Prevention of Significant Air Quality Deterioration Review

Preliminary Determination

August 22, 2022

Facility Name: Interfor U.S. Inc. – Eatonton Sawmill
City: Eatonton
County: Putnam
AIRS Number: 04-13-237-00010
Application Number: 28444 and 671705
Date Application Received: June 1, 2022, and June 17, 2022

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

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SUMMARY

The Environmental Protection Division (EPD) has reviewed the application submitted by Interfor U.S. Inc. – Eatonton Sawmill for a permit to install a direct-fired continuous lumber drying kiln (ID No. DK04). The proposed kiln will be powered by a 40 MMBtu/hr green sawdust-fired burner and will have a maximum design capacity of 120 MMbf/yr. The installation of the kiln will also include the installation of a sawdust fuel bin (ID No. BN02) and cyclone (ID No. CY08) to feed the wood waste burner. The new kiln will be equipped with power vents at both ends. The facility will also be replacing the existing venturi scrubber (ID No. VS01) with an identical unit. No other units at the facility will be modified.

The proposed project will result in an increase in emissions from the facility. The sources of these increases in emissions include the proposed continuous drying kiln (ID No. DK04), the proposed sawdust bin (ID No. BN02), and associated increased utilization of the sawmill (ID No. SM01) and planer mill (ID No. PM01).

The modification of the Interfor U.S. Inc. – Eatonton Sawmill facility due to this project will result in an emission increase in carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO_2), particulate matter ($PM/PM_{10}/PM_{2.5}$), volatile organic compounds (VOC), single and total hazardous air pollutants (HAP), and total greenhouse gases (Total GHG). A Prevention of Significant Deterioration (PSD) analysis was performed for the facility for all pollutants to determine if any increase was above the "significance" level. The VOC emissions increase was above the PSD significant level threshold.

The Interfor U.S. Inc. – Eatonton Sawmill facility is located in Putnam County, which is classified as "attainment" or "unclassifiable" for SO_2, $PM_{2.5}$ and PM_{10}, NO_X, CO, and ozone (VOC).

The EPD review of the data submitted by Interfor U.S. Inc. – Eatonton Sawmill related to the proposed modifications indicates that the project will be in compliance with all applicable state and federal air quality regulations.

It is the preliminary determination of the EPD that the proposal provides for the application of Best Available Control Technology (BACT) for the control of VOC emissions, as required by federal PSD regulation 40 CFR 52.21(j).

It has been determined through approved modeling techniques that the estimated emissions will not cause or contribute to a violation of any ambient air standard or allowable PSD increment in the area surrounding the facility or in Class I areas located within 300 km of the facility. It has further been determined that the proposal will not cause impairment of visibility or detrimental effects on soils or vegetation. Any air quality impacts produced by project-related growth should be inconsequential.

This Preliminary Determination concludes that an Air Quality Permit should be issued to Interfor U.S. Inc. – Eatonton Sawmill for the modifications necessary to install Continuous Drying Kiln DK04, Sawdust Fuel Bin BN02, and Cyclone CY08, and to replace Venturi Scrubber VS01. Various conditions have been incorporated into the current Title V operating permit to ensure and confirm compliance with all applicable air quality regulations. This Preliminary Determination also acts as a narrative for the Title V Permit.

1.0 INTRODUCTION – FACILITY INFORMATION AND EMISSIONS DATA

On June 1, 2022, Interfor U.S. Inc. – Eatonton Sawmill (hereafter, "facility") submitted an application for an air quality permit to install a new direct-fired continuous lumber drying kiln (ID No. DK04), a sawdust fuel bin (ID No. BN02), and a cyclone (ID No. CY08), and to replace the existing venturi scrubber (ID No. VS01). The facility is located at 370 Dennis Station Road SW in Eatonton, Putnam County.

Table 1-1 summarizes the Title V major source status for the facility. Note that after the proposed modification in Application Nos. 28444 and 671705, the facility is major for VOC, CO, NOx, Total GHG, and single/combined HAP under Title V of the 1990 CAAA and is major for VOC, CO, and Total GHG under PSD regulations.

Table 1-1: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	✓			✓
PM_{10}	✓			✓
$PM_{2.5}$	✓			✓
SO_2	✓			✓
VOC	✓	✓		
NO_x	✓	✓		
CO	✓	✓		
TRS	n/a			
H_2S	n/a			
Individual HAP	✓	✓		
Total HAPs	✓	✓		
Total GHGs	✓	✓		

Table 1-2 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a review of the "Permit" file(s) on the facility found in the Air Branch office.

Table 1-2: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
2421-237-0010-V-04-0	April 3, 2020	Title V Renewal Permit

Based on the proposed project description and data provided in the permit application, the estimated incremental increases of regulated pollutants from the facility are listed in Table 1-3 below:

Table 1-3: Emissions Increases from the Project

Pollutant	Baseline Years	Potential Emissions Increase (tpy)	PSD Significant Emission Rate (tpy)	Subject to PSD Review
PM	n/a	22.6	25	No
PM_{10}	n/a	8.0	15	No
$PM_{2.5}$	n/a	7.6	10	No
VOC	n/a	240.0	40	**Yes**
NO_X	n/a	16.8	40	No
CO	n/a	43.8	100	No
SO_2	n/a	4.4	40	No
TRS	n/a	0	10	No
Pb	n/a	0	0.6	No
Fluorides	n/a	0	3	No
H_2S	n/a	0	10	No
SAM	n/a	0	7	No
Total GHG	n/a	36,700	75,000	No

The definition of baseline actual emissions is the average emission rate, in tons per year, at which the emission unit actually emitted the pollutant during any consecutive 24-month period selected by the facility within the 10-year period immediately preceding the date a complete permit application was received by EPD. However, because the facility's latest modification – the addition of a continuous direct-fired drying kiln (ID No. DK03) – was installed in October 2021, there are not two years of operating data to develop a proper baseline for the existing facility's actual emissions. As such, the existing facility's potential emissions are used in place of the baseline emissions. This approach was agreed upon with the Division in a meeting on May 23rd, 2022.

The net increases were calculated by subtracting the past actual emissions (in this case, the existing facility's potential emissions) from the future projected actual emissions of the continuous drying kiln (ID No. DK04) and sawdust fuel bin (ID No. BN02) and associated emission increases from non-modified equipment. Table 1-4 details this emissions summary. The emissions calculations for Tables 1-3 and 1-4 can be found in detail in the facility's PSD application (see Section 3 of Application Nos. 28444 and 671705). These calculations have been reviewed and approved by the Division.

Table 1-4: Net Change in Emissions Due to the Major PSD Modification

Pollutant	Increase from Continuous Kiln DK04 and Sawdust Fuel Bin BN02		Associated Units Increase (tpy)	Total Increase (tpy)
	Past Actual	Future Actual		
PM	0	11.5	11.1	22.6
PM_{10}	0	6.4	1.6	8.0
$PM_{2.5}$	0	6.1	1.5	7.6
VOC	0	240.0	0	240.0
NO_X	0	16.8	0	16.8
CO	0	43.8	0	43.8
SO_2	0	4.4	0	4.4
TRS	n/a	n/a	n/a	n/a
Pb	n/a	n/a	n/a	n/a
Fluorides	n/a	n/a	n/a	n/a
H_2S	n/a	n/a	n/a	n/a
SAM	n/a	n/a	n/a	n/a
Total GHG	0	36,700	0	36,700

Based on the information presented in Tables 1-3 and 1-4 above, the facility's proposed modification, as specified per Georgia Air Quality Application Nos. 28444 and 671705, is classified as a major modification under PSD because the potential emissions of VOC exceed their associated PSD significant emission rate threshold of 40 tpy.

