**NORTH CAROLINA DIVISION OF AIR QUALITY**

**Application Review**

**Issue Date:** July XX, 2020

**Facility Data**

**Applicant (Facility’s Name):** Weyerhaeuser NR Company - Grifton

**Facility Address:**
Weyerhaeuser NR Company - Grifton
371 East Hanrahan Road
Grifton, NC 28530

**SIC:** 2421 / Sawmills & Planing Mills General

**NAICS:** 321113 / Sawmills

**Facility Classification:** Before: Title V
After: Title V

**Fee Classification:** Before: Title V
After: Title V

**Permit Applicability (this application only)**

**SIP:**
2D .0504, 2D .0512, 2D .0516, 2D .0521, 2D .0524, 2D .0530, 2D .0614, 2D .1111, 2D .1806, 2Q .0504, and 2Q .0317.

**NSPS:** Dc and III

**NESHAP:** DDDDD, ZZZZ, and DDDDD

**PSD:** N/A

**PSD Avoidance:** N/A

**NC Toxics:**
112(r): N/A

**Other:** Title V Renewal

**Contact Data**

<table>
<thead>
<tr>
<th><strong>Facility Contact</strong></th>
<th><strong>Authorized Contact</strong></th>
<th><strong>Technical Contact</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jack Godwin</td>
<td>Kevin Davis</td>
<td>Jack Godwin</td>
</tr>
<tr>
<td>Environmental Manager</td>
<td>(252) 746-7217</td>
<td>Environmental Manager</td>
</tr>
<tr>
<td>(252) 746-7214</td>
<td>PO Box 280</td>
<td>(252) 746-7217</td>
</tr>
<tr>
<td>Ayden, NC 28513</td>
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<tr>
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</tr>
</tbody>
</table>

**Application Data**

**Application Number:** 7400252.20A

**Date Received:** 12/23/2019

**Application Type:** Renewal

**Application Schedule:** TV-Renewal

**Existing Permit Data**

**Existing Permit Number:** 06270/T25

**Existing Permit Issue Date:** 05/12/2020

**Existing Permit Expiration Date:** 09/30/2020

**Total Actual emissions in TONS/YEAR:**

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<th>CY</th>
<th>SO2</th>
<th>NOX</th>
<th>VOC</th>
<th>CO</th>
<th>PM10</th>
<th>Total HAP</th>
<th>Largest HAP</th>
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<tr>
<td>2019</td>
<td>0.7900</td>
<td>56.34</td>
<td>428.66</td>
<td>78.92</td>
<td>6.49</td>
<td>35.39</td>
<td>24.98</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
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<td>[Methanol (methyl alcohol)]</td>
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<tr>
<td>2018</td>
<td>0.7100</td>
<td>48.27</td>
<td>350.24</td>
<td>45.86</td>
<td>5.08</td>
<td>28.87</td>
<td>20.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[Methanol (methyl alcohol)]</td>
</tr>
<tr>
<td>2017</td>
<td>0.8400</td>
<td>59.01</td>
<td>408.92</td>
<td>68.15</td>
<td>5.75</td>
<td>33.80</td>
<td>23.81</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[Methanol (methyl alcohol)]</td>
</tr>
<tr>
<td>2016</td>
<td>0.7500</td>
<td>51.51</td>
<td>385.14</td>
<td>88.26</td>
<td>7.08</td>
<td>31.86</td>
<td>22.41</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>2015</td>
<td>0.8400</td>
<td>58.31</td>
<td>391.31</td>
<td>98.63</td>
<td>7.59</td>
<td>32.48</td>
<td>22.73</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[Methanol (methyl alcohol)]</td>
</tr>
</tbody>
</table>

**Review Engineer:** Robert Bright

**Review Engineer’s Signature:** Date:

**Comments / Recommendations:**

**Issue:** 06270/T26

**Permit Issue Date:** July XX, 2020

**Permit Expiration Date:** June 30, 2025
1. Purpose of Application

Weyerhaeuser NR Company - Grifton facility (WCG), previously operated under permit 06270T24, with an expiration date of September 30, 2020. Per the requirements of the permit, an application for renewal was due nine months prior to expiration. The facility submitted their renewal application on December 23, 2019. Because the company submitted a complete renewal application at least nine months prior to the permit expiration date, all terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied. In the renewal application, WCG requested various permit language additions, modifications, and subtractions from the permit, as well as changes to the insignificant sources.

