L5 <u> </u>	Section M9 <u> </u>	Section F <u> </u>	Section L6 <u> </u>	Section M10 <u> </u>	Section G <u> </u>	Section L7 <u> </u>	Section N <u> 1 </u>	Section H <u> </u>	Section M1 <u> </u>	Appendix A <u> </u>	Section I <u> </u>	Section M2 <u> </u>	Appendix B <u> </u>	Section J <u> </u>	Section M3 <u> </u>	Appendix C <u> 1 </u>	Section K <u> </u>	Section M4 <u> </u>		Permit Type	Section				Appendix				A	B	M	N	A	B	C	State Permit to Construct	X	X		X				New Source Review (PSD) Permit	X	X		X			X	Title V Operating Permit	X	X	X	X	X			Synthetic Minor Operating Permit	X	X	X	X		X		State Permit to Operate	X	X	X	X				True Minor Determination	X	X					
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Maximum Uncontrolled Emissions are the emissions at maximum capacity and prior to (in the absence of) pollution control, emission-reducing process equipment, or any other emission reduction. Calculate the hourly emissions using the worst case hourly emissions for each pollutant. For each pollutant, calculate the annual emissions as if the facility were operating at maximum plant capacity without pollution controls for 8760 hours per year, unless otherwise approved by the Department. List Hazardous Air Pollutants (HAP) in Section B.3 and GHGs in Section B.4. Emission Point numbering must be consistent throughout the application package and, for existing emission points, should match any MDEQ ID's in the current permit. Fill all cells in this table with the emission numbers or a "-" symbol. A "--" symbol indicates that emissions of this pollutant are not expected. Emissions > 0.01 TPY must be included. Please do not change the column widths on this table.

Emission Point ID	PM		PM10		PM2.5		SO ₂		NOx		CO		VOC		TRS ²		Lead		Total HAPs	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
DPK-1	0.22	1.80558	0.22	1.80558	0.22	1.80558	-	-	-	-	-	-	44.62	363.579	-	-	-	-	2.5583	20.8463
DPK-2	0.22	1.80558	0.22	1.80558	0.22	1.80558	-	-	-	-	-	-	44.62	363.579	-	-	-	-	2.5583	20.8463
AK-1 to 28	0.06	0.26	0.06	0.26	0.06	0.26	-	-	-	-	-	-	11.83	51.80	-	-	-	-	0.6781	2.9700
AA-001	0.85	3.71	0.80	3.53	0.68	2.97	-	-	-	-	-	-	0.51	2.23	-	-	-	-	-	-
AA-002	27.03	118.38	26.27	115.05	16.27	71.25	0.44	1.91	19.42	85.05	20.01	87.64	1.02	4.47	-	-	0.00	0.02	2.30843	9.25408
AA-006	0.66	2.91	0.33	1.45	0.16	0.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AA-007	1.78	5.93	0.42	1.38	0.05	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AA-013	0.02	0.11	0.01	0.05	0.00	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	30.84	134.90	28.33	125.33	17.66	78.99	0.44	1.91	19.42	85.05	20.01	87.64	102.59	785.65	0.00	0.00	0.00	0.02	8.10309	53.9167

² **TRS:** Total reduced sulfur (TRS) is the sum of the sulfur compounds hydrogen sulfide (H₂S), methyl mercaptan (CH₃S), dimethyl sulfide (C₂H₆S), and dimethyl disulfide (C₂H₆S₂).

Proposed Allowable Emissions (Potential to Emit) are those emissions the facility is currently permitted to emit as limited by a specific permit requirement or federal/state standard (e.g., a MACT standard); or the emission rate at which the facility proposes to emit considering emissions control devices, restrictions to operating rates/hours, or other requested permit limits that reduce the maximum emission rates. Emission Point numbering must be consistent throughout the application package and, for existing emission points, should match any MDEQ ID's in the current permit. Fill all cells in this table with the emission numbers or a "-" symbol. A "--" symbol indicates that emissions of this pollutant are not expected. Additional columns may be added if there are regulated pollutants (other than HAPs and GHGs) emitted at the facility.

Emission Point ID	TSP ¹		PM10 ¹		PM2.5 ¹		SO ₂		NOx		CO		VOC		TRS		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
DPK-1	0.22	1.81	0.22	1.81	0.22	1.81	-	-	-	-	-	-	44.62	363.58	-	-	-	-
DPK-2	0.22	1.81	0.22	1.81	0.22	1.81	-	-	-	-	-	-	44.62	363.58	-	-	-	-
AK-1 to 28	0.06	0.26	0.06	0.26	0.06	0.26	-	-	-	-	-	-	11.83	51.80	-	-	-	-
AA-001	0.85	3.71	0.80	3.53	0.68	2.97	-	-	-	-	-	-	0.51	2.23	-	-	-	-
AA-002	27.03	108.35	26.27	105.30	16.27	65.21	0.44	1.91	19.42	85.05	20.01	87.64	1.02	4.47	-	-	0.0047	0.0207
AA-006	0.66	2.91	0.33	1.45	0.16	0.71	-	-	-	-	-	-	-	-	-	-	-	-
AA-007	1.78	5.93	0.42	1.38	0.05	0.18	-	-	-	-	-	-	-	-	-	-	-	-
AA-013	0.02	0.11	0.01	0.05	0.00	0.01	-	-	-	-	-	-	-	-	-	-	-	-
Totals	30.84	124.87	28.33	115.58	17.66	72.96	0.44	1.91	19.42	85.05	20.01	87.64	102.59	785.65			0.0047	0.0207

² **TRS:** Total reduced sulfur (TRS) is the sum of the sulfur compounds hydrogen sulfide (H₂S), methyl mercaptan (CH₃S), dimethyl sulfide (C₂H₆S), and dimethyl disulfide (C₂H₆S₂).

In the table below, report the Proposed Allowable Emissions (Potential to Emit) for each HAP from each regulated emission unit if the HAP > 0.0001 tpy. Each facility-wide Individual HAP total and the facility-wide Total HAPs shall be the sum of all HAP sources. Use the HAP nomenclature as it appears in the Instructions. Emission Point numbering must be consistent throughout the application package and, for existing emission points, should match any MDEQ ID's in the current permit. For each HAP listed, fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected or the pollutant is emitted in a quantity less than the threshold amounts described above. Additional columns may be added as necessary to address each HAP.

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Applicants must report potential emission rates in SHORT TONS per year, as opposed to metric tons required by Part 98. Emission Point numbering must be consistent throughout the application package and, for existing emission points, should match any MDEQ ID's in the current permit.

[illegible]

Emission Point numbering must be consistent throughout the application package and, for existing emission points, should match any MDEQ ID's in the current permit.

[illegible]

¹ A WAAS-capable GPS receiver should be used and in the WGS84 or NAD83 coordinate system.

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT																																							
Fuel Burning Equipment – External Combustion Sources					Section C																																				
1. Emission Point Description																																									
<p>A. Emission Point Designation (Ref. No.): <u>AA-001</u></p> <p>B. Equipment Description: <u>Wood Fired Boiler</u></p> <p>C. Manufacturer: <u>Wellons</u> D. Model Yr. and No.: _____</p> <p>E. Maximum Heat Input (higher heating value): <u>98.4</u> MMBtu/hr F. Nominal Heat Input Capacity: <u>98.4</u> MMBtu/hr</p> <p>G. For units subject to NSPS Db, is the heat release rate > 70,000 Btu/hr-ft³? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>H. Use: <input type="checkbox"/> Electrical Generation <input checked="" type="checkbox"/> Steam <input type="checkbox"/> Process Heat <input type="checkbox"/> Space Heat <input type="checkbox"/> Standby/Emergency <input type="checkbox"/> Other (describe): _____</p> <p>I. Heat Mechanism: <input type="checkbox"/> Direct <input checked="" type="checkbox"/> Indirect</p> <p>J. Burner Type (e.g., pulverized coal, forced draft, atomizing oil, low-NO_x, etc.): <u>Fuel Cell</u></p> <p>K. Additional Design Controls (e.g., FGR, etc.): _____</p> <p>L. Status: <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Proposed <input type="checkbox"/> Under Construction</p> <p>M. Date of construction, reconstruction, or most recent modification (for existing sources) or date of anticipated construction: <u>1988</u></p>																																									
2. Fuel Type																																									
<p>Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 16.6%;">FUEL TYPE¹</th> <th style="width: 16.6%;">HEAT CONTENT</th> <th style="width: 16.6%;">% SULFUR</th> <th style="width: 16.6%;">% ASH</th> <th style="width: 16.6%;">MAXIMUM HOURLY USAGE</th> <th style="width: 16.6%;">MAXIMUM YEARLY USAGE</th> </tr> </thead> <tbody> <tr> <td>Wood Residue</td> <td>4350 btu/lb</td> <td><0.03%</td> <td><0.01%</td> <td>98.4 MMBtu</td> <td>788,303 MMBtu</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>Please list any fuel components that are hazardous air pollutants and the percentage in the fuel: _____</p> <p>¹ Boilers burning solid waste may be considered “solid waste incinerators” for purposes of complying with federal regulations. However, you are only required to complete Section C, not I, of this application as long as the wastes combusted are indicated in the table above.</p>						FUEL TYPE ¹	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	MAXIMUM YEARLY USAGE	Wood Residue	4350 btu/lb	<0.03%	<0.01%	98.4 MMBtu	788,303 MMBtu																								
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FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT																													
Manufacturing Processes			Section E																												
1. Emission Point Description																															
A. Emission Point Designation (Ref.: No.): <u>AA-006</u>																															
B. Process Description: <u>Sawmill Fugitive emissions including debarking, hogging of bark/chips, and mechanical handling of wood residuals</u>																															
C. Manufacturer: <u>Custom</u>		D. Model: _____																													
E. Max. Design Capacity (specify units): <u>250 tons/hr</u> Equivalent to: _____ tons/hr																															
F. Status: <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Proposed <input type="checkbox"/> Under Construction																															
G. Operating Schedule (Actual): <u>18</u> hrs/day <u>5</u> days/week <u>50</u> weeks/yr																															
H. Date of construction, reconstruction, or most recent modification (for existing sources) or date of anticipated construction: _____																															
2. Raw Material Input																															
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3. Product Output																															
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FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT								
Cyclones		Section L2								
1. Cyclone Description										
<p>A. Emission Point Designation (Ref. No.): <u>AA-001</u></p> <p>B. Equipment Description (include the process(es) that the cyclone(s) controls emissions from):</p> <p>C. Manufacturer: <u>TimberNA</u> D. Model: <u>TBD</u></p> <p>E. Status: <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Proposed <input type="checkbox"/> Under Construction</p>										
2. Cyclone Data										
<p>A. Cyclone Type:</p> <p style="padding-left: 40px;"> <input type="checkbox"/> Conventional <input checked="" type="checkbox"/> High Efficiency <input type="checkbox"/> Multiclone <input type="checkbox"/> Other: _____ </p> <p>B. Efficiency (PM): <u> * </u> % C. Gas Viscosity: _____ poise</p> <p>D. Pressure Drop: _____ in. H₂O E. Inlet air flow rate: _____ acfm</p> <p>F. Pollutant particle diameter: _____ microns G. Baffles/Louvers? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>H. Cyclone Dimensions:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. Inlet height: _____ ft</td> <td style="width: 50%;">2. Inlet width: _____ ft</td> </tr> <tr> <td>3. Cylinder diameter: _____ ft</td> <td>4. Cylinder height: _____ ft</td> </tr> <tr> <td>5. Cone height: _____ ft</td> <td>6. Outlet pipe diameter: _____ ft</td> </tr> <tr> <td>7. Dust exit diameter: _____ ft</td> <td></td> </tr> </table> <p>I. Is wet spray used? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="padding-left: 40px;"> 1. No. of nozzles: _____ 2. Liquid used: _____ 3. Flow rate: _____ gpm 4. Make-up rate: _____ gpm </p> <p>J. Fan Location: <input type="checkbox"/> Downstream (direct emissions) <input type="checkbox"/> Downstream (auxiliary stack)</p> <p style="padding-left: 40px;"> <input type="checkbox"/> Upstream (no cap/vertical emissions) <input type="checkbox"/> Upstream (fixed cap/diffuse emissions) <input type="checkbox"/> Upstream (wind respondent cap/horizontal emissions) </p> <p>K. How is the collected dust stored, handled, and disposed of?</p>			1. Inlet height: _____ ft	2. Inlet width: _____ ft	3. Cylinder diameter: _____ ft	4. Cylinder height: _____ ft	5. Cone height: _____ ft	6. Outlet pipe diameter: _____ ft	7. Dust exit diameter: _____ ft	
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3. Cylinder diameter: _____ ft	4. Cylinder height: _____ ft									
5. Cone height: _____ ft	6. Outlet pipe diameter: _____ ft									
7. Dust exit diameter: _____ ft										

*Emissions based on EPA Technical Memoranda for Sawmills

Applicable Requirements and Status**Section N****1. Summary of Applicable Requirements**

Provide a list of all applicable federal standards for which your facility is or will be subject to, as well as a list of all Construction Permits establishing limits or restrictions issued to your facility. The specific emission standards and limitations applicable to each emission point shall be provided on the following pages (Parts 2 and 3).

Federal Regulations:

40 CFR Part	52.21	Subpart	
	61		M
	63		DDDD
	63		DDDDD

State Construction Permits¹:

	MM/DD/YY ²	PSD	PSD Avoidance ³	Other
Permit to Construct issued:	5/24/1988	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9/17/1999	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	10/3/2018	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹ Any Construction Permits containing requirements that are currently applicable to the facility should be addressed in this section.

² If the permit has been modified, give the most recent modification date.

³ Because permits are issued on a pollutant-by-pollutant basis, a PSD permit may be significant for one pollutant while also containing PSD avoidance limits for another pollutant. Therefore, you may check multiple boxes for each permit.

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT
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Applicable Requirements and Status
Section N
2. Current Applicable Requirements

List all applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

EMISSION POINT NO.	APPLICABLE REQUIREMENT (Regulatory citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING	COMPLIANCE STATUS (In/Out) ^{1,2}
AA-100	PSD PtC 10/3/2018	HAPS	9.9 Individual 24.9 Total	Calculations based on throughput	In
AA-001	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	Opacity	40%	Visible Observation	In
AA-002	11 Miss. Admin. Code Pt. 2, R.1.3.D.(2).	PM	0.3 gr/dscf	Stack Test	In
	PtC Issued on May 24, 1988 and Modified on September 17, 1999	PM	45.6 lb/hr, 199.7 tpy	Stack Test Track Steam Production	In
		NO _x	30.0 lb/hr, 131.4 tpy		In
		SO ₂	2.3 lb/hr, 10.1 tpy		In
		CO	23.2 lb/hr, 101.6 tpy		In
		VOC	8 lb/hr, 36 tpy		In
	11 Miss. Admin. Code Pt. 2, R. 1.4.A.(1).	SO ₂	4.8 lb/MMBtu Heat Input	Stack Test	In
	PtC Issued on October 3, 2018	Fuel	Uncontaminated Wood Waste	Process Knowledge	In
	40 CFR Part 63, Subpart JJJJJ	HAPs	Applicability	Work Practice	In
	11 Miss. Admin. Code Pt. 2, R. 1.3.A.	Opacity	40%	Method 9/Weekly observations	In

¹ Per APC-S-6, Section II.C.8.b(1) for Title V sources, by specifying that the source is in compliance with the applicable requirement(s), I (the applicant) am certifying that I will continue to operate and maintain this source to assure compliance for the duration of the permit term.

² Per APC-S-6, Section II.C.8.b(3) for Title V sources, by specifying that the source is out of compliance with the applicable requirement(s), I (the applicant) am submitting a schedule, attached herein, which includes a description of the problems and proposed solutions in accordance with APC-S-6, Section II.C.8.c.

FORM 5	MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT
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Applicable Requirements and Status
Section N
3. Future Applicable Requirements

List all future applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements.

EMISSION POINT NO.	FUTURE APPLICABLE REQUIREMENT (Regulation citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING	COMPLIANCE DATE ¹
DPK-1 & 2	PSD Construction Permit	VOC	4.43 lb/MBF	Work Practice Standards	Upon Issuance
AA-001	11 Miss. Admin. Code Pt. 2, R. 1.3.B	Opacity	40%	Weekly Visual Observation Method 9 if visible	Upon Issuance
AA-002	PSD Construction Permit	PM	108.35 tpy	Stack Test Methods 5, 201a, 202 Determine EF as lb/Mlb Steam Track Steam Production Track emissions as EF x Steam Production	Upon Issuance
		PM ₁₀	105.30 tpy		Upon Issuance
		PM _{2.5}	65.21 tpy		Upon Issuance
	40 CFR Part 63 Subpart DDDD	HAPs	Applicability	To be determined	3-yrs after beginning operation
AA-100	40 CFR Part 63 Subpart DDDDD	HAPs	Applicability	Initial Notification	Application Submittal

¹ Per 11 Miss. Admin. Code Pt. 2, R. 6.2.C(8)(b)(2)., for Title V sources, for future applicable requirements which will become effective during the permit term, I (the applicant) am certifying that I will meet such requirements on a timely basis.

FORM 5		MDEQ		MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT	
Air Quality Analysis Checklist					Appendix C
SUBMIT					
Yes		N/A			
<p><i>Note: Appendix C must be completed and included with the application for a Prevention of Significant Deterioration (PSD) Permit to Construct. All elements of the checklist should be addressed. See the Application Instructions for further information.</i></p>					
<input checked="" type="checkbox"/>	<input type="checkbox"/>	I. Applicant and Consultant Information			
		<p>a. Name, address, and location of facility</p> <p>b. Facility Air Permit Number</p> <p>c. Chris Barnett, Environmental Manager, (601) 429-6443</p> <p>d. Bruce Ferguson, (601) 824-1864, bferguson@fce-engineering.com</p>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	II. Description of Facility Operations			
		<p>See application</p> <p><i>A brief description of each process to be carried out in the facility and the function of the equipment used in the process. The descriptions must be complete and particular attention must be given to explaining all stages in the process where the discharge of any materials might contribute in any way to air pollution. Control procedures must be described in sufficient detail to show the extent of control of air contaminants anticipated in the design, specifying the expected efficiencies of the capture systems and the control devices. All obtainable data must be supplied concerning the nature, volumes, particle size, weights, chemical composition and concentrations of all types of air contaminants.</i></p>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	III. Project Description			
		<p>See Application</p> <p><i>A written description of the proposed project to include, but not limited to, a description of the project purpose and scope, general geographical location, types of emission sources and scenarios, pollutants evaluated, applicable averaging periods, and any special considerations (e.g., startup and shutdown operations, varying operational loads, operating restrictions, alternative operating scenarios) that will be included in the compliance demonstration modeling.</i></p>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	IV. Modeling Protocol			
		<p><i>Prior to submitting the PSD application and prior to performing any significant air dispersion modeling, the applicant is required to submit a modeling protocol to MDEQ for review. Upon review, the applicant will receive notification of acceptance of the modeling approach as well as guidance on any outstanding issues. Please be advised, an approved modeling protocol does not necessarily limit the extent of the modeling that will be required to demonstrate compliance with the applicable standards.</i></p> <p>Submittal Date: _____ Approval Date: _____</p>			

FORM 5		MDEQ		MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT	
Air Quality Analysis Checklist				Appendix C	
SUBMIT					
Yes	N/A				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	V. Model Selection			
		<p><i>The Preferred/Recommended dispersion models are listed in 40 CFR 51 Appendix W and are required to be used. All air quality analyses should be performed using the most currently available versions of EPA guideline models. Access to all current models is possible through the EPA Web Page http://www.epa.gov/scram/.</i></p> <ol style="list-style-type: none"> Discuss the general modeling approach (e.g., project impacts vs. cumulative impacts) and highlight any unique items. Identify the dispersion model(s), including the version number that was used in the modeling analysis. Discuss modeling options used and why they were considered appropriate for the proposed project. List the time-averaged pollutants modeled. Discuss any other modeling parameters or considerations used in the modeling analysis. <p>Alternative Model or Modeling Technique <i>Any deviation from an EPA preferred air quality model or development of an alternative modeling technique is subject to the alternative modeling requirements of Appendix W – Guideline on Air Quality Models, Section 3.2. Appropriate justification for the proposed alternative model or modeling technique must be provided to the EPA Regional Office for consideration and approval with concurrence of the EPA Model Clearinghouse.</i></p>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	VI. Meteorological Data			
		<p><i>The meteorological data should be the most recent available and adequately representative. It may be site-specific data, data from a nearby National Weather Service (NWS) or comparable station, or prognostic meteorological data.</i></p> <p><i>The use of five (5) years of adequately representative NWS or comparable meteorological data, at least one (1) year of site-specific data, or at least three (3) years of prognostic meteorological data are required. If one (1) year or more (up to 5 years) of site-specific data are available, these data are preferred for use in air quality analyses, provided that the data meets quality-assurance requirements. The submittal must include a discussion of meteorological site representation based on recommendations in Appendix W, Guideline on Air Quality Models, Section 8.4.2(b).</i></p>			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	VII. Receptor and Terrain Discussion			
		<p><i>Receptor grids may be polar, cartesian, or discrete with receptor placement along the property boundary of the land owned or controlled by the facility and precluded from access by the general public through physical barriers or other measures and extending sufficiently outward to identify the maximum impacts from both the onsite and offsite emission sources for each pollutant and pollutant averaging periods evaluated. Receptor resolution may vary; however, receptors near the facility fenceline and in the area of controlling concentrations must be no greater than 100-meters. Controlling concentrations are those receptors that indicate a predicted concentration greater than 90% of an applicable standard.</i></p> <p><i>The most recent version of AERMAP should be used to import terrain and source elevations.</i></p>			

FORM 5		MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT
Air Quality Analysis Checklist			Appendix C
SUBMIT			
Yes	N/A		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	VIII. Emission Source Information	
		<p>Tables are required for identifying all baseline and increment sources used in the modeling, including all applicable stack parameters (UTM coordinate locations, emission rate, stack height, exit velocity, exit temperature and inner diameter), area source parameters (emission rate, southwest coordinates, height, width), and volume source parameters (emission rate, center coordinates, height, horizontal and vertical dimensions).</p> <p>a. Identify all emission units included in the modeling analysis. Provide a listing of the identifiers assigned to these sources for modeling purposes.</p> <p>b. Identify maximum potential short-term emission rates for all modeled pollutants in lb/hr and the associated g/sec emission rate. The maximum short-term emission rates for each source should be used to demonstrate compliance with all short-term averaging standards and guidelines.</p> <p>c. Identify maximum potential long-term emission rates for all modeled pollutants in ton/yr and the associated g/sec emission rate.</p> <p>d. Identify any operational limitation assumed for an emission unit.</p>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IX. Modeling Analysis	
		<p>MERP Analysis Included in application</p> <p>a. Significant Impact Analysis</p> <p><i>The preliminary analysis evaluates the potential increase in emissions from the project or the net increase in emissions associated with the modification. The results of the preliminary analysis determines whether or not a full impact analysis is required. If predicted concentrations from the project are below the applicable PSD Significant Impact Levels, a Full Impact Analysis is not required.</i></p> <p>b. Preconstruction Monitoring Analysis</p> <p><i>The initial screening modeling analysis must address pre-construction monitoring requirements for all proposed sources whose predicted ambient impact exceeds any of the PSD De Minimis Impact Levels (to support ambient monitoring exemption).</i></p> <p>c. Full Impact Analysis</p> <p><i>A full impact analysis consists of separate analysis for the National Ambient Air Quality Standards (NAAQS) and PSD Increments and will consider emissions from the proposed source or source modification, any existing on-on-site sources, off-site sources, and for the NAAQS analysis, background concentrations. The full impact analysis is conducted for Class II and Class I Areas. Each of these topics are discussed in detail in the EPA New Source Review Workshop Manual.</i></p> <p>i. NAAQS Analysis</p> <p>ii. PSD Increment Analysis</p>	

FORM 5		MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT	
Air Quality Analysis Checklist			Appendix C	
SUBMIT				
Yes		N/A		
IX. Modeling Analysis (continued)				
<div> <div>iii.</div> <div> Additional Impact Analysis <i>Discuss the impacts the proposed project will have on residential, commercial, and industrial growth in the area, and on soils, vegetation and visibility in the vicinity of the proposed project location.</i> <ol style="list-style-type: none"> Vegetation and Soils Impact Associated Growth Impact Class I Area Impact Analysis <i>Comprised of the Class I Increment Analysis and the Air Quality Related Value (AQRV) Analysis. When a Class I AQRV Analysis is required, the National Parks Service (NPS) - Air Resources Division, FWS - Air Quality Branch and FS - Air Quality Program have produced a guidance document entitled Federal Land Managers' Air Quality Related Values Workgroup (Flag) Phase I Report – Revised (2010). The guidance set forth in this document is followed in PSD review for Class I area impacts.</i> </div> </div>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	X. Figures, Maps, Electronic Data, etc.		
<div> <div> Figures and maps should be inserted with the narrative, when possible. Large maps, data CD's, etc., should be referenced in the text and included in the appendices. </div> <div> a. The Air Quality Analysis should include or reference a scaled site plan showing: <ol style="list-style-type: none"> Emission release locations Nearby buildings Property lines Fence lines Roads Coordinates (preferably UTM). If UTM coordinates are used, the datum should be specified (e.g., NAD27 or NAD83) True North arrow Other pertinent items (as applicable) </div> <div> b. The Air Quality Analysis Should include a topographic map and/or aerial photograph showing: <ol style="list-style-type: none"> Source location Facility boundaries Terrain features Nearby buildings, roads, and adjacent facilities (e.g., other major existing sources, other major sources subject to PSD requirements) NWS meteorological tower/observations (surface and upper air) On-site/local meteorological tower/observations (surface and upper air) State/local/on-site air quality monitoring stations Pre-construction monitoring site (if applicable) Nearby Class I Areas </div> <div> c. Provide an electronic file of the facility plot plans (e.g., GIS or other mapping file) </div> </div>				

FORM 5		MDEQ	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY APPLICATION FOR AIR POLLUTION CONTROL PERMIT	
Air Quality Analysis Checklist			Appendix C	
SUBMIT				
Yes	N/A			
		<p>X. Figures, Maps, Electronic Data, etc. (continued)</p> <p>d. Provide all electronic modeling files, including:</p> <ul style="list-style-type: none"> i. "Readme" textfile that describes the submitted files, including any files that are provided in a compressed format. ii. Model Input/Output files iii. BPIP Input/Output files iv. Meteorological data files v. Post processing programs and files (including spreadsheets) 		

Appendix B

Emissions Calculations

DPK-1 and DPK-2 Emissions Calculations per Kiln

Pollutant	EF	Units	Ref	Throughput MBF/hr	Potential Emissions	
					lb/hr	TPY
PM	0.022	lb/MBF	1	10.07	0.22	1.81
PM ₁₀	0.022				0.22	1.81
PM _{2.5}	0.022				0.22	1.81
VOC	4.43		2		44.62	363.58
HAPs						
Acetaldehyde	0.04	lb/MBF	3		0.40	3.28
Acrolein	0.004				0.04	0.33
Formaldehyde	0.016				0.16	1.31
Methanol	0.18				1.81	14.77
Phenol	0.01				0.10	0.82
Propionaldehyde	0.004				0.04	0.33

References

1	North Carolina Dept. of Environmental Quality Emission Estimation Spreadsheets Lumber_Kilns-Documentation (1).xls references https://files.nc.gov/ncdeq/Air%20Quality/permits/files/Lumber_Kilns-Documentation.xls
	2 Selected BACT
3	EPA Memo "Development of a Provisional Emissions Calculations Tool for Inclusion in the Final PCWP ICR". Lumber Kiln: Indirectheated: Softwood: Pine Species

Calculation Methodology

lb/hr = EF x Throughput

TPY = lb/hr x 8760 hr/yr x (ton/2000 lb)

Notes

Throughput based on 80,000 MBF/yr for each kiln and 8760 hour per year operation

AK-001 to AK-028 Emissions Calculations

Pollutant	EF	Units	Ref	Throughput MBF/yr	Potential Emissions		
					lb/hr	TPY	
PM	0.022	lb/MBF	1	23,386	0.06	0.26	
PM ₁₀	0.022				0.06	0.26	
PM _{2.5}	0.022				0.06	0.26	
VOC	4.43		2		11.83	51.80	
HAPs							
Acetaldehyde	0.04	lb/MBF	3		0.11	0.47	
Acrolein	0.004				0.01	0.05	
Formaldehyde	0.016				0.04	0.19	
Methanol	0.18				0.48	2.10	
Phenol	0.01				0.03	0.12	
Propionaldehyde	0.004				0.01	0.05	

References

1	North Carolina Dept. of Environmental Quality Emission Estimation Spreadsheets Lumber_Kilns-Documentation (1).xls references https://files.nc.gov/ncdeq/Air%20Quality/permits/files/Lumber_Kilns-Documentation.xls
	2 Selected BACT
3	EPA Memo "Development of a Provisional Emissions Calculations Tool for Inclusion in the Final PCWP ICR". Lumber Kiln: Indirectheated: Softwood: Pine Species

Calculation Methodology

TPY = (Annual Throughput) x EF x (ton/2000 lb)

lb/hr = TPY x 2000 lb/ton x yr/8760 hrs

Batch Kiln Throughput determined as Planer Capacity of 187.5 MMBF/yr less DPK capacity of 164.114 MMBF/yr

AA-001 Planer Wood Shavings Handling System with Cyclone**Basis:**

Pine Planer Residual Capacity						
Potential Production		Residual Generation		Potential		
187,500.00	MBF	0.20	BDT/MBF	37,107.83	BDT	12.8215

Pollutant	Factor ¹	Units	Transfer Rate		lb/hr	TPY
			BDT/hr	BDT/yr		
PM	0.2	lb/BDT	11.90914	37,107.83	2.381828	3.71
PM₁₀	0.19	lb/BDT	11.90914	37,107.83	2.262736	3.53
PM_{2.5}	0.16	lb/BDT	11.90914	37,107.83	1.905462	2.97
VOC²	0.12	lb/BDT	11.90914	37,107.83	1.429097	2.23

- PM Emission Factors from May 8, 2014, EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country"*
- ¹ *Pneumatically convey material through cyclone to bin. Exhaust routed through baghouse. The "material" in this entry refers to bark, hogged fuel, green chips, dry chips, green sawdust, dry sawdust, shavings and any other woody by-dry sawdust, shavings and any other woody by-products*
- ² *VOC emission factor from Weyerhaeuser Philadelphia, MS application for pneumatic transfer of dry pine wood residuals*

Accommodated Emissions (AA-002)

11 MAC, Part 2, Chapter 2 Rule 2.6 B.(7) requires that units must be tested at capacity and is otherwise operating normally.

In the event that a demonstration of compliance by testing is performed at less than capacity, the Permit Board may modify the permit to limit capacity of the stationary source to the rate at which compliance was demonstrated if the Permit Board determines the rate was not representative of the normal operation of the stationary source

The historical testing shown below illustrate that testing was performed at various rates over the years, presumably based on production swings. Additionally, the permit contained language allowing operation at 10% above the tested capacity before a retest would be required. Implying that the unit could accommodate up to 10% above the tested capacity. The accommodated emissions were determined assuming continuous operation at the tested capacity: $(70.9 \text{ MMBtu/hr}) \times (8760 \text{ hr/yr}) = 621,084 \text{ MMBtu/hr}$

Year	Test Rate MMBtu/hr
2004	53.07
2006	57.78
2008	86.94
2010	47.81
2012	71.74
2014	70.9
2016	59.2
2018	62.8
2020	47.8

Accommodated Firing Rate = $(70.9 \text{ MMBtu/hr}) \times (8760 \text{ hr/yr}) = 621,084 \text{ MMBtu/hr}$

Year	AERF Annual Rate (MMBtu/hr)
2014	593858.4
2015	480230.4
Avg	537044.4

Excluded Accommodated Firing Rate = $621,084 \text{ MMBtu/yr} - 537044.4 \text{ MMBtu/yr}$
 $= 84039.6 \text{ MMBtu/yr}$

AA-002 Wood Fired Boiler Projected Actual Emissions

Pollutant	EF	Units	Ref	Capacity		Potential Emissions	
				MMBtu/hr	MMBtu/yr	lb/hr	TPY
PM	0.275	lb/MMBtu	1	98.4	788936.7	27.03	108.35
PM ₁₀	0.267	lb/MMBtu	2			26.27	105.30
PM _{2.5}	0.165	lb/MMBtu				16.27	65.21
VOC	0.010	lb/MMBtu	1			1.02	4.09
SO ₂	0.004	lb/MMBtu				0.44	1.75
NO _x	0.197	lb/MMBtu				19.42	77.84
CO	0.203	lb/MMBtu				20.01	80.21
Lead	4.80E-05	lb/MMBtu	3			0.00	0.02
GHG	1.99E+02	lb/MMBtu	4,5			19,621	78,657
CO ₂	1.95E+02	lb/MMBtu	4			19,188	76,921
CH ₄	2.10E-02	lb/MMBtu				2.07	8.28
N ₂ O	1.30E-02	lb/MMBtu				1.28	5.13

Reference

<i>Average of past three stack tests. 2016, 2018 and 2020</i>
<i>Average of PM test data adjusted by AP 42 Table 1.6-5 Cumulative Particle Size Distribution plus AP-42 Table 1.6-1. CPM factor of 0.017 lb/MMBtu.</i>
<i>AP-42 Factor from Table 1.6-4.</i>
<i>AP-42 Table 1.6-3.</i>
<i>Table A-1 to Subpart A of Part 98—Global Warming Potentials</i>

Calculation Methodology

lb/hr = Capacity x EF

TPY = lb/hr x 8760 hrs/yr x ton/2000 lb

The facility is requesting TPY limits on PM, PM10 and PM2.5 to avoid PSD review because the boiler controls will have to be evaluated to comply with the Boiler MACT within 3 years of beginning operation.

AA-002 Wood Fired Boiler Projected Actual HAP Emissions

VOC HAP (y/n)	CAS Number	HAP Name	AA-002					
			Wood Combustion Emission Factors				Potential Emissions	
			lb/MMBtu	Reference	Rating	lb/lb-steam	lb/hr	TPY
Y	75070	Acetaldehyde	8.30E-04	Table 1.6-3.	A	1.36E-06	0.0817	0.3274
Y	107028	Acrolein	4.00E-03	Table 1.6-3.	C	6.56E-06	0.3936	1.5779
Y	71432	Benzene (including benzene from gasoline)	4.20E-03	Table 1.6-3.	A	6.89E-06	0.4133	1.6568
Y	56235	Carbon tetrachloride	4.50E-05	Table 1.6-3.	D	7.38E-08	0.0044	0.0178
N	7782505	Chlorine	7.90E-04	Table 1.6-3.	D	1.30E-06	0.0777	0.3116
Y	108907	Chlorobenzene	3.30E-05	Table 1.6-3.	D	5.41E-08	0.0032	0.0130
Y	67663	Chloroform	2.80E-05	Table 1.6-3.	D	4.59E-08	0.0028	0.0110
N	132649	Dibenzofurans	1.67E-06			2.74E-09	0.0002	0.0007
Y	51285	2,4-Dinitrophenol	1.80E-07	Table 1.6-3.	C		0.0000	0.0001
Y	100414	Ethyl benzene	3.10E-05	Table 1.6-3.	D	5.08E-08	0.0031	0.0122
Y	107062	Ethylene dichloride (1,2-Dichloroethane)	2.90E-05	Table 1.6-3.	D	4.76E-08	0.0029	0.0114
Y	50000	Formaldehyde	4.40E-03	Table 1.6-3.	A	7.22E-06	0.4330	1.7357
N	7647010	Hydrochloric acid	3.82E-03	Table 1.6-3. Median	C	6.26E-06	0.3759	1.5069
Y	74839	Methyl bromide (Bromomethane)	1.50E-05	Table 1.6-3.	D	2.46E-08	0.0015	0.0059
Y	74873	Methyl chloride (Chloromethane)	2.30E-05	Table 1.6-3.	D	3.77E-08	0.0023	0.0091
Y	71556	Methyl chloroform (1,1,1-Trichloroethane)	3.10E-05	Table 1.6-3.	D	5.08E-08	0.0031	0.0122
	78933	Methyl ethyl ketone (2-Butanone)(See Modification)	5.40E-06	Table 1.6-3.	D		0.0005	0.0021
N	75092	Methylene chloride (Dichloromethane)	2.90E-04	Table 1.6-3.	D	4.76E-07	0.0285	0.1144
Y	108952	Phenol	5.10E-05	Table 1.6-3.	C	8.36E-08	0.0050	0.0201
Y	123386	Propionaldehyde	6.10E-05	Table 1.6-3.	D	1.00E-07	0.0060	0.0241
Y	78875	Propylene dichloride (1,2-Dichloropropane)	3.30E-05	Table 1.6-3.	D	5.41E-08	0.0032	0.0130
Y	100425	Styrene	1.90E-03	Table 1.6-3.	D	3.12E-06	0.1870	0.7495
Y	108883	Toluene	9.20E-04	Table 1.6-3.	C	1.51E-06	0.0905	0.3629
Y	75014	Vinyl chloride	1.80E-05	Table 1.6-3.	D	2.95E-08	0.0018	0.0071
Y	95476	o-Xylenes	2.50E-05	Table 1.6-3.	D	4.10E-08	0.0025	0.0099
N	0	Antimony Compounds	7.90E-06	Table 1.6-4.	C	1.30E-08	0.0008	0.0031
N	0	Arsenic Compounds (inorganic including arsine)	2.20E-05	Table 1.6-4.	A	3.61E-08	0.0022	0.0087

VOC HAP (y/n)	CAS Number	HAP Name	AA-002					
			Wood Combustion Emission Factors				Potential Emissions	
			lb/MMBtu	Reference	Rating	lb/lb-steam	lb/hr	TPY
N	0	Beryllium Compounds	1.10E-06	Table 1.6-4.	B	1.80E-09	0.0001	0.0004
N	0	Cadmium Compounds	4.10E-06	Table 1.6-4.	A	6.72E-09	0.0004	0.0016
N	0	Chromium Compounds	2.10E-05	Table 1.6-4.	A	3.44E-08	0.0021	0.0083
N	0	Cobalt Compounds	6.50E-06	Table 1.6-4.	C	1.07E-08	0.0006	0.0026
N	0	Lead Compounds	4.80E-05	Table 1.6-4.	A	7.87E-08	0.0047	0.0189
N	0	Manganese Compounds	1.60E-03	Table 1.6-4.	A	2.62E-06	0.1574	0.6311
N	0	Mercury Compounds	3.50E-06	Table 1.6-4.	A	5.74E-09	0.0003	0.0014
N	0	Nickel Compounds	3.30E-05	Table 1.6-4.	A	5.41E-08	0.0032	0.0130
N	0	Selenium Compounds	2.80E-06	Table 1.6-4.	A	4.59E-09	0.0003	0.0011
Y	0	Polycyclic Organic Matter ⁴	1.35E-04	Sum Below		2.21E-07	0.0133	0.0532

Total VOC HAPs

Total nonVOC HAPs

Total HAPS

Y 1.6539114 6.6302409

N 0.6545147 2.6238345

2.3084261 9.2540755

AA-006 Sawmill Fugitive Projected Actuals**Future Basis:**

	TPY	Reference
Logs	830,625	Pine Production x 4.43 tons-logs/MBF
Green tons chips	236,313	Recovery Analysis Based on Chip Yield, Chips 28.45%, sawdust 9% and bark 10% by weight. (based on 50% of throughput as small logs)
Green Sawdust	66,450	
Green Bark	83,063	
BDT chips	118,156	Assume 50% m.c. wet basis
BDT Sawdust	33,225	
BDT Bark	41,531	

	Thruput	Emission Factors					PM	PM ₁₀	PM _{2.5}
	TPY	PM	PM ₁₀	PM _{2.5}	Units	Ref	TPY	TPY	TPY
Debarking	830,625	0.0024	0.0012	0.0006	lb/ton-log	1,2	1.00	0.50	0.25
Bucking	830,625	0.035	0.0175	0.00875	lb/ton-log	1,3	1.45	0.73	0.36
Hog/Chipping	319,375	0.0024	0.0012	0.0006	lb/green ton	4	0.38	0.19	0.10
Conveying (Avg 5 drops)									
Sawdust	33,225	0.00075	0.00035	0.00005	BDT	1	0.01	0.01	0.00
Chips	118,156	0.00075	0.00035	0.00005	BDT	1	0.04	0.02	0.00
Bark	41,531	0.00075	0.00035	0.00005	BDT	1	0.02	0.01	0.00
Total							2.91	1.45	0.71

¹ Emission Factors from May 8, 2014, EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country": Log Bucking, Log Debarking, drop of "wet" material

² Debarking assumes ring debarker factor is 10% of the drum debarker factor included in EPA Memo

³ Log bucking assumes 90% control as the merchandiser includes partial enclosure.