In addition, Table 1-5 below summarizes the PTE for all criteria pollutants, single/combined HAP, and Total GHG after the proposed modification.

Table 1-5: Facility-wide PTE After the Proposed Modification

Pollutant	PTE (tpy)
PM	98.9
PM_{10}	55.0
$PM_{2.5}$	41.3
VOC	726.0
NO_X	105.3
CO	283.3
SO_2	16.9
Single HAP	33.7
Combined HAP	59.2
Total GHG	142,000

Through its new source review procedure, EPD has evaluated the facility's proposal for compliance with State and Federal requirements. The findings of EPD have been assembled in this Preliminary Determination.

2.0 PROCESS DESCRIPTION

According to Application Nos. 28444 and 671705, the facility has proposed to construct and install a new direct-fired continuous lumber drying kiln (ID No. DK04), with a green sawdust-fired burner rated at 40 MMBtu/hr heat capacity. The kiln will have a maximum throughput capacity of 120 MMbf/yr. The modification will also include the installation of a new sawdust fuel bin (ID No. BN02) and a cyclone (ID No. CY08) that will collect and feed sawdust to the kiln's burner. Power vents will also be installed above the exit and entrance doors of the kiln in order to disperse emissions and improve ground visibility around the kiln. The facility will also be replacing the existing venturi scrubber (ID No. VS01) with an identical unit.

No other existing equipment at the facility will be modified. The sawmill (ID No. SM01) and planer mill (ID No. PM01) operations will be able to withstand the increase in throughput resulting from the addition of the kiln and will therefore require no modification themselves. All previously applicable rules and regulations continue to apply to the facility, and no new regulations apply to the modification.

The facility's permit application and supporting documentation can be found online at **https://epd.georgia.gov/psd112gnaa-nsrpcp-permits-database.**

3.0 REVIEW OF APPLICABLE RULES AND REGULATIONS

State Rules

Georgia Rule for Air Quality Control (Georgia Rule) 391-3-1-.03(1) requires that any person prior to beginning the construction or modification of any facility which may result in an increase in air pollution shall obtain a permit for the construction or modification of such facility from the Director upon a determination by the Director that the facility can reasonably be expected to comply with all the provisions of the Act and the rules and regulations promulgated thereunder. Georgia Rule 391-3-1-.03(8)(b) continues that no permit to construct a new stationary source or modify an existing stationary source shall be issued unless such proposed source meets all the requirements for review and for obtaining a permit prescribed in Title I, Part C of the Federal Act [i.e., Prevention of Significant Deterioration of Air Quality (PSD)], and Section 391-3-1-.02(7) of the Georgia Rules (i.e., PSD).

Georgia Rule 391-3-1-.02(2)(b), Visible Emissions

The proposed continuous lumber drying kiln (ID No. DK04) will be subject to Georgia Rule (b). Significant PM emissions are not expected from operation of the kiln, and therefore, the kiln is expected to comply with the limits of Georgia Rule (b).

Georgia Rule 391-3-1-.02(2)(d), Fuel-Burning Equipment

According to the definition specified in GRAQC 391-3-1-.01(cc), "fuel-burning equipment" includes equipment that "furnishes process heat indirectly, through transfer by fluids or transmissions through process vessel walls." Because the continuous lumber drying kiln's burner (ID No. DK04) provides direct heat to the kiln through the combustion of fuel and does not provide heat via the heating of another medium, it does not qualify as fuel-burning equipment and is therefore not subject to the PM emission limits of Georgia Rule (d).

Georgia Rule 391-3-1-.02(2)(e), Particulate Emissions from Manufacturing Processes

The continuous lumber drying kiln (ID No. DK04) is also subject to Georgia Rule (e), which limits the emission of PM from all manufacturing processes according to the following equations:

$E = 4.1 * P^{0.67}$ for process input weight rate up to and including 30 tons per hour.
$E = 55 * P^{0.11} - 40$ for process input weight rate above 30 tons per hour.

Where E equals the allowable PM emission rate in pounds per hour and P equals the process input weight rate in tons per hour.

Compliance with the GA Rule (e) PM emission standards is expected as follows.

Name/ID No.	Process Input Weight Rate (P) (bf/hr.)	Process Input Weight Rate (P) (tons/hr.)	Allowable Emission Rate (E) (lbs. PM / hr.)
Continuous Drying Kiln DK04	13,699	34.19	$E = 55 * (34.19)^{0.11} - 40 = 41.11$

Assumptions:
1 ft^3 = 12 bf
Green Wood Density = 59.9 lbs./ft^3

Process Input Weight Rate:
120,000,000 bf/yr.
= 13,699 bf/hr.
= (13,699 bf/hr.) * (1 ft^3/12 bf) * (59.9 lbs./ft^3) * (1 ton/2,000 lbs.)
= 34.19 tph

PM Emission Rate of the proposed continuous drying kiln (ID No. DK04):
= (0.14 lb. PM/1000 bf)*(13,699 bf/hr.)
= 1.92 lbs. PM/hr. < 41.11 lbs. PM/hr.

Georgia Rule 391-3-1-.02(2)(g), Sulfur Dioxide

The direct-fired continuous lumber drying kiln (ID No. DK04) is subject to Georgia Rule (g). Georgia Rule (g) limits fuel-burning sources with a heat input capacity less than 100 MMBtu/hr to burning fuels containing less than 2.5 percent sulfur. The kiln's burner fires only green sawdust, which has a fuel sulfur content of less than 2.5%. Therefore, compliance with the fuel sulfur limits of Georgia Rule (g) is expected.

Georgia Rule 391-3-1-.02(2)(tt), VOC Emissions from Major Sources

Georgia Rule (tt) limits VOC emissions from major sources. The facility is located in Putnam County, which is not one of the named counties subject to the requirements of Georgia Rule (tt). Therefore, it does not apply.

Federal Rule - PSD

The regulations for PSD in 40 CFR 52.21 require that any new major source or modification of an existing major source be reviewed to determine the potential emissions of all pollutants subject to regulations under the Clean Air Act. The PSD review requirements apply to any new or modified source which belongs to one of 28 specific source categories having potential emissions of 100 tons per year or more of any regulated pollutant, or to all other sources having potential emissions of 250 tons per year or more of any regulated pollutant. They also apply to any modification of a major stationary source which results in a significant net emission increase of any regulated pollutant.

Georgia has adopted a regulatory program for PSD permits, which the United States Environmental Protection Agency (EPA) has approved as part of Georgia's State Implementation Plan (SIP). This regulatory program is located in the Georgia Rules at 391-3-1-.02(7). This means that Georgia EPD issues PSD permits for new major sources pursuant to the requirements of Georgia's regulations. It also means that Georgia EPD considers, but is not legally bound to accept, EPA comments or guidance. A commonly used source of EPA guidance on PSD permitting is EPA's Draft October 1990 New Source Review Workshop Manual for Prevention of Significant Deterioration and Nonattainment Area Permitting (NSR Workshop Manual). The NSR Workshop Manual is a comprehensive guidance document on the entire PSD permitting process.

The PSD regulations require that any major stationary source or major modification subject to the regulations meet the following requirements:

- Application of BACT for each regulated pollutant that would be emitted in significant amounts;
- Analysis of the ambient air impact;
- Analysis of the impact on soils, vegetation, and visibility;
- Analysis of the impact on Class I areas; and
- Public notification of the proposed plant in a newspaper of general circulation

The following is a discussion of the applicable federal rules and regulations pertaining to the equipment that is the subject of this preliminary determination, which is then followed by the top-down BACT analysis.

New Source Performance Standards

No New Source Performance Standards (NSPS) are applicable to the continuous drying kiln (ID No. DK04).