WCG currently operates under Air Permit No. 06270T25, which was issued on May 12, 2020 and is set to expire on September 30, 2020.

2. Facility Description

Tree-length and precut logs of various sizes and grades are debarked, cut to size, and processed through the sawmill where logs are cut into lumber, primarily 2x4's, 2x6's, 2x8's, 2x10's, and 2x12's, and molding. The rough-cut lumber from the sawmill is stacked and dried in lumber kilns. The kilns are heated by a hot oil system that recirculates oil between the wood residue burners and finned heat exchangers within the kilns. Sawdust and bark are the primary fuels for the hot oil heaters. Used thermal and hydraulic oils recovered from the hot oil system and on-specification used oil, and No. 2 fuel oils are sprayed onto the sawdust and bark before use as fuel in the kiln hot oil system. The dried lumber is finished by planing and trimming in the planer mill. Finished lumber is packaged and then shipped off-site. Bark, chips, sawdust, and planer shavings are also shipped off-site as byproducts.

Note, Air Permit No. 06270T25 was issued on May 12, 2020 for the addition of three direct-fired (green sawdust/dry biomass/natural gas) continuous dry lumber kilns (CDK) to coincide with the removal of the currently permitted lumber kilns, Wellons thermal oil heaters, and energy system emergency generators. On May 26, 2020, the facility requested that the four RICE units be moved to the permit insignificant list, with notations for PSD, NSPS III, and NESHAP ZZZZ, as applicable.

3. History/Background/Application Chronology

Permitting History since previous TV Permit Renewal

<table>
<thead>
<tr>
<th>Permit</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
</table>
| 06270T22  | October 14, 2015 | Air Permit No. 06270T23 issued. The following permit applications were consolidated under this permit:  
  Permit Application No. 7400252.10A – The application for permit renewal was received on June 7, 2010.  
  Permit Application No. 7400252.14B – The application was submitted on May 15, 2014 as a State Only application to remove air toxic conditions and the associated 500 gallon per year limit on the combustion of on-site generated used oil.  
  Permit Application No. 7400252.14C – The application was submitted on October 24, 2014 as a “Part 2” application for the modification of two biomass-fired thermal oil heaters Nos. 1 and 2 Wellons (ID Nos. ES-SEH-1901 and ES-SEH-2901) to ensure continued proper operation of the equipment. |
| 06270T23  | September 22, 2017 | NCDAQ issued a Non-Hazardous Secondary Material (NHSM) determination regarding the combustion of on-specification used oil and sawdust when an oil leak or spill occurs. These fuels are not considered solid waste as defined in 40 CFR 241.2 and can be used as fuel for the thermal oil heaters. |
| 06270T24  | February 9, 2018 | Air Permit No. 06270T24 issued as a significant modification. The permit incorporated stack testing as an option to demonstrate compliance with the total selected metals (TSM) limit in the permit under 112(j) Case-by-Case MACT for the three biomass-fired thermal oil heaters. Sawdust that has absorbed spilled virgin and on- |
specification used oil was also added as fuel for the thermal oil heaters as part of this permit modification.

Permit Application No. 7400252.17A – Significant permit modification application submitted October 4, 2017 requesting the incorporation of stack testing to demonstrate compliance with the total selected metals (TSM) limit currently outlined in permit T23 via 112(j) Case-by-Case MACT for three biomass-fired thermal oil heaters (TOH). The application also requests changes pursuant to Applicability Determination No. 3109 (for NHSM purposes) regarding the combustion of used oil as an on-specification used oil and sawdust when used as an oil leak/spill absorbent.

Permit Application 74000252.19A - PSD permit modification application submitted November 12, 2019 requesting the addition of three direct-fired (green sawdust/dry biomass/natural gas) continuous dry lumber kilns (CDK) to coincide with the removal of the following currently permitted lumber kilns, Wellons thermal oil heaters and energy system thermal oil heaters. The application notes that the existing fuel silos and conveying equipment will either be repurposed or replaced with new equipment.

