



**STIMSON LUMBER COMPANY**  
**Environmental Management**  
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15 August 2022

Ms. Julia DeGagné  
Oregon Department of Environmental Quality  
700 NE Multnomah Street, Suite 600  
Portland, Oregon 97232

**Re: Stimson Lumber Company Forest Grove Complex – CAO Response Letter**

Dear Ms. DeGagné:

Stimson Lumber Company (Stimson) is submitting this response letter to address items identified in the warning letter provided on June 30, 2022 (the letter). The responses in this document are organized in the same manner as presented in the letter.

**Requirement #3.a-d:** Report fugitive emissions associated with hardboard production for the following Toxic Emissions Units (TEUs): refiners (RF12), machine chest, header boxes, and forming machine (FORMER).

This information is not readably available but in conversation with DEQ about this on 14 July 2022 Stimson was told that we needed to submit numbers or face enforcement action. Thus, we have provided numbers as best we can but reserve the right to amend them if further testing indicates other information is more accurate.

**Requirement #7.a:** Update fuel dryer (FDRYER) maximum hourly throughput to 7.2 oven-dried tons (ODT) or provide quantitative documentation substantiating the reported capacity. Stimson's Inventory updated the maximum fuel dryer (FDRYER) capacity to 4.32

Please see the response to item e.i., below.

**Requirement #8.a:** Update the boiler emission factors (BLR\_ESP and BLR\_SCR) to the most recent available emission factors from the National Council for Air and Stream Improvement (NCASI).

Please see the response to item f.i., below.

**Requirement #9:** Update kiln emission factors to match those in the "DEQ HAP and VOC Emissions Factors for Lumber Drying, 2021" AQ-EF09 form.

Please see the response to item h.i., below.

**Requirement #11.a, 11.b, 11.g, and 11.h:** Update 'Actual' activity levels to be consistent with the production values listed in the 2019 Annual Report for the boilers (BLR\_SCR and BLR\_ESP) and surface coating (MB\_BASECOAT and MB\_SURFACE - Mycostat P51)

Please see the response to item f.i., below.

**Requirement #12.c:** Provide laboratory data or other justification to support the biomass concentrations used to develop the emissions estimates for wastewater treatment (SURGE, ABASE, S\_POND, R\_POND, and E\_POND).

These data will be provided by the date identified in the amended warning letter provided by the DEQ on August 8, 2022.

**Requirement #14:** Revise the Inventory to include emission estimates for any TEUs associated with categorically insignificant activities which are not exempt TEUs per [OAR 340-245-0060\(3\)\(b\)](#). The Inventory did not include emission estimates for all such TEUs, including maintenance activities and whitewater tanks.

Toxic emission units (TEU's) at the facility which are classified as categorically insignificant, but are now not considered exempt have been added to the revised emissions inventory. Emissions from these TEU's have been estimated to the best of our abilities and will be included in the revised emissions inventory.

Additionally, the following revised emissions or TEU data in the inventory are incomplete and require correction or additional supporting documentation:

- 1) Documentation is needed for the following fuel dryer (FDRYER) emission factors:
  - Acetone (CASRN 67-64-1);
  - Bromomethane (CASRN 74-83-9);
  - Chloromethane (CASRN 74-87-3);
  - Methylene chloride (CASRN 75-09-2); and
  - m-Xylene (CASRN 108-38-3), p-Xylene (CASRN 106-42-3), and o-Xylene (CASRN 95-47-6);

This information is provided in the revised emissions inventory.

The reported fuel dryer (FDRYER) emission factor for phenol (CASRN 108-95-2) is incorrect;

This change has been made and is reflected in the revised emissions inventory.

- 2) The reported refiner (RF12) emission factor for formaldehyde (CASRN 50-00-0) is incorrect;

This change has been made and is reflected in the revised emissions inventory.