National Emissions Standards For Hazardous Air Pollutants

Per 40 CFR 63.2231, because the facility is a major source of HAP emissions and produces kiln-dried lumber, Continuous Drying Kiln DK04 is subject to 40 CFR 63 Subpart DDDD – National Emissions Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. Lumber kilns are not subject to any of the compliance options specified in Tables 1A or 1B to Subpart DDDD, any of the operating requirements specified in Table 2 to Subpart DDDD, or any of the work practice requirements specified in Table 3 to Subpart DDDD. According to 40 CFR

63.2252, Continuous Drying Kiln DK04 is only subject to the initial notification requirements specified in 40 CFR 63.9(b).

Continuous Drying Kiln DK04 is also subject to 40 CFR 63 Subpart A – General Provisions.

State and Federal – Startup and Shutdown and Excess Emissions

Excess emission provisions for startup, shutdown, and malfunction are provided in Georgia Rule 391-3-1-.02(2)(a)7. Excess emissions from the continuous lumber drying kiln (ID No. DK04) associated with the proposed project would most likely results from a malfunction of the associated control equipment. The facility cannot anticipate or predict malfunctions. However, the facility is required to minimize emissions during periods of startup, shutdown, and malfunction.

Federal Rule – 40 CFR 64 – Compliance Assurance Monitoring

Under 40 CFR 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 applies to units that use a control device to achieve compliance with an emission limit and whose pre-controlled emissions levels exceed the major source thresholds under the Title V permitting program. Although other units may potentially be subject to CAM upon renewal of the Title V operating permit, such units are not being modified under the proposed project and need not be considered for CAM applicability at this time.

Therefore, this applicability evaluation only addresses the new continuous lumber drying kiln (ID No. DK04), which does not employ any air pollution control devices; therefore, the CAM requirements are not triggered by the proposed modification.

4.0 CONTROL TECHNOLOGY REVIEW

The proposed project will result in emissions that are significant enough to trigger PSD review for the following pollutants: VOC.

Definition of BACT

The PSD regulation requires that BACT be applied to all regulated air pollutants emitted in significant amounts. Section 169 of the Clean Air Act defines BACT as an emission limitation reflecting the maximum degree of reduction that the permitting authority (in this case, EPD), on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such a facility through application of production processes and available methods, systems, and techniques. In all cases BACT must establish emission limitations or specific design characteristics at least as stringent as applicable New Source Performance Standards (NSPS). In addition, if EPD determines that there is no economically reasonable or technologically feasible way to measure the emissions, and hence to impose and enforceable emissions standard, it may require the source to use a design, equipment, work practice or operations standard or combination thereof, to reduce emissions of the pollutant to the maximum extent practicable.

EPA's NSR Workshop Manual includes guidance on the 5-step top-down process for determining BACT. In general, Georgia EPD requires PSD permit applicants to use the top-down process in the BACT analysis, which EPA reviews. The five steps of a top-down BACT review procedure identified by EPA per BACT guidelines are listed below:

Step 1: Identification of all control technologies;
Step 2: Elimination of technically infeasible options;
Step 3: Ranking of remaining control technologies by control effectiveness;
Step 4: Evaluation of the most effective controls and documentation of results; and
Step 5: Selection of BACT.

Continuous Drying Kiln DK04- Background

The proposed continuous lumber drying kiln (Source Code DK04) is direct-fired by a 40 MMBtu/hr burner. The burner is fired using wood waste in the form of sawdust collected by the cyclone (ID No. CY08) and sawdust bin (ID No. BN02). The kiln's maximum design capacity is 120 MMbf/yr. No control equipment is associated with the kiln.

Continuous Drying Kiln DK04 – VOC Emissions

Applicant's Proposal

The proposed continuous drying kiln (ID No. DK04) will produce VOC emissions from both the combustion of wood waste in the burner and the drying of lumber.

Step 1: Identify all control technologies

The facility considered VOC emissions control techniques/technologies as noted below.

Option 1: Thermal Oxidation Option 2: Condensation Option 3: Carbon Adsorption option 4: Biofiltration Option 5: Wet Scrubbing Option 6: Proper Kiln Operation and Maintenance

Option 1: Thermal Oxidation

Thermal oxidation is a process by which combustion converts the VOCs in an exhaust gas stream to water and carbon dioxide. Regenerative thermal oxidizers (RTOs) are the most widely used design. RTOs have a ceramic material in a packed bed which is used to preheat the incoming gas. The preheated gas enters the combustion chamber where it is further heated by natural gas combustion. The combustion chamber is maintained at a temperature of around 1,400 to 1,500 ºF for oxidation of VOCs.

Option 2: Condensation

Condensers convert VOCs in the exhaust gas from the vapor phase to the liquid phase. The phase change is usually accomplished by decreasing the temperature of the gas stream to below the dew point of the VOCs to cause them to liquefy, but the liquefication can also be accomplished by increasing the pressure of the gas stream. The condensed VOC can then be collected and disposed of or recovered through distillation and sold.

Option 3: Carbon Adsorption

Carbon adsorption systems trap VOC using an adsorbent activated carbon bed. As the exhaust gas stream passes through the adsorbent bed, VOC molecules are attracted to the surface of the adsorbent. The clean exhaust gas is then discharged to the atmosphere. When the adsorbent is spent and can no longer effectively adsorb VOC, the adsorbent can be reactivated either by heating with steam or by vacuuming to remove VOC from the surface. Reactivation can occur on-site, or the spent adsorbent may be returned to the supplier for reactivation.

Option 4: Biofiltration

Biofiltration involves the use of microbes that remove organics from the exhaust gas stream by feeding on the organic material and converting to water and carbon dioxide. The exhaust gas stream is directed through the bed media in which the microbes live. Organics are adsorbed by moisture in the bed media and come into contact with the microbes. The microbes reduce the concentration of organics by consuming the organic material. The clean air is then discharged into the atmosphere.

A regenerative catalytic oxidizer (RCO) operates in the same manner as an RTO, except that it uses a catalyst material in the packed bed instead of a ceramic material. The use of a catalyst allows for oxidation of VOCs at a lower temperature of around 800 ºF.

Option 5: Wet Scrubbing

Wet scrubbing systems absorb pollutants in the exhaust gas stream into a liquid by passing the stream through a countercurrent flow of a scrubbing liquid. Pollutants are impacted by the liquid droplets and dissolve in the liquid.

Option 6: Proper Kiln Operation and Maintenance

Process control or optimization uses proper lumber kiln operation techniques which include the necessary process monitoring instruments, process control equipment, schedule equipment inspection and maintenance in accordance with manufacturer's recommendations. Process controls are used to maintain proper moisture and temperature settings to optimize the kiln drying operation. Proper kiln temperature and humidity settings can minimize VOC emitted from the kilns.

Step 2: Eliminate technically infeasible options

Option 1: Thermal Oxidation

Thermal oxidizers operate at temperatures much higher than the exhaust gas stream temperature of lumber drying kilns. Additionally, particulate matter present in the exhaust stream of the lumber drying kiln can cause fouling of the ceramic material used in RTOs. Similarly, it can coat the catalytic material used in RCOs, rendering it unable to act as a catalyst in the oxidation process. Therefore, thermal oxidation has been deemed to be technically infeasible for this process.

Option 2: Condensation

The primary compounds in VOCs from lumber drying kilns are terpenes, which condense at very low temperatures. Condensing terpenes would require the temperature of the exhaust stream to be lowered below 32 ºF. As a result, ice would form on the condenser, rendering the unit ineffective. Additionally, the viscous condensate from the condenser would likely cause frequent plugging, increasing maintenance challenges for the equipment. As a result, condensation is deemed to be technically infeasible for this process.