Renewal Application Chronology

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 23, 2019</td>
<td>Application received by Washington Regional Office (WaRO).</td>
</tr>
<tr>
<td>January 6, 2020</td>
<td>Sent acknowledgment letter indicating the application was complete.</td>
</tr>
<tr>
<td>March 17, 2020</td>
<td>Permit application reassigned to Robert Bright of WaRO.</td>
</tr>
<tr>
<td>May 26, 2020</td>
<td>Facility requests RICE units be moved to insignificant list.</td>
</tr>
<tr>
<td>May 28, 2020</td>
<td>Draft of the permit and permit review forwarded internally for comments.</td>
</tr>
<tr>
<td>June 4, 2020</td>
<td>Draft of the permit and permit review forwarded internally for comments.</td>
</tr>
<tr>
<td>June XX, 2020</td>
<td>Draft permit review forwarded to Permittee for comments.</td>
</tr>
<tr>
<td>July XX, 2020</td>
<td>Permit issued</td>
</tr>
</tbody>
</table>

4. Permit Table of Changes/Modifications and TVEE Discussion

The following changes were made to the Weyerhaeuser – Grifton Mill, Air Permit No. 06270T25:

<table>
<thead>
<tr>
<th>Page(s)</th>
<th>Section</th>
<th>Description of Change(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
<td>All, Header</td>
<td>- Updated permit revision number.</td>
</tr>
</tbody>
</table>

All, Header | - Updated permit revision number. |
<table>
<thead>
<tr>
<th>Page(s)</th>
<th>Section</th>
<th>Description of Change(s)</th>
</tr>
</thead>
</table>
| --      | Insignificant Activities List | • Added energy system diesel fuel-fired engines IES-GN-1 and IES-GN-3 and diesel-fired fire pumps ES-GN-2 and ES-GN-4.  
• Added footnote that engines IES-GN-1 and IES-GN-3 will be permanently shutdown no later than 18 months after startup of the first direct wood-fired/natural gas-fired continuous dry kiln (ID Nos. CDK1, CDK2, or CDK3). |
| 3       | Section 1.0 – Equipment Table | • Removed energy system diesel fuel-fired engines ES-GN-1 and ES-GN-3  
• Removed diesel-fired fire pumps ES-GN-2 and ES-GN-4 |
| --      | Section 2.1 E (old numbering) | Removed section and renumbered permit accordingly. |
| --      | Section 2.1 F (old numbering) | Removed section and renumbered permit accordingly. |
|         | Section 2.2 A.3 (old numbering) | Removed “Reserve” section and renumbered permit accordingly. |
| 29      | Section 2.2 A.3 (new numbering) | Updated condition for MACT Subpart DDDDD for thermal oil heaters (ID Nos. ES-SEH-1901, ES-SEH-2901, and ES-SEH-3901) with current permitting language. |
| 30 - 38 | General Conditions | Updated general conditions with latest version. |
The following changes to the Title V Equipment Editor (TVEE) were made as part of this renewal

Under development

5. Regulatory Review

WCG is currently subject to the following regulations:

15A NCAC 2D .0504, Particulates from Wood Burning Indirect Heat Exchangers

Allowable particulate matter (PM) emissions from the Wellons units are determined from the equation \( E = 1.1698(Q)^{0.2286} \), where \( E \) equals the allowable emission limit for PM (in pounds per million Btu) and \( Q \) equals the maximum heat input in million Btu per hour. The allowable PM emission limits for the Wellon Units are provided in the following table:

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Heat Input of the Emission Source (mm Btu/hr)</th>
<th>Maximum Heat Input (mm Btu/hr)</th>
<th>Emission limit (lb/mm Btu)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellons Unit No. 1 (ID No. ES-SEH-1901)</td>
<td>57.16</td>
<td>114.32</td>
<td>0.41</td>
<td>The maximum heat input includes the heat input for these two Wellon Units.</td>
</tr>
<tr>
<td>Wellons Unit No. 21 (ID No. ES-SEH-2901)</td>
<td>57.16</td>
<td>114.32</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>Wellons Unit No. 3 (ID No. ES-SEH-3901)</td>
<td>98</td>
<td>212.32</td>
<td>0.35</td>
<td></td>
</tr>
</tbody>
</table>

Wellons units No. 1 and 2 are also permitted to burn hydraulic waste oil, and when combusting woodwaste and hydraulic waste oil, the limit for these units is determined by an equation listed in permit specific condition 2.1 B.1.b. **Continued compliance is expected.**