⁴ Hog/Chipping factor assumed equal to debarking, weight = bark + chips. Sawmill emissions reduced to zero due to being indoors.

AA-007 Road Emissions Future Projected Actuals

Offsite Sales 332,251 green tons/yr

Log Use 830,625 tons/yr

Type of Truck	Paved/ Unpaved	Miles traveled per truck	Empty Truck Weight (tons)	Loaded Truck Weight (tons)	Average Truck Weight (tons)	No Trucks/yr	VMT/hr	VMT/yr	PM		PM10		PM2.5	
									lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Log Truck	Unpaved	0.15	13	39	26	31,947	0.55	4,792	1.39	4.33	0.34	1.06	0.03	0.11
	Paved	0.18					0.66	5,750	0.22	0.89	0.04	0.18	0.01	0.04
Residual Truck	Paved	0.36				12,779	0.53	4,600	0.17	0.71	0.03	0.14	0.01	0.03
Total								1.78	5.93	0.42	1.38	0.05	0.18	

Hourly Emissions = (VMT/hr) x E

Annual Emission = (VMT/yr) x E_{ext} x (ton/2000 lb)

Unpaved Emission Factor

Pollutant	k (lb/VMT) ¹	a ¹	b ¹	Surface Material Silt Content, s (%) ²	Mean Vehicle Weight, W (tons)	Controls (%) ³	P ⁴ # days 0.01 "rain	E ⁵ Hourly (lb/VMT)	E _{ext} ⁶ Annual (lb/VMT)
TSP	4.9	0.7	0.45	3.9	26.0	Max Speed ≤ 15 mph	105	2.54	1.81
PM ₁₀	1.5	0.9	0.45	3.9	26.0		57.0	0.62	0.44
PM _{2.5}	0.15	0.9	0.45	3.9	26.0		105	0.06	0.04

1 AP-42 Table 13.2.2-2. CONSTANTS FOR EQUATIONS 1a AND 1b

2 EPA spreadsheet r13s0202_dec03.xls, Surface Material Silt Content by state.

3 WRAP Fugitive Dust Handbook September 7, 200

4 AP-42 Figure 13.2.2-1. Mean number of days with 0.01 inch or more of precipitation in United States.

5 AP-42 Section 13.2.2 Unpaved Roads Equation (1a) - $E = k(S/12)^a (W/3)^b$

6 AP-42 Section 13.2.2 Unpaved Roads Equation (2) - $E_{ext} = E \times (365 - P)/365$

Paved Emission Factor

Pollutant	k ¹ (lb/VMT)	Silt Loading, sL (g/m ²) ²	Mean Vehicle Weight, W (tons)	P ³ # days 0.01 "rain	E ⁴ Hourly (lb/VMT)	E _{ext} ⁵ Annual (lb/VMT)
TSP	0.011	1.1	26.0	105	0.33	0.31
PM ₁₀	0.0022	1.1	26.0	105	0.07	0.06
PM _{2.5}	0.00054	1.1	26.0	105	0.02	0.02

1 AP-42 Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

2 AP-42 Table 13.2.1-3 TYPICAL SILT CONTENT AND LOADING VALUES FOR PAVED ROADS AT

INDUSTRIAL FACILITIES. Low end of range selecte from Municipal Solid Waste Landfill

3 AP-42 Figure 13.2.1-2. Mean number of days with 0.01 inch or more of precipitation in the United States.

4 AP- 42 Section 13.2.1.3 Equation (1): $E = k (sL)^{0.91} \times (W)^{1.02}$

5 AP- 42 Section 13.2.1.3 Equation (2): $E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1 - P/4N)$

AA-013 - Truck Loadout Operation, 20 TPH capacity.

	Capacity (BDT)		Emission Factors				PM		PM ₁₀		PM _{2.5}	
	TPH	TPY	PM	PM ₁₀	PM _{2.5}	Units	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Loadout	20.0	203,233	0.00075	0.00035	0.00005	BDT	0.02	0.11	0.01	0.05	0.00	0.01
Total							0.02	0.11	0.01	0.05	0.00	0.01

Emission Factors from May 8, 2014, EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country"

Loadout at 20 TPH. Assume average of three drops of material during loadout and green residuals are 50% moisture.

AA-002 Wood Fired Boiler Baseline Actual Emissions

Pollutant	EF	Units	Ref	2014	2015	2-yr Avg	
				MMBtu/yr	MMBtu/yr	MMBtu/yr	TPY
PM	0.329	lb/MMBtu	1	593858.4	480230.4	537044.4	88.34
PM ₁₀	0.316	lb/MMBtu	2				84.96
PM _{2.5}	0.195	lb/MMBtu					52.27
VOC	0.010	lb/MMBtu	1				2.78
SO ₂	0.004	lb/MMBtu					1.19
NO _x	0.197	lb/MMBtu					52.99
CO	0.203	lb/MMBtu					54.60
Lead	4.80E-05	lb/MMBtu	3				0.01
GHG	1.99E+02	lb/MMBtu	4,5				53,543
CO ₂	1.95E+02	lb/MMBtu	4				52,362
CH ₄	2.10E-02	lb/MMBtu					5.64
N ₂ O	1.30E-02	lb/MMBtu					3.49

Reference

<i>2014 Stack Test</i>
<i>PM test data adjusted by AP 42 Table 1.6-5 Cumulative Particle Size Distribution plus AP-42 Table 1.6-1. CPM factor of 0.017 lb/MMBtu.</i>
<i>AP-42 Factor from Table 1.6-4.</i>
<i>AP-42 Table 1.6-3.</i>
<i>Table A-1 to Subpart A of Part 98—Global Warming Potentials</i>

Calculation Methodology

TPY = (2-yr avg Annual Avg Capacity)(EF)(ton/2000 lb)

AA-006 Sawmill Fugitives 2014 Baseline Emissions

	TPY	Reference
Logs ¹	206,948	Hardwood and Pine Production x 4.43 tons-logs/MBF
Green tons chips	58,877	
Green Sawdust	18,625	
Green Bark	20,695	Recovery Analysis Based on Chip Yield, Chips 28.45%, sawdust 9% and bark 10% by weight.
BDT chips	29,438	
BDT Sawdust	9,313	
BDT Bark	10,347	
		Assume 50% m.c. wet basis

¹ Log use reported in 2014 AERF

	Thruput	Emission Factors				PM	PM ₁₀	PM _{2.5}
	TPY	PM	PM ₁₀	PM _{2.5}	Units	TPY	TPY	TPY
Debarking	206,948	0.0024	0.0012	0.0006	lb/ton-log	0.25	0.12	0.06
Bucking	206,948	0.035	0.0175	0.00875	lb/ton-log	0.36	0.18	0.09
Hog/Chipping	79,572	0.0024	0.0012	0.0006	lb/green ton	0.10	0.05	0.02
Conveying (Avg 5 drops)								
Sawdust	9,313	0.00075	0.00035	0.00005	BDT	0.00	0.00	0.00
Chips	29,438	0.00075	0.00035	0.00005	BDT	0.01	0.01	0.00
Bark	10,347	0.00075	0.00035	0.00005	BDT	0.00	0.00	0.00
Total						0.72	0.36	0.18

¹ Emission Factors from May 8, 2014, EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country": Log Bucking, Log Debarking, drop of "wet" material

² Debarking assumes ring debarker factor is 10% of the drum debarker factor included in EPA Memo

³ Log bucking assumes 90% control as the merchandiser includes partial enclosure.

⁴ Hog/Chipping factor assumed equal to debarking, weight = bark + chips. Sawmill emissions reduced to zero due to being indoors.

AA-007 Road Emissions - 2014 Baseline

Offsite Sales 61,501 green tons/yr

Log Use 206,948 tons/yr

Type of Truck	Paved/ Unpaved	Miles traveled per truck	Empty Truck Weight (tons)	Loaded Truck Weight (tons)	Average Truck Weight (tons)	No Trucks/yr	VMT/hr	VMT/yr	PM		PM10		PM2.5	
									lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Log Truck	Unpaved	0.15	13	39	26	7960	0.14	1,194	0.35	1.08	0.08	0.26	0.01	0.03
	Paved	0.2					0.16	1,433	0.05	0.22	0.01	0.04	0.00	0.01
Residual Truck	Paved	0.4					0.10	852	0.03	0.13	0.01	0.03	0.00	0.01
							Total	0.43	1.43	0.10	0.33	0.01	0.04	

Unpaved Emission Factor

Pollutant	k (lb/VMT) ¹	a ¹	b ¹	Surface Material Silt Content, s (%) ²	Mean Vehicle Weight, W (tons)	Controls (%) ³	# days ⁴ 0.01 "rain	E ⁵ Hourly (lb/VMT)	Eext ⁶ Annual (lb/VMT)
TSP	4.9	0.7	0.45	3.9	26.0		105	2.54	1.81
PM ₁₀	1.5	0.9	0.45	3.9	26.0	Max Speed ≤ 15 mph	57.0	0.62	0.44
PM _{2.5}	0.15	0.9	0.45	3.9	26.0		105	0.06	0.04

1 AP-42 Table 13.2.2-2. CONSTANTS FOR EQUATIONS 1a AND 1b

2 EPA spreadsheet r13s0202_dec03.xls, Surface Material Silt Content by state.

3 WRAP Fugitive Dust Handbook September 7, 2000

4 AP-42 Figure 13.2.2-1. Mean number of days with 0.01 inch or more of precipitation in United States.

5 AP-42 Section 13.2.2 Unpaved Roads Equation (1a)

6 AP-42 Section 13.2.2 Unpaved Roads Equation (2)

Paved Emission Factor

Pollutant	k (lb/VMT)	Surface Material Silt Content, s (%)	Mean Vehicle Weight, W (tons)	# days 0.01 "rain	Hourly (lb/VMT)	Annual (lb/VMT)
TSP	0.011	1.1	26.0	105	0.33	0.31
PM ₁₀	0.0022	1.1	26.0	105	0.07	0.06
PM _{2.5}	0.00054	1.1	26.0	105	0.02	0.02

1 AP-42 Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

2 AP-42 Table 13.2.1-3 TYPICAL SILT CONTENT AND LOADING VALUES FOR PAVED ROADS AT

3 AP-42 Figure 13.2.1-2. Mean number of days with 0.01 inch or more of precipitation in the United States.

4 AP-42 Section 13.2.1.3 Equation (1): $E = k (sL)^{0.91} \times (W)^{1.02}$ 5 AP-42 Section 13.2.1.3 Equation (2): $E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1 - P/4N)$

AA-006 Sawmill Fugitives 2015 Baseline

	TPY	Reference
Logs	219,436	Hardwood and Pine Production x 4.43 tons-logs/MBF
Green tons chips	62,430	Recovery Analysis Based on Chip Yield, Chips 28.45%, sawdust 9% and bark 10% by weight.
Green Sawdust	19,749	
Green Bark	21,944	
BDT chips	31,215	Assume 50% m.c. wet basis
BDT Sawdust	9,875	
BDT Bark	10,972	

	Thruput	Emission Factors					PM	PM ₁₀	PM _{2.5}
	TPY	PM	PM ₁₀	PM _{2.5}	Units	Ref	TPY	TPY	TPY
Debarking	219,436	0.0024	0.0012	0.0006	lb/ton-log	1,2	0.26	0.13	0.07
Bucking	219,436	0.035	0.0175	0.00875	lb/ton-log	1,3	0.96	0.48	0.24
Hog/Chipping	84,373	0.0024	0.0012	0.0006	lb/green ton	4	0.10	0.05	0.03
Conveying (Avg 5 drops)									
Sawdust	9,875	0.00075	0.00035	0.00005	BDT	1	0.00	0.00	0.00
Chips	31,215	0.00075	0.00035	0.00005	BDT	1	0.01	0.01	0.00
Bark	10,972	0.00075	0.00035	0.00005	BDT	1	0.00	0.00	0.00
Total							1.34	0.67	0.33

1 Emission Factors from May 8, 2014, EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country": Log Bucking, Log Debarking, drop of "wet" material

2 Debarking assumes ring debarker factor is 10% of the drum debarker factor included in EPA Memo

3 Log bucking assumes 90% control as the merchandiser includes partial enclosure.

4 Hog/Chipping factor assumed equal to debarking, weight = bark + chips. Sawmill emissions reduced to zero due to being indoors.

AA-007 Road Emissions 2015 Baseline Emission

Offsite Sales 35,916 green tons/yr

Log Use 219,436 tons/yr

Type of Truck	Paved/ Unpaved	Miles traveled per truck	Empty Truck Weight (tons)	Loaded Truck Weight (tons)	Average Truck Weight (tons)	No Trucks/yr	VMT/hr	VMT/yr	PM		PM10		PM2.5	
									lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Log Truck	Unpaved	0.15	13	39	26	8440	0.14	1,266	0.37	1.14	0.09	0.28	0.01	0.03
	Paved	0.18					0.17	1,519	0.06	0.23	0.01	0.05	0.00	0.01
Residual Truck	Paved	0.36				1,381.38	0.06	497	0.02	0.08	0.00	0.02	0.00	0.00
Total							0.44	1.45	0.10	0.34	0.01	0.04		

Unpaved Emission Factor

Pollutant	k (lb/VMT)	a	b	Surface Material Silt Content, s (%)	Mean Vehicle Weight, W (tons)	Controls (%)	# days 0.01 "rain	Hourly (lb/VMT)	Annual (lb/VMT)
TSP	4.9	0.7	0.45	3.9	26.0	Max Speed ≤ 15 mph	105	2.54	1.81
PM ₁₀	1.5	0.9	0.45	3.9	26.0		57.0	0.62	0.44
PM _{2.5}	0.15	0.9	0.45	3.9	26.0		105	0.06	0.04

AP-42 Table 13.2.2-2. CONSTANTS FOR EQUATIONS 1a AND 1b

EPA spreadsheet r13s0202_dec03.xls, Surface Material Silt Content by state.

WRAP Fugitive Dust Handbook September 7, 2000

AP-42 Figure 13.2.2-1. Mean number of days with 0.01 inch or more of precipitation in United States.

AP-42 Section 13.2.2 Unpaved Roads Equation (1a)

AP-42 Section 13.2.2 Unpaved Roads Equation (2)

Paved Emission Factor

Pollutant	k (lb/VMT)	Surface Material Silt Content, s (%)	Mean Vehicle Weight, W (tons)	# days 0.01 "rain	Hourly (lb/VMT)	Annual (lb/VMT)
TSP	0.011	1.1	26.0	105	0.33	0.31
PM ₁₀	0.0022	1.1	26.0	105	0.07	0.06
PM _{2.5}	0.00054	1.1	26.0	105	0.02	0.02

1 AP-42 Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

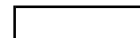
2 AP-42 Table 13.2.1-3 TYPICAL SILT CONTENT AND LOADING VALUES FOR PAVED ROADS AT

3 AP-42 Figure 13.2.1-2. Mean number of days with 0.01 inch or more of precipitation in the United States.

4 AP-42 Section 13.2.1.3 Equation (1): $E = k (sL)^{0.91} \times (W)^{1.02}$ 5 AP-42 Section 13.2.1.3 Equation (2): $E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1 - P/4N)$

Baseline as Reported in AERF

Source	Pollutant	2015 (TPY)	2014 (TPY)	2-yr Annual Average (TPY)
AA-001 Woodwaste Handling System with 1 Baghouse and Cyclone	PM	0.15	0.33	0.24
	PM ₁₀	0.15	0.33	0.24
	PM _{2.5}	0.15	0.33	0.24
AA-009 Lumber Treatment	VOC	0.00	0.00	0.00
AA-010 End Coating	VOC	6.42	0.08	3.25



AA-013 - Truck Loadout Operation, 20 TPH capacity.

	Capacity (TPY)	Emission Factors			PM	PM ₁₀	PM _{2.5}
	TPY	PM	PM ₁₀	PM _{2.5}	TPY	TPY	TPY
Loadout 2014	30,751	0.00075	0.00035	0.00005	0.02	0.01	0.00
Loadout 2015	17,958	0.00075	0.00035	0.00005	0.01	0.00	0.00
Baseline 2-yr Annual Average					0.01	0.01	0.00

Emission Factors from May 8, 2014, EPA Memo "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country"

Loadout at 20 TPH. Assume average of three drops of material during loadout and green residuals are 50% moisture.

Appendix C

Emission Factor Reference

The following empirical expressions may be used to estimate the quantity in pounds (lb) of size-specific particulate emissions from an unpaved road, per vehicle mile traveled (VMT):

For vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from the following equation:

$$E = k (s/12)^a (W/3)^b \quad (1a)$$

and, for vehicles traveling on publicly accessible roads, dominated by light duty vehicles, emissions may be estimated from the following:

$$E = \frac{k (s/12)^a (S/30)^d}{(M/0.5)^c} - C \quad (1b)$$

where k , a , b , c and d are empirical constants (Reference 6) given below and

E = size-specific emission factor (lb/VMT)

s = surface material silt content (%)

W = mean vehicle weight (tons)

M = surface material moisture content (%)

S = mean vehicle speed (mph)

C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear.

The source characteristics s , W and M are referred to as correction parameters for adjusting the emission estimates to local conditions. The metric conversion from lb/VMT to grams (g) per vehicle kilometer traveled (VKT) is as follows:

$$1 \text{ lb/VMT} = 281.9 \text{ g/VKT}$$

The constants for Equations 1a and 1b based on the stated aerodynamic particle sizes are shown in Tables 13.2.2-2 and 13.2.2-4. The PM-2.5 particle size multipliers (k -factors) are taken from Reference 27.

Table 13.2.2-2. CONSTANTS FOR EQUATIONS 1a AND 1b

Constant	Industrial Roads (Equation 1a)			Public Roads (Equation 1b)		
	PM-2.5	PM-10	PM-30*	PM-2.5	PM-10	PM-30*
k (lb/VMT)	0.15	1.5	4.9	0.18	1.8	6.0
a	0.9	0.9	0.7	1	1	1
b	0.45	0.45	0.45	-	-	-
c	-	-	-	0.2	0.2	0.3
d	-	-	-	0.5	0.5	0.3
Quality Rating	B	B	B	B	B	B

*Assumed equivalent to total suspended particulate matter (TSP)

“-“ = not used in the emission factor equation

Table 13.2.2-2 also contains the quality ratings for the various size-specific versions of Equation 1a and 1b. The equation retains the assigned quality rating, if applied within the ranges of source conditions, shown in Table 13.2.2-3, that were tested in developing the equation:

Table 13.2.2-3. RANGE OF SOURCE CONDITIONS USED IN DEVELOPING EQUATION 1a AND 1b

Emission Factor	Surface Silt Content, %	Mean Vehicle Weight		Mean Vehicle Speed		Mean No. of Wheels	Surface Moisture Content, %
		Mg	ton	km/hr	mph		
Industrial Roads (Equation 1a)	1.8-25.2	1.8-260	2-290	8-69	5-43	4-17 ^a	0.03-13
Public Roads (Equation 1b)	1.8-35	1.4-2.7	1.5-3	16-88	10-55	4-4.8	0.03-13

^a See discussion in text.

As noted earlier, the models presented as Equations 1a and 1b were developed from tests of traffic on unpaved surfaces. Unpaved roads have a hard, generally nonporous surface that usually dries quickly after a rainfall or watering, because of traffic-enhanced natural evaporation. (Factors influencing how fast a road dries are discussed in Section 13.2.2.3, below.) The quality ratings given above pertain to the mid-range of the measured source conditions for the equation. A higher mean vehicle weight and a higher than normal traffic rate may be justified when performing a worst-case analysis of emissions from unpaved roads.

The emission factors for the exhaust, brake wear and tire wear of a 1980's vehicle fleet (C) was obtained from EPA's MOBILE6.2 model ²³. The emission factor also varies with aerodynamic size range

average uncontrolled conditions (but including natural mitigation) under the simplifying assumption that annual average emissions are inversely proportional to the number of days with measurable (more than 0.254 mm [0.01 inch]) precipitation:

$$E_{\text{ext}} = E [(365 - P)/365] \quad (2)$$

where:

E_{ext} = annual size-specific emission factor extrapolated for natural mitigation, lb/VMT

E = emission factor from Equation 1a or 1b

P = number of days in a year with at least 0.254 mm (0.01 in) of precipitation (see below)

Figure 13.2.2-1 gives the geographical distribution for the mean annual number of “wet” days for the United States.

Equation 2 provides an estimate that accounts for precipitation on an annual average basis for the purpose of inventorying emissions. It should be noted that Equation 2 does not account for differences in the temporal distributions of the rain events, the quantity of rain during any event, or the potential for the rain to evaporate from the road surface. In the event that a finer temporal and spatial resolution is desired for inventories of public unpaved roads, estimates can be based on a more complex set of assumptions. These assumptions include:

1. The moisture content of the road surface material is increased in proportion to the quantity of water added;
2. The moisture content of the road surface material is reduced in proportion to the Class A pan evaporation rate;
3. The moisture content of the road surface material is reduced in proportion to the traffic volume; and
4. The moisture content of the road surface material varies between the extremes observed in the area. The CHIEF Web site (<http://www.epa.gov/ttn/chief/ap42/ch13/related/c13s02-2.html>) has a file which contains a spreadsheet program for calculating emission factors which are temporally and spatially resolved. Information required for use of the spreadsheet program includes monthly Class A pan evaporation values, hourly meteorological data for precipitation, humidity and snow cover, vehicle traffic information, and road surface material information.

It is emphasized that the simple assumption underlying Equation 2 and the more complex set of assumptions underlying the use of the procedure which produces a finer temporal and spatial resolution have not been verified in any rigorous manner. For this reason, the quality ratings for either approach should be downgraded one letter from the rating that would be applied to Equation 1.

13.2.2.3 Controls¹⁸⁻²²

A wide variety of options exist to control emissions from unpaved roads. Options fall into the following three groupings:

1. Vehicle restrictions that limit the speed, weight or number of vehicles on the road;

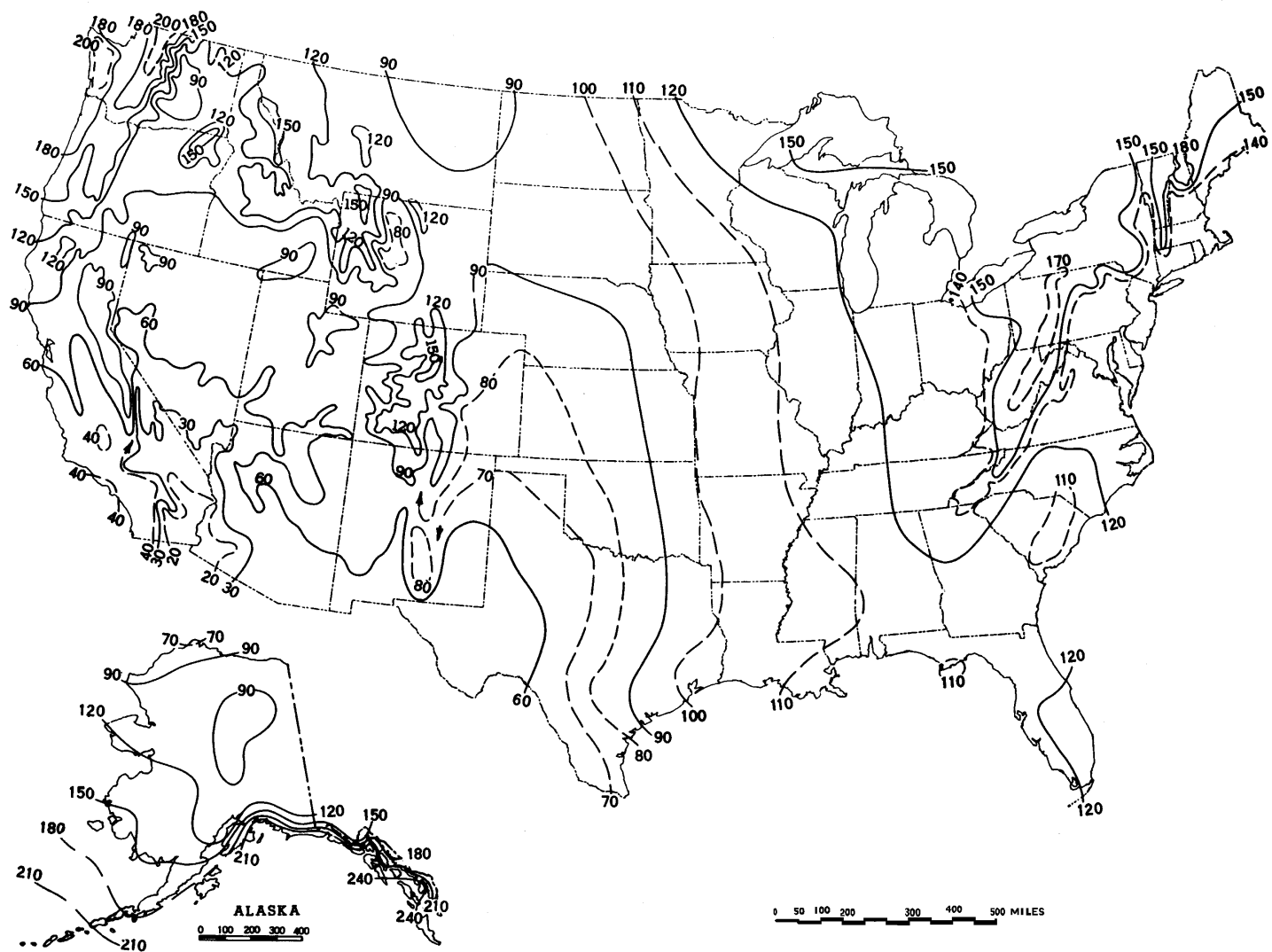


Figure 13.2.2-1. Mean number of days with 0.01 inch or more of precipitation in United States.

13.2.1.3 Predictive Emission Factor Equations^{10,29}

The quantity of particulate emissions from resuspension of loose material on the road surface due to vehicle travel on a dry paved road may be estimated using the following empirical expression:

$$E = k (sL)^{0.91} \times (W)^{1.02} \quad (1)$$

where: E = particulate emission factor (having units matching the units of k),
k = particle size multiplier for particle size range and units of interest (see below),
sL = road surface silt loading (grams per square meter) (g/m²), and
W = average weight (tons) of the vehicles traveling the road.

It is important to note that Equation 1 calls for the average weight of all vehicles traveling the road. For example, if 99 percent of traffic on the road are 2 ton cars/trucks while the remaining 1 percent consists of 20 ton trucks, then the mean weight "W" is 2.2 tons. More specifically, Equation 1 is *not* intended to be used to calculate a separate emission factor for each vehicle weight class. Instead, only one emission factor should be calculated to represent the "fleet" average weight of all vehicles traveling the road.

The particle size multiplier (k) above varies with aerodynamic size range as shown in Table 13.2.1-1. To determine particulate emissions for a specific particle size range, use the appropriate value of k shown in Table 13.2.1-1.

To obtain the total emissions factor, the emissions factors for the exhaust, brake wear and tire wear obtained from either EPA's MOBILE6.2²⁷ or most recent MOVES²⁹ software model should be added to the emissions factor calculated from the empirical equation.

Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

Size range ^a	Particle Size Multiplier k ^b		
	g/VKT	g/VMT	lb/VMT
PM-2.5 ^c	0.15	0.25	0.00054
PM-10	0.62	1.00	0.0022
PM-15	0.77	1.23	0.0027
PM-30 ^d	3.23	5.24	0.011

^a Refers to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers.

^b Units shown are grams per vehicle kilometer traveled (g/VKT), grams per vehicle mile traveled (g/VMT), and pounds per vehicle mile traveled (lb/VMT). The multiplier k includes unit conversions to produce emission factors in the units shown for the indicated size range from the mixed units required in Equation 1.

^c The k-factors for PM_{2.5} were based on the average PM_{2.5}:PM₁₀ ratio of test runs in Reference 30.

^d PM-30 is sometimes termed "suspendable particulate" (SP) and is often used as a surrogate for TSP.

N = number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly).

Note that the assumption leading to Equation 2 is based on analogy with the approach used to develop long-term average unpaved road emission factors in Section 13.2.2. However, Equation 2 above incorporates an additional factor of "4" in the denominator to account for the fact that paved roads dry more quickly than unpaved roads and that the precipitation may not occur over the complete 24-hour day.

For the hourly basis, equation 1 becomes:

$$E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1 - 1.2P/N) \quad (3)$$

where k , sL , W , and S are as defined in Equation 1 and

E_{ext} = annual or other long-term average emission factor in the same units as k ,
 P = number of hours with at least 0.254 mm (0.01 in) of precipitation during the averaging period, and
 N = number of hours in the averaging period (e.g., 8760 for annual, 2124 for season 720 for monthly)

Note: In the hourly moisture correction term $(1 - 1.2P/N)$ for equation 3, the 1.2 multiplier is applied to account for the residual mitigative effect of moisture. For most applications, this equation will produce satisfactory results. Users should select a time interval to include sufficient "dry" hours such that a reasonable emissions averaging period is evaluated. For the special case where this equation is used to calculate emissions on an hour by hour basis, such as would be done in some emissions modeling situations, the moisture correction term should be modified so that the moisture correction "credit" is applied to the first hours following cessation of precipitation. In this special case, it is suggested that this 20% "credit" be applied on a basis of one hour credit for each hour of precipitation up to a maximum of 12 hours.

Note that the assumption leading to Equation 3 is based on analogy with the approach used to develop long-term average unpaved road emission factors in Section 13.2.2.

Figure 13.2.1-2 presents the geographical distribution of "wet" days on an annual basis for the United States. Maps showing this information on a monthly basis are available in the *Climatic Atlas of the United States*²³. Alternative sources include other Department of Commerce publications (such as local climatological data summaries). The National Climatic Data Center (NCDC) offers several products that provide hourly precipitation data. In particular, NCDC offers *Solar and Meteorological Surface Observation Network 1961-1990* (SAMSON) CD-ROM, which contains 30 years worth of hourly meteorological data for first-order National Weather Service locations. Whatever meteorological data are used, the source of that data and the averaging period should be clearly specified.

It is emphasized that the simple assumption underlying Equations 2 and 3 has not been verified in any rigorous manner. For that reason, the quality ratings for Equations 2 and 3 should be downgraded one letter from the rating that would be applied to Equation 1.

Table 13.2.1-3 (Metric And English Units). TYPICAL SILT CONTENT AND LOADING VALUES FOR PAVED ROADS AT INDUSTRIAL FACILITIES ^a

Industry	No. of Sites	No. Of Samples	Silt Content (%)		No. of Travel Lanes	Total Loading x 10 ⁻³			Silt Loading (g/m ²)	
			Range	Mean		Range	Mean	Units ^b	Range	Mean
Copper smelting	1	3	15.4-21.7	19.0	2	12.9 - 19.5 45.8 - 69.2	15.9 55.4	kg/km lb/mi	188-400	292
Iron and steel production	9	48	1.1-35.7	12.5	2	0.006 - 4.77 0.020 -16.9	0.495 1.75	kg/km lb/mi	0.09-79	9.7
Asphalt batching	1	3	2.6 - 4.6	3.3	1	12.1 - 18.0 43.0 - 64.0	14.9 52.8	kg/km lb/mi	76-193	120
Concrete batching	1	3	5.2 - 6.0	5.5	2	1.4 - 1.8 5.0 - 6.4	1.7 5.9	kg/km lb/mi	11-12	12
Sand and gravel processing	1	3	6.4 - 7.9	7.1	1	2.8 - 5.5 9.9 - 19.4	3.8 13.3	kg/km lb/mi	53-95	70
Municipal solid waste landfill	2	7	-	-	2	-	-	-	1.1-32.0	7.4
Quarry	1	6	-	-	2	-	-	-	2.4-14	8.2
Corn wet mills	3	15	-	-	2	-	-	-	0.05 – 2.9	1.1

^a References 1-2,5-6,11-13. Values represent samples collected from *industrial* roads. Public road silt loading values are presented in Table-13.2.1-2. Dashes indicate information not available.^b Multiply entries by 1000 to obtain stated units; kilograms per kilometer (kg/km) and pounds per mile (lb/mi).

Table 1.6-1. EMISSION FACTORS FOR PM FROM WOOD RESIDUE COMBUSTION^a

Fuel	PM Control Device	Filterable PM		Filterable PM-10 ^b		Filterable PM-2.5 ^b	
		Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING	Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING	Emission Factor (lb/MMbtu)	EMISSION FACTOR RATING
Bark/Bark and Wet Wood	No Control ^c	0.56 ^d	C	0.50 ^e	D	0.43 ^e	D
Dry Wood	No Control ^c	0.40 ^f	A	0.36 ^e	D	0.31 ^e	D
Wet Wood	No Control ^c	0.33 ^g	A	0.29 ^e	D	0.25 ^e	D
Bark	Mechanical Collector [*]	0.54 ^h	D	0.49 ^e	D	0.29 ^e	D
Bark and Wet Wood	Mechanical Collector [*]	0.35 ⁱ	C	0.32 ^e	D	0.19 ^e	D
Dry Wood	Mechanical Collector [*]	0.30 ^j	A	0.27 ^e	D	0.16 ^e	D
Wet Wood	Mechanical Collector [*]	0.22 ^k	A	0.20 ^e	D	0.12 ^e	D
All Fuels ^m	Electrolyzed Gravel Bed	0.1 ^m	D	0.074 ^e	D	0.065 ^e	D
All Fuels ^m	Wet Scrubber	0.066 ⁿ	A	0.065 ^e	D	0.065 ^e	D
All Fuels ^m	Fabric Filter	0.1 ^o	C	0.074 ^e	D	0.065 ^e	
All Fuels ^m	Electrostatic Precipitator	0.054 ^p	B	0.04 ^e	D	0.035 ^e	
		<u>Condensible PM</u>					
All Fuels ^m	All Controls/No Controls	0.017 ^q	A				

Table 1.6-3. (cont.)

Organic Compound	Average Emission Factor ^b (lb/MMBtu)	EMISSION FACTOR RATING
Hexachlorobiphenyl	5.5 E-10 ^r	D
Hexanal	7.0 E-06 ^z	D
Heptachlorodibenzo-p-dioxins	2.0 E-09 ^{aa}	C
Heptachlorodibenzo-p-furans	2.4 E-10 ^{aa}	C
Hexachlorodibenzo-p-dioxins	1.6 E-06 ^{aa}	C
Hexachlorodibenzo-p-furans	2.8 E-10 ^{aa}	C
Hydrogen chloride	1.9 E-02 ^j	C
Indeno(1,2,3,c,d)pyrene	8.7 E-08 ^l	B
Isobutyraldehyde	1.2 E-05 ^z	D
Methane	2.1 E-02 ^f	C
2-Methylnaphthalene	1.6 E-07 ^z	D
Monochlorobiphenyl	2.2 E-10 ^r	D
Naphthalene	9.7 E-05 ^{ab}	A
2-Nitrophenol	2.4 E-07 ^w	C
4-Nitrophenol	1.1 E-07 ^w	C
Octachlorodibenzo-p-dioxins	6.6 E-08 ^{aa}	B
Octachlorodibenzo-p-furans	8.8 E-11 ^{aa}	C
Pentachlorodibenzo-p-dioxins	1.5 E-09 ^{aa}	B
Pentachlorodibenzo-p-furans	4.2 E-10 ^{aa}	C
Pentachlorobiphenyl	1.2 E-09 ^r	D
Pentachlorophenol	5.1 E-08 ^{ac}	C
Perylene	5.2 E-10 ^f	D
Phenanthrene	7.0 E-06 ^{ad}	B
Phenol	5.1 E-05 ^{ae}	C
Propanal	3.2 E-06 ^z	D
Propionaldehyde	6.1 E-05 ^f	D
Pyrene	3.7 E-06 ^{af}	A
Styrene	1.9 E-03 ^f	D
2,3,7,8-Tetrachlorodibenzo-p-dioxins	8.6 E-12 ^{aa}	C
Tetrachlorodibenzo-p-dioxins	4.7 E-10 ^{ag}	C
2,3,7,8-Tetrachlorodibenzo-p-furans	9.0 E-11 ^{aa}	C
Tetrachlorodibenzo-p-furans	7.5 E-10 ^{aa}	C
Tetrachlorobiphenyl	2.5 E-09 ^r	D
Tetrachloroethene	3.8 E-05 ^t	D
o-Tolualdehyde	7.2 E-06 ^j	D
p-Tolualdehyde	1.1 E-05 ^z	D
Toluene	9.2 E-04 ^v	C
Trichlorobiphenyl	2.6 E-09 ^r	C
1,1,1-Trichloroethane	3.1 E-05 ^t	D
Trichloroethene	3.0 E-05 ^t	D
Trichlorofluoromethane	4.1 E-05	D
2,4,6-Trichlorophenol	<2.2 E-08 ^{ak}	C

Table 1.6-3. (cont.)

Organic Compound	Average Emission Factor ^b (lb/MMBtu)	EMISSION FACTOR RATING
Vinyl Chloride	1.8 E-05^r	D
o-Xylene	2.5 E-05^v	D
Total organic compounds (TOC)	0.039^{ai}	D
Volatile organic compounds (VOC)	0.017^{aj}	D
Nitrous Oxide (N ₂ O)	0.013^{ak}	D
Carbon Dioxide (CO ₂)	195^{al}	A

^a Units of lb of pollutant/million Btu (MMBtu) of heat input. To convert from lb/MMBtu to lb/ton, multiply by (HHV * 2000), where HHV is the higher heating value of the fuel, MMBtu/lb. To convert lb/MMBtu to kg/J, multiply by 4.3E-10. These factors apply to Source Classification Codes (SCC) 1-0X-009-YY, where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional, and where Y = 01 for bark-fired boiler, 02 for bark and wet wood-fired boiler, 03 for wet wood-fired boiler, and 08 for dry wood-fired boiler.

^b Factors are for boilers with no controls or with particulate matter controls.

^c References 26, 34, 36, 59, 60, 65, 71-73, 75.

^d References 26, 33, 34, 36, 59, 60, 65, 71-73, 75.

^e References 26, 35, 36, 46, 50, 59, 60, 65, 71-75.

^f Reference 26.

^g Reference 33.

^h Reference 26, 50, 83.

ⁱ References 26, 34, 36, 59, 60, 65, 71-73, 75.

^j References 26, 50.

^k References 26, 35, 36, 46, 59, 60, 65, 70, 71-75.

^l References 26, 36, 59, 60, 65, 70-75.

^m References 26, 33, 36, 59, 60, 65, 70-73, 75.

ⁿ References 26, 33, 36, 59, 60, 65, 71-73, 75.

^o Reference 34.

^p References 26, 36, 60, 65, 71-75.

^q References 26, 33.

^r References 26.

^s Reference 83.

^t References 26, 72.

^u References 35, 60, 65, 71, 72.

^v References 26, 72.

^w References 35, 60, 65, 71, 72.

^x References 26, 33, 34, 59, 60, 65, 71-75.

^y References 26, 28, 35, 36, 46 - 51, 59, 60, 65, 70, 71-75, 79, 81, 82.

^z Reference 50.

^{aa} Reference 26, 45.

