Lane Regional Air Protection Agency

STANDARD
AIR CONTAMINANT DISCHARGE PERMIT
REVIEW REPORT

Weyerhaeuser NR Company
77629 South Pacific Highway
Cottage Grove, Oregon 97424
http://www.weyerhaeuser.com/

<table>
<thead>
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<tr>
<td>Emission credits</td>
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<td>Semi-annual report</td>
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<td>Quarterly report</td>
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<td>Public Notice</td>
<td>III</td>
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PERMITTING

PERMITTING ACTION

1. The permit is a renewal for an existing Air Contaminant Discharge Permit (ACDP) which was issued on June 29, 2010 and was originally scheduled to expire on June 29, 2015. The facility submitted a timely renewal on April 30, 2015. The existing permit remains valid until LRAPA issues the renewal.

ATTAINMENT STATUS

2. The facility is located in an attainment area for particulate matter (PM$_{10}$), ozone (O$_3$), nitrogen oxides (NO$_x$), sulfur dioxide (SO$_2$), lead (Pb), and carbon monoxide (CO).

SOURCE DESCRIPTION

OVERVIEW

3. The facility operates a sawmill and planning mill. The facility was built in 1975.

4. The following changes have been made to the facility since the last permit renewal:

<table>
<thead>
<tr>
<th>Change/Modification</th>
<th>Date of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Two Automated Anti-sap Stain Applicators</td>
<td>December 27, 2010</td>
</tr>
<tr>
<td>Add Two Duplicate Packaging Lines, Replace &amp; Relocate The Two Automated Anti-Sap Stain Applicators, Replace The Existing Packaging Saw, And Add A New Package Saw</td>
<td>May 20, 2014</td>
</tr>
<tr>
<td>Replaced the canter saw system (canter saw, chip screen and chain/conveyance system)</td>
<td>June 28, 2016</td>
</tr>
</tbody>
</table>

5. The PSEL was modified in May of 2004 to add emissions of unpaved road surfaces related to the Log Yard Expansion project. The facility added 14.3 tons/year of PM and 3.6 tons/year of PM$_{10}$.

EMISSION UNIT (OR PROCESS) AND CONTROL DEVICES

6. Existing air contaminant sources at the facility consist of the following:

   a. Five cyclones with four emission points which exhaust directly to the atmosphere, handling green sawdust and shavings from sawing and planning, installed in 1998 and 1992.
b. One (1) spray booth, with a high efficiency internal scrubber as emission controls, installed in 1994 and rebuilt in 2002. Two automated cut end anti-sap stain applicators (fugitive emission sources) installed in 2010 and replaced & relocated in 2014.

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Emission Unit Description</th>
<th>Exhaust Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-1</td>
<td>Sawmill Operations (including Mill B/Planer Trimmer, Planer, Gang, Canter, Edger, Package Saws)</td>
<td>C-21 Cyclone, C-25 Cyclone, C-26 Cyclone, C-27 Cyclone</td>
</tr>
<tr>
<td>EU-2</td>
<td>Truck Bins (8)</td>
<td>NA</td>
</tr>
<tr>
<td>EU-3</td>
<td>Spray Booth and Coatings Use*</td>
<td>Scrubber, fugitives</td>
</tr>
<tr>
<td>EU-4</td>
<td>Paved Roads</td>
<td>NA</td>
</tr>
<tr>
<td>EU-5</td>
<td>Unpaved Roads</td>
<td>NA</td>
</tr>
</tbody>
</table>

* Coatings including sap stains, adhesives, inks, etc.

ENFORCEMENT HISTORY

7. The facility was issued Notice of Non-Compliance (NON) Number 3415 on February 21, 2013 for failure to take reasonable precautions to prevent particulate matter from becoming airborne while processing and handling (grinding) dry material on August 12, 2012. The facility implemented a program to eliminate such occurrences and the file was closed.