15A NCAC 2D .0512, Particulates from Miscellaneous Wood Products Finishing Plants

Applicable to the debarkers and planning mill:

For the planning mill, WCG is required to control particulate emissions via cyclones and bagfilters and perform monthly external and annual internal inspection with associated monitoring, recordkeeping and reporting. No monitoring, recordkeeping and reporting is required for the debarkers. No changes will be made to the permit **Continued compliance is expected.**

15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes

The new CDKs (ID Nos. TBD) are subject to regulation, which requires actual emissions to be less than those calculated from the following equations:

\[
E = 4.10 \times P^{0.67} \text{ for units with process weight rate less than or equal to 30 tons per hour or}
\]

\[
E = 55.0(P)^{0.11} - 40 \text{ for units with process weight rates greater than 30 tons per hour}
\]

where:

\( E \) = allowable emission rate in pounds per hour calculated to three significant figures

\( P \) = process weight rate in tons per hour

An overview of the allowable PM emissions and estimated potential PM emissions for the new CDKs is provided below:

Process weight is estimated as follows:

\[
P = (\text{Throughput}) \times \left(\frac{\text{Density of southern yellow pine}}{\text{Operating hours per year}} \times \text{Conversion Factors}\right)
\]

\[
\text{Throughput} = 340 \text{ MMBf/yr} \quad \text{Density} = 53 \text{ lb/ft}^3
\]

\[
\text{Operating hours} = 24 \text{ hours per day} = 8,760 \text{ hours per year}
\]

\[
\text{Conversion factors: 1 bf} = 1/12 \text{ ft}^3; 1 \text{ MMBf} = 1 \times 10^6 \text{ bf};
\]

\[
1 \text{ ton} = 2,000 \text{ lbs}
\]

\[
P = (340 \text{ MMBf}/\text{yr}) \times (53 \text{ lb/ft}^3) \times (1 \text{ yr}/8,760 \text{ hours}) \times (1/12 \text{ ft}^3/\text{bf}) \times (1 \times 10^6 \text{ bf/MMBf}) \times (1 \text{ ton}/2000 \text{ lb})
\]

\[
P = 85.7 \text{ tons/hr for all three CDKs combined}
\]
2D .0515 requires that the weight of the fuel combusted must be considered:
\[ P_{\text{fuel}} = 13.3 \text{ tons/hr for all three CDKs combined as provided in the PSD permit application} \]

Therefore \( P_{\text{total}} = 85.7 \text{ tons/hr} + 13.3 \text{ tons/hr} = 99 \text{ tons/hr for all three CDKs or 33 tons per hour for each CDK.} \)

Allowable emissions are calculated as follows:
\[ E = 55.0(33)^{0.11} - 40 = 40.8 \text{ tons/hr} \]
\[ \text{PM} = 23.8 \text{ tpy as provided in the PSD permit application} = 5.43 \text{ tons/hr for all CDKs or 1.81 lb/hr per CDK.} \]

Therefore, compliance is anticipated, and no MRR is required to ensure compliance with 2D .0515. **Continued compliance is expected for the existing seven batch kilns.**

15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources
All three Wellons units are limited to 2.3 lbs. SO\(_2\) per million Btu heat input. The sulfur content of the hydraulic and other used oils combusted is limited to 1.0% by weight. **Continued compliance is expected.**

15A NCAC 2D .0521, Control of Visible Emissions
Visible emissions from the permitted and unpermitted emission sources are limited to 20% opacity. **Continued compliance is indicated.**

15A NCAC 2D .0524, New Source Performance Standards (40 CFR Part 60, Subparts Dc; NSPS Dc)
Applicable to Wellons No. 3 Thermal Oil Heater
Particulate and visible emissions are limited to 0.10 lbs. per million Btu heat input and 20% opacity, respectively. WCG uses a COMS to monitor and record opacity and performs monthly external and annual internal inspections for the control devices are performed. **Continued compliance is expected.**

15A NCAC 2D .0524, New Source Performance Standards (40 CFR Part 60, Subparts Dc; NSPS IIII)
Applicable to: IES-GN-4 (when installed)
This engine is used for emergency purposes only, as no peak shaving or grid demand response is performed. Annual oil and filter changes, as well as air cleaner, belt and hose inspections are required unless the engine is operated for 500 hours beforehand. The required annual maintenance is being performed and **continued compliance is expected.**