^{ab} References 26, 33, 34, 36, 59, 60, 65, 71-75, 83.

^{ac} References 26, 35, 60, 65, 71, 72.

^{ad} References 26, 33, 34, 36, 59, 60, 65, 71 - 73.

^{ae} References 26, 33, 34, 35, 60, 65, 70, 71, 72.

^{af} References 26, 33, 34, 36, 59, 60, 65, 71 - 73, 83.

^{ag} References 26, 45.

^{ah} References 26, 35, 60, 65, 71.

^{ai} TOC = total organic compounds. Factor is the sum of all factors in table except nitrous oxide and carbon dioxide.

^{aj} VOC volatile organic compounds. Factor is the sum of all factors in table except hydrogen chloride, chlorine, formaldehyde, tetrachloroethene, 1,1,1-trichloroethane, dichloromethane, acetone, nitrous oxide, methane, and carbon dioxide.

^{ak} Reference 83.

^{al} References 19 - 26, 33 - 49, 51- 57, 77, 79 - 82, 84 - 86.

**Table 1.6-4. EMISSION FACTORS FOR TRACE ELEMENTS
FROM WOOD RESIDUE COMBUSTION^a**

Trace Element	Average Emission Factor (lb/MMBtu) ^b	EMISSION FACTOR RATING
Antimony	7.9 E-06^c	C
Arsenic	2.2 E-05^d	A
Barium	1.7 E-04^c	C
Beryllium	1.1 E-06^e	B
Cadmium	4.1 E-06^f	A
Chromium, total	2.1 E-05^g	A
Chromium, hexavalent	3.5 E-06^h	C
Cobalt	6.5 E-06ⁱ	C
Copper	4.9 E-05^g	A
Iron	9.9 E-04^k	C
Lead	4.8 E-05^l	A
Manganese	1.6 E-03^d	A
Mercury	3.5 E-06^m	A
Molybdenum	2.1 E-06^c	D
Nickel	3.3 E-05ⁿ	A
Phosphorus	2.7 E-05^c	D
Potassium	3.9 E-02^c	D
Selenium	2.8 E-06^o	A
Silver	1.7 E-03^p	D
Sodium	3.6 E-04^c	D
Strontium	1.0 E-05^c	D
Tin	2.3 E-05^c	D
Titanium	2.0 E-05^c	D
Vanadium	9.8 E-07^c	D
Yttrium	3.0 E-07^c	D
Zinc	4.2 E-04^o	A

^a Units of lb of pollutant/million Btu (MMBtu) of heat input. To convert from lb/MMBtu to lb/ton, multiply by (HHV * 2000), where HHV is the higher heating value of the fuel, MMBtu/lb. To convert lb/MMBtu to kg/J, multiply by 4.3E-10. These factors apply to Source Classification Codes (SCC) 1-0X-009-YY, where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional, and where Y = 01 for bark-fired boiler, 02 for bark and wet wood-fired boiler, 03 for wet wood-fired boiler, and 08 for dry wood-fired boiler.

^b Factors are for boilers with no controls or with particulate matter controls.

^c Reference 26.

^d References 26, 33, 36, 46, 59, 60, 65, 71-73, 75, 81.

^e References 26, 35, 36, 46, 59, 60, 65, 71-73, 75.

^f References 26, 35, 36, 42, 46, 59, 60, 65, 71-73, 75, 81.

^g References 26, 34, 35, 36, 42, 59, 60, 65, 71-73, 75, 81.

^h References 26, 36, 46, 59, 60, 71, 72, 73, 75.

ⁱ References 26, 34, 83.

^j References 26, 33-36, 46, 59, 60, 65, 71-73, 75, 81.

^k References 26, 71, 72, 81.

^l References 26, 33-36, 46, 59, 60, 65, 71-73, 75.

^m References 26, 35, 36, 46, 59, 60, 65, 71-73, 75, 81.

ⁿ References 26, 33 - 36, 46, 59, 60, 65, 71-73, 75, 81.

^o References 26, 33, 35, 46, 59, 60, 65, 71-73, 75, 81.

^p Reference 34.

Table 1.6-5. CUMULATIVE PARTICLE SIZE DISTRIBUTION AND SIZE-SPECIFIC EMISSION FACTORS FOR WOOD/BARK-FIRED BOILERS^a

EMISSION FACTOR RATING: E

Particle Size ^b (µm)	Cumulative Mass % ≤ Stated Size				
	Uncontrolled ^c	Controlled			
		Multiple Cyclone ^d	Multiple Cyclone ^e	Scrubber ^f	Dry Electrostatic Granular Filter (DEGF)
15	94	96	35	98	77
10	90	91	32	98	74
6	86	80	27	98	69
2.5	76	54	16	98	65
1.25	69	30	8	96	61
1.00	67	24	6	95	58
0.625	ND	16	3	ND	51
Total	100	100	100	100	100

^a Reference 89.
^b Expressed as aerodynamic equivalent diameter.
^c From data on underfeed stokers. May also be used as size distribution for wood-fired boilers.
^d From data on spreader stokers with flyash reinjection.
^e From data on spreader stokers without flyash reinjection.
^f From data on Dutch ovens. Assumed control efficiency is 94%.

EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, May 2014

EF Reference No.	Emissions Generating Activity ¹	PM ² EF	PM ₁₀ % of PM	PM ₁₀ EF	PM _{2.5} % of PM	PM _{2.5} EF	Units
1, 2, 3, 4	Log Bucking ³	0.035	50	0.0175	25	0.00875	lb/ton log
1, 2, 3, 5	Log Debarking ³	0.024	50	0.012	25	0.006	lb/ton log
1, 2, 3, 6	Sawing ³	0.350	50	0.175	25	0.0875	lb/ton log
1, 3, 7	Lumber Drying - Resinous Softwood Species ⁴	0.02	100	0.02	100	0.02	lb/mbf
1, 3, 7	Lumber Drying - Non-Resinous Softwood Species ⁵	0.05	100	0.05	100	0.05	lb/mbf
1, 2, 3, 8	"Drop" of "wet" material ⁵ from one surface to another including, but not limited to, (a) each mechanical conveyance drop between point of generation and storage bin (but not including bin unless open to atmosphere) (b) loadout from storage bin into a truck bed or railcar and (c) drop onto a pile. Apply EF to each "drop."	0.00075	N/A	0.00035	N/A	0.00005	lb/bdt material
1, 2, 3, 8	"Drop" of "dry" material ⁵ from one surface to another including, but not limited to, (a) each mechanical conveyance drop between point of generation and storage bin (but not including bin unless open to atmosphere) (b) loadout from storage bin into a truck bed or railcar and (c) drop onto a pile. Apply EF to each "drop."	0.0015	N/A	0.0007	N/A	0.0001	lb/bdt material
1, 3, 9	Pneumatically convey material ⁶ through medium efficiency cyclone to bin	0.5	85	0.425	50	0.25	lb/bdt material
1, 3, 9	Pneumatically convey material ⁶ through high efficiency cyclone to bin	0.2	95	0.19	80	0.16	lb/bdt material
1, 3, 9	Pneumatically convey material ⁶ through cyclone to bin. Exhaust routed through baghouse.	0.001	99.5	0.000995	99	0.00099	lb/bdt material
1, 3, 9	Pneumatically convey material ⁶ into target box	0.1	85	0.085	50	0.05	lb/bdt material
1, 2, 10	Wind Erosion of Pile	0.38	50	0.19	25	0.095	ton/acre-yr
1, 2, 11	Paved Roads	Emission factors based upon site-specific parameters.					lb/VMT
1, 2, 12	Unpaved Roads	Emission factors based upon site-specific parameters.					lb/VMT

Acronyms

bdt: bone dry ton
mbf: 1000 board foot lumber
VMT: vehicle mile traveled

¹ If any activity occurs within a building, reduce the PM, PM₁₀ and PM_{2.5} emission factor ("EF") by 100 percent (engineering judgement) as emissions struggle to escape through doorways and other openings. If an activity's by-products are evacuated pneumatically to a target box, cyclone or bag filter system, then only the associated downstream conveyance emissions are counted.

² PM refers to the CAA § 111 pollutant generally measured using EPA Reference Method 5 to determine the filterable fraction of particulate matter. "Particulate matter" is a term used to define an air pollutant that consists of a mixture of solid particles and liquid droplets found in the ambient air. PM does not include a condensable fraction.

³ EF for log bucking, debarking and sawing are expressed in units of "lb/ton log" in the table above. The EF can be expressed in units of "lb/mbf" lumber as follows:

$$\text{lb/mbf} = (\text{lb PM/ton log}) \times (\text{ton/2000 lb}) \times (\text{LD lb/ft}^3) \times (\text{LRF bf lumber/ft}^3 \text{ log}) \times (1000 \text{ bf/mbf})$$

where "LD" stands for log density and "LRF" stands for log recovery factor

• LD values are species-specific and are provided by The Engineering ToolBox and are listed at http://www.engineeringtoolbox.com/weight-wood-d_821.html

• LRF value of 6.33 bf/ft³ log is specific to softwood species of the Pacific Coast East. See Section 2 of Appendix D to Forest Products Measurements and Conversion Factors with Special Emphasis on the U.S. Pacific Northwest. College of Forest Resources, University of Washington. 1994. See http://www.ruraltech.org/projects/conversions/briggs_conversions/briggs_append2/appendix02_combined.pdf

⁴ Douglas Fir, Engelmann Spruce, Larch, Lodgepole Pine, Ponderosa Pine and Western White Pine

⁵ White Fir, Western Hemlock and Western Red Cedar

⁶ The "material" in this entry refers to bark, hogged fuel, green chips, dry chips, green sawdust, dry sawdust, shavings and any other woody by-product of lumber production.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SECTOR POLICIES AND PROGRAMS DIVISION
OFFICE OF AIR QUALITY PLANNING AND STANDARDS
OFFICE OF AIR AND RADIATION

DATE: September 22, 2017

SUBJECT: Development of a Provisional Emissions Calculations Tool for Inclusion in the Final PCWP ICR

FROM: EPA/OAR/OAQPS/SPPD/NRG

TO: EPA-HQ-OAR-2016-0243

I. Introduction

The U.S. EPA is required under Clean Air Act sections 112(f)(2) and 112(d)(6) to perform a residual risk and technology review (RTR) of the Plywood and Composite Wood Products (PCWP) National Emission Standards for Hazardous Air Pollutants (NESHAP) codified in 40 CFR part 63, subpart DDDD. In order to conduct the data analyses required for the RTR, the EPA is conducting an Information Collection Request (ICR) to gather information from the PCWP industry. As part of the ICR, facilities are asked to compile a HAP emissions inventory that will be used in the EPA's residual risk modeling. The EPA will review the file for quality assurance (QA) and standardization. The EPA has included a Provisional Calculation Tool within the PCWP ICR spreadsheet in order to address stakeholder concerns regarding the level of effort (burden) required to develop the HAP emissions inventory as part of the ICR response. Some stakeholders have indicated that many facilities do not maintain HAP emissions inventories, and therefore, considerable effort will be required to develop the inventory required for the ICR. The goal of the developing the provisional calculations is to reduce respondent burden.

Instructions for use of the Provisional Calculation Tool are provided in the ICR instruction document accompanying the draft ICR spreadsheet (PCWP_survey.xlsx). The provisional calculations are built into the *HAP Emissions* tab of the ICR spreadsheet. Because use of the provisional calculations is optional, the columns and instructions pertaining to the Provisional Calculation Tool can be ignored by facilities not using the tool.

The purpose of this memorandum is to document the emission factors used in the Provisional Calculation Tool. Section II provides an overview of the PCWP Source Classification Codes (SCCs) and discusses the selection of emission factors for organic and metal HAP. Appendices to this memorandum list the SCCs and pollutants with emission factors included in the Provisional Calculation Tool.

PCWP	SCC	SCC Level Four	ICR Process Unit Type	Related AP-42 EF to use in absense of more repretative data	EF source	EF units	Acetaldehyde	Acrolein	Formaldehyde	Methanol	Phenol	Propion aldehyde
plywood	30700784	Press: Non-Urea Formaldehyde Resin: Hardwood	Hardwood plywood press		No EF for SCC							
plywood	30700785	Press: Urea Formaldehyde Resin: Hardwood	Hardwood plywood press	Hardwood Plywood, press, UF resin	AP-42, Ch 10.5	lb/MSF 3/8			0.0047	0.032	0.011	
plywood	30700791	Hammermill/Chipper: Dry Wood Material	Panel trim chipper	SPW dry trim chipper (chips dry trim from SPW panel saws; process rate = finished board production)	AP-42, Ch 10.5	lb/MSF 3/8				0.0078		
plywood	30700794	Miscellaneous Coating Operations	Miscellaneous coating operation		No EF for SCC							
plywood	30700799	Other Not Classified	Other		No EF for SCC							
lumber	30700841	Lumber Kiln: Indirect-heated: Softwood: Pine Species	Lumber kiln		NCASI 2014	lb/MBF	0.04	0.004	0.016	0.18	0.01	0.004
lumber	30700842	Lumber Kiln: Indirect-heated: Softwood: Non-Pine Species	Lumber kiln		NCASI 2014	lb/MBF	0.04	0.004	0.016	0.18	0.01	0.004
lumber	30700843	Lumber Kiln: Indirect-heated: Hardwood	Lumber kiln		NCASI 2014	lb/MBF	0.04	0.004	0.016	0.18	0.01	0.004
lumber	30700844	Lumber Kiln: Direct-fired: Softwood: Pine Species	Lumber kiln		NCASI 2014	lb/MBF	0.04	0.004	0.065	0.18	0.01	0.004
lumber	30700845	Lumber Kiln: Direct-fired: Softwood: Non-Pine Species	Lumber kiln		NCASI 2014	lb/MBF	0.04	0.004	0.065	0.18	0.01	0.004
lumber	30700846	Lumber Kiln: Direct-fired: Hardwood	Lumber kiln		NCASI 2014	lb/MBF	0.04	0.004	0.065	0.18	0.01	0.004
MDF	30700909	Pressurized Refiner/Primary Tube Dryer: Direct Natural Gas-fired: Blowline Blend: Non-Urea Formaldehyde Resin:	Primary tube dryer	MDF, tube, direct wood-fired, blowline blend, UF, softwood	AP-42, Ch 10.6.3	lb/ODT			0.86			
MDF	30700910	Pressurized Refiner/Primary Tube Dryer: Direct Natural Gas-fired: Blowline Blend: Non-Urea Formaldehyde Resin:	Primary tube dryer	MDF, tube, direct wood-fired, blowline blend, UF, softwood	AP-42, Ch 10.6.3	lb/ODT			0.86			
MDF	30700911	Pressurized Refiner/Primary Tube Dryer: Direct Natural Gas-fired: Blowline Blend: Non-Urea Formaldehyde Resin: Mixed	Primary tube dryer	MDF, tube, direct wood-fired, blowline blend, UF, softwood	AP-42, Ch 10.6.3	lb/ODT			0.86			
MDF	30700912	Pressurized Refiner/Primary Tube Dryer: Direct Natural Gas-fired: Blowline Blend: Urea Formaldehyde Resin:	Primary tube dryer	MDF, tube, direct wood-fired, blowline blend, UF, softwood	AP-42, Ch 10.6.3	lb/ODT			0.86			

Revised, references Southern Yellow Pine Emission Factors MBF is 1000 board feet			
emission factor, pounds per MBF			
	Steam heated	Suspension burner	Gasifier
PM	0.022 (1)	0.40 (2)	0.14 (3)
PM ₁₀	~	~	~
VOC			
as carbon	3.61 (4)	3.83 (5)	3.83 (5)
as VOC (pinene)	4.09	4.34	4.34
Methanol	0.199 (6)	0.161 (7)	0.161 (7)
Phenol	0.01(8)	0.01 (8)	0.01 (8)
Formaldehyde	0.0183 (9)	0.103 (10)	0.103 (10)
Acetaldehyde (11)	0.052	0.052	0.052
Acrolein (12)	0.0075	0.0075	0.0075
emission factor, pounds per MBF-hour			
	Steam heated	Suspension burner	Gasifier
Acetaldehyde	0.00377 (13)	0.00377	0.00377
Acrolein	0.00051 (14)	0.00051	0.00051
formaldehyde	0.0014 (15)	0.01185 (16)	0.01185 (16)
For TAPs, the emissions on an hourly basis are given by (Charge in 1000 board feet)* (emission factor) Example: 140,000 BF kiln charge = (140)*(0.00140) = 0.196 lb formaldehyde per hour			
Note: for hourly emissions of phenol, use emission factor in lb/MBF.			

Note: The full scale direct fired kiln has a blend box that mixes hot air from the sawdust combustion with cooler recycled air from the kiln. Although the small scale kilns reported data under "direct fire" this only means that the temperature profiles of the kilns matched that of a full scale kiln. There was no intermingling of hot combustion gases with cooler recycle air from the small kilns since these kilns are electrically heated.

REFERENCES

(1)

PRODUCT	FIRING TYPE	MILLS/ UNITS/ RUNS	RATIO OF NON- DETECTS	RANGE	MEDIAN	MEAN	UNITS
Southern Pine Lumber	Steam Heated	3/3/16	0/16 nd	2.0E-03 to 1.7E-01	9.3E-03	2.2E-02	lb/MBF
Southern Pine Lumber	Direct Fired	6/7/24	0/24 nd	2.3E-02 to 1.3E+00	3.2E-01	3.7E-01	lb/MBF

(2) personal Communication, D Word, NCASI, May 31, 2005

Kiln 1K181

Suspension Burner	Run	M 5 lb/MBF	Production	Cycle time, hrs
1K181	1	0.4170	133	20.3
1K181	2	0.3480	133	20.3
1K181	1	0.4800	131	20
1K181	2	0.4100	131	20
1K181	3	0.3600	131	20
		0.40	131.80	20.12

(3) personal Communication, D Word, NCASI, May 31, 2005

Kiln 098 DF

Gasifier	Run	M 5 lb/MBF	Production	Cycle time, hrs
1K098	1	0.2670	130	26.45
1K098	2	0.2010	130	26.45
1K098	3	0.2260	130	26.45
2K098	1	0.1520	128	17.52
2K098	2	0.1810	128	17.52
2K098	3	0.0980	128	17.52
2K098	1	0.0640	104.5	17.25
2K098	2	0.0548	104.5	17.25
2K098	3	0.0466	104.5	17.25
		0.143	120.83	20.41

(4) NCASI Technical Bulletin 845 Table 8.2 Steam heated average of all kilns

(5) NCASI Technical Bulletin 845 Table 8.1 Direct fired (gasifier) full scale kiln only

(6) NCASI Technical Bulletin 845 Table 9.6 Steam heated all kilns

(7) NCASI Technical Bulletin 845 Table 9.4 Direct fired (gasifier) full scale kiln

(8) Table 2A to Appendix B Emission factors for Plywood and Composite Wood Product MACT (Subpart DDDD)

(9) NCASI Technical Bulletin 845 Table 9.5 steam heated full scale kiln and OSU small scale runs. MSU not used. See spreadsheet tab for statistical test

(10) NCASI Technical Bulletin 845 Table 9.3 Direct fired full scale kiln only

(11) NCASI Technical Bulletin 845 Appendix BB6 FSK INDF3 and BB7 OSU INDF3

(12) NCASI Technical Bulletin 845 Appendix BB6 FSK INDF3 and BB7 OSU INDF3

(13) NCASI Technical Bulletin 845 Appendix BB6 FSK INDF3 run # 10 and BB7 OSU INDF3 Run # 2

(14) NCASI Technical Bulletin 845 Appendix BB6 FSK INDF3 run # 10 and BB7 OSU INDF3 Run # 2

(15) NCASI Technical Bulletin 845 Appendix Y7 FSK INDF1 run # 9, BB6 FSK INDF3 run # 10, App Y9 OSU INDF1 run # 4, BB7 OSU INDF3 run # 5

(16) NCASI Technical Bulletin 845 Appendix Y1 FSK DF2 run # 6, Y2 FSK DF5 run # 6

ENVIRONMENTAL MONITORING LABORATORIES, INC.

P.O. Box 655 624 Ridgewood Road
Ridgeland, Mississippi 39158

Phone: 601/856-3092
Fax 601/853-2151

EXECUTIVE SUMMARY OF STACK EMISSIONS TEST

Anderson Tully – Waltersville Mill

Report date: May 27, 2014

On April 24, 2014, Environmental Monitoring Laboratories performed air emissions tests for Anderson Tully Company in Vicksburg, Mississippi. Testing was performed to measure particulate, CO, NO_x, VOC and SO₂ emissions from the Wellons wood fired boiler in accordance with requirements of the Title V Permit No. 2780-00004 issued and administered by the Mississippi Department of Environmental Quality (MDEQ). The following table is a summary of the test results.

	lb/hr	lb/MM Btu	conc.	Permit Limit
PARTICULATE EMISSIONS	23.32	0.329	0.152 gr/dscf	45.6 lb/hr 0.30 grains/dscf
SO ₂ EMISSIONS	0.17	0.002	0.9 ppm	2.3 lb/hr 4.8 lb/MM Btu
CO EMISSIONS	4.01	0.056	51 ppm	23.2 lb/hr
NO _x EMISSIONS	15.61	0.220	122 ppm	30 lb/hr
VOC EMISSIONS (as C)	0.24	0.003	7 ppm	8.0 lb/hr

Ms Kamace Priest of Anderson Tully Company coordinated the testing project. Bill Norwood, Wesley Ballard, Greg Shelnett, and Eric Renfrow of Environmental Monitoring Laboratories were responsible for sample collection.

Following is a report of the test.

ENVIRONMENTAL MONITORING LABORATORIES, INC.

P.O. Box 655 624 Ridgewood Road
Ridgeland, Mississippi 39158

Phone: 601/856-3092
Fax 601/853-2151

EXECUTIVE SUMMARY OF STACK EMISSIONS TEST

Anderson Tully – Waltersville Mill

Report date: May 14, 2016

On April 7, 2016, Environmental Monitoring Laboratories performed air emissions tests for Anderson Tully Company in Vicksburg, Mississippi. Testing was performed to measure particulate, CO, NO_x, VOC, SO₂ and visible emissions from the Wellons wood fired boiler in accordance with requirements of the Title V Permit No. 2780-00004 issued and administered by the Mississippi Department of Environmental Quality (MDEQ). The following table is a summary of the test results.

	lb/hr	lb/MM Btu	conc.	Permit Limit
PARTICULATE EMISSIONS	18.56	0.313	0.118 gr/dscf	45.6 lb/hr 0.30 grains/dscf
SO ₂ EMISSIONS	0.10	0.0017	0.5 ppm	2.3 lb/hr 4.8 lb/MM Btu
CO EMISSIONS	14.04	0.232	176 ppm	23.2 lb/hr
NO _x EMISSIONS	11.08	0.188	85 ppm	30 lb/hr
VOC EMISSIONS (as C)	0.21	0.003	6 ppm	8.0 lb/hr

Ms Kamace Priest of Anderson Tully Company coordinated the testing project. Bill Norwood, Wesley Ballard, and Eric Renfrow of Environmental Monitoring Laboratories were responsible for sample collection.

Following is a report of the test.

ENVIRONMENTAL MONITORING LABORATORIES, INC.

P.O. Box 655 624 Ridgewood Road
Ridgeland, Mississippi 39158

Phone: 601/856-3092
Fax 601/853-2151

EXECUTIVE SUMMARY OF AIR EMISSIONS TESTS

Anderson Tully Company - Waltersville Mill

Report date: April 24, 2018

Subject: Anderson Tully Company - Vicksburg, Mississippi
Facility No. 2780-00004

On April 9, 2018, Environmental Monitoring Laboratories performed air emissions testing for Anderson Tully Company in Vicksburg, Mississippi. Testing was performed to measure particulate, CO, NO_x, VOC, SO₂ and visible emissions from the Wellons wood fired boiler in accordance with requirements of Permit No. 2780-00004 issued and administered by the Mississippi Department of Environmental Quality.

Results of the tests:

	lb/hr	lb/MMBTU	concentration	Permit Limit
PARTICULATE EMISSIONS	15.04	0.241	0.102 gr/dscf	45.6 lbs/hr 0.30 gr/dscf
SO ₂ EMISSIONS	0.05	0.0008	0.30 ppm	2.3 lb/hr 4.8 lb/MMBTU
CO EMISSIONS	7.31	0.117	98 ppm	23.2 lb/hr
NO _x EMISSIONS	12.11	0.193	99 ppm	30 lb/hr
VOC EMISSIONS (as C)	0.05	0.001	1.4 ppm	8.0 lb/hr

VISIBLE EMISSIONS, highest Six Minute Avg. (SMA)	10.0 %	40 %
--------------------------------------------------	--------	------

Ms. Kamace Priest coordinated the testing project. Otis Rayburn, Greg Shelnett, Wesley Ballard and Eric Renfrow of Environmental Monitoring Laboratories were responsible for sample collection.

Following is a report of the test.

EXECUTIVE SUMMARY OF AIR EMISSIONS TESTS

Vicksburg Forest Products - Watersville Mill

Report date: March 31, 2020

Subject: Vicksburg Forest Products - Vicksburg, Mississippi
Facility No. 2780-00004

On March 19, 2020, EML, LLC performed air emissions testing for Vicksburg Forest Products in Vicksburg, Mississippi. Testing was performed to measure particulate, CO, NO_x, VOC, SO₂ and visible emissions from the Wellons wood fired boiler in accordance with requirements of Permit No. 2780-00004 issued and administered by the Mississippi Department of Environmental Quality.

Results of the tests:

	lb/hr	lb/mmBTU	conc.	Permit Limit
PARTICULATE EMISSIONS	13.02	0.270	0.106 gr/dscf	45.6 lbs/hr 0.30 gr/dscf
SO ₂ EMISSIONS	0.51	0.0108	3.6 ppm	2.3 lb/hr 4.8 lb/mmBTU
CO EMISSIONS	12.46	0.261	199 ppm	23.2 lb/hr
NO _x EMISSIONS	10.05	0.211	98 ppm	30.0 lb/hr
VOC EMISSIONS (as C)	0.01	0.0001	0.3 ppm	8.0 lb/hr
VISIBLE EMISSIONS, HSMA	-	-	5.0 %	40 %

Chris Barnett coordinated the testing project. Greg Shelnutt, Josh Alford, Andy Gatlin and Josh Laxer of EML, LLC were responsible for sample collection.

Following is a report of the test.

Appendix D

Baseline Reference

Warren Co.
Anderson Tully
Lumber Co.
AI 1534

2016
(2015 Actual Emissions)



Anderson Tully Lumber Company
Vicksburg, MS

Certified No. 7015 1520 0002 6306 3627

Return Receipt Requested

June 22, 2016

Ms. Krystal Rudolph
Mississippi Department of Environmental Quality
Air Division
P. O. Box 2261
Jackson, Mississippi 39225-2261

RECEIVED
JUN 24 2016
Dept. of Environmental Quality

Re: Anderson-Tully Lumber Company
Vicksburg, Mississippi
Title V 2015 Emissions Inventory
Facility No. 278000004 – Warren County

Dear Ms. Rudolph,

Please find enclosed the 2015 Annual Emissions Reporting Form (AERF) and emissions calculations for purposes of assessing the Title V Operating Permit Fee for the Anderson-Tully Lumber Company Vicksburg, Mississippi.

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

If you have any questions or need any additional information, please call Andrew S. Covington at (601) 696-7146 or by email at acovington@allenes.com.

Sincerely,

Kamace Priest
Director of Risk Management

CC: Andrew S. Covington, P.E. – Allen Engineering and Science

Enclosures

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TITLE V PROGRAM ANNUAL EMISSIONS REPORTING FORM
P.O. BOX 2261
JACKSON, MS 39225-2261**

In accordance with Section 49-17-32, Mississippi Code of 1972 Annotated, all sources that choose to base their annual Title V Fee on actual emissions shall submit, by July 1 of each year, an inventory of emissions for the previous calendar year.

MDEQ Facility ID #:278000004
AI ID: 1536

Facility: Anderson Tully Lumber Company, Waltersville Lumber Mill
Site Address: 1725 North Washington Street
Vicksburg, MS 39180
Warren County

If actual emissions are reported, they should be the actual emissions that were emitted from the facility during calendar year 2015. The annual permit fee is due on September 1st of each year.

Pollutant	Annual Allowable (Potential) Emission Rate (TPY)	FOR INFO ONLY Actual Emission Rate (TPY) Reported for Calendar Year (2014)	Actual Annual (2015) Emission Rate (TPY)
Particulate Matter	740.84	142.94	111.86
Sulfur Dioxide	49.17	0.59	0.48
Nitrogen oxides	174.11	65.33	52.83
Carbon Monoxide	119.85	16.63	13.45
VOC	119.90	13.22	25.71
Total reduced sulfur compounds	0	0	0.0
Lead	0	0.48	0.39
CFC/HCFC, Total	0	0	0.0
Other	0	0	0.0
HAP, Total (VOC)	27.871	10.03	14.98
HAP, Total (NON VOC)	8.884	0.75	0.91

VOC Reflects Total VOC from the facility including VOCs that are HAPs.

Attach calculations, monitoring data, measurements, etc. from which actual emission rates were determined. Actual emission rates will not be accepted unless the method of calculation is attached.

I, the undersigned, am the owner or authorized representative of the facility described on this fee form. I certify that the statements and calculations made on this form are complete and accurate to the best of my knowledge.

Kamace Priest
Signature

KAMACE Priest
Typed or Printed Name

6-22-16
Date

Director of Risk Management
Title

ANNUAL EMISSIONS REPORTING FORM

PREPARED FOR:

Anderson Tully Lumber Company

Waltersville Lumber Mill

Facility ID # 2780-00004

1725 North Washington Street

Vicksburg, Mississippi 39180

Warren County

RECEIVED
JUN 24 2016

Dept. of Environmental Quality

PREPARED BY:







AA-002

Wellons Wood Fired Boiler

Parameter	Annual Emissions (ton/year)
PM _{filterable}	79.00
NO _x	52.83
SO ₂	0.48
VOC	0.72
CO	13.45
Total HAPs	1.61
HAP, Total (VOC)	0.71
HAP, Total (non-VOC)	0.91
Chlorine / Hydrochloric Acid	0.05

Products of Wood Residue Combustion

Pollutants emissions for CO, NO_x, SO₂, PM and VOC were calculated using stack test results from April 7, 2016 and HAPs were calculated using stack test results from July 30, 2012.

January 1 – December 31, 2015

Steam enthalpy	997.30	BTU/lb steam
Hours of Operation	8,112.00	hr/period
Boiler Efficiency	90	percent
Heat input	480,230.40	MMBtu/period
Average Heat Input	59.20	MMBtu/hr

Emission Calculations:

Pollutant	Average Heat Input	Hourly Emissions Rate	Emissions		
	MMBtu/hr	lb/MMBtu	lb/yr	ton/yr	lb/hr
PM _{filterable}	59.20	0.329	157,95.80	79.00	19.48
NO _x	59.20	0.220	105,650.69	52.83	13.02
SO ₂	59.20	0.002	960.46	0.48	0.12
VOC	59.20	0.003	1,440.69	0.72	0.18
CO	59.20	0.056	26,892.90	13.45	3.32



Hazardous Air Pollutants¹

	lb/MMBtu	Adjusted lb/MMBtu ²	lb/yr	ton/yr	lb/hour
Acetaldehyde	8.30E-04	1.41E-04	6.78E+01	3.39E-02	8.35E-03
Acetophenone	3.20E-09	5.44E-10	2.61E-04	1.31E-07	3.22E-08
Acrolein	4.00E-03	6.80E-04	3.27E+02	1.63E-01	4.03E-02
Antimony	7.90E-06	1.34E-06	6.45E-01	3.22E-04	7.95E-05
Arsenic ³	9.37E-06	9.37E-06	4.50E+00	2.25E-03	5.55E-04
Benzene	4.20E-03	7.14E-04	3.43E+02	1.71E-01	4.23E-02
Beryllium ³	1.04E-07	1.04E-07	4.99E-02	2.50E-05	6.16E-06
Bis(2-ethylehexyl)phthalate	4.70E-08	7.99E-09	3.84E-03	1.92E-06	4.73E-07
Bromomethane	1.50E-05	2.55E-06	1.22E+00	6.12E-04	1.51E-04
Cadmium ³	3.20E-05	3.20E-05	1.54E+01	7.68E-03	1.89E-03
Carbon Tetrachloride	4.50E-05	7.65E-06	3.67E+00	1.84E-03	4.53E-04
Chlorine ³	1.00E-04	1.00E-04	4.80E+01	2.40E-02	5.92E-03
Chlorobenzene	3.30E-05	5.61E-06	2.69E+00	1.35E-03	3.32E-04
Chloroform	2.80E-05	4.76E-06	2.29E+00	1.14E-03	2.82E-04
Chromium, total ³	4.16E-05	4.16E-05	2.00E+01	9.99E-03	2.46E-03
Cobalt	6.50E-06	1.11E-06	5.31E-01	2.65E-04	6.54E-05
2,4-Dinitrophenol	1.80E-07	3.06E-08	1.47E-02	7.35E-06	1.81E-06
Ethyl Benzene	3.10E-05	5.27E-06	2.53E+00	1.27E-03	3.12E-04
Formaldehyde	4.40E-03	7.48E-04	3.59E+02	1.80E-01	4.43E-02
Hydrochloric Acid ³	1.00E-04	1.00E-04	4.80E+01	2.40E-02	5.92E-03
Lead ³	1.62E-03	1.62E-03	7.78E+02	3.89E-01	9.59E-02
Manganese ³	1.60E-03	1.60E-03	7.68E+02	3.84E-01	9.47E-02
Mercury ³	5.52E-07	5.52E-07	2.65E-01	1.33E-04	3.27E-05
Naphthalene	9.70E-05	1.65E-05	7.92E+00	3.96E-03	9.76E-04
Nickel ³	1.16E-04	1.16E-04	5.57E+01	2.79E-02	6.87E-03
4-Nitrophenol	1.10E-07	1.87E-08	8.98E-03	4.49E-06	1.11E-06
Pentachlorophenol	5.10E-08	8.67E-09	4.16E-03	2.08E-06	5.13E-07
Phenol	5.10E-05	8.67E-06	4.16E+00	2.08E-03	5.13E-04
Propionaldehyde	6.10E-05	1.04E-05	4.98E+00	2.49E-03	6.14E-04
Selenium ³	3.65E-05	3.65E-05	1.75E+01	8.76E-03	2.16E-03
Styrene	1.90E-03	3.23E-04	1.55E+02	7.76E-02	1.91E-02
2,3,7,8-Tetrachloro dibenzo-p-dioxins	8.60E-12	1.46E-12	7.02E-07	3.51E-10	8.66E-11
Toluene	9.20E-04	1.56E-04	7.51E+01	3.76E-02	9.26E-03
2,4,6-Trichlorophenol	2.20E-08	3.74E-09	1.80E-03	8.98E-07	2.21E-07
Trichloroethene	3.00E-05	5.10E-06	2.45E+00	1.22E-03	3.02E-04
Vinyl Chloride	1.80E-05	3.06E-06	1.47E+00	7.35E-04	1.81E-04
o-Xylene	2.50E-05	4.25E-06	2.04E+00	1.02E-03	2.52E-04
Polycyclic Organic Matter (POM)	7.90E-05	1.34E-05	6.45E+00	3.22E-03	7.95E-04
Total HAPs, VOC			1.41E+03	7.05E-01	1.68E-01
Total HAPs, non-VOC			1.82E+03	9.09E-01	2.17E-01
Total HAPs			3227.227329	1.6136137	3.85E-01

1. List of hazardous air pollutants are provided in <http://www.epa.gov/ttn/atw/188polls.html>

2. Table 1.6-3 of AP-42 (dated 9/03), has a VOC emission factor of 0.017 lb/MMBTU. In the table above this emission factor of 0.017 lb/MMBtu has been adjusted based on average of stack test result which is 0.003 lb/MMBtu. (Ratio = 0.003/0.017 = 0.17)

3. From July 2012 Stack Test



AA-003

Cleaver Brooks Backup Boiler

There are no reportable emissions from AA-003 since the backup boiler was not operated in 2015.

Rated Capacity	29.29	MMBtu/hr
Maximum Hours of Operation	0	hr/year



AA-004

Portable Boiler

There are no reportable emissions from AA-004 since the portable boiler was not operated in 2015.

Rated Capacity	65 MMBtu/hr
Maximum Hours of Operation	0 hr/year



AA-006

Log Debarking

Log volume received in 2015:	27,428,193	board feet
1 truck load carries approximately:	3,500	board feet
No. of trucks in a year =	27,428,193/3500	Trucks/year
	7,837	Trucks/year
In Mississippi, approximate truck weight:	28	Tons/truck
Total amount of wood received in 2014 =	219,436	tons/year
	438,872,000	lbs/year

Emissions calculated using AP-42 Log Debarking emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Emission Factor	0.024	lb PM ₁₀ /ton logs
PM ₁₀ =	5,266.46	lb PM ₁₀ /year
	2.63	ton PM ₁₀ /year

Log Sawing

Log cross-sawed in 2015:	27,428,193	board feet
1 truck load carries approximately:	3,500	board feet
No. of trucks in a year =	27,428,193/3500	Trucks/year
	7,837	Trucks/year
In Mississippi, approximate truck weight:	28	Tons/truck
Total amount of wood received in 2014 =	219,436	tons/year
	438,872,000	lbs/year

Emissions calculated using AP-42 Log Debarking emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Emission Factor	0.024	lb PM ₁₀ /ton logs
PM ₁₀ =	5,266.46	lb PM ₁₀ /year
	2.63	ton PM ₁₀ /year

Hog and Chipper

Emissions calculated using AP-42 emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80). ATCO has historically used an emission factor equivalent to 10% of the published AP-42 factor based on good engineering judgment, experience and the assumption that 30% of the emissions are PM₁₀.



Bark Hog

Total amount of wood received in 2015 =	38,591	tons/year
Emission Factor	0.0105	lb PM ₁₀ /ton logs
PM ₁₀ =	405.21	lb PM ₁₀ /year
	0.20	ton PM ₁₀ /year

Mill Chipper

Total amount of wood received in 2015 =	38,591	tons/year
Emission Factor	0.0105	lb PM ₁₀ /ton logs
PM ₁₀ =	405.21	lb PM ₁₀ /year
	0.20	ton PM ₁₀ /year

Tub Grinder

Emissions calculated using AP-42 Log Sawdust handling emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Total amount of wood waste handled in 2015 =	8,635	tons/year
Emission Factor	1.0	lb PM ₁₀ /ton sawdust handled
PM ₁₀ =	8,635.00	lb PM ₁₀ /year
	4.32	ton PM ₁₀ /year

Note: To calculate the total log debarking, sawing, and trimming for Particulate Matter used in Actual Emissions Summary, sum the numbers above.

*2.63 ton PM₁₀/year + 2.63 ton PM₁₀/year + 0.20 ton PM₁₀/year + 0.20 ton PM₁₀/year + 4.32 ton PM₁₀/year
= 9.98 Particulate Matter ton/year*



AA-007

Fugitive In-Plant Road Dust

ATCO has historically used a default value of 1 lb PM/hr for insignificant activities to calculate the road dust emissions.

Total hours of operations for Wellons Boiler in 2015	8,112.00	Hours
Emission Factor	1.00	lb PM ₁₀ /hr
PM ₁₀ =	8,112.00	lb PM ₁₀ /year
	4.06	ton PM ₁₀ /year



AA-009

Lumber Treatment Station

	Density	Usage*	VOC		Glycol Ethers		Methanol		Total HAPs
Material Name	lb/gal	Gallons	%	ton/yr	%	ton/yr	%	ton/yr	tons/yr
Busan 1223	9.18	0.00	0	0.00	0	0.00	0	0.00	0.00
Busperse 293	9.85	1925.00	0	0.00	0	0.00	0	0.00	0.00
Busan 1249	7.88	0.00	0	0.00	0	0.00	0	0.00	0.00
Busan 1009	9.01	2750.00	74	9.16	60	7.43	1.2	0.15	7.58
TOTAL				9.16		7.43		0.15	7.58

*Quantities used in 2015.