Option 3: Carbon Adsorption

Carbon adsorption beds are most effective on streams with low relative humidity and temperature. Because the exhaust gas stream from lumber drying kilns have a high relative humidity, water in the exhaust gas will compete with VOC for adsorption into the carbon bed. Additionally, the high temperature of the stream may cause desorption of previously adsorbed VOC. Therefore, carbon adsorption has been deemed to be technically infeasible for this process.

Option 4: Biofiltration

Microbes used in biofiltration require a temperature range between 60 ºF and 105 ºF to survive. The high temperatures of the exhaust gas from lumber drying kilns (around 215 ºF) would kill the microbes and render the system useless. Additionally, the terpenes that make up VOC emissions from lumber drying kilns are poorly soluble in water, and therefore will not be able to come into contact with the microbes by being absorbed by moisture in the bed. Therefore, biofiltration is deemed to be technically infeasible for this process.

Option 5: Wet Scrubbing

Pollutants must be water soluble in order to be removed by the liquid in a wet scrubbing system. As previously mentioned, terpenes are not highly soluble in water, and a wet scrubbing system would not efficiently remove them from the gas stream. Additionally, viscous condensate would cause frequent plugging of the equipment. As a result, wet scrubbing has been deemed to be technically infeasible for this process.

Step 3: Ranking the Remaining Control Technologies by Control Effectiveness

In this step of the top down BACT analysis, the remaining technically feasible options are ranked in order of their control efficiencies. As demonstrated in Step 2, the only technically feasible control technology is shown below:

Table 4-1: Ranking of VOC Control Technology for Continuous Drying Kiln DK04

Control Technology Ranking	Control Technology	Control Efficiency
Option 6	Proper Kiln Operation and Maintenance	Variable due to design

Step 4: Evaluating the Most Effective Controls and Documentation

Since the only technically feasible BACT option is Proper Kiln Operation and Maintenance, further evaluation of controls is not necessary.

Step 5: Selection of BACT

The applicant has identified the selected BACT as Proper Kiln Operation and Maintenance. No adverse energy, environmental, or economic impacts are associated with the selected VOC BACT. The facility proposes that the VOC BACT limit take the form of a Work Practice and Preventative Maintenance Program for the kiln. The facility claimed that the proposed VOC BACT standard was consistent with the VOC BACT standards that had been established for similar sources in recent permits by GA EPD.

EPD Review – VOC Control

The Division agrees with the facility that carbon adsorption is technically infeasible because of the high temperature and moisture content of the exhaust gas from the kiln. The Division also agrees that biofiltration and wet scrubbing are technically infeasible because of the low water solubility

of the terpenes making up VOC emissions. Condensation is technically infeasible because lowering the temperature of the exhaust gas below 32 ºF would damage the condenser. Thermal oxidizers are technically infeasible because the kiln's exhaust stream has a much lower temperature than the operating temperature of thermal oxidizers. Additionally, plugging of the control equipment by viscous condensate can potentially disrupt the effectiveness of carbon adsorption, wet scrubbing, and condensation.

Currently, there is no VOC BACT emission limit in place for continuous lumber drying kilns. The VOC content of wood varies depending on a wide range of factors, and VOC emissions from kilns are difficult to fully contain, resulting in inconsistent results when testing. As such, not enough test data exists to impose an emission limit.

Therefore, in lieu of a numerical BACT emission limit, the continuous lumber drying kiln (ID No. DK04) will be subject to Proper Kiln Operation and Maintenance as the only feasible BACT option; this is consistent with the BACT typically used for continuous lumber kilns. The facility will be required to develop and implement a Site-Specific Kiln Emissions Management Plan (KEMP) for the continuous drying kiln (ID No. DK04).

VOC does not have any National Ambient Air Quality Standards (NAAQS). Although VOC is a precursor of ozone, which has an 8-hour NAAQS, the formation of ground-level ozone is also dependent on the presence of NOx. Georgia is located in a NOx-limited area, and as such, any increase in VOC emissions from the proposed project is not expected to significantly impact the concentration of ozone in the area surrounding the facility. Because of this, and because the chosen VOC BACT option does not include the use of any control devices, the Division has determined that the proposed VOC BACT need not include a short-term VOC emission limit.

The Division will consider the design throughput limit of Continuous Kiln DK04 (120 MMbf/yr) to be the long-term BACT limit. This limit is included in Condition 3.2.3 of the proposed permit amendment.

Conclusion – VOC Control

The BACT selection for the proposed continuous drying kiln (ID No. DK04) is summarized below in Table 4-2:

Table 4-2: BACT Summary for the Continuous Lumber Drying Kiln (ID No. DK04)

Pollutant	Control Technology	Proposed BACT Limit	Compliance Determination Method
VOC	Proper Kiln Operation and Maintenance	Work Practice and Preventative Maintenance Program	Recordkeeping of Maintenance Practices

5.0 TESTING AND MONITORING REQUIREMENTS

Testing Requirements:

There are no applicable testing requirements being imposed on the continuous kiln (ID No. DK04) because there is no emission limit associated with the proposed project that would warrant any performance testing; however, the waste wood power boiler (ID No. PB01) will be required to undergo initial performance testing after the replacement of the venturi scrubber (ID No. VS01). Note that the new scrubber came online on July 11, 2022. The facility is required to conduct the initial performance testing within 180 days of the startup date of the new scrubber, which is January 9, 2023.

Monitoring Requirements:

There are no applicable monitor requirements being imposed alongside the modification; however, note that Condition 3.2.6 contains some monitoring requirements associated with the development of the Site-Specific Kiln Emissions Management Plan (KEMP).

CAM Applicability:

Because there is no control device for the continuous drying kiln (ID No. DK04), CAM is not applicable and is not being triggered by the proposed modification. Therefore, no CAM provisions are being incorporated into the facility's permit.

6.0 AMBIENT AIR QUALITY REVIEW

An air quality analysis is required to determine the ambient impacts associated with the construction and operation of the proposed modifications. The main purpose of the air quality analysis is to demonstrate that emissions emitted from the proposed modifications, in conjunction with other applicable emissions from existing sources (including secondary emissions from growth associated with the new project), will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or PSD increment in a Class I or Class II area. NAAQS exist for NO_2, CO, $PM_{2.5}$, PM_{10}, SO_2, Ozone (O_3), and lead. PSD increments exist for SO_2, NO_2, and PM_{10}.

The proposed project at the facility triggers PSD review for VOC. VOC does not have established PSD modeling significance levels (MSL) (an ambient concentration expressed in either $\mu g/m^3$ or ppm). Therefore, modeling is not required for VOC emissions. However, an ozone analysis is required since VOC emission increases are greater than 100 tpy.

An additional analysis was conducted to demonstrate compliance with the Georgia air toxics program. This section of the application discusses the air quality analysis requirements, methodologies, and results. Supporting documentation may be found in the Air Quality Dispersion Report of the application and in the additional information packages.

Modeling Requirements

Class I Area Analysis

Federal Class I areas are regions of special national or regional value from a natural, scenic, recreational, or historic perspective. Class I areas are afforded the highest degree of protection among the types of areas classified under the PSD regulations. U.S. EPA has established policies and procedures that generally restrict consideration of impacts of a PSD source on Class I Increments to facilities that are located near a federal Class I area. Historically, a distance of 100 km has been used to define "near", but more recently, a distance of 300 kilometers has been used for all facilities that do not combust coal.