15A NCAC 2D .0530, Prevention of Significant Deterioration (40 CFR Part 51), 15A NCAC 2D .0530(u)
Pursuant to application 7400252.14A, WCG was required to track emissions from the modification (refractory replacement, grating upgrades, etc.) and to submit an annual report within 60 days of the end of each calendar year demonstrating that the pollutant emissions associated with the modification did not exceed their significant emission rate. Reporting was required for five years after operation of the modified emission sources. The initial report was received on January 21, 2015 and WaRO’s review indicated compliance. The fifth and final report was received on February 1, 2019. Because the requirements of this regulation have been met, this regulation will be removed as part of this permit renewal.

15A NCAC 2D .0530, Prevention of Significant Deterioration
The addition of the new CDKs triggered a BACT analysis for VOC emissions. The BACT analysis is discussed in detail in Section 4.0 of the review for permit T25.

15A NCAC 02D .1100, Control of Toxic Air Pollutant, and 15A NCAC 2Q .0711, Emissions Rates Requiring a Permit
The CDK project resulted in an increase in emissions of certain TAPs. The new CDKs (ID Nos. CDK1, CDK2, and CDK3) are subject to MACT Subpart DDDD, and per 15A NCAC 2Q .0702(a)(27), an air emission source subject to 40 CFR Part 63 (i.e., MACT) is exempt from NC Air Toxics. However, Weyerhaeuser elected to conduct air dispersion modeling to demonstrate compliance for the new CDK project. Please see Section 7 below for discussion of NC air toxics.

15A NCAC 2D .1111, Maximum Available Control Technology (40 CFR Part 63, Subpart ZZZZ)
Applicable to: IES-GN-1, IES-GN-2, IES-GN-3, and IES-GN-4 (when installed)
All are used for emergency purposes only, as no peak shaving or grid demand response is performed. Annual oil and filter changes, as well as air cleaner, belt and hose inspections are required unless the engine is operated for 500 hours beforehand. The required annual maintenance is being performed and **continued compliance is expected.**
15A NCAC 2D.1111, Maximum Available Control Technology (40 CFR Part 63, Subpart DDDD)
Discussed below in section 6. Continued compliance is expected.

15A NCAC 2D.1111, Maximum Available Control Technology (40 CFR Part 63, Subpart DDDD)
Discussed below in section 6. Continued compliance is expected.

15A NCAC 2D.1806, Control and Prohibition of Odorous Emissions
WCG shall not cause objectionable odors to be detected past the facility boundary. Continued compliance is expected.

15A NCAC 2D.0614, Compliance Assurance Monitoring (40 CFR Part 64; CAM)
Discussed below in section 6. Continued compliance is expected.

15A NCAC 02Q.0504, Option for Obtaining Construction and Operating Permit
Weyerhaeuser will be required to submit a Title V permit application pursuant to 15A NCAC 2Q.0504 (aka the “Part II” permit application) within 12 months of beginning operation of any the new CDKs (ID Nos. CDK1, CDK2, and CDK3).

Note that upon completion of the CDK project, the facility will no longer be applicable to the requirements set forth by CAM, NSPS Subpart Dc and MACT Subpart DDDD due to the removal of the three Wellons thermal oil heaters.

6. **NSPS, NESHAPS/MACT, PSD, 112(r), CAM**

**NSPS**
The Wellons No. 3 woodwaste-fired thermal oil heater is subject to 40 CFR 60 (NSPS), Subpart Dc - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*. The current Title V permit includes the necessary monitoring, record keeping, and reporting requirements to ensure compliance with Subpart Dc, including the requirements to operate and maintain a continuous opacity monitoring system (COMS) on the oil heater stack. This renewal action will not change any requirements related to NSPS, Subpart Dc.

RICE unit IES-GN-4 will be Subpart III applicable when installed. The subpart requires maintenance and operation in accordance with the manufacturer’s specifications. Compliance is expected.

**NESHAPS/MACT**

15A NCAC 2D.1111 [40 CFR Part 63 Subpart DDDD]: *National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products Manufacture*
This regulation is applicable to the seven indirectly-heated lumber drying kilns (ID Nos. ES-DK1 through ES-DK7) and the three new CDKs (ID Nos. CDK1, CDK2, and CDK3). In accordance with 40 CFR 63.2252, kilns are only subject to initial notification, which has previously been met for the dry kilns. Initial notification for the new CDKs is due no later than 120 calendar days after the initial startup. Compliance is expected for the CDKs.