AA-010

Lumber End Coat and Logo Color Coat Areas

Material Name	Density	Usage*	VOC		Methanol	
	lb/gal	Gallons	%	ton/yr	%	ton/yr
Anchorseal K	7.93	4950	0.00	0.00	0.00	0.00
Anchorseal K (cold)	7.93	275	71.00	0.77	71.00	0.77
Gempaint	9.18	1497.5	0.00	0.00	0.00	0.00
Gempaint (cold)	9.18	1925	64.00	5.65	64.00	5.65
Gempaint (PG)	9.18	1497.5	0.00	0.00	0.00	0.00
TOTAL				6.42		6.42

*Quantities used in 2015.



AA-012

Inspection Station Planer Mill

Emissions calculated using May 14, 2004 stack test results of 0.077 lb PM₁₀ per hour.

The inspection station planer mill operated did not operate in 2015.



AA-013

Power Plant Sales

Emissions calculated using AP-42 Log Sawdust handling emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Total amount of wood waste handled in 2015 =	35,916	tons/year
Emission Factor	1.0	lb PM ₁₀ /ton sawdust handled
PM ₁₀ =	35,916	lb PM ₁₀ /year
	17.96	ton PM ₁₀ /year



AK-001 028

Drying Kilns

To reduce the moisture content of lumber, indirect steam heated drying kilns and air drying sheds are used. The VOC emissions from lumber kilns were tested by the National Council of Air and Stream Improvement (NCASI). The testing was conducted on pine and determined to be 5.88 lb VOC per thousand BF. Since ATCO dried hardwood, an emission factor of 10% of the pine lumber drying factor is used.

Kiln dried wood in 2015	30,500,215.00	Board foot
Emission Factor	0.59	lb VOC/thousand BF
VOC =	17,995.13	lb VOC/year
	9.00	ton VOC/year

Two hazardous air pollutants, Methanol and Formaldehyde, are emitted during the kiln drying process.

Emission Factors:	0.016	lb Methanol/thousand BF
	0.002	lb Formaldehyde/thousand BF
HAP – Methanol	488.00	lb Methanol/year
	0.24	tons Methanol/year
HAP - Formaldehyde	61.00	lb Formaldehyde/year
	0.03	tons Formaldehyde/year

Note: HAPs, Total (VOC) for Drying Kilns used in the 2015 Actual Emissions Summary is a sum of 0.24 tons Methanol/year + 0.03 tons Formaldehyde/year, giving 0.27 tons/year.



IA-001

Miscellaneous Activities

Insignificant Activities at ATCO include welding and storage tanks.

ATCO has historically used a default value of 1 lb PM/hr for insignificant activities to calculate emissions from welding and grinding operations. These activities are conducted for 3 hours a day, six days per week, and 52 weeks in 2015.

Hours of operation	936.00	hours
Emission Factor	1.00	lb PM ₁₀ /hour
PM ₁₀ =	936.00	lb PM ₁₀ /year
	0.47	ton PM ₁₀ /year

Storage Tanks

This facility has one 2,000 gallon diesel storage tank (vertical) and one 940 gallon gasoline storage tank (horizontal) at the facility.

Note: The following information was input into EPA Tanks 4.09D software for calculation of the working and breathing losses from the two storage tanks. No calculations were run for the Waste Oil tank as the vapor pressure is too low to be of concern. However, Tanks 4.09 software is no longer supported by EPA. The total loss for 2015 was calculated by increasing emissions from 2014 by the same percent as amount of increase in fuel throughput. There was a 7.5% increase in Diesel Fuel Throughput. There was a 10% increase in Gasoline Throughput.

Tank ID	Diesel Fuel	Gasoline
Tank Size (gals)	2,000	940
Orientation	Vertical	Horizontal
Annual Throughput (gals/year)	142,210	5,200
Color	Silver	Silver
Working Loss (lbs/year)	2.39	407.89
Breathing Loss (lbs/year)	0.10	404.09
Total Loss (lbs/year)	2.49	811.98

Working loss: $2.22 (2014) \times 1.075\% = 2.39 \text{ lb/yr}$ $370.81 (2014) \times 1.10\% = 407.89 \text{ lb/year}$
Breathing loss: $0.09 (2014) \times 1.075\% = 0.10 \text{ lb/yr}$ $367.35 (2014) \times 1.10\% = 404.09 \text{ lb/year}$
Total Loss of $2.49 + 811.98 = 814.46 \text{ lbs/year} = 0.41 \text{ tons/year}$

SUMMARY: 2015 ACTUAL EMISSIONS

AIR POLLUTION SOURCES		Particulate Matter		Sulfur Dioxide		Nitrogen Oxides		Carbon Monoxide		Volatile Organic Compounds		Lead		HAPs, Total (VOC)		HAPs, Total (non-VOC)		Acid Gas		HAPs, PM	
ID	Description	lb/hour	ton/year	lb/hour	ton/yr	lb/hour	ton/yr	lb/hour	ton/yr	lb/hour	ton/yr	lb/hour	ton/yr	lb/hour	ton/yr	lb/hour	ton/yr	lb/hour	ton/yr	lb/hour	ton/yr
AA-001 (A)	Planer Mill	0.0770	0.0000																		
AA-001 (C)	Grading and Lumber Inspection Station	0.0770	0.0680																		
AA-001 (D)	Fuel Storage Silos	0.0000	0.0000																		
AA-001 (F)	Dry Boiler Feed Silos	0.0770	0.3300																		
AA-002	Wellons Wood Waste Boiler	19.4800	79.0000	0.1200	0.4800	13.0200	52.8300	3.3200	13.4500	0.1800	0.7200	0.0960	0.3890	0.1680	0.7100	0.2170	0.9090	0.0142	0.0575	0.2028	0.8515
AA-003	Cleaver Brooks Boiler	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000				
AA-004	Portable Emergency Boiler	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000				
AA-006	Log debarking, sawing and trimming	2.2790	9.9800																		
AA-007	Fugitive In-plant Road Dust	1.0000	4.0600																		
AA-009	Lumber Treatment Station									2.0913	9.1600			1.7306	7.5800						
AA-010	Lumber End Coating									3.0500	6.4200			1.4658	6.4200						
AA-012	Inspection Station Planer Mill	0.0000	0.0000																		
AA-013	Power Plant Sales (truck loading)	4.0980	17.9500																		
AK-001 - AK-028	Drying Kilns									2.0550	9.0000			0.0620	0.2700						
IA-001	Insignificant Activities	1.0000	0.4700							0.0845	0.4100										
Total		28.0880	111.8580	0.1200	0.4800	13.0200	52.8300	3.3200	13.4500	7.4609	25.7100	0.0960	0.3890	3.4263	14.9800	0.2170	0.9090	0.0142	0.0575	0.2028	0.8515

2015 ACTUAL ANNUAL EMISSIONS (TONS/YEAR)

Regulated Pollutant	AA-001	AA-002	AA-003	AA-004	AA-006	AA-007	AA-009	AA-010	AA-012	AA-013	AK-001 - AK028	Fugitives	TOTAL
Particulate Matter ₁₀	0.40	79.00	0.00	0.00	9.98	4.06	0.00	0.00	0.00	17.95	0.00	0.47	111.86
Sulfur Dioxide	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48
Nitrogen Oxides	0.00	52.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.83
Carbon Monoxide	0.00	13.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.45
Volatile Organic Compounds	0.00	0.72	0.00	0.00	0.00	0.00	9.16	6.42	0.00	0.00	9.00	0.41	25.71
Acid Gas (HCl, Cl2)	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Acetaldehyde	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Acetophenone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Acrolein	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Antimony	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arsenic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Benzene	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Beryllium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bis(2-ethylhexyl)phthalate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bromomethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cadmium	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Carbon Tetrachloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chlorine	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Chlorobenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloroform	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chromium, total	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Cobalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,4-Dinitrophenol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ethyl Benzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Formaldehyde	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.21
Glycol Ethers	0.00	0.02	0.00	0.00	0.00	0.00	7.43	0.00	0.00	0.00	0.00	0.00	7.45
Hydrochloric Acid	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39
Lead	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
Manganese	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mercury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Methanol	0.00	0.03	0.00	0.00	0.00	0.00	0.15	6.42	0.00	0.00	0.24	0.00	6.84
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nickel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4-Nitrophenol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pentachlorophenol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phenol	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Propionaldehyde	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
Selenium	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Styrene	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
2,3,7,8-Tetrachloro dibenzo-p-dioxins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Toluene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,4,6-Trichlorophenol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trichloroethene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vinyl Chloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
o-Xylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polycyclic Organic Matter (POM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL HAPs	0.00	1.57	0.00	0.00	0.00	0.00	7.58	0.00	0.00	0.00	0.27	0.00	15.84
VOC HAPs	0.00	0.71	0.00	0.00	0.00	0.00	7.58	6.42	0.00	0.00	0.27	0.00	14.98
Non-VOC HAPs	0.00	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91
PM HAPs	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41

AA-002 : 2015 Actual Emissions Calculation

Average Heat Input 59.20 MMBtu/hr
Hous of Operation in 2014 8112 hours
VOC ratio 0.17 (See Note 2)

Emission Factors for CO, NOx, SO2, PM and VOC were calculated using stack test results from April 7, 2016 and HAPs were calculated using stack test results from July 30, 2012.

Pollutants	Hourly Emission Rate	Emissions		
	lb/MMBtu	lb/yr	ton/yr	lb/hour
PM _{filterable}	0.329	157,995.80	78.997901	19.4768
NOx	0.22	105,650.69	52.825344	13.024
SO2	0.002	960.46	0.4802304	0.1184
VOC	0.003	1,440.69	0.7203456	0.1776
CO	0.056	26,892.90	13.446451	3.3152

HAZARDOUS AIR POLLUTANTS ¹					
	lb/MMBtu	Adjusted lb/MMBtu ²	lb/yr	ton/yr	lb/hour
Acetaldehyde	8.30E-04	1.41E-04	6.78E+01	3.39E-02	8.35E-03
Acetophenone	3.20E-09	5.44E-10	2.61E-04	1.31E-07	3.22E-08
Acrolein	4.00E-03	6.80E-04	3.27E+02	1.63E-01	4.03E-02
Antimony	7.90E-06	1.34E-06	6.45E-01	3.22E-04	7.95E-05
Arsenic ³	9.37E-06	9.37E-06	4.50E+00	2.25E-03	5.55E-04
Benzene	4.20E-03	7.14E-04	3.43E+02	1.71E-01	4.23E-02
Beryllium ³	1.04E-07	1.04E-07	4.99E-02	2.50E-05	6.16E-06
Bis(2-ethylexyl)phthalate	4.70E-08	7.99E-09	3.84E-03	1.92E-06	4.73E-07
Bromomethane	1.50E-05	2.55E-06	1.22E+00	6.12E-04	1.51E-04
Cadmium ³	3.20E-05	3.20E-05	1.54E+01	7.68E-03	1.89E-03
Carbon Tetrachloride	4.50E-05	7.65E-06	3.67E+00	1.84E-03	4.53E-04
Chlorine ³	1.00E-04	1.00E-04	4.80E+01	2.40E-02	5.92E-03
Chlorobenzene	3.30E-05	5.61E-06	2.69E+00	1.35E-03	3.32E-04
Chloroform	2.80E-05	4.76E-06	2.29E+00	1.14E-03	2.82E-04
Chromium, total ³	4.16E-05	4.16E-05	2.00E+01	9.99E-03	2.46E-03
Cobalt	6.50E-06	1.11E-06	5.31E-01	2.65E-04	6.54E-05
2,4-Dinitrophenol	1.80E-07	3.06E-08	1.47E-02	7.35E-06	1.81E-06
Ethyl Benzene	3.10E-05	5.27E-06	2.53E+00	1.27E-03	3.12E-04
Formaldehyde	4.40E-03	7.48E-04	3.59E+02	1.80E-01	4.43E-02
Hydrochloric Acid ³	1.00E-04	1.00E-04	4.80E+01	2.40E-02	5.92E-03
Lead ³	1.62E-03	1.62E-03	7.78E+02	3.89E-01	9.59E-02
Manganese ³	1.60E-03	1.60E-03	7.68E+02	3.84E-01	9.47E-02
Mercury ³	5.52E-07	5.52E-07	2.65E-01	1.33E-04	3.27E-05
Naphthalene	9.70E-05	1.65E-05	7.92E+00	3.96E-03	9.76E-04
Nickel ³	1.16E-04	1.16E-04	5.57E+01	2.79E-02	6.87E-03
4-Nitrophenol	1.10E-07	1.87E-08	8.98E-03	4.49E-06	1.11E-06
Pentachlorophenol	5.10E-08	8.67E-09	4.16E-03	2.08E-06	5.13E-07
Phenol	5.10E-05	8.67E-06	4.16E+00	2.08E-03	5.13E-04
Propionaldehyde	6.10E-05	1.04E-05	4.98E+00	2.49E-03	6.14E-04
Selenium ³	3.65E-05	3.65E-05	1.75E+01	8.76E-03	2.16E-03
Styrene	1.90E-03	3.23E-04	1.55E+02	7.76E-02	1.91E-02
2,3,7,8-Tetrachloro dibenzo-p-dioxins	8.60E-12	1.46E-12	7.02E-07	3.51E-10	8.66E-11
Toluene	9.20E-04	1.56E-04	7.51E+01	3.76E-02	9.26E-03
2,4,6-Trichlorophenol	2.20E-08	3.74E-09	1.80E-03	8.98E-07	2.21E-07
Trichloroethene	3.00E-05	5.10E-06	2.45E+00	1.22E-03	3.02E-04
Vinyl Chloride	1.80E-05	3.06E-06	1.47E+00	7.35E-04	1.81E-04
o-Xylene	2.50E-05	4.25E-06	2.04E+00	1.02E-03	2.52E-04
Polycyclic Organic Matter (POM)	7.90E-05	1.34E-05	6.45E+00	3.22E-03	7.95E-04
Total HAPs, VOC			1.41E+03	7.05E-01	1.68E-01
Total HAPs, non-VOC			1.82E+03	9.09E-01	2.17E-01
Total HAPs			3227.227329	1.6136137	3.85E-01

1. List of hazardous air pollutants are provided in <http://www.epa.gov/ttn/atw/188polls.html>

2. Table 1.6-3 of AP-42 (dated 9/03), has a VOC emission factor of 0.017 lb/MMBTU. In the table above this emission factor of 0.017 lb/MMBtu has been adjusted based on average of stack test result which is 0.0034 lb/MMBtu. (Ratio = 0.003/0.017 = 0.17)

3. From July 2012 Stack Test

AA003 : 2015 Actual Emissions Calculation

Average Heat Input
Hous of Operation in 2015

29.29 MMBtu/hr
0 hours

Emissions	Emission Factor	Emissions		
	lb/MMscf	lb/yr	ton/yr	lb/hr
PM _{total}	7.6	0.00	0.00	0.00
PM _{filterable}	1.9	0.00	0.00	0.00
NO _x	100	0.00	0.00	0.00
SO ₂	0.6	0.00	0.00	0.00
VOC	5.5	0.00	0.00	0.00
CO	84	0.00	0.00	0.00
Arsenic	2.00E-04	0.00	0.00	0.00
Benzene	2.10E-03	0.00	0.00	0.00
Beryllium	1.20E-05	0.00	0.00	0.00
Cadmium	1.40E-03	0.00	0.00	0.00
Chromium	1.40E-03	0.00	0.00	0.00
Cobalt	8.40E-05	0.00	0.00	0.00
Dichlorobenzene	1.20E-03	0.00	0.00	0.00
Formaldehyde	7.50E-02	0.00	0.00	0.00
Hexane	1.8	0.00	0.00	0.00
Manganese	3.80E-04	0.00	0.00	0.00
Mercury	2.60E-04	0.00	0.00	0.00
Naphthalene	6.10E-04	0.00	0.00	0.00
Nickel	2.10E-03	0.00	0.00	0.00
Selenium	2.40E-05	0.00	0.00	0.00
Toluene	3.40E-03	0.00	0.00	0.00
Polycyclic Organic Matter (POM)	8.82E-05	0.00	0.00	0.00
Total HAPs		0.00	0.00	0.00
HAPs, Total VOC		0.00	0.00	0.00
HAPs, Total non-VOC		0.00	0.00	0.00

AA004 : 2015 Actual Emissions Calculation

Average Heat Input
Hous of Operation in 2015

65.00 MMBtu/hr
0 hours

Emissions	Emission Factor	Emissions		
	lb/MMscf	lb/yr	ton/yr	lb/hr
PM _{total}	7.6	0.00	0.00	0.00
PM _{filterable}	1.9	0.00	0.00	0.00
NO _x	100	0.00	0.00	0.00
SO ₂	0.6	0.00	0.00	0.00
VOC	5.5	0.00	0.00	0.00
CO	84	0.00	0.00	0.00
Arsenic	2.00E-04	0.00	0.00	0.00
Benzene	2.10E-03	0.00	0.00	0.00
Beryllium	1.20E-05	0.00	0.00	0.00
Cadmium	1.40E-03	0.00	0.00	0.00
Chromium	1.40E-03	0.00	0.00	0.00
Cobalt	8.40E-05	0.00	0.00	0.00
Dichlorobenzene	1.20E-03	0.00	0.00	0.00
Formaldehyde	7.50E-02	0.00	0.00	0.00
Hexane	1.8	0.00	0.00	0.00
Manganese	3.80E-04	0.00	0.00	0.00
Mercury	2.60E-04	0.00	0.00	0.00
Naphthalene	6.10E-04	0.00	0.00	0.00
Nickel	2.10E-03	0.00	0.00	0.00
Selenium	2.40E-05	0.00	0.00	0.00
Toluene	3.40E-03	0.00	0.00	0.00
Polycyclic Organic Matter (POM)	8.82E-05	0.00	0.00	0.00
Total HAPs		0.00	0.00	0.00
HAPs, Total VOC		0.00	0.00	0.00
HAPs, Total non-VOC		0.00	0.00	0.00

Warren Co.

Anderson Tully Lumber

Waltersville Lumber

At 1536

2015

(2014 Actual Emissions)

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
MAJOR AIR POLLUTION SOURCE ANNUAL EMISSIONS REPORTING FORM**

Mailing Address

**P.O. BOX 2261
JACKSON, MS 39225-2261**

Physical Address

**515 EAST AMITE STREET
JACKSON, MS 39201**

In accordance with Section 49-17-30, Mississippi Code of 1972 Annotated, all sources that choose to base their annual Title V Fee on actual emissions shall submit, by July 1 of each year, and inventory of emissions for the previous calendar year.

MDEQ Facility ID #: 278000004

AI ID: 1536

Facility: Anderson Tully Lumber Company, Waltersville Lumber Mill

Site Address: 1725 North Washington Street

Vicksburg, MS 39180

Warren County

If actual emissions are reported, they should be the actual emissions that were emitted from the facility during calendar year 2013. The annual permit fee is due on September 1st of each year.

Pollutant	Annual Allowable (Potential) Emission Rate (TPY)	FOR INFO ONLY Actual Emission Rate (TPY) Reported for Calendar Year (2013)	Actual Annual (2014) Emission Rate (TPY)
Particulate Matter	740.84	127.56	142.94
Sulfur Dioxide	49.17	0.49	0.59
Nitrogen oxides	174.11	43.80	65.33
Carbon Monoxide	119.85	45.02	16.63
VOC	119.90	13.96	13.22
Total reduced sulfur compounds	0.00	0.00	0.00
Lead	0.00	0.33	0.48
CFC/HCFC, Total	0.00	0.00	0.00
Other	0.00	0.00	0.00
HAP, Total (VOC)	27.87	2.44	10.03
HAP, Total (NON VOC)	8.88	0.75	0.75

VOC Reflects Total VOC from the facility including VOCs that are HAPs.

Attach calculations, monitoring data, measurements, etc. from which actual emission rates were determined. Actual emission rates will not be accepted unless the method of calculation is attached.

I, the undersigned, am the owner or authorized representative of the facility described on this fee form. I certify that the statements and calculations made on this form are complete and accurate to the best of my knowledge.

Kamace Priest

Signature

6-22-15

Date

Kamace Priest

Typed or Printed Name

Director of Risk Management

Title

ANDERSON-TULLY
LUMBER COMPANY

Anderson Tully Lumber Company
Vicksburg, MS

Certified No.
Return Receipt Requested

June 22, 2015

Ms. Krystal Rudolph
Mississippi Department of Environmental Quality
Air Division
P. O. Box 2261
Jackson, Mississippi 39225-2261

Re: Anderson-Tully Lumber Company
Vicksburg, Mississippi
Title V 2014 Emissions Inventory
Facility No. 278000004 – Warren County

Dear Ms. Rudolph,

Please find enclosed the 2015 Annual Emissions Reporting Form (AERF) and emissions calculations for purposes of assessing the Title V Operating Permit Fee for the Anderson-Tully Lumber Company Vicksburg, Mississippi.

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

If you have any questions or need any additional information, please call Andrew S. Covington at (601) 696-7146 or by email at acovington@allenes.com.

Sincerely,



Kamace Priest
Director of Risk Management

CC: Andrew S. Covington, P.E. – Allen Engineering and Science

Enclosures

RECEIVED
JUN 26 2015
Dept of Environmental Quality

ANNUAL EMISSIONS REPORTING FORM

PREPARED FOR:

Anderson Tully Lumber Company

Waltersville Lumber Mill

Facility ID # 2780-00004

1725 North Washington Street

Vicksburg, Mississippi 39180

Warren County

PREPARED BY:



ENGINEERING
AND SCIENCE

6360 I-55 North, Suite 330
Jackson, Mississippi 39211

Project No. 15048

JUNE 2015

***Jackson, Hattiesburg & Meridian, Mississippi / Mobile, Alabama/
Houston, Texas/ Atlanta, Georgia***



AA-001

Lumber Handling

Particulate Matter emissions from Lumber Handling operations (Emission Point AA-001) are calculated using May 14, 2004 stack test results.

PM₁₀ Emission Rate = 0.077 lb PM₁₀ per hour

- **Planer Mill – AA-001(A)**

The planer mill operated for a total of 43.7 hours in 2014.

PM₁₀ = 3.365 lb /year
 0.001682 ton/year

- **Grading and Lumber Inspection Station – AA-001(C)**

The grading and lumber inspection station operated for a total of 1,851 hours in 2014.

PM₁₀ = 142.5 lb/year
 0.071 ton/year

- **Fuel Storage Silos – AA-001(D)**

The fuel storage silos are operated for a total of 8,760 hours in 2014.
Vents through AA-001(F).

- **Dry Boiler Feed Silos – AA-001(F)**

The dry boiler feed silo was operated for a total of 3,960 hours in 2014.

PM₁₀ = 304.920 lb/year
 0.152 ton/year



AA-002

Wellons Wood Fired Boiler

Parameter	Annual Emissions (ton/year)
PM _{filterable}	97.71
NO _x	65.33
SO ₂	0.59
VOC	0.88
CO	16.03
Total HAPs	2.06
HAP, Total (VOC)	0.97
HAP, Total (non-VOC)	1.09
Chlorine / Hydrochloric Acid	0.06

Products of Wood Residue Combustion

Pollutants emissions for CO, NO_x, SO₂, PM and VOC were calculated using stack test results from April 24, 2014 and HAPs were calculated using stack test results from July 30, 2012.

January 1 – December 31, 2013

Steam enthalpy	997.30	BTU/lb steam
Hours of Operation	8,376.00	hr/period
Boiler Efficiency	90	percent
Heat input	593,858.40	MMBtu/period
Average Heat Input	70.90	MMBtu/hr

Emission Calculations:

Pollutant	Average Heat Input	Hourly Emissions Rate	Emissions		
	MMBtu/hr	lb/MMBtu	lb/yr	ton/yr	lb/hr
PM _{filterable}	70.90	0.329	195,412.08	97.71	23.33
NO _x	70.90	0.220	130,662.60	65.33	15.60
SO ₂	70.90	0.002	1,172.64	0.59	0.14
VOC	70.90	0.003	1,758.96	0.88	0.21
CO	70.90	0.056	33,252.72	16.63	3.97



Hazardous Air Pollutants¹

	lb/MMBtu	Adjusted lb/MMBtu ²	lb/yr	ton/yr	lb/hour
Acetaldehyde	8.30E-04	1.41E-04	8.35E+01	4.18E-02	9.97E-03
Acetophenone	3.20E-09	5.44E-10	3.22E-04	1.61E-07	3.85E-08
Acrolein	4.00E-03	6.80E-04	4.04E+02	2.02E-01	4.82E-02
Antimony	7.90E-06	1.34E-06	7.96E-01	3.98E-04	9.50E-05
Arsenic ³	9.37E-06	9.37E-06	5.56E+00	2.78E-03	6.64E-04
Benzene	4.20E-03	1.14E-03	6.77E+02	3.38E-01	8.08E-02
Beryllium ³	1.04E-07	1.04E-07	6.17E-02	3.09E-05	7.37E-06
Bis(2-ethylehexyl)phthalate	4.70E-08	7.99E-09	4.74E-03	2.37E-06	5.66E-07
Bromomethane	1.50E-05	2.55E-06	1.52E+00	7.58E-04	1.81E-04
Cadmium ³	3.20E-05	3.20E-05	1.90E+01	9.51E-03	2.27E-03
Carbon Tetrachloride	4.50E-05	7.74E-06	4.60E+00	2.30E-03	5.49E-04
Chlorine ³	1.00E-04	1.00E-04	5.94E+01	2.97E-02	7.09E-03
Chlorobenzene	3.30E-05	5.61E-06	3.33E+00	1.67E-03	3.98E-04
Chloroform	2.80E-05	4.76E-06	2.82E+00	1.41E-03	3.37E-04
Chromium, total ³	4.16E-05	4.16E-05	2.47E+01	1.24E-02	2.95E-03
Cobalt	6.50E-06	1.11E-06	6.59E-01	3.30E-04	7.87E-05
2,4-Dinitrophenol	1.80E-07	3.06E-08	1.82E-02	9.09E-06	2.17E-06
Ethyl Benzene	3.10E-05	5.27E-06	3.13E+00	1.57E-03	3.74E-04
Formaldehyde	4.40E-03	7.48E-04	4.44E+02	2.22E-01	5.30E-02
Hydrochloric Acid ³	1.00E-04	1.00E-04	5.94E+01	2.97E-02	7.09E-03
Lead ³	1.62E-03	1.62E-03	9.63E+02	4.82E-01	1.15E-01
Manganese ³	1.60E-03	1.60E-03	9.46E+02	4.73E-01	1.13E-01
Mercury ³	5.52E-07	5.52E-07	3.28E-01	1.64E-04	3.91E-05
Naphthalene	9.70E-05	1.65E-05	9.80E+00	4.90E-03	1.17E-03
Nickel ³	1.16E-04	1.16E-04	6.89E+01	3.44E-02	8.22E-03
4-Nitrophenol	1.10E-07	1.87E-08	1.11E-02	5.53E-06	1.32E-06
Pentachlorophenol	5.10E-08	8.67E-09	5.15E-03	2.58E-06	6.15E-07
Phenol	5.10E-05	8.67E-06	5.15E+00	2.58E-03	6.15E-04
Propionaldehyde	6.10E-05	1.04E-05	6.17E+00	3.09E-03	7.37E-04
Selenium ³	3.65E-05	3.65E-05	2.17E+01	1.08E-02	2.59E-03
Styrene	1.90E-03	3.23E-04	1.92E+02	9.59E-02	2.29E-02
2,3,7,8-Tetrachloro dibenzo-p-dioxins	8.60E-12	1.46E-12	8.71E-07	4.36E-10	1.04E-10
Toluene	9.20E-04	1.56E-04	9.30E+01	4.65E-02	1.11E-02
2,4,6-Trichlorophenol	2.20E-08	3.74E-09	2.22E-03	1.11E-06	2.65E-07
Trichloroethene	3.00E-05	5.10E-06	3.03E+00	1.52E-03	3.62E-04
Vinyl Chloride	1.80E-05	3.06E-06	1.82E+00	9.09E-04	2.17E-04
o-Xylene	2.50E-05	4.25E-06	2.52E+00	1.26E-03	3.01E-04
Polycyclic Organic Matter (POM)	7.90E-05	1.34E-05	7.96E+00	3.98E-03	9.50E-04
Total HAPs, VOC			1940.00	0.97	0.23
Total HAPs, non-VOC			2170.00	1.09	0.26
Total HAPs			4110.00	2.06	0.49

1. List of hazardous air pollutants are provided in <http://www.epa.gov/ttn/atw/188polls.html>

2. Table 1.6-3 of AP-42 (dated 9/03), has a VOC emission factor of 0.017 lb/MMBTU. In the table above this emission factor of 0.017 lb/MMBtu has been adjusted based on average of stack test result which is 0.003 lb/MMBtu. (Ratio = 0.003/0.017 = 0.17)

3. From July 2012 Stack Test



AA-003

Cleaver Brooks Backup Boiler

There are no reportable emissions from AA-003 since the backup boiler was not operated in 2014.

Rated Capacity	29.29	MMBtu/hr
Maximum Hours of Operation	0	hr/year



AA-004

Portable Boiler

There are no reportable emissions from AA-004 since the portable boiler was not operated in 2014.

Rated Capacity	65 MMBtu/hr
Maximum Hours of Operation	0 hr/year



AA-006

Log Debarking

Log volume received in 2014:	25,867,444	board feet
1 truck load carries approximately:	3,500	board feet
No. of trucks in a year =	25,867,444/3500	Trucks/year
	7,391	Trucks/year
In Mississippi, approximate truck weight:	28	Tons/truck
Total amount of wood received in 2014 =	206,948	tons/year
	413,896,000	lbs/year

Emissions calculated using AP-42 Log Debarking emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Emission Factor	0.024	lb PM ₁₀ /ton logs
PM ₁₀ =	4,966.75	lb PM ₁₀ /year
	2.48	ton PM ₁₀ /year

Log Sawing

Log cross-sawed in 2014:	25,867,444	board feet
1 truck load carries approximately:	3,500	board feet
No. of trucks in a year =	25,867,444/3500	Trucks/year
	7,391	Trucks/year
In Mississippi, approximate truck weight:	28	Tons/truck
Total amount of wood received in 2014 =	206,948	tons/year
	413,896,000	lbs/year

Emissions calculated using AP-42 Log Debarking emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Emission Factor	0.024	lb PM ₁₀ /ton logs
PM ₁₀ =	4,966.75	lb PM ₁₀ /year
	2.48	ton PM ₁₀ /year

Hog and Chipper

Emissions calculated using AP-42 emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80). ATCO has historically used an emission factor equivalent to 10% of the published AP-42 factor based on good engineering judgment, experience and the assumption that 30% of the emissions are PM₁₀.

Bark Hog



Total amount of wood received in 2014 =	206,948	tons/year
Emission Factor	0.0105	lb PM ₁₀ /ton logs
PM ₁₀ =	2,172.95	lb PM ₁₀ /year
	1.09	ton PM ₁₀ /year

Mill Chipper

Total amount of wood received in 2014 =	206,948	tons/year
Emission Factor	0.0105	lb PM ₁₀ /ton logs
PM ₁₀ =	2,172.95	lb PM ₁₀ /year
	1.09	ton PM ₁₀ /year

Tub Grinder

Emissions calculated using AP-42 Log Sawdust handling emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Total amount of wood waste handled in 2014 =	3,478	tons/year
Emission Factor	1.0	lb PM ₁₀ /ton sawdust handled
PM ₁₀ =	3,478.00	lb PM ₁₀ /year
	1.74	ton PM ₁₀ /year



AA-007

Fugitive In-Plant Road Dust

ATCO has historically used a default value of 1 lb PM/hr for insignificant activities to calculate the road dust emissions.

Total hours of operations for Wellons Boiler in 2014	8,376.00	hours
Emission Factor	1.00	lb PM ₁₀ /hr
PM ₁₀ =	8,376.00	lb PM ₁₀ /year
	4.19	ton PM ₁₀ /year



AA-009

Lumber Treatment Station

	Density	Usage*	VOC		Glycol Ethers		Methanol		Total HAPs
Material Name	lb/gal	Gallons	%	ton/yr	%	ton/yr	%	ton/yr	tons/yr
Busan 1223	9.18	0.00	0	0.00	0	0.00	0	0.00	0.00
Busperse 293	9.85	1650.00	0	0.00	0	0.00	0	0.00	0.00
Busan 1249	7.88	0.00	0	0.00	0	0.00	0	0.00	0.00
Busan 1009	9.01	3300.00	74	11.00	60	8.92	1.2	0.18	9.10
TOTAL				11.00		8.92		0.18	9.10

*Quantities used in 2014.



AA-010

Lumber End Coat and Logo Color Coat Areas

Material Name	Density	Usage*	VOC		Methanol	
	lb/gal	Gallons	%	ton/yr	%	ton/yr
Anchorseal K	7.93	4950	0.00	0.00	0.00	0.00
Anchorseal K (cold)	7.93	275	71.00	0.77	71.00	0.77
Gempaint	9.18	0	0.00	0.00	0.00	0.00
Gempaint (cold)	9.18	0	64.00	0.00	64.00	0.00
Gempaint (PG)	9.18	0	0.00	0.00	0.00	0.00
TOTAL				0.77		0.77

*Quantities used in 2014.



AA-012

Inspection Station Planer Mill

Emissions calculated using May 14, 2004 stack test results of 0.077 lb PM₁₀ per hour.

The inspection station planer mill operated for a total of 43.7 hours in 2014.

PM ₁₀ =	3.3649	lb PM ₁₀ /year
	0.0017	ton PM ₁₀ /year



AA-013

Power Plant Sales

Emissions calculated using AP-42 Log Sawdust handling emission factor from Table 10.3-1 "Uncontrolled Fugitive Particulate for Plywood Veneer and Layout Operations" (4th Edition, 10/80).

Total amount of wood waste handled in 2014 =	61,501	tons/year
Emission Factor	1.0	lb PM ₁₀ /ton sawdust handled
PM ₁₀ =	61,501	lb PM ₁₀ /year
	30.75	ton PM ₁₀ /year



AK-001 028

Drying Kilns

To reduce the moisture content of lumber, indirect steam heated drying kilns and air drying sheds are used. The VOC emissions from lumber kilns were tested by the National Council of Air and Stream Improvement (NCASI). The testing was conducted on pine and determined to be 5.88 lb VOC per thousand BF. Since ATCO dried hardwood, an emission factor of 10% of the pine lumber drying factor is used.

Kiln dried wood in 2014	677,368.00	Board foot
Emission Factor	0.59	lb VOC/thousand BF
VOC =	399.65	lb VOC/year
	0.20	ton VOC/year

Two hazardous air pollutants, Methanol and Formaldehyde, are emitted during the kiln drying process.

Emission Factors:	0.016	lb Methanol/thousand BF
	0.002	lb Formaldehyde/thousand BF
HAP - Methanol	10.84	lb Methanol/year
	0.01	tons Methanol/year
HAP - Formaldehyde	1.35	lb Formaldehyde/year
	0.00	tons Formaldehyde/year



IA-001

Miscellaneous Activities

Insignificant Activities at ATCO include welding and storage tanks.

ATCO has historically used a default value of 1 lb PM₁₀/hr for insignificant activities to calculate emissions from welding and grinding operations. These activities are conducted for 3 hours a day, six days per week, and 52 weeks in 2014.

Hours of operation	936.00	hours
Emission Factor	1.00	lb PM ₁₀ /hour
PM ₁₀ =	936.00	lb PM ₁₀ /year
	0.47	ton PM ₁₀ /year

Storage Tanks

This facility has one 2,000 gallon diesel storage tank (vertical) and one 940 gallon gasoline storage tank (horizontal) at the facility.

The following information as input into EPA Tanks 4.09D software for calculation of the working and breathing losses from the two storage tanks. No calculations were run for the Waste Oil tank as the vapor pressure is too low to be of concern.

Tank ID	Diesel Fuel	Gasoline
Tank Size (gals)	2,000	940
Orientation	Vertical	Horizontal
Annual Throughput (gals/year)	125,104	6,350
Color	Silver	Silver
Working Loss (lbs/year)	2.22	370.81
Breathing Loss (lbs/year)	0.09	367.35
Total Loss (lbs/year)	2.31	738.16

Appendix E

RBLC Report

COMPREHENSIVE REPORT

Report Date:07/16/2020

Facility Information

RBLC ID:	TX-0870 (draft)	Date Determination	
Corporate/Company Name:	GEORGIA-PACIFIC WOOD PRODUCTS LLC	Last Updated:	11/26/2019
Facility Name:	LUMBER MANUFACTURING PLANT	Permit Number:	17395 AND PSDTX1008M3
Facility Contact:	DANIEL WRIGHT 936-829-1658	Permit Date:	11/26/2019 (actual)
Facility Description:	Four existing kilns (EPNs LU-04-FU and LU-05-FU) production increase	FRS Number:	110002346426
Permit Type:	C: Modify process at existing facility	SIC Code:	2421
Permit URL:		NAICS Code:	321113
EPA Region:	6	COUNTRY:	USA
Facility County:	ANGELINA		
Facility State:	TX		
Facility ZIP Code:			
Permit Issued By:	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) MS. ANNE INMAN(Agency Contact) (512) 239-1267 anne.inman@tceq.texas.gov		
Other Agency Contact Info:	Ms. Jean Shaw, (512) 239-1823, Jean.Shaw@tceq.texas.gov		
Permit Notes:			
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: AR	Boundary: Caney Creek
			Distance: > 250 km

Process/Pollutant Information

PROCESS NAME: Lumber Kilns

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 188000.00 NBF/Kiln

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 5.4900 LB/MBF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT

Control Method: (P) Proper design and operating practices

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: MACT DDDD

Facility Information

RBLC ID:	ID-0022 (final)	Date Determination	12/13/2019
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Corporate/Company Name:	POTLATCHDELTIC LAND AND LUMBER, LLC	Last Updated:	
Facility Name:	ST. MARIES COMPLEX	Permit Number:	R10PSD00100
Facility Contact:	JACOB ODEKIRK 2082457503 JACOB.ODEKIRK@POTLATCHDELTIC.COM	Permit Date:	06/21/2019 (actual)
Facility Description:	Sawmill manufactures kiln-dried softwood dimensional lumber. Plywood mill manufactures softwood plywood.	FRS Number:	110000468789
Permit Type:	B: Add new process to existing facility	SIC Code:	2421
Permit URL:	https://www.epa.gov/caa-permitting/potlatchdeltic-land-and-lumber-llc-prevention-significant-deterioration-psd-air		
EPA Region:	10	NAICS Code:	321113
Facility County:	BENEWAH	COUNTRY:	USA
Facility State:	ID		
Facility ZIP Code:	83861		
Permit Issued By:	EPA REGION X (Agency Name) MR. DOUGLAS HARDESTY(Agency Contact) (208) 378-5759 Hardesty.Doug@epa.gov		
Other Agency Contact Info:	Zach Hedgpeth: 206.553.1217, hedgpeth.zach@epa.gov Dan Meyer: 206.553.4150, meyer.dan@epa.gov		
Permit Notes:	PotlatchDeltic proposes to construct a fifth steam-heated batch-type lumber dry kiln, expanding the facility's capacity to produce dried lumber and increasing the utilization of two existing biomass boilers and upstream sawmill and downstream planer mill operations. The project is subject to PSD review of VOC and subject to tribal minor NSR for CO, NOx, PM, PM10 and PM2.5.		
Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:
	CLASS1	MT	Cabinet Mountains
	CLASS1	ID	Hells Canyon
	CLASS1	MT	Mission Mountain
	CLASS1	ID	Selway-Bitterroot
	INTL BORDER		US/Canada Border
			Distance:
			100km - 50km
			100km - 50km
			100km - 50km
			100km - 50km
			100km - 50km
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	50.0000 (Tons/Year)	
	Nitrogen Oxides (NOx)	15.0000 (Tons/Year)	
	Particulate Matter (PM)	16.0000 (Tons/Year)	
	Sulfur Oxides (SOx)	2.0000 (Tons/Year)	
	Volatile Organic Compounds (VOC)	63.0000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME:	Dual track steam-heated batch-type lumber dry kiln
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	N/A
Throughput:	68133.00 mbf/yr
Process Notes:	Newly manufactured kiln from Wellons. A single charge consists of approximately 280,000 board feet of softwood lumber. Permittee is restricted to drying only grand fir, western hemlock and white fir in this kiln. It typically takes 36 hours to dry a batch of lumber consisting of any or all of the three approved species. 68,133 mbf/yr = (280,000 bf/charge)*(mbf/1000 bf)*(charge/36 hr)*(8760 hr/yr)

POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	Other
Other Test Method:	Region 10 WPP1 VOC (OTM-26 with additional pollutants)
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	
Emission Limit 2:	
Standard Emission:	
Did factors, other than air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(P) PSD BACT work practice requirements: 1. The 60-minute block average dry bulb temperature of air exiting the lumber shall not exceed 245F. Compliance is determined separately at 20 locations (two loads, ten monitoring locations each) at any one time. After each periodic fan reversal, compliance is similarly determined at 20 new locations on the opposite side of each load (two loads, ten monitoring locations each). 2. The moisture content of the lumber shall not be less than 13%, dry basis. Compliance is determined at the end of the drying cycle, and prior to equalizing and conditioning (if any) by averaging the instantaneous moisture content measured at eight separate locations (four per load). For partial loads, the number of monitoring locations shall be proportional to the load's length (e.g. two monitoring locations for a load spanning half the length of the kiln). Emission limit informing the BACT analysis: The permittee requested, and EPA Region 10 established, a 50 tpy VOC limit

applicable to the kiln. The threshold value roughly reflects the kiln's maximum annual emissions considering the three species of wood the permittee is authorized to dry in the kiln. A batch's emissions are determined by multiplying the temperature-dependent emission factor (lb/mbf) by the volume of lumber in the batch (mbf).