EMISSIONS

8. Proposed PSEL information:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Baseline Emission Rate (tons/yr)</th>
<th>Netting Basis</th>
<th>Plant Site Emission Limits (PSEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Previous (tons/yr)</td>
<td>Proposed (tons/yr)</td>
<td>Previous PSEL (tons/yr)</td>
</tr>
<tr>
<td>PM</td>
<td>96.4</td>
<td>96.4</td>
<td>81</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>75.1</td>
<td>75.1</td>
<td>31</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>NA</td>
<td>NA</td>
<td>17</td>
</tr>
<tr>
<td>VOC</td>
<td>179.9</td>
<td>179.9</td>
<td>79</td>
</tr>
</tbody>
</table>

a. The netting basis for PM$_{2.5}$ is established with this renewal and is based upon the PM$_{2.5}$ fraction of PM$_{10}$ multiplied by the PM$_{10}$ netting basis.

b. The netting basis for PM, PM$_{10}$ and VOC are reduced by the amount the unassigned emissions are reduced.

c. The PSEL is a federally enforceable limit on the potential to emit.

d. For detailed emission calculations see Attachment A to this review report.
9. In addition to the PSEL, the permit includes the following:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Unassigned Emissions Before July 1, 2010 (tons/yr)</th>
<th>Unassigned Emissions After July 1, 2010 (tons/yr)</th>
<th>Emission Reduction Credits (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>40.4</td>
<td>25</td>
<td>N/A</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>59.1</td>
<td>15</td>
<td>N/A</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>NA</td>
<td>8.4</td>
<td>N/A</td>
</tr>
<tr>
<td>SO$_2$</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NO$_x$</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>140.9</td>
<td>40</td>
<td>N/A</td>
</tr>
<tr>
<td>Other</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

a. In accordance with LRAPA Section 42-0045, the Unassigned Emissions are reduced to no more than the SER after July 1, 2010 with this renewal.

SIGNIFICANT EMISSION RATE ANALYSIS

10. For each pollutant, the proposed PSEL is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

11. A major source is a facility that has the potential to emit more than 100 tons per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions.

HAZARDOUS AIR POLLUTANTS

12. A major source is a facility that has the potential to emit more than 10 tons/year of any single HAP or 25 tons/year of combined HAPs. This facility is a not major source of hazardous air pollutants.

13. The following HAP estimate is based upon the highest usage rate since the last permit renewal as indicated on the facility’s Form AQ403 submitted with the 2015 renewal application.
### Hazardous Air Pollutant Potential to Emit (tons/year)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Potential to Emit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCl</td>
<td>2.98</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2.98</strong></td>
</tr>
</tbody>
</table>

### ADDITIONAL REQUIREMENTS

#### NSPS APPLICABILITY

14. There are no sources at this facility for which NSPS standards have been promulgated.

#### NESHAPS/MACT APPLICABILITY

15. There are no sources at this facility for which NESHAPS/MACT standards have been promulgated. The facility is not subject to the area source boiler NESHAP (40 CFR Part 63 Subpart JJJJJJ) nor the major source plywood NESHAP (40 CFR Part 63 Subpart DDDDD). Additionally, there are no emergency generators located onsite.

#### TACT APPLICABILITY

16. The facility is meeting the states TACT Rules by conducting the following activities:

   Application of water or other dust suppressant to storage piles and haul roads.

### SOURCE TESTING

#### PRIOR TESTING RESULTS

17. The only source testing done at this facility was done on the hog fueled boilers which were removed in 1994. No source tests are required at this time.

### PUBLIC NOTICE

18. The draft permit was on public notice from May 12, 2016 to June 15, 2016. The facility submitted comments during the comment period (June 14, 2016). The permit was revised to clarify the emission units. Because the changes were not relaxations or changes to the PSELs, etc., an additional public notice period was not required. Item 19 includes the summary of comments and responses.

### COMMENTS AND RESPONSES

19. Comment: The facility submitted a comment during the public comment period that the draft permit listed only two (2) truck bins, and that the emissions from all eight (8) truck bins may not have been properly included. The facility noted that the permit listed only shavings handled by the truck bins, when, in fact, the truck bins handle sawdust, shavings, ships and hog fuel.
Response: LRAPA agrees that the number of truck bins should be corrected to reflect the presence of all eight (8) truck bins. LRAPA noted that the emission details include the emissions of all eight (8) truck bins. The emissions in the detail sheets for the truck bins are based upon an annual throughput of 341,600 BDT, which is the sum of sawdust (43,500 BDT), shavings (32,600 BDT), chips (205,500 BDT) and hog fuel (60,000 BDT). As such, the emissions from all eight (8) truck bins are accounted. LRAPA corrected the EU-2 description in Condition 2 by changing the number of truck bins from two (2) to eight (8) and removing the word “shavings” so as to be inclusive of all wood residual types handled by the bins.