- 3) Emission estimates for phenol (CASRN 108-95-2) and propionaldehyde (CASRN 123-38-6) for the refiner (RF12) and forming machine (FORMER) should be updated to assume zero, for consistency with the results of the source test conducted on July 9, 10, and 12, 2007 ("2007 source test") and Appendix G of DEQ's Recommended Procedures for Toxic Air Contaminant Health Risk Assessments ([https://www.oregon.gov/deq/aq/cao/Documents/CAO\\_HRAProcedures.pdf](https://www.oregon.gov/deq/aq/cao/Documents/CAO_HRAProcedures.pdf));

- 4) TACs and percent composition data are inconsistent with the provided Safety Data Sheets (SDSs) for the following surface coating products:

- Basecoat 631-W020-1601;
- High Gloss Topcoat 621-C020-232; and
- Anti-Blu XP-64;

Please see the response to item g., below.

- 5) The emission type reported for the kilns (KILN\_DF, KILN\_HL, and KILN\_TF) in the AQ520 form is incorrectly reported as “point”.

[Please see the response to item h.ii., below.](#)

- 6) The emissions reported in the Inventory for the hardboard press (PRESS) should include both “fugitive” and “point” components;

[Please see the response to item i.i., below.](#)

- 7) The WATER9 model does not include all potentially emitted TACs and wastewater treatment processes;

[Please see the response to item k, below.](#)

- 8) Documentation is required to support emergency generator (BGEN and FIRE) diesel particulate matter emissions;

[Please see the response to item l below.](#)

- 9) The reported emergency generator (BGEN and FIRE) emission factors for benzo(a)pyrene (CASRN 50-32-8) are incorrect;

[Please see the response to item l below.](#)

- 10) Tank emission calculations (TEUs D1, D2, G2, R1, R2, and R3) require corrections to the standing loss equation, average daily liquid temperature calculation, and daily working loss calculation;

[Please see the response to item m below.](#)

- 11) Tank emission calculations for the gasoline tank (G2) require corrections to the vapor space expansion factor equation;

[Please see the response to item m below.](#)

- 12) Tank emission calculations for the resin tanks (R1, R2, and R3) require minor corrections to the tank dimensions and constituent percentages used, and correction of the true vapor pressure and vapor density calculations; and

[Please see the response to item m below.](#)

- 13) Chipper throughputs and emissions should be included for all potential chipper emission points; for example, if two chippers with separate emission points are in operation, two TEUs should be identified in the Inventory.

[Please see the response to item n below.](#)

**Corrective Actions Required:**

By no later than August 15, 2022, Stimson must satisfy the following Corrective Actions:

1. Submit to DEQ a revised emissions inventory (AQ520 form) and supporting calculations in Excel format including the following updates:

**a. Forming machine (FORMER):**

- i. Fugitive emissions were observed from this process during DEQ's site visit on June 14, 2022. Include an estimate of fugitive emissions, based on best available data (for example, data collected by NCASI or EPA) and engineering judgement.

Stimson will model (WATER9) estimated emissions from the head box by the end of the extension period (August 29) as identified in the amended warning letter provided by the DEQ on August 8, 2022. Emissions from the vacuum table have been previously characterized. However, Stimson believes that any former fugitives are captured by the press system – DEQ noted the distinct “breeze” over the forming table during a site visit. However, in order to ease discussion with DEQ we are proposing to estimate these emissions as 10% of the vacuum table emissions.

- ii. Phenol (CASRN 108-95-2) and propionaldehyde (CASRN 123-38-6) emissions may be assumed zero because these TACs were below detection limits in the 2007 source test. Update the Inventory so that treatment of non-detect TACs is consistent with Appendix G of DEQ's Recommended Procedures for Toxic Air Contaminant Health Risk Assessments ([https://www.oregon.gov/deq/aq/cao/Documents/CAO\\_HRAProcedures.pdf](https://www.oregon.gov/deq/aq/cao/Documents/CAO_HRAProcedures.pdf)).

This change has been made and is reflected in the revised emissions inventory.