The six Class I areas within approximately 300 kilometers of the Interfor U.S. Inc. – Eatonton Sawmill (approximate distance) are:

- Cohutta Wilderness Area – 214 kilometers
- Shining Rock Wilderness Area – 235 kilometers
- Joyce Kilmer-Slickrock Wilderness Area – 242 kilometers
- Great Smoky Mountains National Park – 259 kilometers
- Wolf Island Wilderness Area – 285 kilometers
- Okefenokee Wilderness Area – 285 kilometers

The U.S. Fish and Wildlife Service (FWS) is the designated Federal Land Manager (FLM) responsible for oversight of all six of these Class I areas.

The proposed project would cause a significant net emission increase of only VOC, which is not a visibility or deposition-affecting pollutant and for which there are no Class I PSD increments. For this reason and because the project would not cause significant increases of NOx, SO_2, or PM that may affect visibility or deposition and for which PSD Class I increments have been established, a Class I area impact analysis is not required.

Class II Area Analysis

VOC is the only criteria pollutant with emissions greater than the SER (40 tpy), therefore neither Class II area significant impact analysis, nor monitoring *De Minimis* concentration analysis is required.

Ozone Impact Analysis

Since no significant air quality concentration has been established for the ozone impact analysis, PSD permit applications with a proposed net emission increase of 100 tpy or more of VOC and/or NOx are required to conduct an ambient air impact analysis to determine if existing ozone monitoring data can be used in place of pre-construction monitoring data.

The southeast is generally NO_X limited with respect to ground level ozone formation. NOx emissions are primarily emitted from mobile and industrial sources; however, the proposed project will not cause a permanent increase in mobile source traffic in the area and will result in a minimal increase of NOx emissions from the facility.

Existing ozone monitoring data was taken from the nearest ozone monitor to the facility, at the Macon – Georgia Forestry Commission in Bibb County, Georgia (AQS ID 13-021-0012), which is approximately 51 km away from the facility. Given this proximity, the GA EPD Macon monitor provides a representative background level of ozone for the area near the facility. The applicant examined the 3-year rolling average ozone concentration at this monitor. The latest design value (i.e., 3-year average of 4th highest maximum daily 8-hour ozone concentrations during 2019-2021) is 61 ppb; therefore, this area is in attainment with the 2015 ozone National Ambient Air Quality Standard (NAAQS) of 70 ppb.

The VOC and NOx emissions increases from this project (240.0 tpy and 16.80 tpy, respectively) were compared to the total annual emissions of VOC and NOx in the surrounding area of Putnam County (11,735 tpy and 847 tpy, respectively). Total emissions for Putnam County were obtained from the latest National Emission Inventory Report released by the EPA in 2017. The emission increases are equal to 2.05% of the total VOC emissions and 1.98% of the total NOx emissions in the surrounding area. Therefore, the proposed project will not have a significant impact on ozone concentrations.

The EPA's Guideline on *Air Quality Models* (Appendix W) recommends the use of the Tier 1 approach to analyze impact of the projected VOC and NOx emissions on secondary ozone formation, using the EPA's "*Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier l Demonstration Tool for Ozone and* $PM_{2.5}$ *under the PSD Permitting Program*" (April 30th, 2019).

The most conservative (lowest) VOC and NOx MERP values for the Southeast climate zone are 1,936 tpy and 170 tpy, respectively. The projected emission increases of VOC and NOx equate to the following ozone impact:

$$\left(\frac{240.0\ tpy\ VOC}{1{,}936\ tpy\ VOC\ MERP} + \frac{16.80\ tpy\ NOx}{170\ tpy\ NOx\ MERP}\right) * (1\ ppb) = 0.22\ ppb$$

The ozone impact due to the project emission increases is below the corresponding significant impact level (SIL) of 1 part-per-billion (ppb) and therefore, the project is not expected to have a significant impact on ozone concentrations in the area. No further modeling analysis is required.

7.0 ADDITIONAL IMPACT ANALYSES

PSD requires an analysis of impairment to visibility, soils, and vegetation that will occur as a result of a modification to the facility and an analysis of the air quality impact projected for the area as a result of the general commercial, residential, and other growth associated with the proposed project.

Soils and Vegetation

This analysis is required only for those pollutants for which PSD review is triggered. According to *A Screening Procedure for the Impacts of Air Pollution on Plants, Soils and Animals*, the relevant pollutants for soils and vegetation are NO_2, SO_2 and CO. This project triggers PSD review for VOC only and will not result in a significant net emission increase of NO_2, SO_2, or CO. Therefore, no significant impacts are expected and a soils and vegetation analysis is not required.

Growth

The purpose of a growth analysis is to predict how much new growth is likely to occur as a result of the project and the resulting air quality impacts from this growth. The growth analysis evaluates the impact associated with the project on the general commercial, residential, and industrial growth within the project vicinity. Any additional employees that may be hired by the facility in the future to achieve increases in production are presumed to be already part of the existing labor force in the surrounding area. Therefore, no significant residential, commercial, or industrial growth is anticipated as a result of the project and a growth analysis is not needed.

Visibility

VOC emissions do not impact visibility. Therefore, the project will not impact Class I and Class II visibility for purposes of PSD review of the project.

PSD regulations require an evaluation of the impact of project emissions on visibility in Class I Class II areas. The analysis is required only for those pollutants for which PSD review is triggered. The relevant pollutants for visibility are PM, NOx and SO_2. The project triggers PSD review for VOC only and does not have a significant net emission increase of PM, NOx and SO_2. Therefore, a visibility analysis is not necessary because no significant impacts are expected.

8.0 GEORGIA TOXIC AIR POLLUTANT MODELING ANALYSIS

Georgia EPD regulates the emissions of toxic air pollutant (TAP) emissions through a program covered by the provisions of *Georgia Rules for Air Quality Control*, 391-3-1-.02(2)(a)3.(ii). A TAP is defined as any substance that may have an adverse effect on public health, excluding any specific substance that is covered by a State or Federal ambient air quality standard. Procedures governing the Georgia EPD's review of TAP emissions as part of air permit reviews are contained in the agency's "*Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions (Revised)*."

Selection of Toxic Air Pollutants for Modeling

For projects with quantifiable increases in TAP emissions, an air dispersion modeling analysis is generally performed to demonstrate that off-property impacts are less than the established Acceptable Ambient Concentration (AAC) values. The TAP evaluated are restricted to those that may increase due to the proposed project. Thus, the TAP analysis would generally be an assessment of off-property impacts due to facility-wide emissions of any TAP emitted by a facility. To conduct a facility-wide TAP impact evaluation for any pollutant that could conceivably be emitted by the facility is impractical. A literature review would suggest that at least one molecule of hundreds of organic and inorganic chemical compounds could be emitted from the various combustion units. This is understandable given the nature of the VOC and TAP emitted from lumber drying and wood combustion. The vast majority of compounds potentially emitted, however, are emitted in only trace amounts that are not reasonably quantifiable.

The existing and proposed continuous drying kilns (ID Nos. DK03 and DK04, respectively), the existing batch lumber kilns (ID Nos. DK01 and DK02), and the existing wood-fired boiler (ID No. PB01) are the five sources of TAP emissions at the facility. Based on EPD guidelines, the primary TAP of concern from lumber mills (from a combination of wood drying and wood combustion) are acetaldehyde, acrolein, arsenic, chromium VI, formaldehyde, methanol, phenol, and hydrogen chloride.

Per Section 5 and the accompanying tables of Application Nos. 28444 and 671705, the facility used emission factors from *EPD Recommended Emission Factors for Lumber Kiln Permitting in Georgia* for direct-fired lumber kilns. The Division agrees with the facility's use of the emission factors for acetaldehyde, acrolein, arsenic, chromium VI, formaldehyde, methanol, phenol, and hydrogen chloride.