20. Comment: The facility submitted a comment during the public comment period that, in addition to the spray booth device, the two automated sap-stain applicators should be included in the Condition 2 description for EU-3.

Response: LRAPA agrees and revised the EU-3 description in Condition 2 to read: “Spray-applied coatings (including Anti-Sap Stain Spray Booth and 2 Automated Cut End Anti-Sap Stain Applicators)”.

21. On June 28, 2016, the facility submitted a Notice of Intent to Construct to replace the cantor saw and associated chip screen and chain/conveyance systems. The project qualified as a Type 2 Change under LRAPA’s Title 34, but no permit terms were needed to be modified in the draft permit.

Max/cmw
07/01/16
The PM2.5 netting basis is equal to the PM10 netting basis multiplied by the PM2.5 to PM10 netting fraction (0.5625).

<table>
<thead>
<tr>
<th>PM2.5</th>
<th>0.6</th>
<th>NA</th>
<th>1.4</th>
<th>9</th>
<th>3.9</th>
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<th>0.6</th>
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<td>96</td>
<td>96</td>
<td>96.4</td>
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<tr>
<td>SER</td>
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<td>12</td>
<td>56</td>
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<tr>
<td>Emissions Increase over Proposed Previous Netting Basis</td>
<td>19</td>
<td>5</td>
<td>12</td>
<td>56</td>
<td>56</td>
<td>56</td>
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</tbody>
</table>

**Summary of Permit Application Data:**

1. **PM10:**
   - 0.3
   - 1.4
   - 2.8
   - 2.0
   - 0
   - 0
   - 0
   - 0
   - 0
   - 0
   - 0
   - 0
   - 0

2. **PM2.5:**
   - 0.5
   - 1.5
   - 2.5
   - 3.5
   - 4.5
   - 5.5
   - 6.5
   - 7.5
   - 8.5
   - 9.5
   - 10.5
   - 11.5

3. **VOC:**
   - 0.2
   - 0.5
   - 0.8
   - 1.1
   - 1.4
   - 1.7
   - 2.0
   - 2.3
   - 2.6
   - 2.9
   - 3.2
   - 3.5

4. **49:**
   - 0.1
   - 0.2
   - 0.3
   - 0.4
   - 0.5
   - 0.6
   - 0.7
   - 0.8
   - 0.9
   - 1.0
   - 1.1
   - 1.2

5. **1:**
   - 0.1
   - 0.2
   - 0.3
   - 0.4
   - 0.5
   - 0.6
   - 0.7
   - 0.8
   - 0.9
   - 1.0
   - 1.1
   - 1.2

6. **0:**
   - 0.1
   - 0.2
   - 0.3
   - 0.4
   - 0.5
   - 0.6
   - 0.7
   - 0.8
   - 0.9
   - 1.0
   - 1.1
   - 1.2

**PM10:**

- 0.3
- 1.4
- 2.8
- 2.0
- 0
- 0
- 0
- 0
- 0
- 0
- 0
- 0
- 0

**PM2.5:**

- 0.5
- 1.5
- 2.5
- 3.5
- 4.5
- 5.5
- 6.5
- 7.5
- 8.5
- 9.5
- 10.5
- 11.5

**VOC:**

- 0.2
- 0.5
- 0.8
- 1.1
- 1.4
- 1.7
- 2.0
- 2.3
- 2.6
- 2.9
- 3.2
- 3.5

**49:**

- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6
- 0.7
- 0.8
- 0.9
- 1.0
- 1.1
- 1.2

**1:**

- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6
- 0.7
- 0.8
- 0.9
- 1.0
- 1.1
- 1.2

**0:**

- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6
- 0.7
- 0.8
- 0.9
- 1.0
- 1.1
- 1.2