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	SC-0192 (final)	Date Determination	
		Last Updated:	06/03/2019
Corporate/Company Name:	CANFOR SOUTHERN PINE	Permit Number:	1340-0029-CI
Facility Name:	CANFOR SOUTHERN PINE - CONWAY MILL	Permit Date:	05/21/2019 (actual)
Facility Contact:	ERNEST RABON 843-349-3482 ERNEST.RABON@CANFOR.COM	FRS Number:	110000740789
Facility Description:	Lumber mill that produces structural lumber from pine logs.	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	HORRY		
Facility State:	SC		
Facility ZIP Code:	29526		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	175.3800 (Tons/Year)	
	Nitrogen Oxides (NOx)	22.5800 (Tons/Year)	
	Particulate Matter (PM)	6.8000 (Tons/Year)	
	Sulfur Oxides (SOx)	2.3900 (Tons/Year)	
	Volatile Organic Compounds (VOC)	113.8200 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: Batch Lumber Kilns

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 0

Process Notes: Annual increase in board-feet for 2 kilns. Kiln No. 4 increases to 58.03 MMBd-ft/yr; Kiln No. 5 increases to 29.02 MMBd-ft/yr.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.2000 MBD-FT

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: Y

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: SIP

Control Method: (P) Work practice standards

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown
Pollutant/Compliance Notes: VOC as terpene+methanol+formaldehyde

Process/Pollutant Information

PROCESS NAME: Boiler No. 2

Process Type: 13.310 (Natural Gas (includes propane and liquefied petroleum gas))

Primary Fuel: Natural Gas

Throughput: 0

Process Notes: 29.113 MMBtu/hr rated heat input capacity

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 0.0375 LB/MMBTU

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT , NSPS , SIP

Control Method: (P) Work Practice Standards

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.0054 LB/MMBTU

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: NSPS , MACT , SIP

Control Method: (P) Work Practice Standards

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: 29.113 MMBtu/hr rated heat input capacity

[Previous Page](#)

Facility Information

RBLC ID:	LA-0347 (draft)	Date Determination	
		Last Updated:	04/02/2020
Corporate/Company Name:	HOOD INDUSTRIES, INC	Permit Number:	PSD-LA-831
Facility Name:	BOGALUSA SAWMILL	Permit Date:	04/25/2019 (actual)
Facility Contact:	BEN CRIM 6012964819 CRIM@HOODINDUSTRIES.COM	FRS Number:	Not Entered
Facility Description:	A sawmill proposed to replace two lumber kilns	SIC Code:	2421
	C: Modify process at existing facility		321113

Permit Type:
Permit URL:
EPA Region: 6
Facility County: WASHINGTON
Facility State: LA
Facility ZIP Code: 70427
Permit Issued By: LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name)
 MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV
Other Agency Contact Info: permit writer: Dan Nguyen
Permit Notes:

Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:
	Carbon Monoxide	168.5200 (Tons/Year)
	Nitrogen Oxides (NOx)	140.8100 (Tons/Year)
	Particulate Matter (PM)	88.9200 (Tons/Year)
	Sulfur Oxides (SOx)	7.2200 (Tons/Year)
	Volatile Organic Compounds (VOC)	462.7400 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: lumber kilns (2)

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 52.03 mm BF/yr (each)

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Proper operation and maintenance (operate as manufacturer's recommendations, inspect weekly, repair timely, place kiln sticker uniformly, minimize short circuiting, set target moisture content as high as possible, minimize redrying)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	TX-0856 (draft)	Date Determination	
		Last Updated:	10/11/2019
Corporate/Company Name:	WEST FRASER WOOD PRODUCTS	Permit Number:	7286 AND PSDTX892M2
Facility Name:	LUMBER MILL	Permit Date:	03/20/2019 (actual)
Facility Contact:	CHARLES MANESS 903-628-2506	FRS Number:	Not Found
Facility Description:	increase production to 375,000 MBF/YR from the addition of a direct-fired continuous kiln (EPN DFKILN-3) and mechanical sawdust conveyance system to the new kiln burner	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) &C (Modify process at existing facility)	NAICS Code:	321113

Permit URL:

EPA Region: 6
Facility County: BOWIE
Facility State: TX

COUNTRY: USA

Facility ZIP Code:

Permit Issued By: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name)
 MS. ANNE INMAN(Agency Contact) (512) 239-1267 anne.inman@tceq.texas.gov

Other Agency Contact Info: Mr. Bill Moody, P.E., (512) 239-1859, Bill.Moody@tceq.texas.gov

Permit Notes:

Affected Boundaries: **Boundary Type:** CLASS1 **Class 1 Area State:** AR **Boundary:** Caney Creek **Distance:** 100km - 50km

Process/Pollutant Information

PROCESS NAME: Direct-Fired Wood Drying Kiln No. 3

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: wood

Throughput: 14.88 MBF

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.2400 LB/MBF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT

Control Method: (P) proper operation and maintenance of the kiln

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID: SC-0186 (final)

Date Determination

Last Updated: 04/04/2019

Corporate/Company Name: GEORGIA-PACIFIC WOOD PRODUCTS, LLC

Permit Number: 1780-0011-CC

Facility Name: GEORGIA-PACIFIC WOOD PRODUCTS, LLC - PROSPERITY CHIP-N-SAW

Permit Date: 02/21/2019 (actual)

Facility Contact:

FRS Number: Not Found

Facility Description: Georgia-Pacific Wood Products LLC, Prosperity Chip-N-Saw is a southern yellow pine sawmill. This facility produces finished lumber from logs. Logs are unloaded and stored in the log yard. First, the logs are debarked, cut to size, and processed through the Sawmill, where the logs are cut into lumber. Next, the rough-cut green lumber is dried in the steam-heated lumber kilns. The wood-fired boiler at the adjacent Georgia-Pacific Prosperity Plywood (1780-0008) plant provides steam to the Sawmill. Then dried lumber is processed through the planer mill for finishing. Finished lumber is then packaged and shipped off-site. The plant has the capability to import and export green and/or dry lumber. The facility currently has three (3) lumber drying kilns in operation, Lumber Kiln 1 (LK1) and Lumber Kiln 2 (LK2) are batch, indirect-fired kilns with a total lumber drying capacity of 105,600 board feet per charge each, and Lumber Kiln 3 (LK3) is a continuous, indirect-fired kiln

SIC Code: 2421

with a lumber drying capacity of 70,300 thousand board feet (MBF) per year. The facility's total existing lumber drying capacity is 158,401 MBF/yr. The steam used in these processes is generated by the 200 million Btu/hr Wood Fired Boiler located at the Georgia-Pacific Wood Products LLC – Prosperity Plywood Plant. Dry planer shavings, green sawdust, and green wood chips are stored in bins and shipped off-site. Bark from the debarker, other green end material from the log yard and green sawdust are shipped off-site or to the adjacent Georgia-Pacific Plywood Plant to use as boiler fuel.

Permit Type: C: Modify process at existing facility **NAICS Code:** 321999

Permit URL:

EPA Region: 4 **COUNTRY:** USA

Facility County: NEWBERRY

Facility State: SC

Facility ZIP Code: 29127

Permit Issued By: SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name)
MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov

Permit Notes: The facility is proposing to install a new, indirect-fired, continuous lumber drying kiln (LK4), with an annual lumber drying capacity of 88,000 thousand board feet per year (MBF/yr). The new kiln will be heated by steam provided from the collocated Plywood facility's wood fired boiler. As a part of this project, the facility's two batch fired kilns will be permanently retired; the existing continuous lumber drying kiln will remain unaffected by this project. The facility's new total lumber drying capacity will be 158,300 MBF/yr.

Process/Pollutant Information

PROCESS NAME: Lumber Drying Kiln 4

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Steam

Throughput: 88000.00 1000 bf/yr

Process Notes: The new, indirect-fired, continuous lumber drying kiln (LK4), has an annual lumber drying capacity of 88,000 thousand board feet per year (MBF/yr). The new kiln will be heated by steam provided from the collocated Plywood facility's wood fired boiler.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 5.7200 LB VOC/1000 BD-FT VOC MEASURES AS WPP1

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT

Control Method: (P) S.C. Regulation 61-62.5, Standard No. 7) Volatile Organic Compounds (VOC) Best Available Control Technology (BACT) for the continuous lumber drying kiln, KLN7, is work practice standards. VOC emissions are based on an emission factor of 5.72 lb VOC/103 bd-ft (as WPP1 VOC).

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID: AR-0158 (final) **Date Determination**

Corporate/Company Name: POTLATCHDELTIC LAND & LUMBER, LLC **Last Updated:** 03/08/2019

Facility Name: POTLATCHDELTIC LAND AND LUMBER, LLC - WARREN LUMBER MILL **Permit Number:** 0356-AOP-R11

Facility Contact: JABIE POST 5708206817 JABIE.POST@POTLATCHCORP.COM **Permit Date:** 01/03/2019 (actual)

FRS Number: 110000780511

Facility Description:		SIC Code:	2411
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:	https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0356-AOP-R11.pdf		
EPA Region:	6	COUNTRY:	USA
Facility County:	BRADLEY		
Facility State:	AR		
Facility ZIP Code:	71671		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheume@adeq.state.ar.us		
Permit Notes:	REPLACE 5 EXISTING BATCH KILNS WITH 3 CONTINUOUS KILNS; INCREASE PRODUCTION LIMIT FROM 265 MMBF/YR TO 360 MMBF/YR		

Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:	Distance:
	CLASS1	AR	Caney Creek	100km - 50km

Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:
	Carbon Monoxide	-0.7000 (Tons/Year)
	Nitrogen Oxides (NOx)	-2.9000 (Tons/Year)
	Particulate Matter (PM)	-0.4000 (Tons/Year)
	Sulfur Oxides (SOx)	-0.3000 (Tons/Year)
	Volatile Organic Compounds (VOC)	165.8000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Continuous Drying Kilns

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 360.00 MMBF

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.5000 LB/MBF

Emission Limit 2: 630.0000 T/YR

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID: LA-0332 (final)

Corporate/Company Name: MARTCO, LLC

Facility Name: CHOPIN MILL

Facility Contact: JOE MACKAY 318-379-2855 JOE.MACKAY@ROYOMARTIN.COM

Facility Description: Plywood Manufacturing Facility

Permit Type: U: Unspecified

Permit URL: http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11446100&ob=yes

Date Determination

Last Updated: 06/19/2019

Permit Number: PSD-LA-784(M1)

Permit Date: 12/20/2018 (actual)

FRS Number: Not Found

SIC Code: 2436

NAICS Code: 321212

EPA Region: 6 **COUNTRY:** USA
Facility County: NATCHITOCHES
Facility State: LA
Facility ZIP Code: 71447
Permit Issued By: LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name)
MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV
Other Agency Contact Info: Mr. Dan Nguyen; (225)219-3181
Permit Notes: Add Lumber Dry Kiln No. 3 to increase the annual mill throughput from 25 to 50 million board feet.

Process/Pollutant Information

PROCESS NAME: Lumber Dry Kiln No. 3

Process Type: 30.310 (Plywood Dryers)

Primary Fuel: Natural Gas

Throughput: 12.00 MM BTU/h

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.2500 LB/MBF 12 MONTH ROLLING AVERAGE

Emission Limit 2: 29.1700 LB/H

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) Good operating practices

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Lumber Dry Kiln No. 1 through 3 are capped under Lumber Dry Kiln CAP.

[Previous Page](#)**Facility Information**

RBLC ID:	AR-0157 (final)	Date Determination	
		Last Updated:	03/08/2019
Corporate/Company Name:	POTLATCHDELTIC MANUFACTURING L.L.C.	Permit Number:	0697-AOP-R18
Facility Name:	POTLATCHDELTIC MANUFACTURING L.L.C. -WALDO MILL	Permit Date:	11/29/2018 (actual)
Facility Contact:	JIM PHILLIPS 8708816425 JIM_PHILLIPS@DELTIC.COM	FRS Number:	110017420487
Facility Description:		SIC Code:	2411
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:	https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0697-AOP-R18.pdf		
EPA Region:	6	COUNTRY:	USA
Facility County:	COLUMBIA		
Facility State:	AR		
Facility ZIP Code:	71770		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheaume@adeq.state.ar.us		
Permit Notes:	POTLATCHDELTIC WILL INCREASE MAXIMUM HOURLY CAPACITY OF A DRYING KILN FROM 13.2 MBF/HR TO 13.82 MBF/HR, REPLACE A STEAM HEATED CONTINUOUS KILN WITH A NEW STEAM HEATED CONTINUOUS KILN, REMOVE ANNUAL PRODUCTION LIMITS ON TWO DRYING KILNS, INCREASE ANNUAL PRODUCTION LIMITS FROM 285 MMBF/YR TO 300 MMBF/HR, REMOVE A PLANER MILL CYCLONE, AND REPLACE A PLANER MILL CYCLONE.		

Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: AR	Boundary: Caney Creek	Distance: 100km - 50km
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide Nitrogen Oxides (NOx) Particulate Matter (PM) Sulfur Oxides (SOx) Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 61.3000 (Tons/Year) 38.7000 (Tons/Year) 65.5000 (Tons/Year) 3.3000 (Tons/Year) 35.4000 (Tons/Year)		

Process/Pollutant Information

PROCESS NAME: Continuous Drying Kilns

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 300.00 MMBF

Process Notes: Indirect-Fired, Steam-Heated

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.5000 LB/MBF

Emission Limit 2: 543.2000 T/YR

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	LA-0335 (draft)	Date Determination	
		Last Updated:	08/14/2019
Corporate/Company Name:	WEST FRASER TIMBER COMPANY	Permit Number:	PSD-LA-701(M-2)
Facility Name:	JOYCE MILL	Permit Date:	10/04/2018 (actual)
Facility Contact:	BILLY BELL 318-648-3300	FRS Number:	110006524939
Facility Description:	An existing sawmill. eliminate the bottle-neck at the sorter	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:		COUNTRY:	USA
EPA Region:	6		
Facility County:	WINN		
Facility State:	LA		
Facility ZIP Code:	71440		
Permit Issued By:	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV		
Other Agency Contact Info:	Permit Writer: Cathy Wilson (225)219-3585		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide Nitrogen Oxides (NOx)	Facility-wide Emissions Increase: 1241.0000 (Tons/Year) 303.0000 (Tons/Year)	

Particulate Matter (PM)	39.0000 (Tons/Year)
Sulfur Oxides (SOx)	34.0000 (Tons/Year)
Volatile Organic Compounds (VOC)	951.0000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: EQT003 Kipper Boiler No. 1 (74A)

Process Type: 13.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: wood residue

Throughput: 58.30 MMBTU/H

Process Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: EPA/OAR Mthd 10
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 105.5300 LB/H (NOT CHANGED)
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: EQT0005 McBurney Boiler No. 4 (75A)

Process Type: 12.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: wood residue

Throughput: 154.20 MMBTU/H

Process Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: EPA/OAR Mthd 10
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 279.1200 LB/H
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: GRP0003 Lumber kilns (AK1)

Process Type: 30.800 (Wood Lumber Kilns)**Primary Fuel:****Throughput:** 300.00 million board feet/yr**Process Notes:**

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 4.2000 LB/MBF
Emission Limit 2: 300.0000 MMBF/YR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) properly design and operation
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	SC-0185 (final)	Date Determination	
		Last Updated:	04/04/2019
Corporate/Company Name:	CANFOR SOUTHERN PINE	Permit Number:	1380-0025-CL
Facility Name:	CANFOR SOUTHERN PINE - CAMDEN PLANT	Permit Date:	09/06/2018 (actual)
Facility Contact:	RICK STARNES RICK.STARNES@CANFOR.COM	FRS Number:	110000351869
Facility Description:	Canfor Southern Pine – Camden Plant is a lumber mill that produces structural lumber from pine logs. The facility operations include debarking, sawing, steam generation, kiln drying, and planing. The facility currently has five (5) steam-heated, batch lumber drying kilns, one (1) direct-fired, continuous lumber drying kiln, one (1) wood residual boiler, one (1) log debarker, and the planer mill. The wood residual boiler is rated at 98.3 million British Thermal Units per hour (MMBtu/hr) with a multiclone and electrostatic precipitator equipped for emissions controls. The steam-heated, batch lumber drying kilns are rated at 55.8 million board-feet per year (MMbd-ft/yr) for Kiln 1, 55.8 MMbd-ft/yr for Kiln 2, 32 MMbd-ft/yr for Kiln 3, 27 MMbd-ft/yr for Kiln 4, and 11.5 MMbd-ft/yr for Kiln 5. The direct-fired continuous kiln is rated at 80.0 MMbd-ft/yr with a 35 MMBtu/hr burner designed to combust green sawdust. The maximum process capacity for the existing debarker is 200 tons per hour and the planer mill is 80 thousand board feet per hour (MBF/hr).	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:		COUNTRY:	USA
EPA Region:	4		
Facility County:	KERSHAW		
Facility State:	SC		
Facility ZIP Code:	29032		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: Lumber Drying Kiln 7

Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Sawdust
Throughput: 110.00 MMbd-ft/yr
Process Notes: The new direct-fired, continuous lumber drying kiln (DKN7), has a design capacity of 110.0 million board feet per year (MMBd-ft/yr) the associated burner assembly for this new kiln has a maximum heat input of 40 MMBtu/hr and is designed to burn green sawdust and bark.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 5.8200 LB/1000 BD-FT VOC AS TERPENE + METHANOL + FORMALDEHYDE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: MACT
Control Method: (P) Volatile Organic Compounds (VOC) Best Available Control Technology (BACT) for the continuous lumber drying kiln, KLN7, is work practice standards. VOC emissions are based on an emission factor of 5.82 lb VOC/1000 bd-ft (as terpene + methanol + formaldehyde)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Previous Page

Facility Information

RBLC ID:	IN-0290 (final)	Date Determination	
		Last Updated:	08/16/2018
Corporate/Company Name:	NEW NGC, INC. DBA NATIONAL GYPSUM COMPANY	Permit Number:	101-39817-00003
Facility Name:	NEW NGC, INC. DBA NATIONAL GYPSUM COMPANY	Permit Date:	08/13/2018 (actual)
Facility Contact:	JEFF HAWK (812) 247-2424 JSHAWK@NATIONALGYPSUM.COM	FRS Number:	110040897269
Facility Description:	A stationary gypsum wallboard manufacturing plant.	SIC Code:	3275
Permit Type:	C: Modify process at existing facility	NAICS Code:	327420
Permit URL:			
EPA Region:	5	COUNTRY:	USA
Facility County:	MARTIN		
Facility State:	IN		
Facility ZIP Code:	47581		
Permit Issued By:	INDIANA DEPT OF ENV MGMT, OFC OF AIR (Agency Name) MR. MATT STUCKEY(Agency Contact) (317) 233-0203 mstuckey@idem.in.gov		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name: Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase:	6.8400 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: board, kiln, dryer
Process Type: 90.019 (Lime/Limestone Handling/Kilns/Storage/Manufacturing)
Primary Fuel: NATURAL GAS
Throughput: 433000.00 T/YR
Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.1000 LB/T
Emission Limit 2: 400000.0000 T/YR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: WHEN DRYING REGULAR WALLBOARD: (1) VOC EMISSIONS SHALL NOT EXCEED 0.1 POUNDS PER TON OF REGULAR WALLBOARD DRIED. (2) THE REGULAR WALLBOARD DRYING RATE SHALL NOT EXCEED 400,000 TONS PER TWELVE (12) CONSECUTIVE MONTH PERIOD WITH COMPLIANCE DETERMINED AT THE END OF EACH MONTH. WHEN DRYING SILICONE XP WALLBOARD: (1) VOC EMISSIONS SHALL NOT EXCEED 0.331 POUNDS PER TON OF SILICONE XP WALLBOARD DRIED. (2) THE SILICONE XP WALLBOARD DRYING RATE SHALL NOT EXCEED 345,000 TONS PER TWELVE (12) CONSECUTIVE MONTH PERIOD WITH COMPLIANCE DETERMINED AT THE END OF EACH MONTH.

[Previous Page](#)

Facility Information

RBLC ID:	AR-0154 (final)	Date Determination	
		Last Updated:	02/19/2019
Corporate/Company Name:	ANTHONY TIMBERLANDS, INC	Permit Number:	0456-AOP-R9
Facility Name:	ANTHONY TIMBERLANDS, INC	Permit Date:	08/02/2018 (actual)
Facility Contact:	WILSON ANTHONY	FRS Number:	Not Found
Facility Description:	Sawmill	SIC Code:	2411
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	OUACHITA		
Facility State:	AR		
Facility ZIP Code:	71720		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheume@adeq.state.ar.us		

Permit Notes:

Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:	Distance:
	CLASS1	AR	Caney Creek	100km - 50km

Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:
	Carbon Monoxide	644.8000 (Tons/Year)
	Nitrogen Oxides (NOx)	170.2000 (Tons/Year)
	Particulate Matter (PM)	181.5000 (Tons/Year)
	Sulfur Oxides (SOx)	16.2000 (Tons/Year)
	Volatile Organic Compounds (VOC)	391.8000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Continuous Drying Kiln
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel:
Throughput: 200.00 MMBF
Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 36.8000 LB/HR VOC
Emission Limit 2: 350.0000 TPY VOC
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: 3.5 lb VOC/MBF

[Previous Page](#)

Facility Information

RBLC ID:	TX-0842 (final)	Date Determination Last Updated:	02/19/2019
Corporate/Company Name:	WEST FRASER WOOD PRODUCTS	Permit Number:	6729, PSDTX1526, AND GHGPSDTX1
Facility Name:	LUMBER MILL	Permit Date:	06/15/2018 (actual)
Facility Contact:	RAYMOND MITCHELL 903-655-1109	FRS Number:	Not Entered
Facility Description:	major "Greenfield" expansion at the Henderson Mill. This expansion project consists of full replacement of the green end sawmill and lumber drying equipment. All existing equipment other than the planer building will be shutdown and new sawmill and lumber drying equipment will be installed. The lumber drying and energy system will include two continuous kilns (EPN CK01 and CK02) heated with thermal hot oil, produced with a wood-fired Thermal Oil Heating System (TOHS) (EPN HTR1).	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	321113
Permit URL:		COUNTRY:	USA
EPA Region:	6		
Facility County:	RUSK		
Facility State:	TX		
Facility ZIP Code:			
Permit Issued By:	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) MS. ANNE INMAN(Agency Contact) (512) 239-1267 anne.inman@tceq.texas.gov		
Other Agency Contact Info:	Mr. Bill Moody, P.E., (512) 239-1859, Bill.Moody@tceq.texas.gov		
Permit Notes:			
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: AR	Boundary: Caney Creek
			Distance: > 250 km

Process/Pollutant Information

PROCESS NAME: Kilns (EPNs CK01 and CK02)
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel:
Throughput: 25.00 MBF/KILN
Process Notes: 2 KILNS

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.3800 LB / DBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: Y
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: MACT
Control Method: (P) Proper design and operation
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: MACT DDDD

Process/Pollutant Information

PROCESS NAME: Thermal Oil Heating System (TOHS) (EPN HTR1)

Process Type: 12.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: BIOMASS

Throughput: 149.25 MMBTU / HR

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0280 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: NSPS , MACT
Control Method: (P) proper design and operating practices
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: NSPS Db, MACT DDDDD

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.5050 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: NSPS , MACT
Control Method: (P) proper design and operating practices
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)
CAS Number: CO2e
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG))
Emission Limit 1: 206.8000 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) fuel cell or hybrid suspension grate unit design, firing biomass as the only fuel source, and the operation of several energy efficiency options
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	LA-0338 (draft)	Date Determination	
		Last Updated:	08/14/2019
Corporate/Company Name:	HUNT FOREST PRODUCTS, LLC	Permit Number:	PSD-LA-830
Facility Name:	URANIA SAWMILL	Permit Date:	05/08/2018 (actual)
Facility Contact:	RICHIE LEBLANC	FRS Number:	not found
Facility Description:		SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	321113
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	LASALLE		
Facility State:	LA		
Facility ZIP Code:	71480		
Permit Issued By:	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV		
Other Agency Contact Info:	Permit Writer: Qingming Zhang 225-219-3457		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: Lumber Drying Kilns (K-1, K-2, K3)
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Steam
Throughput: 45.00 MMBTU/hr
Process Notes: each kiln

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) proper maintenance and operation
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	SC-0184 (final)	Date Determination	
		Last Updated:	04/04/2019
Corporate/Company Name:	NEW SOUTH LUMBER COMPANY	Permit Number:	0820-0045-CL
Facility Name:	NSLC - DARLINGTON	Permit Date:	02/06/2018 (actual)
Facility Contact:	BRIAN TOOKE 843-944-8111 BRIAN.TOOKE@CANFOR.COM	FRS Number:	110007026903
Facility Description:	New South Lumber Company – Darlington Inc. (New South) operates a lumber mill at 1100 Chesterfield Lumber Drive in Darlington, South Carolina. The New South facility produces structural lumber from southern yellow pine logs and is an existing major source under Prevention of Significant Deterioration (PSD) and Title V. Operations at the New South facility include debarking, sawing, steam generation, kiln drying, and planing.	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	DARLINGTON		
Facility State:	SC		
Facility ZIP Code:	29532		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Permit Notes:	New South plans to install a new natural gas, direct-fired, continuous lumber drying kiln to supplement the drying capacity currently provided by the two (2) green sawdust, direct-fired, continuous lumber drying kilns. Following the construction of the new kiln (KLN7), the remaining wood waste-fired boiler and all four (4) steam heated batch kilns will be shut down permanently. The proposed project will increase the site's drying capacity from 235.7 million board-foot per year (MMbd-ft/yr.) to 250.0 MMbd-ft/yr.		

Process/Pollutant Information

PROCESS NAME: Lumber Drying Kiln 7

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Natural Gas

Throughput: 80.00 MMbd-ft/yr

Process Notes: Continuous Lumber Drying Kiln with a throughput capacity of 80 MMbd-ft/yr. Heat is provided by a 30 MMBtu/hr natural gas fired burner.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.2000 LB VOC/1000 BD-FT VOC AS TERPENE + METHANOL + FORMALDEHYDE

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT

Control Method: (P) Volatile Organic Compounds (VOC) best available control technology for the continuous lumber drying kiln, KLN7, is work practice standards. VOC emissions are based on an emissions factor of 4.2 lb VOC/1000 bd-ft (as terpene +methanol + formaldehyde).

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	AR-0148 (final)	Date Determination	
		Last Updated:	03/23/2018
Corporate/Company Name:	CADDORIVER LLC	Permit Number:	0189-AOP-R8
Facility Name:	CADDORIVER LLC	Permit Date:	01/29/2018 (actual)
Facility Contact:	BRETT BRAY (479) 857-9902 BRETT.BRAY@CADDORIVERFP.COM	FRS Number:	110000597774
Facility Description:	Sawmill	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:	https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/0189-AOP-R8.pdf		
EPA Region:	6	COUNTRY:	USA
Facility County:	PIKE		
Facility State:	AR		
Facility ZIP Code:	71943		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheaume@adeq.state.ar.us		
Other Agency Contact Info:	Joseph Hurt Phone: (501) 682-0733 Email: hurtj@adeq.state.ar.us		

Permit Notes:

Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:	Distance:
	CLASS1	AR	Caney Creek	< 100 km
	CLASS1	MO	Hercules-Glades	> 250 km
	CLASS1	MO	Mingo	> 250 km
	CLASS1	AR	Upper Buffalo	100km - 50km

Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:
	Carbon Monoxide	80.9000 (Tons/Year)
	Nitrogen Oxides (NOx)	26.5000 (Tons/Year)
	Particulate Matter (PM)	55.7000 (Tons/Year)
	Sulfur Oxides (SOx)	8.1000 (Tons/Year)
	Volatile Organic Compounds (VOC)	351.7000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Dual Path Kiln # 3
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood
Throughput: 185000.00 MBF
Process Notes: The 185,000 MBF throughput is a combined kiln annual throughput through two dual path kilns (sources, SN-04 and SN-04A).

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.8000 LB/MBF
Emission Limit 2: 53.2000 LB/HR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:

Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: DPK # 3 Abort Stack
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood
Throughput: 2000.00 lb
Process Notes: 2,000 pounds of wood per hour with 1,200 gallons per rolling 12-months of diesel. Operating hours limited to 240 hours per rolling 12-months

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0170 LB/MMBTU
Emission Limit 2: 0.2000 LB/HR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	AL-0318 (draft)	Date Determination	
Corporate/Company Name:	GEORGIA PACIFIC WOOD PRODUCTS, LLC	Last Updated:	10/11/2019
Facility Name:	TALLADEGA SAWMILL	Permit Number:	309-0075
Facility Contact:	JOE GORSKI 404-652-6455 JOE.GORSKI@GAPAC.COM	Permit Date:	12/18/2017 (actual)
Facility Description:	A sawmill that produces kiln dried dimensional lumber.	FRS Number:	Not Found
Permit Type:	A: New/Greenfield Facility	SIC Code:	2421
Permit URL:		NAICS Code:	321113
EPA Region:	4	COUNTRY:	USA
Facility County:	TALLADEGA COUNTY		
Facility State:	AL		
Facility ZIP Code:	35160		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Other Agency Contact Info:	Chris Ailor ceailor@adem.alabama.gov 334-271-7813		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide	Facility-wide Emissions Increase:	40.1000 (Tons/Year)

Nitrogen Oxides (NOx)	31.2000 (Tons/Year)
Particulate Matter (PM)	23.7400 (Tons/Year)
Sulfur Oxides (SOx)	0.4100 (Tons/Year)
Volatile Organic Compounds (VOC)	684.9600 (Tons/Year)

Process/Pollutant Information

PROCESS Sawmill and Green End Operations

NAME:

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel: N/A

Throughput: 656000.00 lb/hr

Process Notes: log debarker, log bucking, sawmille, chip conveyance, bark conveyance, chip cyclone, chip pile, sawdust conveyance, and roads.

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Dry Kiln 1
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: natural gas
Throughput: 343530.00 MCF/hr
Process Notes: 120,000 MBf/yr rough green lumber feed input. 320,000 MBf/yr dried lumber produced (production bubble containing all three kilns)

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.3300 LB/HR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: SIP
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 μ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 μ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 5.4900 LB/MBF AS WPP1 VOC
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP , OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Sulfur Oxides (SOx)

CAS Number: 7446
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Methanol
CAS Number: 67-56-1
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Phenol
CAS Number: 108-95-2
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Formaldehyde
CAS Number: 50-00-0
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Acetaldehyde
CAS Number: 75-07-0
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Acrolein
CAS Number: 107-02-8
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Dry Kiln 2

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Natural Gas

Throughput: 343530.00 MCF/hr

Process Notes: 120,000 MBf/yr rough green lumber feed input. 320,000 MBf/yr dried lumber produced (production bubble containing all three kilns)

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.3300 LB/HR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: SIP , OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 5.4900 LB/MBF AS WPP1 VOC
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP , OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Sulfur Oxides (SOx)
CAS Number: 7446
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Methanol
CAS Number: 67-56-1
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))

Emission Limit 1:**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** N/A**Other Applicable Requirements:****Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Phenol**CAS Number:** 108-95-2**Test Method:** Unspecified**Pollutant Group(s):** (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))**Emission Limit 1:****Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** N/A**Other Applicable Requirements:****Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Formaldehyde**CAS Number:** 50-00-0**Test Method:** Unspecified**Pollutant Group(s):** (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))**Emission Limit 1:****Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** N/A**Other Applicable Requirements:****Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Acetaldehyde**CAS Number:** 75-07-0**Test Method:** Unspecified**Pollutant Group(s):** (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))**Emission Limit 1:****Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** N/A**Other Applicable Requirements:****Control Method:** (N)

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Acrolein
CAS Number: 107-02-8
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Dry Kiln 3
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Natural Gas
Throughput: 257648.00 MCF/hr
Process Notes: 80,000 MBf/yr rough green lumber feed input. 320,000 MBf/yr dried lumber produced (production bubble containing all three kilns)

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.2300 LB/HR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: OPERATING PERMIT , SIP
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 μ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:

Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 5.4900 LB/MBF AS WPP1 VOC
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP , OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Sulfur Oxides (SOx)
CAS Number: 7446
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Methanol
CAS Number: 67-56-1
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Phenol
CAS Number: 108-95-2
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Formaldehyde

CAS Number: 50-00-0

Test Method: Unspecified

Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Acetaldehyde

CAS Number: 75-07-0

Test Method: Unspecified

Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Acrolein

CAS Number: 107-02-8

Test Method: Unspecified

Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Volatile Organic Compounds (VOC))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Planer Mill and Finished End Operations
Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel: N/A
Throughput: 320.00 MMBf/yr
Process Notes: 320MMBf/yr dried finished lumber produced. 64,000 tpy shavings produced.

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.3700 LB/HR

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: SIP , OPERATING PERMIT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 μ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 μ (TPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: 250 Hp Emergency CI, Diesel-fired RICE

Process Type: 17.110 (Fuel Oil (ASTM # 1,2, includes kerosene, aviation, diesel fuel))

Primary Fuel: Diesel

Throughput: 0

Process Notes: Emergency Only

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 μ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 μ (TPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Sulfur Oxides (SOx)
CAS Number: 7446
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1:
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC

Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Formaldehyde
CAS Number: 50-00-0
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Acetaldehyde
CAS Number: 75-07-0
Test Method: Unspecified
Pollutant Group(s): (Hazardous Air Pollutants (HAP) , Organic Compounds (all) , Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: N/A
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLIC ID: SC-0181 (final)
Corporate/Company Name: RESOLUTE FP US INC.

Date Determination
Last Updated: 10/04/2018
Permit Number: 2440-0216-CA

Facility Name:	RESOLUTE FP US INC. - CATAWBA LUMBER MILL	Permit Date:	11/03/2017 (actual)
Facility Contact:	KENT CUMBERTON 423-336-7992 KENT.CUMBERTON@RESOLUTEFP.COM	FRS Number:	110000355035
Facility Description:	Resolute has applied to construct a new lumber mill co-located with the existing pulp and paper facility. The lumber mill includes a log yard, sawmill, 3 direct-fired continuous lumber drying kilns, planer mill, and associated material handling. The lumber kilns use gasified green sawdust as fuel.	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	321113
Permit URL:		COUNTRY:	USA
EPA Region:	4		
Facility County:	YORK		
Facility State:	SC		
Facility ZIP Code:	29704		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		

Permit Notes:

Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:
	Carbon Monoxide	117.0600 (Tons/Year)
	Nitrogen Oxides (NOx)	36.0500 (Tons/Year)
	Particulate Matter (PM)	35.7000 (Tons/Year)
	Sulfur Oxides (SOx)	11.6200 (Tons/Year)
	Volatile Organic Compounds (VOC)	909.4600 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: 3 Continuous Direct-Fired Lumber Kilns, CDK1, CDK2, CDK3

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: green sawdust

Throughput: 104.17 MM BF/YR

Process Notes: Each kiln has a throughput of 104.17 million BF/yr. Each kiln is rated at 35.0 million Btu/hr.

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.1400 LB/M BF 3 HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: SIP

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Emission limits are for each kiln.

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.1040 LB/ M BF 3 HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: The emission limit is for each kiln.

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0990 LB/ M BF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: The emission limit is for each kiln.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 5.8200 LB/M BF VOC AS TERPENE+METHANOL+FORMALDEHYDE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: The emission limit is for each kiln.

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.7300 LB/M BF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide
CAS Number: 124-38-9

Test Method: Unspecified
Pollutant Group(s): (Acid Gasses/Mist , Greenhouse Gasses (GHG) , InOrganic Compounds)
Emission Limit 1: 206.7900 LB/MMBTU 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Energy efficient design
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Methane
CAS Number: 74-82-8
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , Organic Compounds (all) , Organic Non-HAP Compounds)
Emission Limit 1: 0.0159 LB/MMBTU 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Energy efficient design
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrous Oxide (N2O)
CAS Number: 10024-97-2
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.0079 LB/MMBTU 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Energy efficient design
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Debarking
Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)

CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0010 LB/TON
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP
Control Method: (P) Enclosure of operations and proper maintenance and good operating practices.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0004 LB/TON
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Enclosure of operations and proper maintenance and good operating practices.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0002 LB/TON
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Enclosure of operations and good maintenance and good operating practices.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Log Sawing
Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0010 LB/TON
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Enclosure of operations and proper maintenance and good operating practice.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0004 LB/TON
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Enclosure of operations and proper maintenance and good operating practices.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0002 LB/TON
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Enclosure of operations and proper maintenance and good operating practices.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: 3 Kiln Fuel Silos, KFS-1, KFS-2, KFS-3

Process Type: 99.999 (Other Miscellaneous Sources)

Primary Fuel:

Throughput: 0

Process Notes: Three silos are used to store fuel for the kilns.

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0100 GR/DSCF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP
Control Method: (P) Proper maintenance and good operating practices, including inherent cyclones.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0035 GR/DSCF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Proper maintenance and good operating practices, including inherent cyclones.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0011 GR/DSCF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Proper maintenance and good operating practices, including inherent cyclones.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Dry Shavings Storage Silo
Process Type: 99.999 (Other Miscellaneous Sources)
Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0020 GR/DSCF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP
Control Method: (P) Proper maintenance and good operating practices, including inherent bin vent filter.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0007 LB/DSCF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Proper maintenance and good operating practices, including inherent bin vent filter.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0002 GR/DSCF 3 HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Proper maintenance and good operating practices, including inherent bin vent filter.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Planer Mill

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel:**Throughput:** 0**Process Notes:**

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Baghouse
Est. % Efficiency: 99.000
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Baghouse
Est. % Efficiency: 99.000
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Baghouse
Est. % Efficiency: 99.000
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Material Transfer

Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel:
Throughput: 0
Process Notes: Includes loading and transferring of chips, bark, and shavings.