For each TAP identified for further analysis, both the short-term and long-term AAC were calculated following the procedures given in Georgia EPD's *Air Toxics Guidelines.* Figure 8-3 of Georgia EPD's *Guidelines* contains a flow chart of the process for determining long-term and short-term ambient thresholds. The facility referenced the resources previously detailed to determine the long-term (i.e., annual average) and short-term AAC (i.e., 24-hour or 15-minute). The AACs were verified by the EPD.

Determination of Toxic Air Pollutant Impact

The Georgia EPD's *Air Toxics Guidelines* recommends a tiered approach to model TAP impacts, beginning with screening analyses using SCREEN3, followed by refined modeling, if necessary, with ISCST3 or AERMOD. For the refined modeling completed, the infrastructure setup for the SIA analyses was relied upon with appropriate sources added for the TAP modeling. Note that per the Georgia EPD's *Air Toxics Guidelines*, building downwash is required in the TAP assessment if the facility uses AERMOD.

Initial Screening Analysis Technique

Generally, an initial screening analysis is performed in which the total TAP emission rate is modeled from the stack with the lowest effective release height to obtain the maximum ground level concentration (MGLC). Note the MGLC could occur within the facility boundary for this evaluation method. The individual MGLC is obtained and compared to the smallest AAC. Due to the likelihood that this screening would result in the need for further analysis for most TAP, the analyses were initiated with the secondary screening technique.

The impacts of facility-wide TAP emissions were evaluated to demonstrate compliance according to the Georgia Air Toxics Guideline. The primary TAP emissions from the proposed facility are acetaldehyde, acrolein, arsenic, chromium VI, formaldehyde, methanol, phenol, and hydrogen chloride. The annual, 24-hour, and 15-minute AACs of the eight TAPs were reviewed based on U.S. EPA IRIS reference concentration (RfC), OSHA Permissible Exposure (PEL), ACGIH Threshold Limit Values (TLV) including STEL (short term exposure limit) or ceiling limit, and NIOSH Recommended Standards (REL) according to the Georgia Air Toxics Guideline. The modeled MGLCs were calculated using the AERMOD dispersion model (v21112) for 15-minute, 1-hour, and annual averaging periods.

Table 8-1 summarizes the AAC levels and MGLCs of the six TAPs. As shown in Table 8-1, the modeled annual MGLC for acrolein, arsenic, chromium VI, and formaldehyde all exceed their respective AAC levels.

Table 8-1. TAP MGLC Assessment

TAP	Averaging Period	AAC ($\mu g/m^3$)	MGLC ($\mu g/m^3$)	MGLC < AAC?
Acetaldehyde	15-min	4,500	141.41	YES
	Annual	4.50	3.73	YES
Acrolein	15-min	23	21.42	YES
	Annual	0.35	**0.56**	**NO**
Arsenic	15-min	0.20	0.083	YES
	Annual	2.33e-4	**2.45e-3**	**NO**
Chromium VI	15-min	10	1.13e-2	YES
	Annual	8.30e-5	**3.90e-4**	**NO**
Formaldehyde	15-min	245	72.72	YES
	Annual	1.10	**2.02**	**NO**

TAP	Averaging Period	AAC (μg/m³)	MGLC (μg/m³)	MGLC < AAC?
Methanol	15-min	32,800	661.08	YES
	Annual	20,000	17.10	YES
Phenol	15-min	45.20	32.36	YES
	Annual	6,000	7.62	YES
Hydrogen Chloride	15-min	700	73.45	YES
	Annual	20	2.17	YES

There are no businesses located within a 2 km radius of the facility, and therefore, a risk assessment was not required to be performed at any businesses.

To ensure that the AAC of each pollutant is not exceeded at any nearby residential areas, a site-specific risk assessment (SSRA) was required to be performed for acrolein, arsenic, chromium VI, and formaldehyde. The annualized ground level concentration of each pollutant was modeled at eight nearby residences and compared to its respective annual AAC.

At each residence, the modeled concentration of each pollutant was below its associated annual AAC. Table 8-2 below includes the modeled ground level concentration of each TAP for Receptor (House) R1. Since House R1 is the closest to the facility and will have the greatest impact by the facility's emissions, the modeled concentration for R1 is the most conservative data set. As long as Receptor R1 can pass modeling, the other 7 receptors (houses) will also pass modeling. Therefore, it can be determined the facility-wide TAP emissions after the proposed modification will not cause any adverse health effect to the nearby residents.

Table 8-2. TAP Residential Site-Specific Risk Assessment

Pollutant	Averaging Period	Modeled Concentration (μg/m³)	AAC (μg/m³)	Receptor*	MGLC < AAC?
Acrolein	Annual	3.2e-2	3.5e-2	R1	YES
Arsenic	Annual	8.8e-5	2.3e-4	R1	YES
Chromium VI	Annual	1.4e-5	8.3e-5	R1	YES
Formaldehyde	Annual	9.5e-2	1.1	R1	YES

*Receptor at which maximum MGLC was modeled

Visual representations of the modeled concentrations for each pollutant are shown in Figures 8-1 through 8-4, overlaid on a satellite image of the facility and the surrounding area.

Conclusions

The air toxics analysis complies with Georgia Air Toxics Guidelines. Therefore, it is recommended that a permit be issued based on the project design and operating hours described in the application.