#### **b. Refiners (RF12):**

- i. Fugitive emissions were observed from this process during DEQ's site visit on June 14, 2022. Include an estimate of fugitive emissions, based on best available data (for example, data collected by NCASI or EPA) and engineering judgement.

DEQ observed an unusual operating situation while on site. Refiner 1 developed a leaking seal while the alternate refiner was already out for repairs. Normally, we would have simply used Refiner 2 while repairing Refiner 1 and under normal operation there would be no discernable fugitives from the refiners. The seals are, in fact, checked numerous times daily. There are some leaks in the steam lines, but this is raw steam for heating and is not impacted by the furnish. Thus, Stimson does not believe that there are any appreciable fugitive emissions from the refiners.

- ii. Update the formaldehyde (CASRN 50-00-0) emission factor to  $6.32 \times 10^{-3}$  pounds per ODT for consistency with the 2007 source test report referenced (the average test result for No. 2 Rotary Valve is 0.0026 pounds per hour as listed on page 9 and page 34 of the source test report).

This change has been made and is reflected in the revised emissions inventory.

- iii. Propionaldehyde (CASRN 123-38-6) emissions may be assumed zero because this TAC was below detection limits in the 2007 source test. Update the Inventory so that treatment of non-detect TACs is consistent Appendix G of DEQ's Recommended Procedures for Toxic Air Contaminant Health Risk Assessments ([https://www.oregon.gov/deq/aq/cao/Documents/CAO\\_HRAProcedures.pdf](https://www.oregon.gov/deq/aq/cao/Documents/CAO_HRAProcedures.pdf)).

This change has been made and is reflected in the revised emissions inventory.

**c. Header boxes:** Include emissions from this TEU, using an engineering analysis (for example, modeling volatilization of air toxics from a turbulent weir). Alternatively, apply the conservative assumption that header box emissions are equal to total (stack and fugitive) forming machine (FORMER) emissions.

These data will be provided by the end of the extension period (August 29) as identified in the amended warning letter provided by the DEQ on August 8, 2022.

**d. Machine chest:** Point source emissions have been observed from this process on site. In the absence of site-specific test results or representative default emission factors for this TEU, assume that machine chest emissions are equal to the “Refiners – Mix Chest Vent” emissions reported in the 2007 source test.

These data will be provided by the end of the extension period (August 29) as identified in the amended warning letter provided by the DEQ on August 8, 2022.

**e. Fuel Dryer (FDRYER):**

i. Update maximum hourly throughput to 7.2 oven-dried tons (ODT) for consistency with the standard definition of one “unit” of bone dry wood chips (2,400 pounds) and the capacity of 6 units per hour. Alternatively, provide specific quantitative documentation justifying the reported maximum hourly throughput (such as weights measured at maximum dryer capacity or manufacturer’s specifications).

The throughput was initially based upon the representation made in the Title V permit application. DEQ has previously accepted these numbers with no further documentation, so we are surprised that more is requested now. Regardless, the application does not indicate that it is in BDTs and further review indicates that wet units are likely. Note that units are a volume measure, not a weight-based one. We have attached information from our powerhouse on their estimation of how much fuel is dried (75%) when the dryer is in operation. Comparing this to the 6 wet units per hour the result is nearly identical. The select 2017 data used in our earlier analysis was based upon a period of time when fuel moisture averaged 46%. The powerhouse indicates that the 2021 average was more like 55%. Thus, the previously submitted 50% is appropriate as a long term average. A more conservative short term might be 45%.

ii. Correct Table 7 notes (a) and (b) to reflect units of ODT per day rather than MMBtu per day, and the correct year of throughput information (2019 rather than 2018).

This change has been made and is reflected in the revised emissions inventory.

iii. Update the phenol (CASRN 108-95-2) emission factor for the FDRYER to 0.0233 pounds per ODT for consistency with the NCASI database.

This change has been made and is reflected in the revised emissions inventory.