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0012 LB/TON
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP
Control Method: (P) Proper maintenance and good operating practices.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0005 LB/TON
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Proper maintenance and good operating practices.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0001 LB/TON
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Proper maintenance and good operating practices.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS Roads

NAME:**Process Type:** 99.140 (Paved Roads)**Primary Fuel:****Throughput:** 0**Process Notes:****POLLUTANT NAME:** Particulate matter, filterable (FPM)**CAS Number:** PM**Test Method:** Unspecified**Pollutant Group(s):** (Particulate Matter (PM))**Emission Limit 1:** 0.1300 LB/VMT**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** SIP**Control Method:** (P) Good housekeeping practices.**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Particulate matter, filterable < 10 µ (FPM10)**CAS Number:** PM**Test Method:** Unspecified**Pollutant Group(s):** (Particulate Matter (PM))**Emission Limit 1:** 0.0300 LB/VMT**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:****Control Method:** (P) Good housekeeping practices.**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Particulate matter, filterable < 2.5 µ (FPM2.5)**CAS Number:** PM**Test Method:** Unspecified**Pollutant Group(s):** (Particulate Matter (PM))**Emission Limit 1:** 0.0100 LB/VMT**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:****Control Method:** (P) Good housekeeping practices.**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:**[Previous Page](#)

Facility Information

RBLC ID:	TX-0829 (final)	Date Determination	
		Last Updated:	04/18/2018
Corporate/Company Name:	GEORGIA-PACIFIC WOOD PRODUCTS SOUTH LLC	Permit Number:	17395 AND PSDTX1008M2
Facility Name:	LUMBER MANUFACTURING PLANT	Permit Date:	11/02/2017 (actual)
Facility Contact:	BILL ECKMANN 936-829-1292	FRS Number:	Not Found
Facility Description:	Lumber Manufacturing Plant	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321213
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	ANGELINA		
Facility State:	TX		
Facility ZIP Code:			
Permit Issued By:	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) MS. ANNE INMAN(Agency Contact) (512) 239-1267 anne.inman@tceq.texas.gov		
Other Agency Contact Info:	Mr. Patrick Agumadu, P.E., (512) 239-1271, Patrick.Agumadu@tceq.texas.gov		
Permit Notes:			
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: TX	Boundary: Big Bend NP
			Distance: > 250 km

Process/Pollutant Information

PROCESS NAME: Steam-Heated Kilns

Process Type: 19.600 (Misc. Boilers, Furnaces, Heaters)

Primary Fuel: wood

Throughput: 62500.00 MBF/YR/KILN

Process Notes: A wood-fired boiler supplies steam to the kilns for drying the lumber

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 5.7360 LB/MBF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT

Control Method: (P) Proper design and good operating practices

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: VOC emission factor of 5.736 lb/MBF based on Wood Products Protocol No. 1 (WPP1)

[Previous Page](#)

Facility Information

RBLC ID:	AR-0147 (final)	Date Determination	
		Last Updated:	03/23/2018
Corporate/Company Name:	ANTHONY FOREST PRODUCTS COMPANY, LLC		
			1681-AOP-R15

Corporate/Company Name:	ANTHONY FOREST PRODUCTS COMPANY, LLC	Permit Number:	
Facility Name:	ANTHONY FOREST PRODUCTS COMPANY, LLC	Permit Date:	10/02/2017 (actual)
Facility Contact:	RANDY EVANS (870) 962-3206 REVANS@CANFOR.COM	FRS Number:	110001702346
Facility Description:	Anthony Forest Products Company operates a sawmill and ancillary operations in Urbana, Arkansas. The physical address of the facility is 1236 Urbana Road, El Dorado, AR 71768. The facility falls under Standard Industrial Classification code (SIC) 2421, Sawmills and Planing Mills, General, and North American Industry Classification System code (NAICS) 321113, Sawmills. Raw materials (pine logs) are delivered to the facility by contractor log trucks on facility Haul Roads (SN-20). These logs are routed directly to sawmill log decks, dry runs, or to wet-log storage. Water is sprayed onto the logs in the wet log storage area to prevent stain and insect damage. Logs are taken by truck to the Sawmill (SN-06) where they are debarked. Bark is collected and eventually loaded into tractor trailers to be shipped off-site. Debarked logs enter the Sawmill Building to be sawed into cants, or rough lumber, and edged and trimmed. Trimmings and edgings are routed to a chipper. Chips are mechanically conveyed to shaker screens where oversized chips and fines are removed. The chips are belt conveyed to a chip bin or chip overflow pile and eventually loaded into tractor trailers to be shipped off-site. Oversized chips are routed back through the chipper. Sawdust is collected from sources within the Sawmill Building and blown to the Fuel Storage Silo or overflow sawdust pile. The Fuel Storage Silo is included as an Insignificant Activity; it will primarily be filled from the Sawmill Building collections, but can be filled by purchased sawdust. Emissions from the chip bin and byproduct storage piles are estimated as Insignificant Activities. From the Sawmill, the green lumber is stacked and stored. The lumber is then dried in kilns. The facility utilizes three dual path kilns (DPK), DPK #1 (SN-23), DPK #2 (SN-14), and DPK #3 (SN-27). The DPKs allow for continuous drying operation as stacks of green wood move through the kilns on two parallel tracks. The bundles of lumber on	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:	https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/Air/1681-AOP-R15.pdf		
EPA Region:	6	COUNTRY:	USA
Facility County:	UNION COUNTY		
Facility State:	AR		
Facility ZIP Code:	71765		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheume@adeq.state.ar.us		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	83.6000 (Tons/Year)	
	Nitrogen Oxides (NOx)	22.4000 (Tons/Year)	
	Particulate Matter (PM)	-59.1000 (Tons/Year)	
	Sulfur Oxides (SOx)	3.6000 (Tons/Year)	
	Volatile Organic Compounds (VOC)	140.1000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME:	Dual Path Kiln #3
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	sawdust
Throughput:	31.50 MMBtu/hr
Process Notes:	

POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	Unspecified
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	3.8000 LB/MBF
Emission Limit 2:	
Standard Emission:	
Did factors, other than air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(N)
Est. % Efficiency:	

Cost Effectiveness: 0 \$/ton
 Incremental Cost Effectiveness: 0 \$/ton
 Compliance Verified: Unknown
 Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	AL-0310 (final)	Date Determination	
		Last Updated:	11/30/2017
Corporate/Company Name:	SCOTCH GULF LUMBER, LLC	Permit Number:	X007 & X008
Facility Name:	FULTON SAWMILL	Permit Date:	06/08/2017 (actual)
Facility Contact:	PHIL WITTER 2514576872 PHIL.WITTER@CANFOR.COM	FRS Number:	Not Found
Facility Description:	EXISTING, SOUTHERN YELLOW PINE SAWMILL WITH PLANER MILL AND LUMBER DRYING KILNSX007: 11.4 MBF/HR CONTINUOUS DIRECT-FIRED LUMBER DRY KILN WITH 40 MMBTU/HR NATURAL GAS-FIRED BURNER AND ASSOCIATED 4 MMBTU/HR NATURAL GAS-FIRED KILN CONDENSATE EVAPORATOR X008: PLANER MILL WITH PNEUMATIC CONVEYANCE SYSTEM AND CYCLONE	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:	HTTP:		
EPA Region:	4	COUNTRY:	USA
Facility County:	CLARKE		
Facility State:	AL		
Facility ZIP Code:	36446		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Other Agency Contact Info:	RACHAEL BROADWAY 334-271-7901		
Permit Notes:	X007: 11.4 MBF/HR CONTINUOUS DIRECT-FIRED LUMBER DRY KILN WITH 40 MMBTU/HR NATURAL GAS-FIRED BURNER AND ASSOCIATED 4 MMBTU/HR NATURAL GAS-FIRED KILN CONDENSATE EVAPORATOR X008: PLANER MILL WITH PNEUMATIC CONVEYANCE SYSTEM AND CYCLONE		

Process/Pollutant Information

PROCESS NAME: 11.4 MBF/HR CONTINUOUS DIRECT-FIRED LUMBER DRY KILN, 40 MMBTU/HR NATURAL GAS BURNER, & 4 MMBTU/HR NATURAL GAS CONDENSATE EVAPORATOR

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: NATURAL GAS

Throughput: 11.40 MBF/H

Process Notes: A DIRECT FIRED CONTINUOUS KILN (CDK) WHICH IS HEATED BY A 40 MMBTU/HR NATURAL GAS BURNER. KILN CONDENSATE FROM THE CDK IS SENT TO A CONDENSATE EVAPORATOR. THE EVAPORATOR IS HEATED BY A 4 MMBTU/HR NATURAL GAS BURNER.

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Sulfur Dioxide (SO2)
CAS Number: 7446-09-5
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Other
Other Test Method:
Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.0000 LB/MBF MBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP
Control Method: (N) BACT DETERMINED AS PROPER KILN OPERATION AND MAINTENANCE PRACTICES
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: VOC MEASURED AS WPP1, WHERE WPP1 = [(VOC AS C) X 1.13] FORMALDEHYDE [0.35 X METHANOL]

Process/Pollutant Information

PROCESS NAME: PLANER MILL WITH PNEUMATIC CONVEYANCE SYSTEM AND CYCLONE
Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel: DRY LUMBER
Throughput: 240.00 MMBF/YR
Process Notes: THE PLANER MILL IS WHERE KILN DRIED LUMBER IS SENT TO BE PLANED TO FINAL DIMENSIONS, GRADED, AND SORTED BEFORE BEING STORED FOR SHIPMENT. DRY SHAVINGS FROM THE PLANER MILL ARE COLLECTED AND PNEUMATICALLY CONVEYED VIA A CYCLONE TO A TRUCK LOADOUT BIN.

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: EPA/OAR Mthd 5 and 202
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 3.0000 LB/H HR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP , OTHER
Control Method: (A) PNEUMATIC CONVEYANCE SYSTEM WITH CYCLONE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: LIMIT ESTABLISHED TO AVOID BACT FOR PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 2.0000 LB/H HR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP , OTHER
Control Method: (A) PNEUMATIC CONVEYANCE SYSTEM WITH CYCLONE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: EMISSION LIMIT ESTABLISHED TO AVOID BACT FOR PM

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)

CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 1.8000 LB/H HR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP , OTHER
Control Method: (A) PNEUMATIC CONVEYANCE SYSTEM WITH CYCLONE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: EMISSION LIMIT ESTABLISHED TO AVOID BACT FOR PM

[Previous Page](#)

Facility Information

RBLC ID:	FL-0365 (final)	Date Determination	
Corporate/Company Name:	GILMAN BUILDING PRODUCTS, LLC	Last Updated:	02/19/2019
Facility Name:	PERRY MILL	Permit Number:	1230033-014-AC
Facility Contact:	VICTOR GARRETT VICTORGARRETT@GILMANBP.COM	Permit Date:	04/11/2017 (actual)
Facility Description:	Lumber mill with total capacity of 150 MMBF per year	FRS Number:	110070147052
Permit Type:	B: Add new process to existing facility	SIC Code:	2421
Permit URL:	https://arm-permit2k.dep.state.fl.us/nontv/1230033.014.AC.F.ZIP	NAICS Code:	321113
EPA Region:	4	COUNTRY:	USA
Facility County:	TAYLOR		
Facility State:	FL		
Facility ZIP Code:	32348		
Permit Issued By:	FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (Agency Name) MR. DAVID READ(Agency Contact) (850) 717-9000 David.Read@dep.state.fl.us		
Permit Notes:	Technical evaluation available at https://arm-permit2k.dep.state.fl.us/nontv/1230033.014.AC.D.ZIP		
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: FL	Boundary: Saint Marks
			Distance: < 100 km
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	22.0000 (Tons/Year)	
	Nitrogen Oxides (NOx)	5.0000 (Tons/Year)	
	Particulate Matter (PM)	9.0000 (Tons/Year)	
	Sulfur Oxides (SOx)	2.0000 (Tons/Year)	
	Volatile Organic Compounds (VOC)	88.0000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: Direct-Fired Batch Lumber Drying Kiln No. 5
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Waste wood
Throughput: 50000.00 MMBF per year
Process Notes: Permitted Capacity: at the applicant's request a restricted maximum production of 50,000 MBF/year on a 12-month rolling period {Note the design capacity of the kiln is 90,000 MBF/year}. Equipped with a direct-fired burner with a maximum heat input of 40 MMBtu/hour.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.5000 LB/MBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: MACT
Control Method: (P) Minimization of over-drying
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Product moisture is surrogate -- no VOC testing required.

[Previous Page](#)

Facility Information

RBLC ID:	AR-0143 (final)	Date Determination	
		Last Updated:	05/12/2017
Corporate/Company Name:	CADDORIVER LLC	Permit Number:	0189-AOP-R6
Facility Name:	CADDORIVER LLC	Permit Date:	02/08/2017 (actual)
Facility Contact:	BRET GRAY 7074992694	FRS Number:	110067041766
Facility Description:	PINE SAW MILLPINE SAW MILL	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:	HTTPS:WWW.ADEQ.STATE.AR.US/HOME/PDSSQL/PDS.ASPX		
EPA Region:	6	COUNTRY:	USA
Facility County:	PIKE		
Facility State:	AR		
Facility ZIP Code:	71943		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheaume@adeq.state.ar.us		
Permit Notes:	PINE SAW MILL		
Facility-wide Emissions:	Pollutant Name: Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 344.0000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: CONTINUOUS LUMBER DRYING KILNS
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: WOOD
Throughput: 116000000.00 BOARD FEET
Process Notes: THROUGHPUT: 116000000 BOARD FEET CONTINUOUS PINE LUMBER DRYING KILN

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 53.2000 LB/H
Emission Limit 2: 220.4000 T/YR 12 MONTH ROLLING TOTAL
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Based on 3.8 lb VOC/MBF

[Previous Page](#)

Facility Information

RBLC ID:	SC-0176 (final)	Date Determination	
		Last Updated:	05/11/2018
Corporate/Company Name:	GEORGIA PACIFIC WOOD PRODUCTS LLC	Permit Number:	1600-0002-CD
Facility Name:	GEORGIA PACIFIC - MCCORMICK SAWMILL	Permit Date:	10/27/2016 (actual)
Facility Contact:	BRIAN TOOKE 864-465-9553 DAVID.TOOKE@GAPAC.COM	FRS Number:	Not Found
Facility Description:	Georgia Pacific - McCormick Sawmill produces kiln dried dimensional lumber from southern yellow pine logs.	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	MCCORMICK		
Facility State:	SC		
Facility ZIP Code:	29835		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Other Agency Contact Info:	Michael G. Daugherty 803-898-4123		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name: Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 118.4000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: Direct fired continuous lumber kiln

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Wood Fired

Throughput: 26.00 MMBTU/HR

Process Notes: Kiln is a direct fired continuous lumber kiln fired on green wood and dried shavings. BACT is work practice standards and an emission factor of 5.84 lb VOC/1000 board feet

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT , SIP

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes: Good work practices consisting of target final moisture content of 12% or greater, kiln wet bulb temperature set point of 195 degrees Fahrenheit or less, etc. VOC emission are based on an emission factor of 5.84 lb VOC/1000 board feet (AS THC AS PROPANE + METHANOL + FORMALDEHYDE)

[Previous Page](#)

Facility Information

RBLC ID:	SC-0177 (final)	Date Determination	
		Last Updated:	08/23/2017
Corporate/Company Name:	NEW SOUTH LUMBER COMPANY, INC.	Permit Number:	1380-0025-CJ-R1
Facility Name:	NEW SOUTH LUMBER COMPANY, INC. - CAMDEN PLANT	Permit Date:	10/26/2016 (actual)
Facility Contact:	DAY, DON 8038730021 DON.DAY@CANFOR.COM	FRS Number:	110000351869
Facility Description:	LUMBER MILL	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	KERSHAW		
Facility State:	SC		
Facility ZIP Code:	29032		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	29.2000 (Tons/Year)	
	Nitrogen Oxides (NOx)	11.2000 (Tons/Year)	
	Particulate Matter (PM)	20.9800 (Tons/Year)	
	Sulfur Oxides (SOx)	3.8300 (Tons/Year)	
	Volatile Organic Compounds (VOC)	232.8000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: DKN6 - DIRECT-FIRED CONTINUOUS LUMBER DRYING KILN

Process Type: 30.008 (Wood Lumber Kilns)

Primary Fuel: WOOD WASTE

Throughput: 80.00 MMBD-FT/YR

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) WORK PRACTICES

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: THE PERMIT WAS REVISED TO REMOVE THE BACT LIMIT AND CHANGE THE EMISSION FACTOR USED TO DETERMINE VOC EMISSIONS. THE PREVIOUS EMISSION FACTOR WAS 3.67 LB/MBD-FT. THE NEW EMISSION FACTOR IS 5.82 LB/MBD-FT. THE LIMIT WAS REMOVED DUE TO THE INCONSISTENCY IN THE RESULTS FROM TESTING LUMBER KILNS AND THE LACK OF CONTROL DEVICE. THIS IS CONSISTENT WITH HOW THE DEPARTMENT IS NOW TREATING LUMBER KILNS.

[Previous Page](#)

Facility Information

RBLC ID:	AL-0311 (final)	Date Determination	
		Last Updated:	11/30/2017
Corporate/Company Name:	WEYERHAEUSER NR COMPANY	Permit Number:	X023
Facility Name:	MILLPORT WOOD PRODUCTS FACILITY	Permit Date:	08/30/2016 (actual)
Facility Contact:	CHRIS HOPF 2055961197 CHRISTOPHER.HOPF@WEYERHAEUSER.COM	FRS Number:	Not Found
Facility Description:	SAWMILLADDING CDK-5 (X023B) AND CDK-6 (X023C). RE-PERMITTED CDK-4, WHICH UNDERWENT PSD IN 2014 (X022 ISSUED 12/30/2014) AS X023A TO REFLECT THE CORRECT CAPACITY IN THE DESCRIPTION AND TO INSTITUTE A SYNTHETIC MINOR LIMIT FOR PM.	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) &C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:	HTTP:APP.ADEM.ALABAMA.GOV/EFILE/		
EPA Region:	4	COUNTRY:	USA
Facility County:	LAMAR		
Facility State:	AL		
Facility ZIP Code:	35576		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Permit Notes:	ADDING CDK-5 (X023B) AND CDK-6 (X023C). RE-PERMITTED CDK-4, WHICH UNDERWENT PSD IN 2014 (X022 ISSUED 12/30/2014) AS X023A TO REFLECT THE CORRECT CAPACITY IN THE DESCRIPTION AND TO INSTITUTE A SYNTHETIC MINOR LIMIT FOR PM.		

Process/Pollutant Information

PROCESS NAME:	THREE CONTINUOUS DIRECT-FIRED LUMBER DRY KILNS, CDK-4/X023A, CDK-5/X023B, CDK-6/X023C
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	WOOD-SAWDUST
Throughput:	385.00 MMBF/YR
Process Notes:	A) 117,000 MBF/YR CONTINUOUS DIRECT-FIRED LUMBER DRY KILN NO. 4 (CDK-4) WITH 35 MMBTU/HR WOOD-FIRED BURNER B) 134,000 MBF/YR CONTINUOUS DIRECT-FIRED LUMBER DRY KILN NO. 5(CDK-5) WITH 40 MMBTU/HR WOOD-FIRED BURNER C) 134,000 MBF/YR CONTINUOUS DIRECT-FIRED LUMBER DRY KILN NO. 6(CDK-6) WITH 40 MMBTU/HR WOOD-FIRED BURNER
POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	EPA/OAR Mthd 25A
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	4.7000 LB/MBF AS WPP1
Emission Limit 2:	
Standard Emission:	
Did factors, other than air pollution technology considerations influence the BACT decisions:	Unknown
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	MACT , SIP , OPERATING PERMIT
Control Method:	(N) OPERATING AND MAINTENANCE PRACTICES
Est. % Efficiency:	
Cost Effectiveness:	0 \$/ton
Incremental Cost Effectiveness:	0 \$/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	

[Previous Page](#)

Facility Information

RBLC ID:	FL-0358 (final)	Date Determination	04/28/2017
Corporate/Company Name:	REX LUMBER, LLC	Last Updated:	
Facility Name:	GRACEVILLE LUMBER MILL	Permit Number:	0630011-016-AC
Facility Contact:	RANDY CUMMINGS 850-263-2056 RCUMMINGS@REX-LUMBER.COM	Permit Date:	07/14/2016 (actual)
Facility Description:	This existing facility is a lumber mill. The proposed project involves the construction of a new Kiln No. 5.	FRS Number:	Not Found
Permit Type:	C: Modify process at existing facility	SIC Code:	2421
Permit URL:	https://arm-permit2k.dep.state.fl.us/nontv/0630011.016.AC.F.ZIP	NAICS Code:	321113
EPA Region:	4	COUNTRY:	USA
Facility County:	JACKSON		
Facility State:	FL		
Facility ZIP Code:	32440		
Permit Issued By:	FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (Agency Name) MR. DAVID READ(Agency Contact) (850) 717-9000 David.Read@dep.state.fl.us		
Permit Notes:	Draft permit and BACT rationale available at https://arm-permit2k.dep.state.fl.us/nontv/0630011.016.AC.D.ZIP		
Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:
	CLASS1	FL	Bradwell Bay
	CLASS1	FL	Saint Marks
			100km - 50km
			100km - 50km
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	5.8000 (Tons/Year)	
	Nitrogen Oxides (NOx)	5.4000 (Tons/Year)	
	Particulate Matter (PM)	12.4000 (Tons/Year)	
	Sulfur Oxides (SOx)	2.4000 (Tons/Year)	
	Volatile Organic Compounds (VOC)	117.7000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: Direct-fired continuous lumber drying Kiln No. 5

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Sawdust

Throughput: 110000.00 Thousand bf/yr

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.5000 LB/THOUSAND BF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT

Control Method: (P) Lumber moisture used as proxy for VOC emissions -- product that is over dried likely means more VOC driven off and emitted

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: No add-on VOC controls. Lumber moisture content testing used as a proxy for VOC. No VOC tests required.

Previous Page

Facility Information

RBLC ID: SC-0166 (final)

Date Determination

Last Updated: 11/02/2017

Corporate/Company Name:	NEW SOUTH LUMBER COMPANY - DARLINGTON INC.	Permit Number:	0820-0045-CK
Facility Name:	NEW SOUTH LUMBER COMPANY - DARLINGTON INC.	Permit Date:	01/26/2016 (actual)
Facility Contact:	MR. TIM PAPA 8433931211 TIM.PAPA@CANFOR.COM	FRS Number:	110061778214
Facility Description:	NEW SOUTH - DARLINGTON IS A LUMBER MILL THAT PRODUCES STRUCTURAL LUMBER FROM SOUTHERN YELLOW PINE LOGS. NEW SOUTH - DARLINGTON SUBMITTED AN APPLICATION TO INSTALL A NEW 85 MILLION BD-FT/YR DIRECT-FIRED, CONTINUOUS LUMBER DRYING KILN (KLN6) WITH A 35 MILLION BTU/HR GREEN SAWDUST-FIRED GASIFIER, ADD AN ESP TO AN EXISTING BOILER FOR BOILER MACT COMPLIANCE AND REBUILD OR REPLACE THE MULTICLONES ON THE BOILER, INCREASE PRODUCTION THROUGH THE PLANER MILL AND SAWMILL, AND REPERMIT THE LAST CONTINUOUS LUMBER DRYING KILN (KLN5) INSTALLED IN 2013 FOR A PRODUCTION INCREASE. (KLN6 IS IDENTICAL TO KLN5). NEW SOUTH'S TOTAL DRYING CAPACITY WILL INCREASE TO 235.7 MILLION BD-FT/YR AS A RESULT OF THIS PROJECT.	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:	HTTP:		
EPA Region:	4	COUNTRY:	USA
Facility County:	DARLINGTON		
Facility State:	SC		
Facility ZIP Code:	29532		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Other Agency Contact Info:	KATHARINE BUCKNER BUCKNEKK@DHEC.SC.GOV 803-898-4123		
Permit Notes:	RBLC Sysop Note: No Permit Date was supplied and system MUST have this to create entry. The Permit Date entered is the only other entered date, the Compliance Application Date. Contact SC Agency for the correct information. NEW SOUTH - DARLINGTON SUBMITTED AN APPLICATION TO INSTALL A NEW 85 MILLION BD-FT/YR DIRECT-FIRED, CONTINUOUS LUMBER DRYING KILN (KLN6) WITH A 35 MILLION BTU/HR GREEN SAWDUST-FIRED GASIFIER, ADD AN ESP TO AN EXISTING BOILER FOR BOILER MACT COMPLIANCE AND REBUILD OR REPLACE THE MULTICLONES ON THE BOILER, INCREASE PRODUCTION THROUGH THE PLANER MILL AND SAWMILL, AND REPERMIT THE LAST CONTINUOUS LUMBER DRYING KILN (KLN5) INSTALLED IN 2013 FOR A PRODUCTION INCREASE. (KLN6 IS IDENTICAL TO KLN5). NEW SOUTH'S TOTAL DRYING CAPACITY WILL INCREASE TO 235.7 MILLION BD-FT/YR AS A RESULT OF THIS PROJECT.		

Process/Pollutant Information

PROCESS NAME:	TWO KILNS - KLN5 AND KLN6
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	GREEN SAWDUST
Throughput:	85.00 MILLION BD-FT/YR
Process Notes:	TWO - 85.0 MILLION BD-FT/YR DUAL TRACK, DIRECT-FIRED, CONTINUOUS LUMBER DRYING KILN WITH 35 MILLION BTU/HR GREEN SAWDUST-FIRED GASIFIER BURNER

POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	Unspecified
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	
Emission Limit 2:	
Standard Emission:	
Did factors, other than air pollution technology considerations influence the BACT decisions:	N
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	MACT , OPERATING PERMIT
Control Method:	(P) PROPER OPERATION AND MAINTENANCE
Est. % Efficiency:	
Cost Effectiveness:	0 \$/ton
Incremental Cost Effectiveness:	0 \$/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	THERE IS NO EMISSION LIMIT. BACT HAS BEEN DETERMINED TO BE WORK PRACTICE

STANDARDS. VOC EMISSIONS ARE BASED ON AN EMISSION FACTOR OF 5.824 LB/THOUSAND BD-FT (AS TERPENE METHANOL FORMALDEHYDE BASIS).

[Previous Page](#)

Facility Information

RBLC ID:	AR-0127 (final)	Date Determination	
		Last Updated:	08/15/2016
Corporate/Company Name:	DELTIC TIMBER CORPORATION	Permit Number:	0592-AOP-R10
Facility Name:	DELTIC TIMBER CORPORATION - OLA	Permit Date:	10/13/2015 (actual)
Facility Contact:	BRETT BRAY 4794895223 BRETT_BRAY@DELTIC.COM	FRS Number:	110020056776
Facility Description:	SAWMILL AND LUMBER KILN	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:	HTTPS:WWW.ADEQ.STATE.AR.US/DOWNLOADS/WEBDATABASES/PERMITSONLINE/AIR/0592-AOP-R10.PDF		
EPA Region:	6	COUNTRY:	USA
Facility County:	YELL		
Facility State:	AR		
Facility ZIP Code:	72853		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheaume@adeq.state.ar.us		
Permit Notes:			
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: AL	Boundary: Sipsey Distance: < 100 km
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide Nitrogen Oxides (NOx) Particulate Matter (PM) Sulfur Oxides (SOx) Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 152.9000 (Tons/Year) 61.9000 (Tons/Year) 69.2000 (Tons/Year) 9.7000 (Tons/Year) 435.3000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: STEAM HEATED CONTINUOUS KILN NO. 3

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 79000.00 MBF/YR

Process Notes: MAXIMUM SHORT-TERM CAPACITY = 9.5 MBF/HR

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 33.3000 LB/H AVERAGED OVER DRYING CYCLE TIME

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) PROPER DRYING SCHEDULE AND A TEMPERATURE BASED ON MOISTURE CONTENT OF THE LUMBER TO BE DRIED AND THE MANUFACTURER'S SPECIFICATIONS

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes: AN EMISSION FACTOR OF 3.5 LB/MBF WAS USED TO DETERMINE THE BACT LIMIT

Process/Pollutant Information

PROCESS NAME: STEAM HEATED CONTINUOUS KILN NO. 4

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 79000.00 MBF/YR

Process Notes: MAXIMUM SHORT-TERM CAPACITY = 9.5 MBF/HR

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 33.3000 LB/H AVERAGED OVER DRYING CYCLE TIME

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) PROPER DRYING SCHEDULE AND A TEMPERATURE BASED ON MOISTURE CONTENT OF THE LUMBER TO BE DRIED AND THE MANUFACTURER'S SPECIFICATIONS

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes: AN EMISSION FACTOR OF 3.5 LB/MBF WAS USED TO DETERMINE THE BACT LIMIT

Process/Pollutant Information

PROCESS NAME: DIRECT-FIRED CONTINUOUS KILN NO. 5

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 79000.00 MBF/YR

Process Notes: MAXIMUM SHORT-TERM CAPACITY = 10.9 MBF/HR

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 38.2000 LB/H AVERAGED OVER DRYING CYCLE TIME

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) PROPER DRYING SCHEDULE AND A TEMPERATURE BASED ON MOISTURE CONTENT OF THE LUMBER TO BE DRIED AND THE MANUFACTURER'S SPECIFICATIONS

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes: AN EMISSION FACTOR OF 3.5 LB/MBF WAS USED TO DETERMINE THE BACT LIMIT

[Previous Page](#)

Facility Information

RBLC ID:	AL-0322 (final)	Date Determination	
		Last Updated:	05/11/2018
Corporate/Company Name:	WESTROCK COATED BOARD, LLC	Permit Number:	211-S005-X007
Facility Name:	COTTONTON SAWMILL	Permit Date:	08/05/2015 (actual)
Facility Contact:	BEN SELLERS 334-855-5564 BENJAMIN.SELLERS@WESTROCK.COM	FRS Number:	110010380097
Facility Description:	Softwood Lumber Sawmill with Dry kilns and planer mill	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	RUSSELL		
Facility State:	AL		
Facility ZIP Code:	36851		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Other Agency Contact Info:	Rachael Broadway 1400 Coliseum Blvd. Montgomery, AL 36110-2400		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Nitrogen Oxides (NOx)	6.6700 (Tons/Year)	
	Particulate Matter (PM)	6.9500 (Tons/Year)	
	Sulfur Oxides (SOx)	1.3600 (Tons/Year)	
	Volatile Organic Compounds (VOC)	65.3200 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: Continuous Direct-fired Lumber Dry Kiln with 34 MMBtu/hr Wood-fired burner

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Biomass

Throughput: 16.40 MBF/hr

Process Notes: Modification of existing batch-style kiln to continuous lumber dry kiln by addition of conditioning chambers and modifying circulation of air flow

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Other

Other Test Method: WPP1

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.2100 LB/MBF VOC AS TERPENES, M25A

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: N/A

Control Method: (P) Good combustion practices and proper maintenance

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	AR-0124 (final)	Date Determination	06/17/2016
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Corporate/Company Name:	UNION COUNTY LUMBER COMPANY	Last Updated:	
Facility Name:	EL DORADO SAWMILL	Permit Number:	2348-AOP-R0
Facility Contact:	ROBERT HANRY 8703159397 RHANRY@COMACT.COM	Permit Date:	08/03/2015 (actual)
Facility Description:	SAWMILL AFIN: 70-00032AFIN: 70-00032	FRS Number:	110006786497
Permit Type:	A: New/Greenfield Facility	SIC Code:	2421
Permit URL:	HTTPS://WWW.ADEQ.STATE.AR.US/DOWNLOADS/WEBDATABASES/PERMITSONLINE/AIR/2348-AOP-R0.PDF	NAICS Code:	321113
EPA Region:	6	COUNTRY:	USA
Facility County:	UNION		
Facility State:	AR		
Facility ZIP Code:	71730		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheume@adeq.state.ar.us		
Other Agency Contact Info:	TOM RHEAUME 501-682-0762		
Permit Notes:	AFIN: 70-00032		
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: AL	Boundary: Sipsey Distance: 100km - 50km
Facility-wide Emissions:	Pollutant Name: Particulate Matter (PM) Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 56.3000 (Tons/Year) 599.3000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: LUMBER DRYING KILN SN-01

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: NATURAL GAS

Throughput: 45.00 MMBTU/H

Process Notes: SN-02 DIRECT-FIRED, MAX 18.5 MBF/HR, LOW NOX BURNERS

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.8000 LB/MBF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: NESHAP , OPERATING PERMIT

Control Method: (N) PROPER MAINTENANCE AND OPERATION

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0220 LB/MBF

Emission Limit 2: 7.6000 LB/MMSCF

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (N) PROPER MAINTENANCE AND OPERATION AND NATURAL GAS (CLEAN FUEL)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: LUMBER DRYING KILN SN-02

Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: NATURAL GAS
Throughput: 45.00 MMBTU/H
Process Notes: SN-02, DIRECT-FIRED, MAX 18.5 MBF/HR, LOW-NOX BURNERS

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.8000 LB/MBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: NESHAP , OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0220 LB/MBF
Emission Limit 2: 7.6000 LB/MMSCF
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N) PROPER MAINTENANCE AND OPERATION AND NATURAL GAS (CLEAN FUEL)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: LUMBER DRYING KILN SN-03

Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: NATURAL GAS
Throughput: 45.00 MMBTU/H
Process Notes: SN-03, DIRECT-FIRED, MAX 18.5 MBF/HR, LOW-NOX BURNERS

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC

Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.8000 LB/MBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: NESHAP , OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0220 LB/MBF
Emission Limit 2: 7.6000 LB/MMSCF
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N) PROPER MAINTENANCE AND OPERATION AND NATURAL GAS (CLEAN FUEL)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: ELEVEN OIL STORAGE TANKS SN-14
Process Type: 42.009 (Volatile Organic Liquid Storage)
Primary Fuel:
Throughput: 0
Process Notes: SN-14, VARIOUS SIZES

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.3000 LB/H
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N) ENCLOSED TANKS, TANKS ARE LIGHT COLOR
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: THREE DIESEL STORAGE TANKS SN-15

Process Type: 42.009 (Volatile Organic Liquid Storage)

Primary Fuel:

Throughput: 0

Process Notes: SN-15, THREE, VARIOUS SIZES

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.4000 LB/H

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (N) TANKS ARE LIGHT COLOR

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: ONE GASOLINE STORAGE TANK SN-16

Process Type: 42.009 (Volatile Organic Liquid Storage)

Primary Fuel:

Throughput: 0

Process Notes: SN-16, 5,890 GALLONS, ONE TANK

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.0220 LB/MBF

Emission Limit 2: 7.6000 LB/MMSCF

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (N) TANKS ARE LIGHT COLOR

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: DEBARKER SN-04

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel:

Throughput: 0

Process Notes: DEBARKER WITH HOOD ENCLOSURE

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0200 LB/T
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (A) HOOD ENCLOSURE - EFFICIENCY FROM NC-DENR
Est. % Efficiency: 95.000
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: SAWMILL SN-05

Process Type: 30.007 (Woodworking)

Primary Fuel:

Throughput: 0

Process Notes: SAWMILL LOCATED INSIDE A BUILDING

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.3500 LB/T
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (A) SAWMILL LOCATED INSIDE BUILDING
Est. % Efficiency: 90.000
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: PLANER MILL SN-06

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 GR/SCF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT
Control Method: (B) CYCLONE + BAGHOUSE AIR FLOW RATES AND OUTLET GRAIN LOADING BASED ON VENDOR TESTING - PROPER MAINTENANCE AND OPERATION
Est. % Efficiency: 99.990
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Yes
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: YATES HOG MILL SN-07
Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0010 GR/DSCF
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (B) CYCLONE - AIR FLOW RATE AND OUTLET GRAIN LOADING, BASED ON STACK TEST - PROPER MAINTENANCE AND OPERATION

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Yes
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: TRUCK BIN SN-08
Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0020 GR/DSCF
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (B) CYCLONE - PROPER MAINTENANCE AND OPERATION

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: HAUL ROADS SN-09

Process Type: 99.150 (Unpaved Roads)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 12.7000 LB/H

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) ROAD WATERING PLAN + 0% OFF-SITE OPACITY

Est. % Efficiency: 90.000

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: MATERIAL PROCESSING SN-11

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0200 LB/T

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (N) PROPER MAINTENANCE AND OPERATION

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: STORAGE PILES FOR BARK, SAWDUST, WOOD CHIPS SN-12

Process Type: 13.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0200 LB/T
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) WATERING PILES
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: PLANER MILL WOODWASTE STORAGE BIN SN-13

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0011 LB/T
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) STORAGE BIN BARRIER
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID: AL-0304 (final)

Corporate/Company Name: RESOLUTE FP U.S., INC.

Facility Name: RESOLUTE FOREST PRODUCTS - ALABAMA SAWMILL

Facility Contact: DAVID STEWART 256-861-8880

Facility Description: Lumber Mill

Permit Type: B: Add new process to existing facility

Date Determination

Last Updated: 06/28/2017

Permit Number: 309-0072-X001

Permit Date: 06/24/2015 (actual)

FRS Number: 110056955166

SIC Code: 2421

NAICS Code: 322121

Permit URL:
EPA Region: 4 **COUNTRY:** USA
Facility County: TALLADEGA
Facility State: AL
Facility ZIP Code: 35044
Permit Issued By: ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name)
 MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US
Permit Notes: NAICS Code: 32113
Facility-wide Emissions:

Pollutant Name:	Facility-wide Emissions Increase:
Carbon Monoxide	121.0000 (Tons/Year)
Nitrogen Oxides (NOx)	46.0000 (Tons/Year)
Particulate Matter (PM)	46.0000 (Tons/Year)
Sulfur Oxides (SOx)	11.0000 (Tons/Year)
Volatile Organic Compounds (VOC)	626.0000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Sawmill operations including chipper, debarker and kiln fuel silos.

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel:

Throughput: 325.00 mmbf/yr

Process Notes: Kiln fuel silos

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: EPA/OAR Mthd 25
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.3100 LB/TON GREEN FUEL ROLLING 12 MONTHS
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes: Even with the, No Control Method, there was proper maintenance and operating procedure.

Previous Page

Facility Information

RBLC ID:	AL-0305 (final)	Date Determination	
		Last Updated:	09/28/2017
Corporate/Company Name:	RESOLUTE FP U.S., INC.	Permit Number:	309-0072-X002
Facility Name:	RESOLUTE FOREST PRODUCTS - ALABAMA SAWMILL	Permit Date:	06/24/2015 (actual)
Facility Contact:	DAVID STEWART 256-861-8880	FRS Number:	Not Found
Facility Description:	Lumber Mill	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	TALLADEGA		
Facility State:	AL		
Facility ZIP Code:	35044		

Permit Issued By: ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name)
MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US

Other Agency Contact Info: NAICS Code: 321113

Permit Notes:

Affected Boundaries:	Boundary Type: INTL BORDER	Class 1 Area State:	Boundary: US/Canada Border	Distance: < 100 km
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Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:
	Carbon Monoxide	121.0000 (Tons/Year)
	Nitrogen Oxides (NOx)	46.0000 (Tons/Year)
	Particulate Matter (PM)	46.0000 (Tons/Year)
	Sulfur Oxides (SOx)	11.0000 (Tons/Year)
	Volatile Organic Compounds (VOC)	626.0000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Continuous Direct-Fired Lumber Dry Kilns with 35 mmbtu/hr Wood Fired Burner

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Wood

Throughput: 108.33 mmbf/yr - each

Process Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: EPA/OAR Mthd 10

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 0.7300 LB/MBF ROLLING 12 MONTHS

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes: Eventhough the method is No Control, proper maintenance and operating procedures.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.7600 LB/MBF ROLLING 12 MONTHS

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes: Emissions Limits: 3.76 lb/mbf as Terpene and Methanol and Formaldehyde rolling 12 months.