Figure 8-1: Modeled Annual MGLC for Acrolein

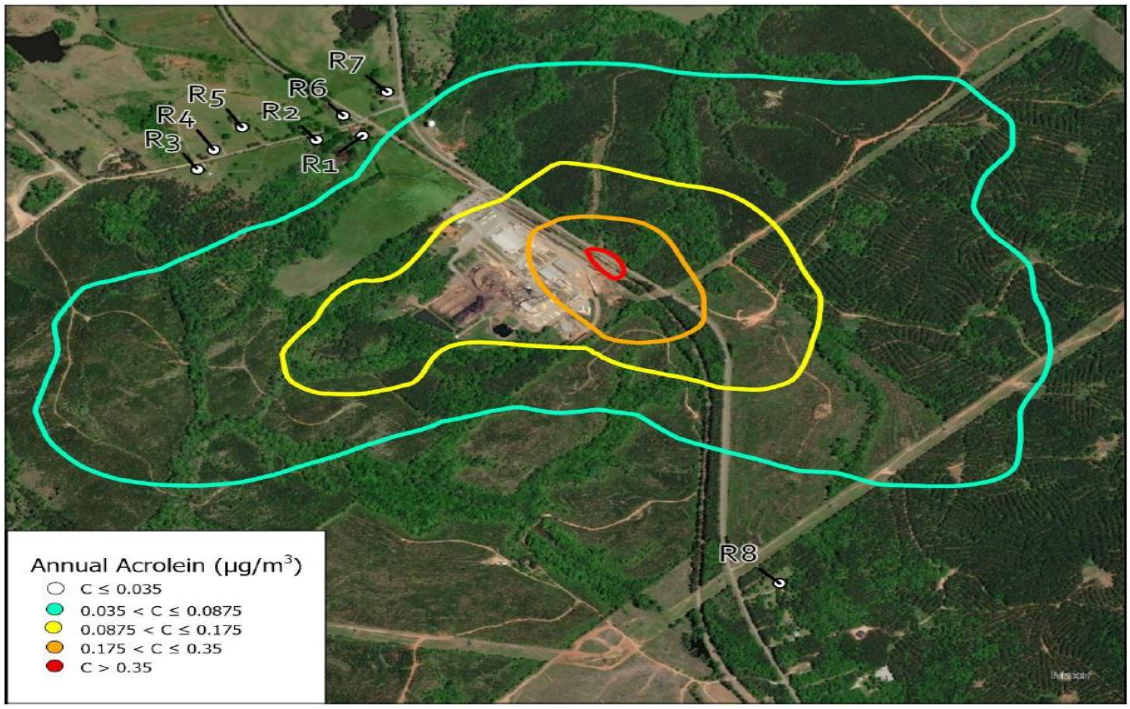


Figure 8-2: Modeled Annual MGLC for Arsenic

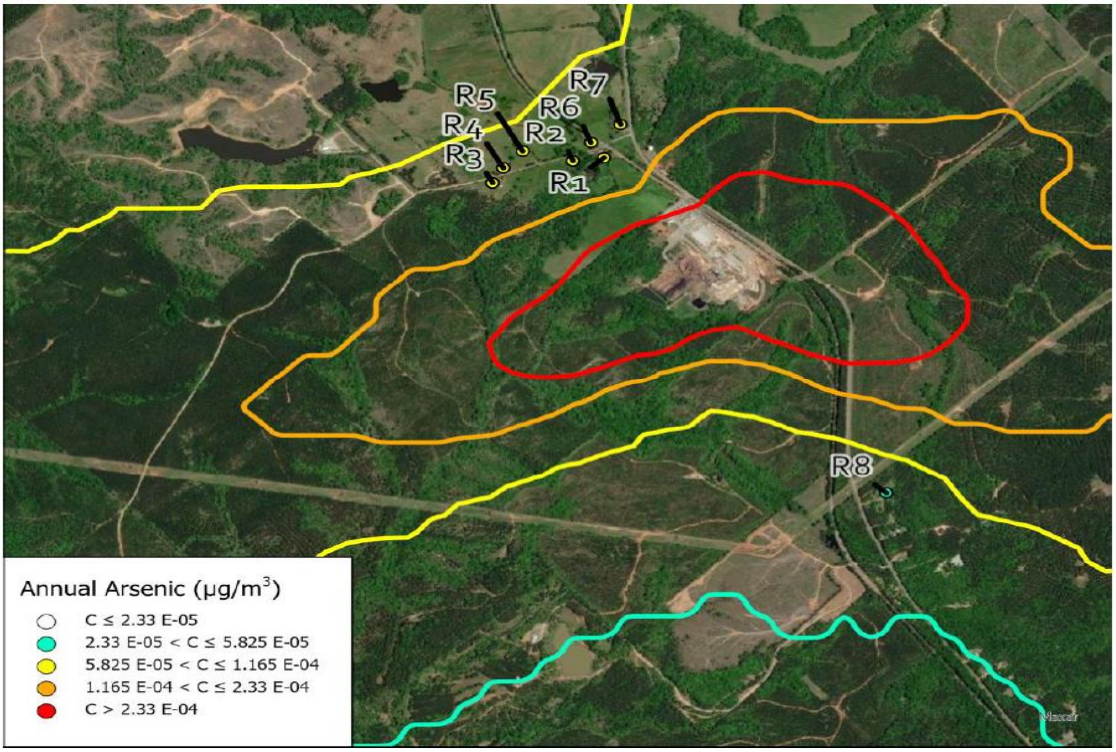


Figure 8-3: Modeled Annual MGLC for Chromium VI

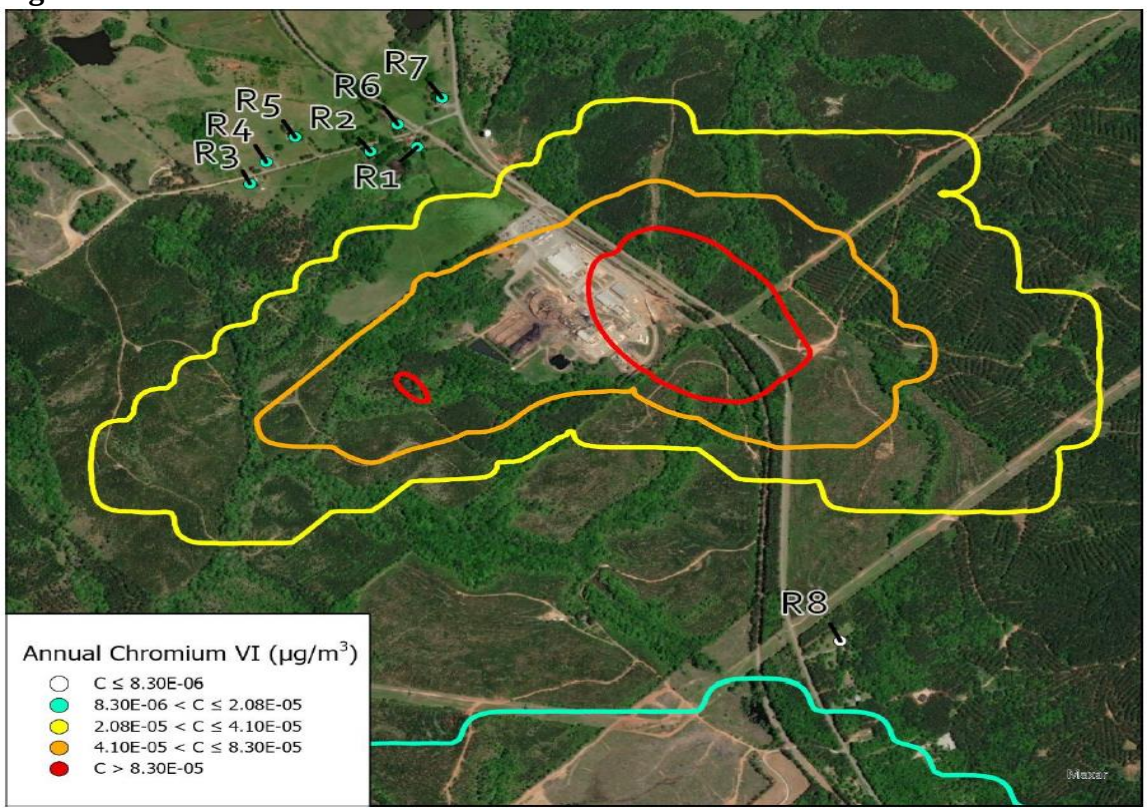
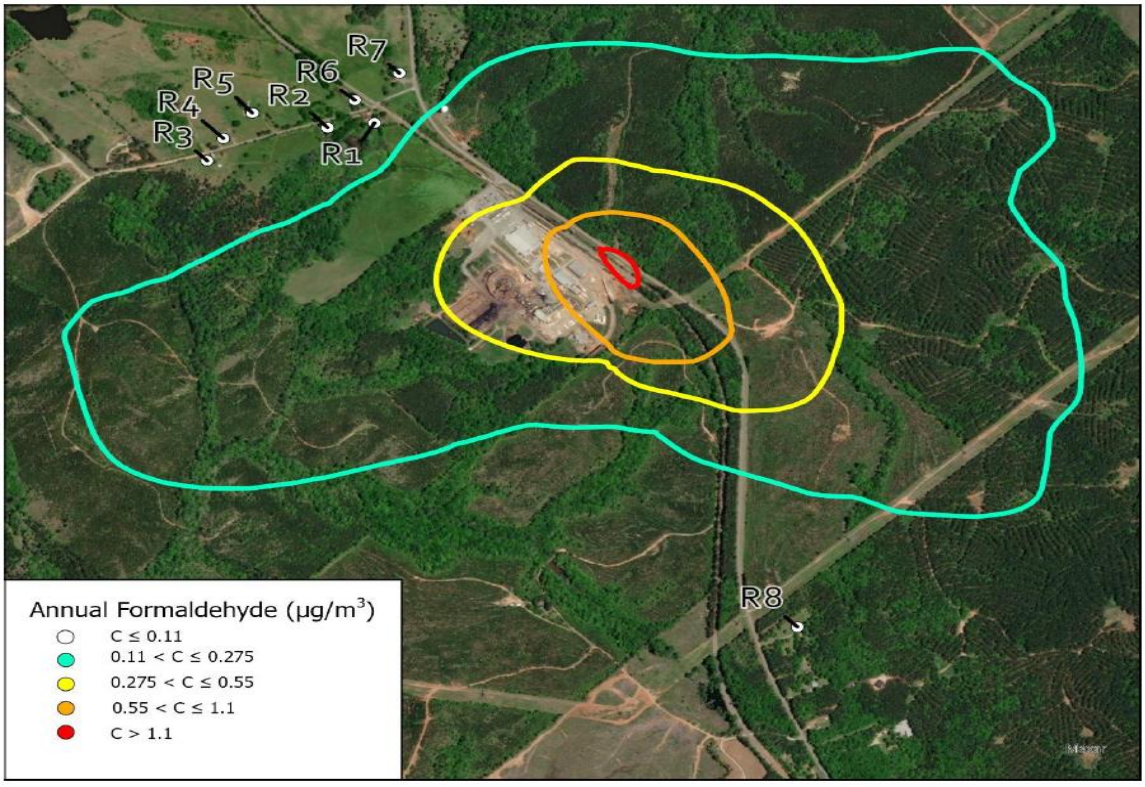