**f. Boilers (BOILER\_ESP and BOILER\_SCR):**

i. Update the BOILER\_ESP and BOILER\_SCR emissions to include all TACs with emission factors available in NCASI’s “Technical Bulletin No. 1050: Compilation of Air Toxics Emissions Data for Pulp and Paper Sources – Publication Accompanying the 2018 Air Toxics Emissions Database” (see Attachment A for a list of TACs that must be added to the Inventory).

Based on continued conversations with DEQ, we understand that these emission factors, which were not included in the original “list of approved emission factors for wood combustion sources” will be required for wood-fired boilers from all facilities progressing through the CAO program, regardless of NCASI-member status. These pollutants will be added to the revised emissions inventory.

ii. Update the ‘Actual’ BOILER\_ESP 2019 activity value to 583,631 MMBtu per year and the BOILER\_SCR 2019 activity value to 49,168 MMBtu per year to align with 2019 Annual Report and reported Fuel Heat Input to Steam Output ratio (FHISOR).

This change has been made and is reflected in the revised emissions inventory.

**g. Surface Coating (MB\_SURFACE, MB\_TOPCOAT, and MB\_BASECOAT):**

i. Update the ‘Actual’ activity levels to be consistent with production values listed in the 2019 Annual Report for the following:

1. Basecoat 631-W020-160 (249 gallons);

2. Mycostat P50 + Diamulse T (1,128 gallons);
3. Anti-Blu XP-64 (2,317 gallons); and
4. Anti-Blu IP-75 (145 gallons).

This change has been made and is reflected in the revised emissions inventory.

ii. Update product details in the Inventory to match the provided SDSs for the following or provide SDSs that are consistent with the product data in the Inventory:

1. Basecoat 631-W020-1601: a. The following TACs are listed in the Inventory but are not listed on the provided SDS:

- (1) Ammonia (CASRN 7664-41-7);
- (2) Butyl acrylate (CASRN 141-32-2);
- (3) Crystalline silica (CASRN 7631-86-9); and
- (4) Vinyl acetate (CASRN 108-05-4).

These TACs were in a previous version of this product. As of the latest SDS, they have been removed. This change is reflected in the revised emissions inventory.

b. Constituent percentages for the following TACs are provided in the Inventory but are not listed on the provided SDS:

- (1) Methanol (CASRN 67-56-1); and
- (2) Formaldehyde (CASRN 50-00-0).

These TACs were in a previous version of this product. As of the latest SDS, they have been removed. This change is reflected in the revised emissions inventory. It should be noted that these pollutants are listed as California Prop 65 constituents in the SDS, however, they do not have any concentrations posted. As a result, they are not included in the revised emissions inventory.

2. High Gloss Topcoat 621-C020-232: a. The weight percent of ethylene glycol monobutyl ether (CASRN 111-76-2) is listed as 3 percent in the Inventory and is listed on the SDS as "<10" percent (which may be reflected in the Inventory as an average of 5 percent).

This change has been made and is reflected in the revised emissions inventory.

b. The product density is listed as 1.026 grams per cubic centimeter in the SDS and 1.37 grams per cubic centimeter in the Inventory.

This change has been made and is reflected in the revised emissions inventory.

3. Anti-Blu XP-64: The weight percent of Dipropylene glycol monomethyl ether (CASRN 34590-94-8) is listed as 5 percent in the Inventory and is listed on the SDS as 7-13 percent (which may be reflected in the Inventory as an average of 10 percent).

This change has been made and is reflected in the revised emissions inventory.

4. Anti-Blu M6 and Mycostat P51: Two SDSs were provided for each of these products. Please clarify whether the activity values reported in the Inventory reflect the concentrated product or the mixed treatment solution and update the constituent percentages and product density in the Inventory as appropriate.

The concentrated products were used in the previous emissions inventory. However, we have identified that this is an error. The concentrated products are not applied directly to wood products at the facility. Only the mixed treatment solutions are applied. As a result, we have revised the usage rates to reflect the mixed treatment solution throughputs and revised the applicable TAC concentrations to reflect the mixed treatment solution. These change is included in the revised emissions inventory.