Previous Page

Facility Information

RBLC ID:	AR-0120 (final)	Date Determination	
		Last Updated:	07/29/2016
Corporate/Company Name:	DELTIC TIMBER CORPORATION	Permit Number:	0592-AOP-R10
Facility Name:	OLA	Permit Date:	02/11/2015 (actual)
Facility Contact:	JIM PHILLIPS 870-881-6425 JIM_PHILLIPS@DELTIC.COM	FRS Number:	110056342569
Facility Description:	The facility located in Ola, AR is a southern yellow pine sawmill with one direct-fired, continuous kiln and two indirect(steam heated), continuous kilns. A 60.0 MMBtu/hr bio-gas boiler provides steam to the kilns. The facility is permitted to produce a maximum 165 MMBF/yr of dried lumber.	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	YELL		
Facility State:	AR		
Facility ZIP Code:	72853		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheume@adeq.state.ar.us		
Permit Notes:	The permit authorized construction of one direct-fired continuous kiln and modification of two existing indirect-fired kilns from batch to continuous. Permitted maximum kiln dried lumber production remained at 165 MMBF/yr. The project was determined to be a major modification due to VOC increasing by more than 40 tpy.		
Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:
	CLASS1	AR	Caney Creek
	CLASS1	MO	Hercules-Glades
	CLASS1	AR	Upper Buffalo
			Distance:
			100km - 50km
			100km - 50km
			< 100 km
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	43.0800 (Tons/Year)	
	Nitrogen Oxides (NOx)	23.9700 (Tons/Year)	
	Particulate Matter (PM)	24.2900 (Tons/Year)	
	Sulfur Oxides (SOx)	9.1000 (Tons/Year)	
	Volatile Organic Compounds (VOC)	156.4200 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME:	Dry Kiln No. 3 (SN-06)
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	None
Throughput:	105.00 MMBF/yr
Process Notes:	Throughput is the total lumber processed by both indirect-fired, continuous kilns (SN-06 and SN-12) in any consecutive 12 month period. The units for throughput are millions of board feet per year.
POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	EPA/OAR Mthd 25A
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	33.3000 LB/H AVERAGE OF THREE 1-HR TEST RUNS
Emission Limit 2:	
Standard Emission:	3.5000 LB/1,000 BF AVERAGE OF THREE 1-HR TEST RUNS
Did factors, other than air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(N)
Est. % Efficiency:	
Cost Effectiveness:	0 \$/ton
Incremental Cost Effectiveness:	0 \$/ton
Compliance Verified:	No
Pollutant/Compliance Notes:	

Process/Pollutant Information

PROCESS NAME: Drying Kiln No. 4 (SN-12)

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: None

Throughput: 105.00 MMBF/yr

Process Notes: Throughput is the total lumber processed by both indirect-fired, continuous kilns (SN-06 and SN-12) in any consecutive 12 month period. The units for throughput are millions of board feet per year.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 33.2000 LB/H AVERAGE OF THREE 1-HR TEST RUNS

Emission Limit 2:

Standard Emission: 3.5000 LB/1,000 BF AVERAGE OF THREE 1-HR TEST RUNS

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Drying Kiln No. 5 (SN-21)

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: wood residue

Throughput: 60.00 MMBF/yr

Process Notes: Throughput is for lumber processed by the direct-fired, batch kiln (SN-21) in any consecutive 12 month period. The units for throughput are millions of board feet per year.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 23.5000 LB/H AVERAGE OF THREE 1-HR TEST RUNS

Emission Limit 2:

Standard Emission: 3.5000 LB/1,000 BF AVERAGE OF THREE 1-HR TEST RUNS

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID: AR-0122 (final)

Date Determination
Last Updated: 08/15/2016

Corporate/Company Name:	GEORGIA-PACIFIC WOOD PRODUCTS SOUTH LLC (GURDON PL	Permit Number:	463-AOP-R8
Facility Name:	GEORGIA-PACIFIC WOOD PRODUCTS SOUTH LLC (GURDON PLYWOOD AND	Permit Date:	02/06/2015 (actual)
Facility Contact:	BRIAN HICKS 8703535323	FRS Number:	110017425071
Facility Description:		SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	CLARK		
Facility State:	AR		
Facility ZIP Code:	71743		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheume@adeq.state.ar.us		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: SN-09 #4 LUMBER KILN

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: NATURAL GAS

Throughput: 130.00 MILLION BOARD FEET

Process Notes: DIRECT FIRED

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.8000 LB/ 1000 BOARD FEET

Emission Limit 2: 373.7000 T/YR

Standard Emission: 92.0000

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLCL ID:	SC-0163 (final)	Date Determination Last Updated:	07/06/2016
Corporate/Company Name:	KAPSTONE CHARLESTON KRAFT LLC	Permit Number:	0900-0017-CE
Facility Name:	KAPSTONE CHARLESTON KRAFT LLC- SUMMERVILLE	Permit Date:	01/20/2015 (actual)
Facility Contact:	AMY ARTMEIER 8437453250 AMY.ARTMEIER@KAPSTONEPAPER.COM	FRS Number:	110041047033
Facility Description:	LUMBER MILL THAT PURCHASES HARVESTED TIMBER WHICH IS PROCESSED INTO LUMBER AND PULPWOOD CHIPS.	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	321999
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	DORCHESTER		

Facility State: SC
Facility ZIP Code: 29483
Permit Issued By: SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name)
 MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov
Other Agency Contact Info: OMARI THOMPSON (803) 898-4123
Permit Notes:

Process/Pollutant Information

PROCESS NAME: LUMBER KILNS
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel:
Throughput: 194.83 MMBF/YR
Process Notes: INSTALLATION OF A NEW DIRECT-FIRED LUMBER DRYING KILN ALONG WITH ANCILLARY EQUIPMENT. THIS PROJECT WILL ALSO INCREASE THE DRYING CAPACITY FOR THE FACILITY FROM 118.448 MMBD-FT/YR TO 194.825 MMBD-FT/YR.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 225.6000 T/YR
Emission Limit 2: 3.7600 LB/MBF
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) PROPER MAINTENANCE AND OPERATION
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	AL-0273 (final)	Date Determination	
Corporate/Company Name:	WEYER HAEUSER NR COMPANY	Last Updated:	05/05/2016
Facility Name:	MILLPORT WOOD PRODUCTS FACILITY	Permit Number:	408-5003-X022
Facility Contact:	CHRISTOPHER HOPF 205-596-1197 CHRISTOPHER.HOPF@WEYERHAEUSER.COM	Permit Date:	12/30/2014 (actual)
Facility Description:	Manufactures finished, dimensional southern yellow pine lumber from logs.	FRS Number:	110000589257
Permit Type:	B: Add new process to existing facility	SIC Code:	2421
Permit URL:		NAICS Code:	321113
EPA Region:	4	COUNTRY:	USA
Facility County:	LAMAR		
Facility State:	AL		
Facility ZIP Code:	35576-2534		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Permit Notes:	NAICS Code: 321113		
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide Nitrogen Oxides (NOx) Particulate Matter (PM)	Facility-wide Emissions Increase: -122.4000 (Tons/Year) -22.3000 (Tons/Year) 6.9000 (Tons/Year)	

Sulfur Oxides (SOx)
Volatile Organic Compounds (VOC)

-3.3000 (Tons/Year)
105.0000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Continuous direct-lumber dry kiln

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Green sawdust

Throughput: 140000.00 mbf/yr

Process Notes: 140,000mbf/yr Continuous Direct-fired lumber dry kiln (CDR-4) with 35 mmbtu/hr Wood-fired burner.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 18

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.7000 LB MBF AS WPP 1*

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT , SIP , OPERATING PERMIT

Control Method: (B) Proper maintenance & operating practice requirements. Test method information: Method 18/25.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: * (VOC as propane, determined as VOC as C x 1.225 + ((1-0.65) x Methane) + Formaldehyde)

[Previous Page](#)

Facility Information

RBLC ID: SC-0165 (final)

Date Determination

Last Updated: 07/06/2016

Corporate/Company Name: NEW SOUTH COMPANIES, INC.

Permit Number: 1340-0029-CH-R2

Facility Name: NEW SOUTH COMPANIES, INC. - CONWAY PLANT

Permit Date: 10/15/2014 (actual)

Facility Contact: TIM PAPA 8433493463 TIM.PAPA@NEWSOUTH.CANFOR.COM

FRS Number: 110000740789

Facility Description: LUMBER MILL THAT PRODUCES STRUCTURAL LUMBER FROM PINE LOGS.

SIC Code: 2421

Permit Type: C: Modify process at existing facility

NAICS Code: 321113

Permit URL:

EPA Region: 4

COUNTRY: USA

Facility County: HORRY

Facility State: SC

Facility ZIP Code: 29526

Permit Issued By: SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name)
MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov

Other Agency Contact Info: OMARI THOMPSON (803) 898-4123

Permit Notes:

Process/Pollutant Information

PROCESS NAME: LUMBER KILNS

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 295.60 MMBF/YR**Process Notes:** FACILITY IS CONVERTING PREVIOUSLY PERMITTED STEAM HEATED CONTINUOUS KILN TO A DIRECT-FIRED UNIT. THIS MODIFICATION WILL PUT THE DRYING CAPACITY FOR THE FACILITY AT 295.6 MILLION BD-FT/YR.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 602.0000 T/YR (442 T/YR KILNS 1-5, 160 T/YR KILN 6)
Emission Limit 2: 4.2000 LB/MBF
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) PROPER MAINTENANCE AND OPERATION
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	FL-0343 (final)	Date Determination	
		Last Updated:	05/05/2016
Corporate/Company Name:	WEST FRASER, INC	Permit Number:	0310197-012-AC
Facility Name:	WHITEHOUSE LUMBER MILL	Permit Date:	09/09/2014 (actual)
Facility Contact:	JULIAN ROBERTS JULIAN.ROBERTS@WESTFRASER.COM	FRS Number:	110002524563
Facility Description:	Lumber mill, processes southern pine logs into chips, bark, and graded lumber. Includes log yard, sawmill, lumber kilns and boilers, planer mill. Kilns heated primarily with wood waste (propane as supplemental fuel).	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:	http://arm-permit2k.dep.state.fl.us/nontv/0310197.012.AC.F.ZIP		
EPA Region:	4	COUNTRY:	USA
Facility County:	DUVAL		
Facility State:	FL		
Facility ZIP Code:	32220		
Permit Issued By:	FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (Agency Name) MR. DAVID READ(Agency Contact) (850) 717-9000 David.Read@dep.state.fl.us		
Permit Notes:	Technical evaluation at http://arm-permit2k.dep.state.fl.us/nontv/0310197.012.AC.D.ZIP Permit entails removing existing batch lumber drying kilns with burners, and replacing with two continuous dual path kilns. Each new kiln has capacity of 15 thousand board ft/hr. New kilns fired with wood shavings (supplemented with propane). Total production capacity increases from 110 to 170 million board ft/yr.		
Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:
	CLASS1	FL	Chassahowitzka
	CLASS1	GA	Okefenokee
	CLASS1	FL	Saint Marks
	CLASS1	GA	Wolf Island
			Distance:
			100km - 50km
			< 100 km
			100km - 50km
			100km - 50km
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	62.0000 (Tons/Year)	
	Nitrogen Oxides (NOx)	24.0000 (Tons/Year)	
	Particulate Matter (PM)	22.0000 (Tons/Year)	
	Sulfur Oxides (SOx)	8.8000 (Tons/Year)	
	Volatile Organic Compounds (VOC)	319.0000 (Tons/Year)	

Process/Pollutant Information

PROCESS Direct-Fired Continuous Kilns
NAME:

Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood waste
Throughput: 40.00 MMBTU/H
Process Notes: 40 MMBTU/hr heat input per kiln, primarily dry shavings Production capacity 15 thousand board ft/hr per kiln Two kilns

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.7600 LB/THOUSAND BOARD FT
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Proper Maintenance and Operating Procedures: • Minimize over-drying the lumber. • Maintain consistent moisture content for the processing lumber charge. • Dry the lumber at the minimum temperature. • Develop a written Operation and Maintenance (O&M) plan identifying the above practices and the operation and maintenance requirements from the kiln manufacturer. • Record and monitor the total monthly amount and 12-month annual total of wood dried in each kiln (board-feet). • Record the calculated monthly and 12-month annual total emissions of VOC to demonstrate compliance with the process and emissions limits.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: 3.76 lb VOC per thousand board feet limit Based on emissions factors, records, and proper maintenance and operation

[Previous Page](#)

Facility Information

RBLC ID:	SC-0164 (final)	Date Determination	
		Last Updated:	07/06/2016
Corporate/Company Name:	SIMPSON LUMBER COMPANY, LLC	Permit Number:	1140-0008-CH
Facility Name:	SIMPSON LUMBER COMPANY, LLC	Permit Date:	06/20/2014 (actual)
Facility Contact:	SHIRLEY COLLENTON 8435207229 SCOLLEN@SIMPSON.COM	FRS Number:	110040922712
Facility Description:	SIMPSON LUMBER OPERATES A LUMBER MILL OUTSIDE OF GEORGETOWN, SC AND PRODUCES FINISHED LUMBER OUT OF LOGGED SOUTHERN YELLOW PINE. THE FOLLOWING OPERATIONS TAKE PLACE AT THE FACILITY: SAWMILL OPERATIONS, STEAM GENERATION, LUMBER DRYING AND PLANER MILL OPERATIONS.	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:		COUNTRY:	USA
EPA Region:	4		
Facility County:	GEORGETOWN		
Facility State:	SC		
Facility ZIP Code:	29440		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Other Agency Contact Info:	OMARI THOMPSON (803) 898-4123		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: LUMBER KILNS
Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:**Throughput:** 166.00 MMBF/YR**Process Notes:** FACILITY IS GOING TO CONSTRUCT NEW DUAL PATH DIRECT-FIRED LUMBER KILN. FACILITY IS ALSO GOING TO CONVERT PREVIOUSLY PERMITTED STEAM HEATED CONTINUOUS KILN TO A DIRECT-FIRED UNIT. THIS MODIFICATION WILL PUT THE DRYING CAPACITY FOR THE FACILITY AT 166 MMBD-FT/YR.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 156.0000 T/YR
Emission Limit 2: 3.7600 LB/MBF
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) PROPER OPERATION AND MAINTENANCE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	SC-0169 (final)	Date Determination	
		Last Updated:	11/02/2017
Corporate/Company Name:	NEW SOUTH LUMBER COMPANY, INC.	Permit Number:	1380-0025-CJ
Facility Name:	CAMDEN PLANT	Permit Date:	06/18/2014 (actual)
Facility Contact:	SYSNULL	FRS Number:	Not Found
Facility Description:		SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:	HTTP:		
EPA Region:	4	COUNTRY:	USA
Facility County:	KERSHAW		
Facility State:	SC		
Facility ZIP Code:	29030		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: DKN6 - DIRECT FIRED CONTINUOUS LUMBER DRYING KILN

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: WOOD

Throughput: 80.00 MMBD-FT/YR

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 150.4000 T/YR

Emission Limit 2:**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** No**Pollutant/Compliance Notes:** PROPER OPERATION AND MAINTENANCE TONS/YEAR LIMIT BASED ON AN EMISSION FACTOR OF 3.76 LB VOC/1000 BOARD FEET (AS TERPENE METHANOL FORMALDEHYDE)[Previous Page](#)**Facility Information**

RBLC ID:	SC-0180 (final)	Date Determination	
		Last Updated:	10/04/2018
Corporate/Company Name:	ELLIOTT SAWMILLING COMPANY, INC.	Permit Number:	1280-0004-CL
Facility Name:	ELLIOTT SAWMILLING COMPANY, INC.	Permit Date:	06/10/2014 (actual)
Facility Contact:	ROBERT ELLIOTT 803-625-3331 ROBERTE@ESAW.BIZ	FRS Number:	110020016061
Facility Description:	Elliott Sawmilling is a lumber sawmill that produces dimensional lumber from logs. The facility is divided into four process areas: log yard, sawmill, lumber kilns, and planer mill. There are two separate lumber lines - one for logs and one for pulp wood. As of 2014, Elliott operated 5 batch lumber kilns, all wood waste fired.	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	HAMPTON		
Facility State:	SC		
Facility ZIP Code:	29918		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: Batch Drying Lumber Kiln No. 5

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: wood

Throughput: 53.00 MM BF/YR

Process Notes: Kiln No. 5 is rated at 34 million Btu/hr direct fired with sawdust.

POLLUTANT NAME: Particulate matter, total (TPM)**CAS Number:** PM**Test Method:** Unspecified**Pollutant Group(s):** (Particulate Matter (PM))**Emission Limit 1:** 25.4100 LB/T**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** N/A**Other Applicable Requirements:** SIP**Control Method:** (N)**Est. % Efficiency:**

Cost Effectiveness: 0 \$/ton
 Incremental Cost Effectiveness: 0 \$/ton
 Compliance Verified: Unknown
 Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.7600 LB/M BF TERPENE + METHANOL + FORMALDEHYDE
Emission Limit 2: 99.6400 T/YR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Previous Page

Facility Information

RBLC ID:	FL-0340 (final)	Date Determination Last Updated:	01/06/2015
Corporate/Company Name:	GILMAN BUILDING PRODUCTS	Permit Number:	1230033-012-AC
Facility Name:	PERRY MILL	Permit Date:	04/01/2014 (actual)
Facility Contact:	CULLEN ADAIR CULLENADAIR@GILLMAN.COM	FRS Number:	110041048522
Facility Description:	Processes southern pine logs into chips, bark, and lumber. Includes two direct-fired drying kilns. Total capacity is 150 MBF/yr. This includes the capacity of the new unit, which is 90 MBF/yr.	SIC Code:	242
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:	http://arm-permit2k.dep.state.fl.us/nontv/1230033.012.AC.F.ZIP		
EPA Region:	4	COUNTRY:	USA
Facility County:	TAYLOR		
Facility State:	FL		
Facility ZIP Code:	32348		
Permit Issued By:	FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (Agency Name) MR. DAVID READ(Agency Contact) (850) 717-9000 David.Read@dep.state.fl.us		
Permit Notes:	Permit entails adding one new direct-fired lumber drying kiln and retiring two old indirect-fired drying kilns.		
Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:
	CLASS1	FL	Chassahowitzka
	CLASS1	GA	Okefenokee
	CLASS1	FL	Saint Marks
			Distance:
			100km - 50km
			100km - 50km
			< 100 km
Facility-wide Emissions:	Pollutant Name:	Facility-wide Emissions Increase:	
	Carbon Monoxide	-20.1000 (Tons/Year)	
	Nitrogen Oxides (NOx)	-13.1000 (Tons/Year)	
	Particulate Matter (PM)	-14.9000 (Tons/Year)	
	Sulfur Oxides (SOx)	4.4000 (Tons/Year)	
	Volatile Organic Compounds (VOC)	60.8000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: Direct-fired lumber drying kiln

Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Waste wood
Throughput: 90.00 million board ft/yr
Process Notes: Drying capacity of new kiln is 90 million board feet of lumber per year.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.5000 LB/THOUSAND BOARD FT
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) At a minimum, the permittee shall operate the kiln in accordance with the following best operating practices (BMP). a. Minimize over-drying the lumber; b. Maintain consistent moisture content for the processing lumber charge; and c. Dry at the minimum temperature. The permittee shall develop and operate in accordance with a written plan to implement the above BMP and any others required by the kiln manufacturer. Ninety days before the initial startup of the kiln, the permitted shall submit to the Compliance Authority the BMP plan. The Title V air operation permit shall include the submitted BMP plan.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: VOC released from wood as it dries. No add-on controls, just best operating practices.

Previous Page

Facility Information

RBLC ID:	LA-0293 (final)	Date Determination	
		Last Updated:	09/19/2016
Corporate/Company Name:	MARTCO LIMITED PARTNERSHIP	Permit Number:	PSD-LA-784
Facility Name:	CHOPIN MILL	Permit Date:	03/18/2014 (actual)
Facility Contact:	NATALIE MONROE (318) 448-0405 NATALIE.MONROE@ROYOMARTIN.COM	FRS Number:	110041907292
Facility Description:	Plywood manufacturing facility	SIC Code:	2436
Permit Type:	B: Add new process to existing facility	NAICS Code:	321212
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	NATCHITOCHES		
Facility State:	LA		
Facility ZIP Code:	71447		
Permit Issued By:	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV		
Other Agency Contact Info:	Permit writer: Hassan Ghosn, (225) 219-3417 or hassan.ghosn@la.gov		
Permit Notes:	Complete application date = date of administrative completeness Project entails construction of two lumber dry kilns and a planar mill baghouse. PSD review required for VOC only.		

Process/Pollutant Information

PROCESS NAME: Lumber Dry Kilns Nos. 1 & 2 (EQT 37 & 38)
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel:
Throughput: 25000.00 M BD-FT/YR
Process Notes: Throughput is per kiln.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 24.5100 LB/H HOURLY MAXIMUM
Emission Limit 2: 53.6800 T/YR ANNUAL MAXIMUM*
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) Good operating practices to limit VOC emissions to 4.29 lb/M bd-ft (12-month rolling average).
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: *Annual emissions from both kilns are limited to 53.68 TPY. Hourly emission limits are per kiln.

[Previous Page](#)

Facility Information

RBLC ID:	LA-0281 (final)	Date Determination	
		Last Updated:	09/14/2016
Corporate/Company Name:	TIN INC. DBA TEMPLE-INLAND	Permit Number:	PSD-LA-770
Facility Name:	SOUTHWEST LOUISIANA LUMBER OPERATIONS	Permit Date:	01/31/2014 (actual)
Facility Contact:	PAUL WILLIAMS 3377861300 PAULWILLIAMS@TEMPLEINLAND.COM	FRS Number:	110013836661
Facility Description:	Sawmill	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	BEAUREGARD		
Facility State:	LA		
Facility ZIP Code:	70633		
Permit Issued By:	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV		
Other Agency Contact Info:	Mr. Christopher Smith, (225) 219-3439		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: EP-3K -Wood-Fired Dry Kiln No. 1
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood
Throughput: 60000.00 MBF/YR
Process Notes: Annual throughput to 4 wood-fired dry kilns: EP-3K – Wood-Fired Dry Kiln No. 1; EP-4K – Wood-Fired Dry Kiln No. 2; EP-5K – Wood-Fired Dry Kiln No. 3; EQT009, & EP-6K – Wood-Fired Dry Kiln No. 4; shall be limited to no more than 240 MM BF/YR.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 29.2700 LB/H HOURLY MAXIMUM
Emission Limit 2: 2.9600 LB/M BF WHEN DRYING LUMBER
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) Proper kiln design & operation; annual production limit
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: The maximum emission rates presented above are the average rates for each kiln over the drying cycle.

Process/Pollutant Information

PROCESS NAME: EP-4K – Wood-Fired Dry Kiln No. 2
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood
Throughput: 60000.00 MBF/YR
Process Notes: Annual throughput to 4 wood-fired dry kilns: EP-3K – Wood-Fired Dry Kiln No. 1; EP-4K – Wood-Fired Dry Kiln No. 2; EP-5K – Wood-Fired Dry Kiln No. 3; EQT009, & EP-6K – Wood-Fired Dry Kiln No. 4; shall be limited to no more than 240 MM BF/YR.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 29.2700 LB/H HOURLY MAXIMUM
Emission Limit 2: 2.9600 LB/M BF WHEN DRYING LUMBER
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) Proper kiln design & operation; annual production limit
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: The maximum emission rates presented above are the average rates for each kiln over the drying cycle.

Process/Pollutant Information

PROCESS NAME: EP-5K – Wood-Fired Dry Kiln No. 3
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood
Throughput: 60000.00 MBF/YR
Process Notes: Annual throughput to 4 wood-fired dry kilns: EP-3K – Wood-Fired Dry Kiln No. 1; EP-4K – Wood-Fired Dry Kiln No. 2; EP-5K – Wood-Fired Dry Kiln No. 3; EQT009, & EP-6K – Wood-Fired Dry Kiln No. 4; shall be limited to no more than 240 MM BF/YR.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 29.2700 LB/H HOURLY MAXIMUM
Emission Limit 2: 2.9600 LB/M BF WHEN DRYING LUMBER
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) Proper kiln design & operation; annual production limit
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: The maximum emission rates presented above are the average rates for each kiln over the drying cycle.

Process/Pollutant Information

PROCESS NAME: EP-6K – Wood-Fired Dry Kiln No. 4

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: Wood

Throughput: 60000.00 MBF/YR

Process Notes: Annual throughput to 4 wood-fired dry kilns: EP-3K – Wood-Fired Dry Kiln No. 1; EP-4K – Wood-Fired Dry Kiln No. 2; EP-5K – Wood-Fired Dry Kiln No. 3; EQT009, & EP-6K – Wood-Fired Dry Kiln No. 4; shall be limited to no more than 240 MM BF/YR.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 29.2700 LB/H HOURLY MAXIMUM

Emission Limit 2: 2.9600 LB/M BF WHEN DRYING LUMBER

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) Proper kiln design & operation; annual production limit

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: The maximum emission rates presented above are the average rates for each kiln over the drying cycle.

[Previous Page](#)

Facility Information

RBLC ID:	LA-0294 (final)	Date Determination Last Updated:	12/20/2016
Corporate/Company Name:	WEYERHAEUSER NR COMPANY	Permit Number:	PSD-LA-627(M-3)
Facility Name:	DODSON DIVISION	Permit Date:	12/30/2013 (actual)
Facility Contact:	SHANE WELLS (318) 608-5903 SHANE.WELLS@WEYERHAEUSER.COM	FRS Number:	110006021125
Facility Description:	LUMBER MILL	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:		COUNTRY:	USA
EPA Region:	6		
Facility County:	WINN		
Facility State:	LA		
Facility ZIP Code:	71422		
Permit Issued By:	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV		
Other Agency Contact Info:	PERMIT WRITER: LOURDES DUGAS, (225) 219-3417 OR LOURDES.DUGAS@LA.GOV		
Permit Notes:	COMPLETE APPLICATION DATE = DATE OF ADMINISTRATIVE COMPLETENESS PERMIT ADDRESSES THE KILN EXPANSION PROJECT, WHICH WILL ALLOW THE DODSON DIVISION TO INCREASE ITS CURRENT PRODUCTION RATE OF LUMBER FROM 208.5 MM BF PER YEAR TO 265 MM BF PER YEAR. THE INCREASE IN LUMBER PRODUCTION WILL BE ACCOMPLISHED BY THE ADDITION OF A FOURTH KILN (DRY KILN 4, 051). OTHER SOURCES AFFECTED BY THE PROJECT ARE THE WOOD-FIRED BOILER (017), FUGITIVE INK EMISSIONS (039), AND MOLD INHIBITOR EMISSIONS (052). SUBSEQUENT TO THE ISSUANCE OF PSD-LA-627(M-3), WEYERHAEUSER DETERMINED THAT THE DODSON DIVISION COULD PRODUCE 265 MILLION BOARD FEET PER YEAR OF LUMBER USING JUST THE 3 EXISTING KILNS. THEREFORE, DRY KILN 4 (051, EQT 32) WILL NOT BE CONSTRUCTED AND WAS REMOVED FROM THE PERMIT WITH PSD-LA-627(M-4), ISSUED NOVEMBER 3, 2016. IN ADDITION, THE VOC BACT LIMITS FOR THE WOOD-FIRED BOILER		

(017, EQT 6) WERE REVISED TO 3.45 LB/HR AND 11.80 TPY. THE NEW LIMITS ACCOUNT FOR SEVERAL TOXIC AIR POLLUTANTS THAT WERE INADVERTENTLY EXCLUDED FROM THE VOC TOTAL.

Process/Pollutant Information

PROCESS NAME: Wood-Fired Boiler (017, EQT 6)

Process Type: 11.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: Wood/bark

Throughput: 256.44 MMBTU/H

Process Notes: Boiler is subject to 40 CFR 60 Subpart Db and 40 CFR 63 Subpart DDDDD.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.4500 LB/H HOURLY MAXIMUM

Emission Limit 2: 11.8000 T/YR ANNUAL MAXIMUM

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) Good combustion practices, including proper fuel feed rates, operating temperatures, oxygen levels, and maintenance

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Subsequent to the issuance of PSD-LA-627(M-3), Weyerhaeuser determined that the Dodson Division could produce 265 million board feet per year of lumber using just the 3 existing kilns. Therefore, Dry Kiln 4 (051, EQT 32) will not be constructed and was removed from the permit with PSD-LA-627(M-4), issued November 3, 2016. In addition, the VOC BACT limits for the Wood-Fired Boiler (017, EQT 6) were revised to 3.45 lb/hr and 11.80 TPY. The new limits account for several toxic air pollutants that were inadvertently excluded from the VOC total. (See Above) VOC limits changed from 2.58 LB/H to 3.45LB/H and 8.8T /YR to 11.8 T/YR (Updated by RBLC SYSOP 12/20/16)

Process/Pollutant Information

PROCESS NAME: Dry Kiln 1 (033, EQT 15)

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 14.00 M BD-FT/H

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 79.4000 LB/H HOURLY MAXIMUM

Emission Limit 2: 481.3700 T/YR ANNUAL MAXIMUM*

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) Good operating practices, including proper design, operation, and maintenance

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: * 481.37 TPY is an aggregate limit for all four dry kilns.

Process/Pollutant Information

PROCESS Dry Kiln 2 (034, EQT 16)**NAME:****Process Type:** 30.800 (Wood Lumber Kilns)**Primary Fuel:****Throughput:** 14.00 M BD-FT/H**Process Notes:****POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC**Test Method:** Unspecified**Pollutant Group(s):** (Volatile Organic Compounds (VOC))**Emission Limit 1:** 79.4000 LB/H HOURLY MAXIMUM**Emission Limit 2:** 481.3700 T/YR ANNUAL MAXIMUM***Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** OPERATING PERMIT**Control Method:** (P) Good operating practices, including proper design, operation, and maintenance**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:** * 481.37 TPY is an aggregate limit for all four dry kilns.

Process/Pollutant Information

PROCESS Dry Kiln 3 (035, EQT 17)**NAME:****Process Type:** 30.800 (Wood Lumber Kilns)**Primary Fuel:****Throughput:** 16.00 M BD-FT/H**Process Notes:****POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC**Test Method:** Unspecified**Pollutant Group(s):** (Volatile Organic Compounds (VOC))**Emission Limit 1:** 90.7400 LB/H HOURLY MAXIMUM**Emission Limit 2:** 481.3700 T/YR ANNUAL MAXIMUM***Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** OPERATING PERMIT**Control Method:** (P) Good operating practices, including proper design, operation, and maintenance**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:** * 481.37 TPY is an aggregate limit for all four dry kilns.

Process/Pollutant Information

PROCESS Dry Kiln 4 (051, EQT 32)**NAME:****Process Type:** 30.800 (Wood Lumber Kilns)**Primary Fuel:****Throughput:** 16.00 M BD-FT/H

Process Notes: Subsequent to the issuance of PSD-LA-627(M-3), Weyerhaeuser determined that the Dodson Division could produce 265 million board feet per year of lumber using just the 3 existing kilns. Therefore, Dry Kiln 4 (051, EQT 32) will not be constructed and was removed from the permit with PSD-LA-627(M-4), issued November 3, 2016. In addition, the VOC BACT limits for the Wood-Fired Boiler (017, EQT 6) were revised to 3.45 lb/hr and 11.80 TPY. The new limits account for several toxic air pollutants that were inadvertently excluded from the VOC total.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 90.7400 LB/H HOURLY MAX (SEE NOTE KILN NOT BUILT)
Emission Limit 2: 481.3700 T/YR ANNUAL MAX*(SEE NOTE KILN NOT BUILT)

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) Good operating practices, including proper design, operation, and maintenance

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: * 481.37 TPY is an aggregate limit for all four dry kilns. Kiln 4 not constructed. See below. Subsequent to the issuance of PSD-LA-627(M-3), Weyerhaeuser determined that the Dodson Division could produce 265 million board feet per year of lumber using just the 3 existing kilns. Therefore, Dry Kiln 4 (051, EQT 32) will not be constructed and was removed from the permit with PSD-LA-627(M-4), issued November 3, 2016. In addition, the VOC BACT limits for the Wood-Fired Boiler (017, EQT 6) were revised to 3.45 lb/hr and 11.80 TPY. The new limits account for several toxic air pollutants that were inadvertently excluded from the VOC total.

Process/Pollutant Information

PROCESS NAME: Fugitive Ink Emissions (039, FUG 4)

Process Type: 99.999 (Other Miscellaneous Sources)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.3400 LB/H HOURLY MAXIMUM
Emission Limit 2: 1.2100 T/YR ANNUAL MAXIMUM

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) Good housekeeping practices and the use of low VOC materials when possible. Good housekeeping practices include keeping containers closed and minimizing spills and leaks to the maximum extent practical.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Mold Inhibitor Emissions (052, FUG 5)

Process Type: 99.999 (Other Miscellaneous Sources)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.9400 LB/H HOURLY MAXIMUM
Emission Limit 2: 3.2800 T/YR ANNUAL MAXIMUM
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (P) Good housekeeping practices and the use of low VOC materials when possible. Good housekeeping practices include keeping containers closed and minimizing spills and leaks to the maximum extent practical.
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	AL-0257 (final)	Date Determination	
		Last Updated:	02/09/2015
Corporate/Company Name:	WEST FRASER, INC.	Permit Number:	206-5004-X005
Facility Name:	WEST FRASER-OPELIKA LUMBER MILL	Permit Date:	11/01/2013 (actual)
Facility Contact:	JIM MCMILLAN 334-749-6281 JIM.MCMILLAN@WESTFRASER.COM	FRS Number:	110003033155
Facility Description:	SAWMILL	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	LEE		
Facility State:	AL		
Facility ZIP Code:	36801		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Permit Notes:	NONE NAICS CODE: 321113		
Facility-wide Emissions:	Pollutant Name: Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase:	329.0000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Two(2) 87.5 MMBF/YR Continuous kilns with a 35 MMBtu/hr direct-fired wood burner
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood Shavings
Throughput: 175.00 MMBF/YR
Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.7600 LB/MBF
Emission Limit 2: 175.0000 K/12 MONTHS
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: SIP , OPERATING PERMIT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

Previous Page

Facility Information

RBLC ID:	AR-0123 (final)	Date Determination	
		Last Updated:	02/19/2016
Corporate/Company Name:	DELTIC TIMBER CORPORATION	Permit Number:	697-AOP-R13
Facility Name:	DELTIC TIMBER CORPORATION WALDO	Permit Date:	10/18/2013 (actual)
Facility Contact:	JIM PHILLIPS 8708816425 JIM_PHILLIPS@DELTIC.COM	FRS Number:	110017420487
Facility Description:	DELTIC WILL CONSTRUCT ONE NEW CONTINUOUS STEAM HEATED KILN AND MODIFY TWO EXISTING STEAM HEATED BATCH KILNS TO BECOME CONTINUOUS STEAM HEATED KILNS. LUMBER PRODUCTION WILL INCREASE FROM 215 MMBF/YR TO 285 MMBF/YR.	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	COLUMBIA		
Facility State:	AR		
Facility ZIP Code:	71770		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheume@adeq.state.ar.us		
Permit Notes:	DELTIC WILL CONSTRUCT ONE NEW CONTINUOUS STEAM HEATED KILN AND MODIFY TWO EXISTING STEAM HEATED BATCH KILNS TO BECOME CONTINUOUS STEAM HEATED KILNS. LUMBER PRODUCTION WILL INCREASE FROM 215 MMBF/YR TO 285 MMBF/YR.		
Facility-wide Emissions:	Pollutant Name: Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase:	559.4000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME:	KILN NO. 3
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	
Throughput:	0
Process Notes:	7.7 MBF/HR STEAM HEATED CONTINUOUS KILN SOUTHERN YELLOW PINE
POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	EPA/OAR Mthd 25A
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	27.0000 LB/H
Emission Limit 2:	
Standard Emission:	3.5000 LB/1000 BF
Did factors, other than air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(P) PROPER KILN OPERATION

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: KILN NO. 4
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel:
Throughput: 0
Process Notes: 13.2 MBF/HR STEAM HEATED CONTINUOUS KILN SOUTHERN YELLOW PINE

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: EPA/OAR Mthd 25A
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 46.2000 LB/H
Emission Limit 2:
Standard Emission: 3.5000 LB/1000 BF
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: KILN NO. 5
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel:
Throughput: 0
Process Notes: 7.7 MBF/HR STEAM HEATED CONTINUOUS KILN SOUTHERN YELLOW PINE

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: EPA/OAR Mthd 25A
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 27.0000 LB/H
Emission Limit 2:
Standard Emission: 3.5000 LB/1000 BF
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: WOOD-FIRED BOILER #1

Process Type: 13.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: WOOD RESIDUE

Throughput: 60.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.2000 LB/H

Emission Limit 2: 18.4000 T/YR

Standard Emission: 0.0700 LB/MMBTU

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: NSPS , NESHAP

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: WOOD-FIRED BOILER #2

Process Type: 13.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: WOOD RESIDUE

Throughput: 60.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 4.2000 LB/H

Emission Limit 2: 18.4000 T/YR

Standard Emission: 0.0700 LB/MMBTU

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: NSPS , NESHAP

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: WOOD-FIRED BOILER #3

Process Type: 13.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: WOOD RESIDUE

Throughput: 60.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC
Test Method: EPA/OAR Mthd 25A
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 4.2000 LB/H
Emission Limit 2: 18.4000 T/YR
Standard Emission: 0.0700 LB/MMBTU
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: NSPS , NESHAP
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	AL-0259 (final)	Date Determination	
		Last Updated:	02/09/2015
Corporate/Company Name:	THE WESTERVELT COMPANY	Permit Number:	406-5003-X016
Facility Name:	THE WESTERVELT COMPANY	Permit Date:	08/21/2013 (actual)
Facility Contact:	KEITH DOLLAR 205-562-5475 KDOLLAR@WESTERVELT.COM	FRS Number:	110017414626
Facility Description:	Sawmill	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	HALE		
Facility State:	AL		
Facility ZIP Code:	35474		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Permit Notes:	NAICS Code: 32113		
Facility-wide Emissions:	Pollutant Name: Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase:	167.8500 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Three (3) 93 MMBF/Y Continous, Dual path, indirect fired kilns
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Steam (Indirect heat)
Throughput: 0
Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 4.5700 LB/MMBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:

Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Emission limit is for each kiln

[Previous Page](#)

Facility Information

RBLC ID:	AR-0135 (final)	Date Determination	
		Last Updated:	08/15/2016
Corporate/Company Name:	WEST FRASER, INC.	Permit Number:	57-AOP-R6
Facility Name:	WEST FRASER, INC. (LEOLA LUMBER MILL)	Permit Date:	08/05/2013 (actual)
Facility Contact:	TIM NEWTON 8707656217 TIM.NEWTON@WESTFRASER.COM	FRS Number:	Not Entered
Facility Description:	THE LUMBER MILL RECIEVES LOGS THAT ARE DEBARKED, CUT AND SAWN TO DESIRED LENGHTS, DRIED IN INDIRECT HEATED KILNS AND THEN PLANED TO FINISH REQUIREMENTS. THE FACILITY INCLUDES BY PRODUCT HANDLING OF BARK, SAWDUST, CHIPS, PLANER SHAVINGS AND DRY TRIM. THE FACILITY OPERATES MULTIPLE WOOD-FIRED BOILERS, TWO CONTINOUS DUAL PATH KILNS, SEVERAL CYCLONES, DEBARKERS, SAWS, A PLANER MILL AND AN EMERGENCY RICE. THERE ARE VARIOUS FUGITIVE EMISSIONS RESULTING FROM ROADS AND MATERIAL LOADING AND TRANSPORT.	SIC Code:	2421
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:	HTTP:		
EPA Region:	6	COUNTRY:	USA
Facility County:	GRANT		
Facility State:	AR		
Facility ZIP Code:	72084		
Permit Issued By:	ARKANSAS DEPT OF ENVIRONMENTAL QUALITY (Agency Name) MR. THOMAS RHEAUME(Agency Contact) (501) 682-0762 rheaume@adeq.state.ar.us		
Other Agency Contact Info:	PERMIT ENGINEER: AMANDA LEAMONS LEAMONSA@ADEQ.STATE.AR.US 501-682-0825		
Permit Notes:			
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide Nitrogen Oxides (NOx) Particulate Matter (PM) Sulfur Oxides (SOx) Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 859.8000 (Tons/Year) 235.8000 (Tons/Year) 111.8000 (Tons/Year) 23.3000 (Tons/Year) 500.5000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: LUMBER KILN, CONTINUOUS, INDIRECT
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel:
Throughput: 275.00 MMBF/YR
Process Notes: TWO, NEW, CONTINUOUS DUAL-PATH, INDIRECT HEATED KILNS REPLACED FOUR BATCH, INDIRECT HEATED KILNS. THE KILNS ARE SUPPLIED WITH STEAM FROM MULTIPLE (EXISTING) WOOD-FIRED BOILERS.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: EPA/OAR Mthd 25
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.5000 LB/MBF

Emission Limit 2: 481.3000 T/YR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: 130.2 LB/H TOTAL FOR BOTH KILNS BOTH KILNS ARE GROUPED TOGETHER FOR THE HOURLY AND ANNUAL EMISSION LIMITS.