**PM10 Emissions Data:**

- 0.3
- 1.4
- 2.8
- 2.0
- 0
- 0
- 0
- 0
- 0
- 0
- 0
- 0
- 0

**PM2.5 Emissions Data:**

- 0.5
- 1.5
- 2.5
- 3.5
- 4.5
- 5.5
- 6.5
- 7.5
- 8.5
- 9.5
- 10.5
- 11.5

**VOC Emissions Data:**

- 0.2
- 0.5
- 0.8
- 1.1
- 1.4
- 1.7
- 2.0
- 2.3
- 2.6
- 2.9
- 3.2
- 3.5

**49 Emissions Data:**

- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6
- 0.7
- 0.8
- 0.9
- 1.0
- 1.1
- 1.2

**1 Emissions Data:**

- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6
- 0.7
- 0.8
- 0.9
- 1.0
- 1.1
- 1.2

**0 Emissions Data:**

- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6
- 0.7
- 0.8
- 0.9
- 1.0
- 1.1
- 1.2

Project: Weyerhaeuser NR Company - College Grove Lumber

Permit Application Data: 20883

Permit Application Data 2015

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<table>
<thead>
<tr>
<th>Comments</th>
<th>Basis</th>
<th>Units</th>
<th>Production</th>
<th>Location</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Sawmill Production</td>
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<td></td>
<td></td>
<td>500 MMBF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>60.000 BT</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>43.500 BT</td>
<td></td>
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<td>15.950 BT</td>
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<td>13.000 BT</td>
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<td>4.150 BT</td>
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<td></td>
<td>1.100 BT</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>0.010 BT</td>
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</tr>
</tbody>
</table>

**Weyerhaeuser College Grove—Production Estimates**

**Permit Application Data 2010**

**Emissions Summary**

Perm No. 209853

Weyerhaeuser NT Company - College Grove Lumber
<table>
<thead>
<tr>
<th>Moisture content (35% for wet material)</th>
<th>1.4</th>
<th>0.035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical average wind speed at Eugene airport</td>
<td>1.3</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>7.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.35</td>
<td></td>
</tr>
</tbody>
</table>

PM10

PM

\[ \text{PM/PM10 Emissions Analysis} = \text{AP-42 13.2.4 Equation (11/06) E.4/lb/on} \]

Review Report Appendix A
Permit No. 208853
Weyerhaeuser NR Company - Cottage Grove Lumber
Permit Application Data 2010
Emissions Summary
<table>
<thead>
<tr>
<th>Material</th>
<th>% of Total</th>
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<tbody>
<tr>
<td>2,175</td>
<td>5.00%</td>
</tr>
<tr>
<td>23.055</td>
<td>53.00%</td>
</tr>
<tr>
<td>17.400</td>
<td>40.00%</td>
</tr>
<tr>
<td>195</td>
<td>0.95%</td>
</tr>
<tr>
<td>36</td>
<td>0.75%</td>
</tr>
<tr>
<td>45</td>
<td>1.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

**NOTES:**
- Estimated total sawdust production @ 600 MBF/year is 43,500 BDT. Sawdust generation sources are listed below. Most sawdust is handled mechanistically. However, percentages handled by cyclones are listed above. The sawdust from the package saw is double handled (through C-77 and also through C-77).
<table>
<thead>
<tr>
<th>Species/Compound</th>
<th>PM2.5</th>
<th>PM10</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEO A-0-EP08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paved Roads</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEO A-0-EP08</td>
<td>0.07</td>
<td>0.7</td>
<td>ib/BOF</td>
</tr>
<tr>
<td>Unpaved Roads</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>DEO A-0-EP08</td>
<td>0.11</td>
<td>0.22</td>
<td>ib/BOF</td>
</tr>
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</tr>
<tr>
<td>DEO A-0-EP08</td>
<td>0.125</td>
<td>0.25</td>
<td>ib/BOF</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>DEO A-0-EP08</td>
<td>0.5</td>
<td>0.5</td>
<td>ib/BOF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDS (100% MEK)</td>
<td>4.8</td>
<td>4.8</td>
<td>ib/MBF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std. Emission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wayneheuser College Grove - Emission Factors
<table>
<thead>
<tr>
<th>Source</th>
<th>Annual Production Units (tons)</th>
<th>Annual Emissions Units</th>
<th>Emissions Factor</th>
<th>Units</th>
<th>Emissions (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Roads</td>
<td>0.5</td>
<td>0.5</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Unpaved Roads</td>
<td>0.5</td>
<td>0.5</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Truck Bins</td>
<td>0.5</td>
<td>0.5</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>C-72 (Package Saw)</td>
<td>0.5</td>
<td>0.5</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>C-26 (Planer)</td>
<td>0.5</td>
<td>0.5</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>C-25 (Planer)</td>
<td>0.5</td>
<td>0.5</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>C-21 (Mill)</td>
<td>0.5</td>
<td>0.5</td>
<td>0.05</td>
<td>0.04</td>
<td>0.02</td>
</tr>
</tbody>
</table>