**h. Kilns (KILN\_DF, KILN\_HL, and KILN\_TF):**

i. Update emission factors used to calculate final emissions to match those in AQ-EF09 (<https://www.oregon.gov/deq/FilterPermitsDocs/AQ-EF09.pdf>)

This issue was discussed with DEQ staff during the site visit on 1 June 2022. The referenced DEQ numbers were internally generated with apparently no outside review. This ignored a more than yearlong interaction between Stimson, EPA, and perhaps other parties to develop the factors adopted by EPA Region 10. That DEQ does not like the application of a small scale kiln adjustment is not justification for disregarding it when the only available data (NCASI Technical Bulletin 845) clearly shows that the OSU kiln overestimates emissions relative to other lab kilns. The one objection that the DEQ document makes is that the NCASI report is based upon Southern Yellow Pine, but nowhere is the case convincingly made that the species makes any difference in the disparate results. Never-the-less, Stimson has been informed that DEQ management is insistent upon the use of the internally generated emission factors. Again, enforcement action was implied if we did not, regardless of our demonstrations of the factors' shortcomings. Thus, we are being forced by DEQ to submit inaccurate information (with the usual bias to overestimation) and are complying with this directive under protest. In light of the demonstrated shortcomings of the OSU lab kiln, DEQ's mandate in this matter is arbitrary and capricious.

ii. Update the Emission Type in the AQ520 form from "Point" to "Fugitive."

This change has been made and is reflected in the revised emissions inventory. However, it's important to note that this distinction in the AQ520 form is agnostic of how the lumber kilns will be characterized in the dispersion model used for the risk assessment. More information on the emissions release characterization for the kilns will be provided in a modeling protocol submitted to the DEQ later in the CAO permitting process.

**i. Hardboard press (PRESS):**

i. Divide emissions into stack (98.8 percent) and fugitive (1.2 percent) portions, based on the capture efficiency demonstrated in the January 2009 source test and cited in the draft Permit Review Report for Title V Permit Number 34-2066.

This update has been made and is reflected in the revised emissions inventory.

**j. Maintenance activities:**

i. Include emission estimates or justification for exemption of maintenance shop activities including miscellaneous chemical usage, welding, and Babbitt pot usage. Documentation of the alloy composition, throughputs, and pot temperatures will be sufficient for DEQ to evaluate emissions from the Babbitt pots.

Emissions from welding and babbitt pots are included in the attached emissions inventory. These are the only two sources identified in the maintenance activities category at the facility.

**k. Wastewater treatment:**



i. Include the TACs listed below in the WATER9 model, as applicable. Assumed concentrations in wastewater may be taken from the most representative dataset listed in NCASI Technical Bulletin 773 (Tables 5.1.4, 5.2.6, 5.3.4, and 5.4.4). Alternatively, site-specific concentrations may be taken from a laboratory analysis of wastewater using the methods listed below.

Stimson does not consider ANY of the facilities characterized in the NCASI report as representative. Not only is this data over 25 years old, but the facilities use completely different wood and additives. However, we can use this report to aid in developing wastewater testing at our facility. Therefore, in addition to the formaldehyde and acetone evaluations previously reported Stimson will add the requested substances to our analysis:

1. Acetaldehyde (CASRN 75-07-0; EPA Method 8315A);
2. Phenol (CASRN 108-95-2; EPA Method 604 or 625.1);
3. Propionaldehyde (CASRN 123-38-6; EPA Method 8315A);
4. Methyl isobutyl ketone (CASRN 108-10-1; EPA Method 624.1); and
5. Acrolein (CASRN 107-02-8; EPA Method 624.1).

ii. Update the WATER9 model to include the two wastewater hydrosieves. Influent TAC concentrations may be taken from NCASI Technical Bulletin 773 or a site-specific laboratory analysis including all analytes included in the September 14, 2020 Mill Effluent Analysis as well as the additions described in Item 1.k.i above.