This regulation is applicable to the three woodwaste-fired thermal oil heaters (ID Nos. ES-SEH-1901, ES-SEH-2901, and ES-SEH-3901) beginning on May 20, 2019. The initial testing in CY2018 and subsequent testing in CY2019 demonstrated compliance with the applicable emissions standards. WCG has completed the initial notification, one-time energy assessment and is monitoring the Wellons units in accordance with the requirements of the subpart.

15A NCAC 2D.1111 [40 CFR Part 63 Subpart ZZZZ]:
Emission sources IES-GN-1, IES-GN-2, IES-GN-3 and IES-GN-4 (when installed) are subject to this rule. These engines are considered existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions. This renewal action will not change any requirements related to MACT Subpart ZZZZ. Note, IES-GN-4 has not yet been installed.

**PSD**
WCG is considered a major source for Prevention of Significant Deterioration (PSD) due to lumber drying kiln VOC emissions and currently operates under a PSD permit, with established Best Available Control Technology (BACT) emission limitations for several emission sources.
112(r)
The facility is not subject to 112(r) requirements because it does not store any of the affected chemicals. This renewal action does not affect this status.

CAM
In order to be subject to the 40 CFR Part 64 - Compliance Assurance Monitoring (CAM) requirements, all three of the following criteria must be satisfied:

(i) pollutant specific emission unit (e.g. thermal oil heaters, planer/trimmer mill, etc.) shall be subject to an emission limitation or a standard other than the exempt limitations or standards (e.g. post-1990 federal standards such as MACT, NSPS etc.),

(ii) the pollutant specific emission unit uses an active control device to achieve compliance with the applicable requirement, and

(iii) potential pre-control device emission rate for the pollutant specific emission unit for any regulated pollutant shall be greater than the major source threshold.

The following table provides a summary of the facility’s CAM applicability determination for all emissions sources at Weyerhaeuser - Grifton, NC plant with a control devise:

<table>
<thead>
<tr>
<th>Emission Source Description (ID Number)</th>
<th>Pollutant</th>
<th>Applicable Requirement</th>
<th>Control Device(s) (ID Number)</th>
<th>Pre-controlled Emission Rate</th>
<th>Major Source Threshold</th>
<th>Subject to CAM?</th>
</tr>
</thead>
<tbody>
<tr>
<td>woodwaste-fired thermal oil heater No. 1 (ES-SEH-1901)</td>
<td>PM</td>
<td>15A NCAC 2D .0524 15A NCAC 2D .0530</td>
<td>multicyclone (CD-SEF-1901) &amp; dry ESP (CD-SEF-4901)</td>
<td>144.5 tpy</td>
<td>100</td>
<td>Yes</td>
</tr>
<tr>
<td>woodwaste-fired thermal oil heater No. 2 (ES-SEH-2901)</td>
<td>PM</td>
<td>15A NCAC 2D .0504</td>
<td>multicyclone (CD-SEF-2901) &amp; dry ESP (CD-SEF-4901)</td>
<td>144.5 tpy</td>
<td>100</td>
<td>Yes</td>
</tr>
<tr>
<td>woodwaste-fired thermal oil heater No. 3 (ES-SEH-3901)</td>
<td>PM</td>
<td>15A NCAC 2D .0504</td>
<td>multicyclone (CD-SEF-3901) &amp; dry ESP (CD-SEF-4901)</td>
<td>247.7 tpy</td>
<td>100</td>
<td>Yes</td>
</tr>
<tr>
<td>planer/trimmer mill (ES-SFF-1902)</td>
<td>PM</td>
<td>15A NCAC 2D .0512</td>
<td>cyclone (CD-F-0903) &amp; bagfilter (CD-F-0904)</td>
<td>47.3 tpy</td>
<td>100</td>
<td>No</td>
</tr>
</tbody>
</table>

Note that cyclone (CD-F-0903) installed on the planer/trimmer mill is considered "inherent process equipment" as defined in Part 64. The company provided a rationale for considering this cyclone as inherent process equipment in renewal application 7400252.10A for the Grifton, NC facility claiming that the cyclone is necessary for the proper operation of the pneumatic conveying system in the planer/trimmer mill and the cyclone is not necessary to meet the applicable emission standard. NC DAQ agreed that this cyclone met the definition of inherent process equipment and used the potential uncontrolled emissions for the planer/trimmer mill to show that the planer/trimmer mill is not subject to the CAM rules.