Figure 8-4: Modeled Annual MGLC for Formaldehyde



9.0 EXPLANATION OF DRAFT PERMIT CONDITIONS

The permit requirements for this facility are included in draft Permit Amendment No. 2421-237-0010-V-04-1.

Section 1.0: Facility Description

Interfor U.S. Inc. – Eatonton Sawmill is proposing to construct and install a new continuous direct-fired lumber drying kiln (ID No. DK04), a sawdust fuel bin (ID No. BN02), and a cyclone (ID No. CY08). No other units at the facility will be modified.

Section 2.0: Requirements Pertaining to the Entire Facility

No conditions in Section 2.0 are being added, deleted or modified as part of this permit action.

Section 3.0: Requirements for Emission Units

The equipment table was updated to include Continuous Drying Kiln DK04, Sawdust Fuel Bin BN02, and Cyclone CY08.

Emission Units		**Applicable Requirements/Standards**	**Air Pollution Control Devices**	
ID No.	**Description**		**ID No.**	**Description**
PB01	Waste Wood Power Boiler (74.46 MMBtu/hr)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)2. 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD	MT01 **VS01**	Multiclone **Venturi Scrubber**
DK01	Batch Drying Kiln, indirect steam heated	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.(i) 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD	N/A	None
DK02	Batch Drying Kiln, indirect steam heated	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.(i) 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD	N/A	None
DK03	Continuous Drying Kiln, wood fired	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.(i) 391-3-1-.02(2)(g)2. 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD	N/A	None
DK04	**Continuous Drying Kiln 4** **Direct Fired** **Fuel: Wood** **Burner Capacity: 40 MMBtu/hr**	**391-3-1-.02(2)(b)1.** **391-3-1-.02(2)(e)1.(i)** **391-3-1-.02(2)(g)2.** **40 CFR 63 Subpart A** **40 CFR 63 Subpart DDDD**	**N/A**	**N/A**
PM01	Planer Mill	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.(i)	CY06	Cyclone
SM01	Sawmill	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.(i)	N/A	None
BN01	Sawdust Fuel Bin for DK03	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1.(i)	CY07	Cyclone
BN02	**Sawdust Fuel Bin for DK04**	**391-3-1-.02(2)(b)1.** **391-3-1-.02(2)(e)1.(i)**	**CY08**	**Cyclone**

***New emission units are in bold**

The citations for Existing Conditions 3.2.1 and 3.2.2 were modified to indicate that the throughput limits were added for PSD avoidance. These annual throughput caps avoided a PSD review by taking the one-time doubling provision.

New Condition 3.2.3 limits the facility to processing no more than 120 MMBf per year in Continuous Drying Kiln DK04.

New Condition 3.2.4 requires the facility to construct and operate Continuous Drying Kiln DK04, Fuel Bin BN02, and Cyclone CY08 in accordance with the application submitted.

New Condition 3.2.5 requires the facility to commence construction of the Continuous Drying Kiln DK04, Fuel Bin BN02, and Cyclone CY08 within 18 months of approval.

New Condition 3.2.6 requires the facility to develop and implement a Site-Specific Kiln Emissions Management Plan for Continuous Drying Kiln DK04 in accordance with the chosen BACT.

New Condition 3.2.7 requires the facility to operate the air pollution control devices for Sawmill SM01, Planer Mill PM01, and Fuel Bin BN02 at all times during operation of the associated emission units. Without the control devices, additional PM/PM_{10}/$PM_{2.5}$ emissions caused by the proposed modification will be greater than the associated PSD Significant emission rates, and a PSD review for PM/PM_{10}/$PM_{2.5}$ will be required.

New Condition 3.2.8 limits Continuous Drying Kiln DK04 to burning only wood, subsuming the GA Rule (g) fuel sulfur content requirement.

New Condition 3.2.9 requires the facility to operate the power vents at all times while Continuous Drying Kiln DK04 is operating. This was what the approved toxic impact assessment was based on.

Existing Condition 3.3.1 was modified to include Continuous Drying Kiln DK04 among the list of kilns subject to 40 CFR 63 Subparts A and DDDD.

Existing Condition 3.4.4 was modified to generalize the equipment subject to GA Rule (e).

Existing Condition 3.4.5 was modified to generalize the equipment subject to GA Rule (b).

Section 4.0: Requirements for Testing

Existing Condition 4.2.1 was modified to require an initial PM performance test on the Waste Wood Power Boiler (ID No. PB01) after the replacement of the venturi scrubber (ID No. VS01), for compliance with GA Rule (d).

Existing Condition 4.2.5. was modified to require an initial PM performance test on the Waste Wood Power Boiler (ID No. PB01) after the replacement of the venturi scrubber (ID No. VS01), for compliance with the MACT PM limit.

Section 5.0: Requirements for Monitoring

Existing Condition 5.2.2 was modified to add Cyclone CY08 to the list of cyclones subject to operation and maintenance checks.

Section 6.0: Other Recordkeeping and Reporting Requirements

New Condition 6.1.7b.iii was added to require the facility to report deviations from the 120 MMbf/yr throughput limit of Continuous Drying Kiln DK04 as an exceedance in the report required by Existing Condition 6.1.4.

New Condition 6.1.7b.iv. was added to require the facility to report any instance where the control devices specified in Condition 3.2.7 are not operated while their associated emission units are operating as an exceedance.

New Condition 6.1.7b.v. requires the facility to report any deviation from the fuel requirement of Condition 3.2.8 as an exceedance.

Existing Condition 6.1.7c.iii was updated to require the facility to report adverse conditions from Cyclone CY08 as an excursion.

Existing Condition 6.1.7c.iv was updated to require the facility to report any failure to operate Continuous Drying Kiln DK04's power vents when the kiln is in operation as an excursion.

The requirement of Existing Condition 6.2.3 was removed because the facility submitted notice of startup of Continuous Drying Kiln DK03 on October 26th, 2021. Condition 6.2.3 now requires the facility to submit notice of startup of the Continuous Drying Kiln DK04 to the Division within 30 days of startup, per 40 CFR 63 Subpart DDDD.

New Condition 6.2.18 requires the facility to demonstrate compliance with the throughout limit in Condition 3.2.3 by recording the amount of lumber processed monthly by Continuous Drying Kiln DK04.

New Condition 6.2.19 requires the facility to use the records from Condition 6.2.18 to, each month, calculate the 12-month rolling total of board feet of lumber dried in Continuous Drying Kiln DK04.

APPENDIX A

EPD's Dispersion Modeling and Air Toxics Assessment Review