These data will be provided by the end of the extension period (August 29) as identified in the amended warning letter provided by the DEQ on August 8, 2022.

iii. Include emission estimates for whitewater tanks, as applicable.

These data will be provided by the end of the extension period (August 29) as identified in the amended warning letter provided by the DEQ on August 8, 2022.

#### **I. Emergency generators (BGEN and FIRE):**

i. Update the benzo(a)pyrene (CASRN 50-32-8) emission factor used to  $3.55 \times 10^{-5}$  pounds per thousand gallons.

This change has been made and is reflected in the revised emissions inventory.

ii. Update the headers in Tables 19 and 20 to reflect the throughput data year of 2019 rather than 2018.

This change has been made and is reflected in the revised emissions inventory.

iii. Exclude cold-start emissions from the Inventory, due to negligible expected impacts.

This change has been made and is reflected in the revised emissions inventory.

iv. For Diesel Particulate Matter (DEQ ID 200) emissions: 1. Provide confirmation of Tier 2 certification or manufacturer emissions data to support the use of the Tier 2 particulate matter (PM) emission factor for Diesel Particulate Matter (DEQ ID 200); and

Response below.



2. Revise emissions to include hydrocarbon (HC) data as a conservative surrogate for the condensable particulate matter fraction.

Response below.

3. Alternatively to items 1 and 2 above, update emissions to use the default DEQ emission factor for Diesel Particulate Matter (DEQ ID 200) of 33.5 pounds per thousand gallons of fuel (source: South Coast Air Quality Management District, Supplemental Instructions - Reporting Procedures for AB2588 Facilities Reporting their Quadrennial Air Toxic Emission Inventory, December 2016, Table B-2).

Additional information has been incorporated related to diesel particulate matter (DPM) emissions estimation for the emergency generator. Engine-specific emission rates for particulate matter (PM) and total hydrocarbons (THC) were included with the original emergency generator permit application submitted to DEQ in June, 2003. Note, also, that the emergency generator uses a catalytic converter for the control of various pollutants, including PM and THC. Control efficiencies for these two pollutants were provided to Stimson by the catalytic converter manufacturer and are 20% and 52% for PM and THC, respectively. As a result of this information, we propose to estimate DPM emissions using the sum of the controlled PM and THC emission rates. These emission rates and emissions calculations are provided in the revised emission inventory.

**m. Storage tanks:**

i. For all tanks (D1, D2, G2, R1, R2, and R3): 1. Use effective tank diameter rather than actual tank diameter in the standing loss calculations for horizontal tanks (see AP-42 Section 7.1, Equations 1-4 and 1-14).

This change has been made for tanks D1, D2, and G1 as they are horizontally oriented. Actual diameter will be used for R1, R2, and R3 as they are vertically oriented tanks.

2. Calculate the average daily liquid temperature (TLA) using Equation 1-27 from AP-42 Section 7.1.

In lieu of using Equation 1-27 to estimate average daily liquid temperature, we are proposing to use the simplified version, Equation 1-28 from AP-42 Section 7.1. This change has been made and is reflected in the revised emissions inventory.

3. Calculate daily working loss using the attached methodology from the Texas Commission on Environmental Quality (TCEQ; included as Attachment B). Assume maximum daily emissions are equal to maximum hourly emissions multiplied by the maximum hours of tank filling. Provide justification for the worst-case liquid temperature used, or assume the TCEQ default of 95 degrees F.

This change has been made and is reflected in the revised emissions inventory.

4. Update the Inventory to clarify the source of the meteorological data in Tables 21 through 24. Footnote 5 states that the daily maximum and minimum ambient temperatures used are "based on a review of the meteorological dataset most representative for Salem, Oregon." Based on information shared during the meeting on June 3, 2022, we understand this data to be from a dataset more representative of Stimson's location.