[Previous Page](#)

Facility Information

RBLC ID:	SC-0151 (final)	Date Determination	
		Last Updated:	05/04/2016
Corporate/Company Name:	WEST FRASER TIMBER CO. LTD	Permit Number:	1780-0007-CG
Facility Name:	WEST FRASER - NEWBERRY LUMBER MILL	Permit Date:	04/30/2013 (actual)
Facility Contact:	KEITH NELSON 8033211227 KEITH.NELSON@WESTFRASER.COM	FRS Number:	110013287987
Facility Description:	WEST FRASER OWNS AND OPERATES A LUMBER SAWMILL THAT PRODUCES FINISHED, DIMENSIONED LUMBER FROM LOGS OF SOUTHERN YELLOW PINE. FACILITY SUBMITTED AN APPLICATION TO REPLACE THE THREE EXISTING BOILERS AND THREE EXISTING BATCH, STEAM HEATED LUMBER KILNS WITH TWO NEW 35 MILLION BTU/HR DUAL PATH, DIRECT FIRED, CONTINUOUS LUMBER KILNS - 15 THOUSAND BF/HR, EACH. PRODUCTION IS EXPECTED TO INCREASE FROM 154 MILLION BF/YR TO 200 MILLION BF/YR. UPGRADES TO THE PLANER MILL WILL ALSO TAKE PLACE AS PART OF THE PERMIT.	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	NEWBERRY		
Facility State:	SC		
Facility ZIP Code:	29108		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Other Agency Contact Info:	KATHARINE BUCKNER BUCKNEKK@DHEC.SC.GOV 803-898-4123		
Permit Notes:	FACILITY SUBMITTED AN APPLICATION TO REPLACE THE THREE EXISTING BOILERS AND THREE EXISTING BATCH, STEAM HEATED LUMBER KILNS WITH TWO NEW 35 MILLION BTU/HR DUAL PATH, DIRECT FIRED, CONTINUOUS LUMBER KILNS - 15 THOUSAND BF/HR, EACH. PRODUCTION IS EXPECTED TO INCREASE FROM 154 MILLION BF/YR TO 200 MILLION BF/YR. UPGRADES TO THE PLANER MILL WILL ALSO TAKE PLACE AS PART OF THE PERMIT.		

Process/Pollutant Information

PROCESS NAME: TWO - 35 MMBTU/H DUAL PATH, DIRECT FIRED, CONTINUOUS LUMBER KILNS, 15 THOUSAND BF/H, EACH
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: SAWDUST
Throughput: 0
Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.7600 LB/MBF
Emission Limit 2: 376.0000 T/YR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) PROPER OPERATION AND GOOD OPERATING PRACTICES
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: No
Pollutant/Compliance Notes: THE VOC LIMITS ARE TOTAL VOC, NOT ON AN "AS CARBON" BASIS. FACILITY WILL BE REQUIRED TO TEST ONE KILN TO VERIFY THE VOC EMISSION FACTOR USED.

[Previous Page](#)

Facility Information

RBLC ID:	AL-0258 (final)	Date Determination	
		Last Updated:	02/10/2015
Corporate/Company Name:	WEST FRASER, INC.	Permit Number:	403-5005-X010
Facility Name:	WEST FRASER, INC. - MAPLESVILLE MILL	Permit Date:	04/15/2013 (actual)
Facility Contact:	DAVE MIMS 334-366-1366 DALE.MIMS@WESTFRASER.COM	FRS Number:	110054818701
Facility Description:	Sawmill	SIC Code:	2421
Permit Type:	B: Add new process to existing facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	CHILTON		
Facility State:	AL		
Facility ZIP Code:	36750		
Permit Issued By:	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. DALE HURST(Agency Contact) (334) 271-7882 ADH@ADEM.STATE.AL.US		
Permit Notes:	NAICS Code: 321113		
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide Nitrogen Oxides (NOx) Particulate Matter (PM) Sulfur Oxides (SOx) Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: -711.4300 (Tons/Year) -50.3300 (Tons/Year) -44.1300 (Tons/Year) -1.2400 (Tons/Year) 164.9100 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: Two(2) 100 MMBF/Y Continuous direct fired kiln
Process Type: 30.800 (Wood Lumber Kilns)
Primary Fuel: Wood Residuals
Throughput: 200.00 MMBF/YR
Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 3.7600 LB/MBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: N
Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: SIP , OPERATING PERMIT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Emissions limit is for each kiln. Combined emissions limit is 376 tpy based on maximum capacity of 200MMBF/Y.

[Previous Page](#)

Facility Information

RBLC ID:	SC-0149 (final)	Date Determination	
		Last Updated:	08/27/2014
Corporate/Company Name:	KLAUSNER HOLDING USA, INC	Permit Number:	1860-0128-CA
Facility Name:	KLAUSNER HOLDING USA, INC	Permit Date:	01/03/2013 (actual)
Facility Contact:	SABINE MERKLE 8436269600 SABINE.MERKLE@KLAUSNER-GROUP.COM	FRS Number:	not available
Facility Description:	700 MILLION BOARD FOOT PER YEAR LUMBER MILL	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	ORANGEBURG		
Facility State:	SC		
Facility ZIP Code:	29133		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Other Agency Contact Info:	PERMIT WRITER: JO ANNA CUNNNINGHAM (803) 898-4123		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: BIOMASS BOILER EU001

Process Type: 12.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: WET BARK, WOOD

Throughput: 120.00 MMBTU/H

Process Notes:

POLLUTANT NAME:	Particulate matter, filterable (FPM)
CAS Number:	PM
Test Method:	Unspecified
Pollutant Group(s):	(Particulate Matter (PM))
Emission Limit 1:	0.0032 LB/MMBTU 3-HOUR
Emission Limit 2:	
Standard Emission:	
Did factors, other than air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	OTHER CASE-BY-CASE
Other Applicable Requirements:	NSPS , MACT
Control Method:	(A) ESP
Est. % Efficiency:	
Cost Effectiveness:	0 \$/ton
Incremental Cost Effectiveness:	0 \$/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, fugitive
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s):
Emission Limit 1: 0.0320 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (A) ESP
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM. Note from RBLC Reviewer: Pollutant entered is no longer a valid pollutant (to general) it was changed to "Particulate Matter, Fugitive".

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0320 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (A) ESP
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0320 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (A) ESP
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.1400 LB/MMBTU 3-HOUR
Emission Limit 2: 16.8000 LB/H 1-HOUR
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (A) SNCR
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 7, 7A - 7E

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.4000 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0170 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Methane
CAS Number: 74-82-8
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , Organic Compounds (all) , Organic Non-HAP Compounds)
Emission Limit 1: 37.1000 T/YR 12-MONTH ROLLING SUM
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT

Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrous Oxide (N₂O)
CAS Number: 10024-97-2
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , InOrganic Compounds , Oxides of Nitrogen (NO_x) , Particulate Matter (PM))
Emission Limit 1: 4.9000 T/YR 12-MONTH ROLLING SUM
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: BIOMASS BOILER EU002

Process Type: 13.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))
Primary Fuel: WET BARK, WOOD
Throughput: 120.00 MMBTU/H
Process Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0320 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (A) ESP
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0320 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (A) ESP
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSIBLE PM.

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.1400 LB/MMBTU 3-HOUR
Emission Limit 2: 16.8000 LB/H 1-HOUR
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS
Control Method: (A) SNCR
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 7, 7A-7E

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.4000 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0170 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Methane
CAS Number: 74-82-8
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , Organic Compounds (all) , Organic Non-HAP Compounds)
Emission Limit 1: 37.1000 T/YR 12-MONTH ROLLING SUM
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrous Oxide (N2O)
CAS Number: 10024-97-2
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 4.9000 T/YR 12-MONTH ROLLING SUM
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0032 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (A) ESP
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, fugitive
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s):
Emission Limit 1: 0.0320 LB/MMBTU 3-HOUR

Emission Limit 2:**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (A) ESP**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:** TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM. Note from RBLC Reviewer: Pollutant entered is no longer a valid pollutant (to general) it was changed to "Particulate Matter, Fugitive".**Process/Pollutant Information****PROCESS NAME:** NATURAL GAS BOILER EU003**Process Type:** 11.310 (Natural Gas (includes propane and liquefied petroleum gas))**Primary Fuel:** NATURAL GAS**Throughput:** 46.00 MMBTU/H**Process Notes:****POLLUTANT NAME:** Nitrogen Oxides (NOx)**CAS Number:** 10102**Test Method:** Unspecified**Pollutant Group(s):** (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))**Emission Limit 1:** 0.0360 LB/MMBTU 3-HOUR**Emission Limit 2:** 1.6600 LB/H 1-HOUR**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Carbon Monoxide**CAS Number:** 630-08-0**Test Method:** Unspecified**Pollutant Group(s):** (InOrganic Compounds)**Emission Limit 1:** 0.0390 LB/MMBTU 3-HOUR**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC

Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0030 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, fugitive
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s):
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM. Note from RBLC Reviewer: Pollutant entered is no longer a valid pollutant (to general) it was changed to "Particulate Matter, Fugitive".

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0020 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: NSPS , MACT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

Process/Pollutant Information

PROCESS NAME: NATURAL GAS BOILER EU004

Process Type: 13.310 (Natural Gas (includes propane and liquefied petroleum gas))

Primary Fuel: NATURAL GAS

Throughput: 46.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 0.0360 LB/MMBTU 3-HOUR

Emission Limit 2: 1.6600 LB/H 1-HOUR

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: NSPS , MACT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 0.0390 LB/MMBTU 3-HOUR

Emission Limit 2:**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC**Test Method:** Unspecified**Pollutant Group(s):** (Volatile Organic Compounds (VOC))**Emission Limit 1:** 0.0030 LB/MMBTU 3-HOUR**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Particulate matter, fugitive**CAS Number:** PM**Test Method:** Unspecified**Pollutant Group(s):****Emission Limit 1:** 0.0050 LB/MMBTU 3-HOUR**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:** TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM. Note from RBLC Reviewer: Pollutant entered is no longer a valid pollutant (to general) it was changed to "Particulate Matter, Fugitive".**POLLUTANT NAME:** Particulate matter, filterable (FPM)**CAS Number:** PM**Test Method:** Unspecified**Pollutant Group(s):** (Particulate Matter (PM))**Emission Limit 1:** 0.0020 LB/MMBTU 3-HOUR**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)

Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: NSPS , MACT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0050 LB/MMBTU

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: NSPS , MACT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

Process/Pollutant Information

PROCESS NATURAL GAS BOILER EU005

NAME:

Process Type: 13.310 (Natural Gas (includes propane and liquefied petroleum gas))

Primary Fuel: NATURAL GAS

Throughput: 46.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 0.0360 LB/MMBTU 3-HOUR

Emission Limit 2: 1.6600 LB/H 1-HOUR

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.0390 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0030 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, fugitive
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s):
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD

202 FOR CONDENSABLE PM. Note from RBLC Reviewer: Pollutant entered is no longer a valid pollutant (to general) it was changed to "Particulate Matter, Fugitive".

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0020 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

Process/Pollutant Information

PROCESS NATURAL GAS BOILER EU006

NAME:**Process Type:** 13.310 (Natural Gas (includes propane and liquefied petroleum gas))**Primary Fuel:** NATURAL GAS**Throughput:** 46.00 MMBTU/H**Process Notes:****POLLUTANT NAME:** Nitrogen Oxides (NOx)**CAS Number:** 10102**Test Method:** Unspecified**Pollutant Group(s):** (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))**Emission Limit 1:** 0.0360 LB/MMBTU 3-HOUR**Emission Limit 2:** 1.6600 LB/H 1-HOUR**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Carbon Monoxide**CAS Number:** 630-08-0**Test Method:** Unspecified**Pollutant Group(s):** (InOrganic Compounds)**Emission Limit 1:** 0.0390 LB/MMBTU 3-HOUR**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC**Test Method:** Unspecified**Pollutant Group(s):** (Volatile Organic Compounds (VOC))**Emission Limit 1:** 0.0030 LB/MMBTU 3-HOUR**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** OTHER CASE-BY-CASE**Other Applicable Requirements:** NSPS , MACT**Control Method:** (N)**Est. % Efficiency:****Cost Effectiveness:** 0 \$/ton**Incremental Cost Effectiveness:** 0 \$/ton**Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Particulate matter, fugitive**CAS Number:** PM

Test Method: Unspecified
Pollutant Group(s):
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM. Note from RBLC Reviewer: Pollutant entered is no longer a valid pollutant (to general) it was changed to "Particulate Matter, Fugitive".

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0020 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: NSPS , MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 LB/MMBTU 3-HOUR
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: NSPS , MACT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: TOTAL PM (FILTERABLE PLUS CONDENSABLE). METHOD 5 FOR FILTERABLE PM AND METHOD 202 FOR CONDENSABLE PM.

Process/Pollutant Information

PROCESS NAME: LUMBER DRYING KILNS EU007

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 700.00 MILLION BOARD FOOT PER YEAR

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.5000 LB/MBF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: MACT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, fugitive

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s):

Emission Limit 1: 0.0220 LB/MBF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: MACT

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Note from RBLC Reviewer: Pollutant entered is no longer a valid pollutant (to general) it was changed to "Particulate Matter, Fugitive".

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0130 LB/MBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 LB/MBF
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: MACT
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: PLANER MILL EU008
Process Type: 30.540 (Board Product Finishing. (e.g. sanders, saws and trimmers))
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: DRY SHAVING STORAGE SILO EU009
Process Type: 30.999 (Other Wood Products Industry Sources)
Primary Fuel:
Throughput: 0
Process Notes: SILO FOR STORAGE OF DRY SHAVINGS

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM

Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0040 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

Process/Pollutant Information

PROCESS NAME: SORTER LINE TRIMMERS EXTRACTION SYSTEM EU011
Process Type: 30.540 (Board Product Finishing. (e.g. sanders, saws and trimmers))
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)

CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

Process/Pollutant Information

PROCESS NAME: FLY ASH STORAGE SILO EU012
Process Type: 99.120 (Ash Storage, Handling, Disposal)
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (A) BAGHOUSE
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

Process/Pollutant Information

PROCESS NAME: COLORS, INKS, LACQUERS EU013

Process Type: 30.006 (Wood Treatment)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0300 LB/MBF 12-MONTH ROLLING AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other than air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: DRY SHAVINGS STORAGE SILO EU010

Process Type: 30.999 (Other Wood Products Industry Sources)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0040 GR/DSCF 3-HOUR

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements:

Control Method: (A) BAGHOUSE

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0040 GR/DSCF 3-HOUR

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements:

Control Method: (A) BAGHOUSE

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0040 GR/DSCF 3-HOUR

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements:

Control Method: (A) BAGHOUSE

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: METHOD 5 FOR FILTERABLE PM

[Previous Page](#)

Facility Information

RBLC ID:	PA-0283 (final)	Date Determination	
		Last Updated:	02/26/2020
Corporate/Company Name:	GRAYMONT PA INC	Permit Number:	14-00002N
Facility Name:	GRAYMONT PA INC/PLEASANT GAP & BELLEFONTE PLTS	Permit Date:	11/19/2012 (actual)
Facility Contact:	JOHN MAITLAND 814-353-2106	FRS Number:	110001131061
Facility Description:	This plan approval is for the Kiln No. 8 project. WASTE OIL HEATER [BEL], PROPANE HEATER, PULVERIZED LIMESTONE SYSTEM, 136 HP DIESEL GENERATOR [PG], MISCELLANEOUS EMERGENCY GENERATORS, KILN NO. 8 PROJECT STONE RECLAMATION SYSTEM, PROCESSED STONE HANDLING, LIME KILN DUST HANDLING AND LOADING SYSTEM, LIME HANDLING AND STORAGE SYSTEM, LIME LOADING SYSTEM, EMERGENCY GENERATOR-ENGINES FOR COOLING FANS, PLS FABRIC COLLECTOR, ROTARY DRYER FABRIC COLLECTOR, STONE RECLAMATION FABRIC COLLECTOR, PROCESSED STONE AND LKD FABRIC COLLECTOR, LIME HANDLING AND STORAGE FABRIC COLLECTOR, LIME LOADING FABRIC COLLECTOR, KILN 6 BAGHOUSE, LIME KILN 7 SEMI-WET SCRUBBER, LIME KILN 7 FABRIC COLLECTOR, KILN NO. 8 BAGHOUSE NATURAL GAS SUPPLY BITUMINOUS COAL SUPPLY PETROLEUM COKE SUPPLY NO. 2 FUEL OIL STORAGE PROPANE STORAGE DIESEL FUEL STORAGE SPACE HEATER EXHAUSTS PLS FABRIC COLLECTOR STACK DRYER FABRIC COLLECTOR STACK GENERATOR STACK MISC EMERGENCY GENERATORS STACKS FABRIC COLLECTOR VENT FABRIC COLLECTOR STACK FABRIC COLLECTOR STACK FABRIC COLLECTOR STACK GENERATOR-ENGINE STACKS KILN 6 STACK LIME KILN 7 STACK KILN NO. 8 STACK PROPANE HEATER EMISSIONS	SIC Code:	3274
Permit Type:	U: Unspecified	NAICS Code:	327410
Permit URL:		COUNTRY:	USA
EPA Region:	3		
Facility County:	CENTRE		
Facility State:	PA		
Facility ZIP Code:	16823		
Permit Issued By:	PENNSYLVANIA DEPT OF ENVIRONMENTAL PROTECTION, BUREAU OF AIR QUALITY (Agency Name) MR. ROBERT COOK(Agency Contact) (717)772-3974 rwcook@pa.gov		
Other Agency Contact Info:	MUHAMMAD Q. ZAMAN, ENVIRONMENTAL PROGRAM MANAGER, NORTHCENTRAL REGION 570-327-3648		
Permit Notes:	Pursuant to the plantwide applicability limit (PAL) provisions of 40 CFR § 52.21(aa)(7), the total combined sulfur dioxide (SO ₂) emissions, including fugitive emissions, from the facility shall not exceed 302.6 tons in any 12 consecutive month period.		
Facility-wide Emissions:	Pollutant Name: Sulfur Oxides (SO _x) Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 302.6000 (Tons/Year) 50.0000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME:	KILN NO. 8
Process Type:	90.019 (Lime/Limestone Handling/Kilns/Storage/Manufacturing)
Primary Fuel:	Pipeline quality natural gas
Throughput:	0
Process Notes:	Source ID P418 consists of a 660 tons per day, twin-shaft vertical lime kiln, designated as Kiln No. 8, that is equipped with 66 natural gas fuel delivery lances (2 sets of 33) with a total approximate heat input (HHV) equal to 100.4 MMBtu/hr. The air contaminant emissions from the kiln shall be controlled by the installation of ID C418 which is a pulse jet fabric collector, designated as 328-PDC-870. The fabric collector shall have a minimum fabric area of 25,536 square feet and handle no more than 75,000 actual cubic feet per minute. The permittee shall install, maintain, certify and operate a continuous emission monitoring system (CEMS) for nitrogen oxides (expressed as NO ₂), carbon monoxide, and sulfur oxides (expressed as SO ₂) emissions and opacity monitoring.

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: EPA/OAR Mthd 17 and 202
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 2.2500 LB/H FILTERABLE AND CONDESABILE PM
Emission Limit 2: 0.0040 GRAIN/DSCF FILTERABLE PM
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: OTHER
Control Method: (A) Baghouse
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0030 GRAINS/DSCF FILTERABLE
Emission Limit 2: 1.9100 LB/H FILTERABLE AND CONDENSABLE
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: OTHER
Control Method: (A) Baghouse
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0020 GRAINS/DSCF FILTERABLE
Emission Limit 2: 1.5600 LB/H FILTERABLE AND CONDENSABLE
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: OTHER
Control Method: (A) Baghouse
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Sulfur Oxides (SOx)
CAS Number: 7446
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1: 23.0000 LB/H ROLLING 30-DAY AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: OTHER

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Visible Emissions (VE)

CAS Number: VE

Test Method: Unspecified

Pollutant Group(s):

Emission Limit 1: 10.0000 % OPACITY FOR ANY 6-MINUTE BLOCK PERIOD

Emission Limit 2: 20.0000 % OPACITY 20-60% FOR ANY 3-MINUTE BLOCK PERIOD

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: OTHER

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.1000 LB/TON OF LIME

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: OTHER

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 7.9000 LB/H ROLLING 30-DAY AVERAGE

Emission Limit 2: 34.6000 T/YR IN ANY 12 CONSECUTIVE MONTH PERIOD

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: OTHER

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown
Pollutant/Compliance Notes: Expressed as NO2

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 6.9600 LB/H ROLLING 30-DAY AVERAGE
Emission Limit 2: 26.5000 T/YR ANY 12 CONSECUTIVE MONTH PERIOD
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: OTHER
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Methane
CAS Number: 74-82-8
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , Organic Compounds (all) , Organic Non-HAP Compounds)
Emission Limit 1: 3.6500 MMBTU/TON LIME (HHV)
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: NSPS
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Sulfur Dioxide (SO2)
CAS Number: 7446-09-5
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1: 500.0000 PPMVD 1-HOUR BLOCK AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: OTHER
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Previous Page

Facility Information

RBLC ID:	SC-0135 (final)	Date Determination	
		Last Updated:	04/01/2015
Corporate/Company Name:	NEW SOUTH COMPANIES, INC.	Permit Number:	1340-0029-CH
Facility Name:	NEW SOUTH COMPANIES, INC. - CONWAY PLANT	Permit Date:	09/24/2012 (actual)
Facility Contact:	TIM PAPA 8433493463 TIM.PAPA@NEWSOUTH.CANFOR.COM	FRS Number:	110000740789
Facility Description:	LUMBER MILL THAT PRODUCES STRUCTURAL LUMBER FROM PINE LOGS.	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	11
Permit URL:		COUNTRY:	USA
EPA Region:	4		
Facility County:	HORRY		
Facility State:	SC		
Facility ZIP Code:	29526		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Other Agency Contact Info:	HETAL PATEL (803) 898-4123		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME:	LUMBER KILNS
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	
Throughput:	380.56 MMBD-FT/YR
Process Notes:	FACILITY IS GOING TO INSTALL TWO STEAM HEATED CONTINUOUS KILNS (EACH RATED AT 85 MILLION BD-FT/YR), MODIFY TWO EXISTING KILNS. THIS PROJECT WILL ALLOW FACILITY TO INCREASE DRYING CAPACITY FROM 173.2 MILLION BD-FT/YR TO 380.56 MILLION BD-FT/YR.
POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	Unspecified
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	799.1800 T/YR
Emission Limit 2:	4.2000 LB/MBF AS TOTAL VOC
Standard Emission:	
Did factors, other than air pollution technology considerations influence the BACT decisions:	Unknown
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(P) PROPER MAINTENANCE AND OPERATION
Est. % Efficiency:	
Cost Effectiveness:	0 \$/ton
Incremental Cost Effectiveness:	0 \$/ton
Compliance Verified:	No
Pollutant/Compliance Notes:	

[Previous Page](#)

Facility Information

RBLC ID:	SC-0136 (final)	Date Determination	
		Last Updated:	08/27/2014
Corporate/Company Name:	SIMPSON LUMBER COMPANY, LLC	Permit Number:	1140-0008-CG
Facility Name:	SIMPSON LUMBER COMPANY, LLC	Permit Date:	08/29/2012 (actual)
Facility Contact:	SHIRLEY COLLENTON 8435207229 SCOLLEN@SIMPSON.COM	FRS Number:	110040922712

Facility Description:	SIMPSON LUMBER OPERATES A LUMBER MILL OUTSIDE OF GEORGETOWN, SC AND PRODUCES FINISHED LUMBER OUT OF LOGGED SOUTHERN YELLOW PINE. THE FOLLOWING OPERATIONS TAKE PLACE AT THE FACILITY: SAWMILL OPERATIONS, STEAM GENERATION, LUMBER DRYING AND PLANER MILL OPERATIONS. INSTALLATION OF A NEW DIRECT-FIRED LUMBER DRYING KILN, NEW SHAVINGS HOG AND INCREASES IN OPERATION FROM THE SAWMILL AND PLANER MILL.	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	321113
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	GEORGETOWN		
Facility State:	SC		
Facility ZIP Code:	29440		
Permit Issued By:	SOUTH CAROLINA DEPT OF HEALTH & ENV CTRL, BUREAU OF AIR QUALITY (Agency Name) MS. ALYSON HAYES(Agency Contact) (803)898-3836 camitdr@dhec.sc.gov		
Other Agency Contact Info:	JAMEL BOATRIGHT, (803) 898-4123		
Permit Notes:	INSTALLATION OF A NEW DIRECT-FIRED LUMBER DRYING KILN, NEW SHAVINGS HOG AND INCREASES IN OPERATION FROM THE SAWMILL AND PLANER MILL.		
Facility-wide Emissions:	Pollutant Name: Carbon Monoxide Nitrogen Oxides (NOx) Particulate Matter (PM) Sulfur Oxides (SOx) Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase: 18.0000 (Tons/Year) 8.0000 (Tons/Year) 17.0000 (Tons/Year) 2.0000 (Tons/Year) 104.0000 (Tons/Year)	

Process/Pollutant Information

PROCESS NAME: DIRECT-FIRED LUMBER DRYING KILN NO. 4

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: DRY WOOD WASTE

Throughput: 34.00 MMBTU/H

Process Notes: MAXIMUM THROUGHPUT OF THE KILN IS 54.7 MMBF/YR

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 104.0000 T/YR

Emission Limit 2: 3.8000 LB/MBF

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) WORK PRACTICE STANDARDS

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	CO-0074 (final)	Date Determination	
		Last Updated:	05/25/2016
Corporate/Company Name:	GCC RIO GRANDE, INC.	Permit Number:	98PB0893

Facility Name:	RIO GRANDE CEMENT PLANT	Permit Date:	07/09/2012 (actual)
Facility Contact:	BARBARA HODGSON 719-647-6829 BHODGSON@GCC.COM	FRS Number:	110037262636
Facility Description:	Portland cement manufacturing	SIC Code:	3241
Permit Type:	C: Modify process at existing facility	NAICS Code:	327310
Permit URL:			
EPA Region:	8	COUNTRY:	USA
Facility County:	PUEBLO		
Facility State:	CO		
Facility ZIP Code:	81004		
Permit Issued By:	COLORADO DEPT OF HEALTH - AIR POLL CTRL (Agency Name) MR. ROLAND HEA(Agency Contact) (303) 692-3252 Roland.Hea@state.co.us		
Permit Notes:	<p>This application requests the following changes to the permit:</p> <ul style="list-style-type: none"> • An increase in permitted clinker production from 950,000 to 1,175,300 tons per year • An increase in the annual amount of raw materials extracted from the quarry from 1,540,000 to 2,245,293 tons per year • An increase in the permitted cement production from 1,050,000 to 1,410,360 tons per year • Addition of Tire Derived Fuel (TDF) as an alternate fuel for the kiln system • An increase in permitted fuel (coal and tire derived fuel) throughput from 122,250 to 198,418 tons per year • Incorporate other minor changes to correct previous errors in calculations and representations • Increases to the following permitted emissions above the PSD significance emission rate (SER) thresholds : <ul style="list-style-type: none"> o Particulate Matter less than 10 Microns (PM10) (due to a better estimate of condensable PM10 emissions), o Volatile Organic Compounds (VOCs) o Greenhouse Gases (GHG) - primarily Carbon Dioxide (CO2) • Increases to following permitted emissions below the PSD SER thresholds: <ul style="list-style-type: none"> o Nitrogen Oxides (NOx) – mainly due to engines previously considered as non-road o Sulfur Dioxides (SOx) - mainly due to engines previously considered as non-road o Carbon Monoxide (CO) o Lead <p>The requested increases in PM10, VOC and GHG emissions exceed the PSD major modification thresholds and require that a PSD review including BACT and modeling analyses be performed. The requested increases for all other criteria pollutants were below the PSD SER thresholds.</p>		

Affected Boundaries:	Boundary Type:	Class 1 Area State:	Boundary:	Distance:
	CLASS1	CO	Great Sand Dunes	< 100 km

Process/Pollutant Information

PROCESS NAME: Kiln

Process Type: 90.028 (Portland Cement Manufacturing)

Primary Fuel:

Throughput: 349.00 MMBTU/H

Process Notes: Pyroprocessing of crude in a 5-stage preheater /precalciner and clinkering rotary kiln to produce cement clinker.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.1490 LB/TON CLINKER 12-MONTH ROLLING AVE

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: Y

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT , OPERATING PERMIT

Control Method: (P) Good combustion practices and selective quarrying of the limestone raw material

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)

CAS Number: CO2e

Test Method: Unspecified

Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1: 0.9500 TON/TON CLINKER 12-MONTH ROLLING AVE

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (P) 1) Continued use of the modern cement process design including the preheater/precalciner kiln system, 2) Continued use of high energy-efficient equipment systems, and 3) Continued implementation of a sustainability program to reduce overall GHG emissions with the use of new additives, raw materials and fuels consistent with availability and cost while maintaining the quality of the cement product manufactured.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.5800 LB/TON CLINKER 12-MONTH ROLLING AVE

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT , OPERATING PERMIT

Control Method: (A) fabric filters

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: a. Emissions of particulate matter shall be controlled by high temperature filter media dust collector. The concentration of filterable particulate matter in the dust collector outlet shall not exceed 0.01 grain per dry standard cubic foot. b. Emissions of condensable particulate matter shall be minimized by quarry management practices and by chemical absorption of the condensable particulate matter in the kiln system. Total PM10 emissions (combined filterable and condensable) shall not exceed the BACT limit of 0.58 lb per ton of clinker produced on a rolling 12 month average.

Process/Pollutant Information	
PROCESS NAME:	Haul roads
Process Type:	99.150 (Unpaved Roads)
Primary Fuel:	
Throughput:	0
Process Notes:	There are two distinct road classes, plant roads (paved and unpaved) and unpaved roads primarily located in the quarry.
POLLUTANT NAME:	Particulate matter, filterable < 10 µ (FPM10)
CAS Number:	PM
Test Method:	Unspecified
Pollutant Group(s):	(Particulate Matter (PM))
Emission Limit 1:	
Emission Limit 2:	
Standard Emission:	
Did factors, other than air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	OPERATING PERMIT
Control Method:	(P) Plant roads – since almost all plant roads are already paved and are actively swept, BACT was determined to be paved and swept roads. Emissions from unpaved roads shall be controlled by applying water as needed. Quarry roads – The combination of inherent moisture content supplemented by water application as needed was determined to be BACT for the quarry roads.
Est. % Efficiency:	
Cost Effectiveness:	0 \$/ton
Incremental Cost Effectiveness:	0 \$/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	

Process/Pollutant Information

PROCESS Storage Piles

NAME:

Process Type: 99.190 (Other Fugitive Dust Sources)

Primary Fuel:

Throughput: 0

Process Notes: There are two distinct locations for temporary storage piles, those located in the quarry and those located at the plant. In general these outdoor storage piles are temporary in nature.

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (B) Plant storage – BACT is determined to be use of enclosure (covering the storage pile with tarps) Quarry storage – BACT is determined to be use of the inherent moisture content supplemented with water application as needed.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS Material processing & transfer

NAME:

Process Type: 90.028 (Portland Cement Manufacturing)

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0050 GR/DSCF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: OPERATING PERMIT

Control Method: (A) Plant Fabric filters combined with enclosed transfer points was selected as BACT. Quarry The combination of high material moisture content and partial enclosure was selected as BACT.

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Previous Page

Facility Information

RBLC ID:	GA-0146 (final)	Date Determination	
		Last Updated:	08/01/2012
Corporate/Company Name:	SIMPSON LUMBER CO.	Permit Number:	2421-103-0004-V-04-1
Facility Name:	SIMPSON LUMBER CO, LLC MELDRIM OPERATIONS	Permit Date:	04/25/2012 (actual)
Facility Contact:	LINDA BRYAN 9127482219 LBRYAN@SIMPSON.COM	FRS Number:	0110002438997
Facility Description:	LUMBER MILL	SIC Code:	2421
Permit Type:	A: New/Greenfield Facility	NAICS Code:	423310
Permit URL:			
EPA Region:	4	COUNTRY:	USA
Facility County:	EFFINGHAM		
Facility State:	GA		
Facility ZIP Code:	31318		
Permit Issued By:	GEORGIA DEPARTMENT OF NATURAL RESOURCES (Agency Name) MR. ERIC CORNWELL(Agency Contact) (404) 363-7020 Eric.Cornwell@dnr.state.ga.us		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME:	KILN 3
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	WASTE WOOD
Throughput:	65000000.00 BF/YR
Process Notes:	CONTINUOUS LUMBER KILN - DIRECT FIRED
POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	Unspecified
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	3.8300 LB/MBF DAILY
Emission Limit 2:	
Standard Emission:	
Did factors, other then air pollution technology considerations influence the BACT decisions:	N
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	MACT , SIP , OPERATING PERMIT
Control Method:	(P) PROPER MAINTENANCE AND OPERATION
Est. % Efficiency:	
Cost Effectiveness:	0 \$/ton
Incremental Cost Effectiveness:	0 \$/ton
Compliance Verified:	No
Pollutant/Compliance Notes:	

Process/Pollutant Information

PROCESS NAME:	KILN 4
Process Type:	30.800 (Wood Lumber Kilns)
Primary Fuel:	WASTE WOOD
Throughput:	73000000.00 BF/YR
Process Notes:	BATCH LUMBER KILN - DIRECT FIRED
POLLUTANT NAME:	Volatile Organic Compounds (VOC)
CAS Number:	VOC
Test Method:	Unspecified
Pollutant Group(s):	(Volatile Organic Compounds (VOC))
Emission Limit 1:	3.9300 LB/MBF DAILY
Emission Limit 2:	
Standard Emission:	

Did factors, other than air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT , SIP , OPERATING PERMIT

Control Method: (P) PROPER MAINTENANCE AND OPERATION

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: No

Pollutant/Compliance Notes:

Previous Page

Facility Information

RBLC ID:	TX-0607 (final)	Date Determination	
		Last Updated:	02/03/2020
Corporate/Company Name:	WEST FRASER, INC.	Permit Number:	PSDTX892M1 AND 7286
Facility Name:	LUMBER MILL	Permit Date:	12/15/2011 (actual)
Facility Contact:	PHILLIP HOUSE (903) 628-2506 PHILLIP.HOUSE@WESTFRASER.COM	FRS Number:	110012702851
Facility Description:	Two new continuous kilns and new saw line	SIC Code:	5211
Permit Type:	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	NAICS Code:	321113
Permit URL:			
EPA Region:	6	COUNTRY:	USA
Facility County:	BOWIE		
Facility State:	TX		
Facility ZIP Code:	75570		
Permit Issued By:	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) MS. ANNE INMAN(Agency Contact) (512) 239-1267 anne.inman@tceq.texas.gov		
Permit Notes:			
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: AR	Boundary: Caney Creek
			Distance: 100km - 50km
Facility-wide Emissions:	Pollutant Name: Volatile Organic Compounds (VOC)	Facility-wide Emissions Increase:	166.5300 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Continuous lumber kilns (2)

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: wood

Throughput: 275.00 MMBF/YR

Process Notes: Proper operation of the kilns (e.g., drying to the appropriate moisture content)

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 3.5000 LB/MBF

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: MACT

Control Method: (P) proper temperature and process management; drying to appropriate moisture content

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton
 Incremental Cost Effectiveness: 0 \$/ton
 Compliance Verified: Unknown
 Pollutant/Compliance Notes:

[Previous Page](#)

Facility Information

RBLC ID:	LA-0252 (final)	Date Determination	
		Last Updated:	12/12/2011
Corporate/Company Name:	WEST FRASER TIMBER COMPANY, LTD	Permit Number:	PSD-LA-701(M1)
Facility Name:	JOYCE MILL	Permit Date:	08/16/2011 (actual)
Facility Contact:	GARY MILHOLLEN 318-648-3300 GARY.MILHOLLEN@WESTFRASER.COM	FRS Number:	110006524939
Facility Description:	PSD modification/consolidation for a sawmill. Convert 3 batch kilns to continuous dual path kilns. Revise VOC BACT from as-carbon to as-VOC. Consolidate PSD-LA-679 and PSD-LA-701	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321113
Permit URL:		COUNTRY:	USA
EPA Region:	6		
Facility County:	WINN		
Facility State:	LA		
Facility ZIP Code:	71440		
Permit Issued By:	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. BRYAN D. JOHNSTON(Agency Contact) (225)219-3450 BRYAN.JOHNSTON@LA.GOV		
Other Agency Contact Info:	permit writer:dan nguyen (225) 219-3181		
Permit Notes:			

Process/Pollutant Information

PROCESS NAME: Kipper Boiler No. 1 and No. 2

Process Type: 13.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: wood residue

Throughput: 58.30 MMBTU/H each

Process Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: EPA/OAR Mthd 10

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 105.5200 LB/H (NOT CHANGED FROM PSD-LA-679)

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: N/A

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: McBurney Boiler No. 4

Process Type: 12.120 (Biomass (includes wood, wood waste, bagasse, and other biomass))

Primary Fuel: wood residue

Throughput: 154.20 MMBTU/H

Process Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: EPA/OAR Mthd 10

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 279.1000 LB/H (NOT CHANGED FRO PSD-LA-679)

Emission Limit 2:

Standard Emission:

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: N/A

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Lumber kilns

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel:

Throughput: 300.00 million board feet/yr

Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 930.0000 T/YR

Emission Limit 2:

Standard Emission: 6.2000 LB/MBF (AS-VOC)

Did factors, other than air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: N/A

Control Method: (P) properly design and operation

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Previous Page

Facility Information

RBLC ID: TX-0584 (final)

Corporate/Company Name: TIN INC

Date Determination

Last Updated: 02/03/2020

Permit Number: 1037/PSDTX924M2

Facility Name:	TEMPLE INLAND PINELAND MANUFACTURING COMPLEX	Permit Date:	08/12/2011 (actual)
Facility Contact:	PATRICK MILLER 936-829-1427 PATMILLER@TEMPLEINLAND.COM	FRS Number:	110035091922
Facility Description:	lumber mill	SIC Code:	2421
Permit Type:	C: Modify process at existing facility	NAICS Code:	321212
Permit URL:		COUNTRY:	USA
EPA Region:	6		
Facility County:	SABINE		
Facility State:	TX		
Facility ZIP Code:	75968		
Permit Issued By:	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) MS. ANNE INMAN(Agency Contact) (512) 239-1267 anne.inman@tceq.texas.gov		
Permit Notes:			
Affected Boundaries:	Boundary Type: CLASS1	Class 1 Area State: AR	Boundary: Caney Creek
			Distance: > 250 km

Process/Pollutant Information

PROCESS NAME: Dry studmill kilns 1 and 2

Process Type: 30.800 (Wood Lumber Kilns)

Primary Fuel: wood

Throughput: 156000.00 boardfeet per charge

Process Notes: Studmill dry kiln no. 1 being replaced

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 2.4900 LB VOC/1000 BOARDFEE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements: NESHAP , OPERATING PERMIT

Control Method: (N) good operating practice and maintenance

Est. % Efficiency:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

[Previous Page](#)