**TOTAL** 65.8
<table>
<thead>
<tr>
<th>Unit</th>
<th>Emission Factor</th>
<th>Production Units</th>
<th>Emission Units</th>
<th>Total Emission (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM10</td>
<td></td>
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</tr>
<tr>
<td>Paved Roads</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unpaved Roads</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck Bins</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>C-27 (Package Saw)</td>
<td></td>
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<tr>
<td>C-26 (Gang, Center Edger)</td>
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<tr>
<td>C-25 (Planer)</td>
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<td></td>
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</tr>
<tr>
<td>C-21 (Mill B/Planer Trimmer)</td>
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</tbody>
</table>

Permit Application Data 2010

Emissions Summary

Permit No. 20859

Weyerhaeuser NR Company - Cottage Grove Lumber
<table>
<thead>
<tr>
<th>Total</th>
<th>18.8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>1.2</th>
<th>4.8</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>lbs/MMBF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% VOC</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gal/gallon</td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.5</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

| Cottage Grove Sawmill    |      |      |      |
| Permit Application Date  | 2010 |
|                         |      |      |      |
| Annual Emissions Unit    | VOC  |      |      |
|                         |      |      |      |
|                         |      |      |      |

<p>| Cottage Grove Sawmill    |      |      |      |
|                         |      |      |      |
|                         |      |      |      |
|                         |      |      |      |
|                         |      |      |      |
|                         |      |      |      |</p>
<table>
<thead>
<tr>
<th>0.9</th>
<th>Total HAP Emissions</th>
<th>HAP</th>
<th>Emission Factor (lbs/MMBF)</th>
<th>Volume Units</th>
<th>HAPs</th>
<th>Pollutant</th>
<th>HAPs</th>
<th>Pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.19</td>
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<td></td>
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<tr>
<td>0.08</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>0.07</td>
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<td>0.06</td>
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</tr>
<tr>
<td>0.05</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.04</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>0.02</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>0.01</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
1. The aesthetic system applied at the sawmill is a blend of chemetics. The only HAP-containing component is HCl in the 1.0%.
2. Grade stamp ink contains MEB, which is no longer a regulated HAP.
3. HAPs in part is estimated from MSDS data (average content in a sample of different products). Each can contains about 0.75 lbs.

**HAPs:**
- Xylenes
- Hexanes
- Toluene
- Methyl
- Ethyl Benzenes
- Methanol
<table>
<thead>
<tr>
<th>Facility Name: Wytheoeverer Company - College Grove Lumber</th>
<th>Permit Application Date 2010</th>
<th>Review Report Appendix A</th>
<th>Permit No. 208859</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAPs</td>
<td>Cottage Grove Sawmill</td>
<td>Emissions Summary</td>
<td>Wytheoeverer Emissions Factor 4.8 lbs/MMBF</td>
</tr>
</tbody>
</table>

### Emissions Factor

<table>
<thead>
<tr>
<th>Project</th>
<th>Production Based Emission Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottage Grove Sawmill</td>
<td>4.8 lbs/MMBF</td>
</tr>
</tbody>
</table>

### Production-based Emission Factor Table

<table>
<thead>
<tr>
<th>Facility</th>
<th>Emission Factor</th>
<th>Operation Unit</th>
<th>Emission Volume</th>
<th>Mass (lbs)</th>
<th>Annual Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottage Grove Sawmill</td>
<td>4.8 lbs/MMBF</td>
<td>lbs cans</td>
<td>Volume Units</td>
<td>Annual Production</td>
<td></td>
</tr>
</tbody>
</table>