This change has been made and is reflected in the revised emissions inventory. Meteorological data were derived from the MIFF dataset provided by the DEQ.

ii. For the gasoline tank only (G1): 1. Use Equation 1-4 from AP-42 Section 7.1 to calculate the vapor space expansion factor. Equation 1-12 is only applicable for liquids with true vapor pressures less than 0.1 psia (see AP-42 Section 7, page 7.1-20).

This change has been made and is reflected in the revised emissions inventory.

2. Update cell J5 of Table 22 from “Storage Tank D2” to “Storage Tank G1”.

This change has been made and is reflected in the revised emissions inventory.

iii. For the resin tanks only (R1, R2, and R3): 1. Update calculations to use a representative molecular weight and vapor pressure for the product stored and provide justification for these properties.

At this time, there is limited information available for molecular weight and vapor pressure for this resin from the manufacturer. A generic molecular weight and vapor pressure calculated at 25C was obtained via online research and used for the emissions calculations. The updates are reflected in the revised emissions inventory.

2. Update the weight percent's for methanol (CASRN 7439-97-6) and formaldehyde (CASRN 50-00-0) to be consistent with the SDS provided (0.6 percent and 0.2 percent, respectively).

The manufacturer has provided a more current SDS for the GP 276A30 resin used at the facility. The updated composition data for the resin is provided in the revised emissions inventory.

3. Update the dimensions used in calculations for tank diameter and height (for Tanks R2 and R3) and shell radius (for Tanks R1, R2, and R3) to match the inputs listed in Table 3.

This change has been made and is reflected in the revised emissions inventory.

4. If true vapor pressure is greater than 0.1 psia, use Equation 1-4 from AP-42 Section 7.1 to calculate the vapor space expansion factor.

The vapor pressure found for the resin is less than 0.1 psia. Therefore, equation 1-12 from AP-42 Section 7.1 was used to calculate the vapor expansion factor. The change is reflected in the revised emissions inventory.

5. Update the equation for stock vapor density to use the universal gas constant value of 10.731 psia ft<sup>3</sup>/lb · mol · °R.

This change has been made and will be reflected in the revised emissions inventory.

**n. Chipper (CHIP):** If more than one chipper potentially operates at Stimson, update the Inventory to include throughputs and emissions for all chipper emission points individually.

During ongoing communications with the DEQ, it was decided that only chippers that process green wood need to be included in the emissions estimates. This follows precedent with Stimson's other non-Oregon facilities and EPA. Currently, there is only one chipper at the facility that processes green-wood and this source was included in the previous emissions inventory provided to the DEQ.

2. Provide the following additional documentation:

a. Laboratory data or other justification for parameters used in WATER9, including but not limited to: biomass concentrations, clarifier percent removal, pH, TSS, temperature, and aeration parameters.

These data will be provided by the end of the extension period (August 29) as identified in the amended warning letter provided by the DEQ on August 8, 2022.

b. Reference (screenshot or document) for the following TAC emission factors for the fuel dryer (FDRYER):

This information is provided in the revised emissions inventory.

- i. Acetone (CASRN 67-64-1);
- ii. Bromomethane (CASRN 74-83-9);
- iii. Chloromethane (CASRN 74-87-3);
- iv. Methylene chloride (CASRN 75-09-2); and
- v. m-Xylene (CASRN 108-38-3), p-Xylene (CASRN 106-42-3), and o-Xylene (CASRN 95-47-6);

Please contact me if you have any questions about the responses provided above. Please note that DEQ is asking Stimson to make estimates based upon sometimes incomplete information and we will continue to revise these estimates as appropriate. The final submission by August 29 may contain further amendments to these numbers.

Sincerely,



STEVEN A. PETRIN  
Stimson Lumber Company

Attachments: Attachment A – Revised Emissions Inventory  
Attachment B – Fuel Dryer Calculations

c: Brian Bartlett, Stimson Lumber Company