The CAM rules became applicable to the three woodwaste-fired thermal oil heaters on the compliance date of MACT Subpart DDDDD. WCG must comply with the emission standards, monitoring, record keeping, and reporting requirements of the Boiler MACT in lieu of the CAM requirements outlined in the permit. No issues with CAM have been noted in WaRO inspections of RCO-Technical Service review of submitted quarterly CAM reports. Upon operation of the CDKs and shutdown of the three woodwaste-fired thermal oil heaters, CAM will no longer be applicable to WCG.

7. Facility Wide Air Toxics
As specified in permit application 7400252.14B, WCG requested that the toxics requirements be removed per the Session law 2012-91 allowing the state requirements for toxic air pollutants to be removed provided there is a NESHAP applicable to the equipment emitting the toxic air pollutants and the removal of the related requirements from the permit
does not pose an unacceptable risk. DAQ reviewed the request and removed the requirements from permit 06720T23. The review found that all of the sources emitting toxic air pollutants were also subject to a NESHAP/MACT and reported emission rates of Toxic Air Pollutants were well below the emission limits found in the permit. The AQAB preformed a modeling analysis in support of Air Permit No 06720T23, and compliance with NC Air Toxics was indicated.

An analysis was also performed for the CDK project and no unacceptable risk was determined.

8. Facility Emissions Review

The facility-wide potential emissions do not change under this TV permit renewal. Actual emissions for criteria pollutants and HAPs for the years 2014 through 2018 are provided in the header of this permit review. Facility-wide potential emissions were changed as a result of CDK project and an overview of the facility-wide emissions, as noted in application 7400242.19A, is given in the table below:

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>Planer and Trimmer</th>
<th>Debarker</th>
<th>Mold Inhibitor Application System</th>
<th>New Fuel Silos</th>
<th>New CDKs</th>
<th>Total Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria Pollutants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>53.04</td>
<td>53.04</td>
</tr>
<tr>
<td>NOx</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>61.48</td>
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<tr>
<td>PM</td>
<td>1.89</td>
<td>1.53</td>
<td>-</td>
<td>1.29E-02</td>
<td>23.80</td>
<td>27.24</td>
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<tr>
<td>PM-10</td>
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<td>0.31</td>
<td>-</td>
<td>6.04E-03</td>
<td>17.68</td>
<td>19.88</td>
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<tr>
<td>PM-2.5</td>
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<td>0.15</td>
<td>-</td>
<td>9.15E-04</td>
<td>16.83</td>
<td>17.84</td>
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<tr>
<td>SO2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>13.14</td>
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</tr>
<tr>
<td>VOC</td>
<td>4.50</td>
<td>-</td>
<td>4.59</td>
<td>-</td>
<td>737.80</td>
<td>746.89</td>
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<tr>
<td>Lead</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.02</td>
<td>0.02</td>
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<tr>
<td><strong>Greenhouse Gases</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>CH4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8.34</td>
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</tr>
<tr>
<td>CO2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>108,691</td>
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</tr>
<tr>
<td>N2O</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>4.17</td>
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<tr>
<td>CO2e</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>110,142.37</td>
<td>110,142.37</td>
</tr>
</tbody>
</table>

9. Compliance Status

DAQ has reviewed the compliance status of WCG. During the most recent inspection, conducted on March 24, 2020 by Robert Bright of WaRO, the facility appeared to operate in compliance with all applicable requirements. WCG has no history of noncompliance within the last five years. The facility’s Annual Compliance Certification was received on February 26, 2020 and WaRO’s review indicated compliance with all applicable requirements during CY2019.

10. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. No affected states or local agencies are within 50 miles of this facility.

11. Other Regulatory
• A P.E. seal is NOT required for this renewal application.
• A zoning consistency determination is NOT required for this renewal application.
• A permit fee is NOT required for this renewal application.

12. Recommendations

The permit renewal application for Weyerhaeuser NR Company - Grifton, located in Grifton, Pitt County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 06270T26.