### Notes

1. Grade stamp ink contains MEK which is no longer a regulatory HAP.
2. VOC in paint is estimated from College Grove data (average content in a sample of different products). Each can contains ~0.75 lbs.
Weyerhaeuser Company--Cottage Grove
Log Handling - Deck Building
ROAD DUST - Paved
PM/PM10 Emissions Analysis

Unloaded trips per day: 
190

Loaded trips per day: 
190

Days per year of operation: 
250

Mean haul distance unloaded (mi): 
0.3

Mean haul distance loaded (mi): 
0.3

Average weight unloaded (tons), W: 
76

Average weight loaded (tons), W: 
103

Silt Loading

Number of days/year with rainfall > 0.01 inch

Road cleaning/watering efficiency (%):

2002 - 2006 average sawmill basis production (MMBF):

1.1 g/m² (AP-42 Table 13.2.1-4)*

75% Sweeping/automatic watering

341 MMBF

Based on 0.272 trips per MMBF, as scaled from 2006 data

* Silt Loading: 1.1 g/m². Taken from AP-42. This value is the bottom of the range for Municipal waste landfill roads. This value was chosen because the wood residue on the roads around the plant is primarily large fiber pieces with very little silt.

AP-42 Parameters (12/03 version)

\[ E_{, \text{lb/VMT}} = k(sI/2)^a(W/3)^b \]

\[ PM \quad PM10 \]

\[ \begin{array}{ll}
k & 0.082 \\
a & 0.65 \\
b & 1.5 \\
\text{sI} & \text{road surface silt loading (g/m²)} \\
\text{W} & \text{Average vehicle weight (tons)}
\end{array} \]

Unloaded, lbs/VMT (uncontrolled)

7.0891 1.38323

11.1847 2.18238

Loaded, lbs/VMT (uncontrolled)

Uncontrolled Annual Emissions, tons - Unloaded

50.509 9.8555

79.891 15.54943

Corrected Annual Emissions, tons

19.2 3.7

Uncontrolled Annual Emissions, tons - Loaded

Emission Factor, lbs/MMBF

76.7 15.0

tons/month

1.6 0.3
Emission Factor, lbs/MMBF

Corrected Annual Emissions, tons

Uncorrected annual Emissions, tons - Loaded

Uncorrected annual Emissions, tons - Unloaded

Loaded, lbs/VMT (uncorrected)

Unloaded, lbs/VMT (uncorrected)

Average vehicle weight (tons)

Road surface still loading (g/m²)

Pm

E.VMT

Pm = k(sl)(v)(w)(3/2

AP-42 Parameters (2/03 Version)

2002 - 2006 average sawmill basis production (MMBF):

Road Grooming/Weaving Efficiency (%):

Number of days/year with grader = 0.024

Site Loading:

Average weight loaded (tons), W:

Average weight unloading (tons), W:

Average haul distance loaded (mi):

Average haul distance unloading (mi):

Days per year of operation:

Loaded trips per day:

Unloaded trips per day:

Wayne County Emissions Analysis

Road Dust - Pavement

Log Trucks

Wayne County - College Grove

Permit Application Data 2010

Permit No. 28859

Wayne County - College Grove Lumber

Permit Application Summary 2010

Permit No. 28859

Wayne County - College Grove Lumber
### Emission Factor, lbs/MBF

<table>
<thead>
<tr>
<th>Weight (tons)</th>
<th>Emission Factor (lbs/MBF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>0.5</td>
<td>2.6</td>
</tr>
<tr>
<td>1.0</td>
<td>5.1</td>
</tr>
</tbody>
</table>

### Corrected Annual Emissions, tons

Corrected annual emissions in tons.

### Uncorrected Annual Emissions, tons - Loaded

Uncorrected annual emissions in tons for loaded operations.

### Uncorrected Annual Emissions, tons - Unloaded

Uncorrected annual emissions in tons for unloaded operations.

### PM10 Emissions Analysis

PM10 emissions analysis per year.

### Road Dust - Paved

Road dust emissions for paved roads.

### Lumber Trucks

Emissions from lumber trucks.

### Permit Application Data 2010

Permit application data for 2010.

### Permit No. 200853

Permit number for the project.