August 21, 2026

Delivery via YDO:
Julia DeGagné, Cleaner Air Oregon Project Engineer
Oregon Department of Environmental Quality

Re: Hampton Lumber Mills, Inc. – Tillamook Lumber Company
Cleaner Air Oregon Emission Inventory Response to Information Request

Dear Julia:

On behalf of Hampton Lumber Mills, Inc., dba Tillamook Lumber Company (Hampton), Bridgewater is responding to the Oregon Department of Environmental Quality (DEQ) letter dated July 14, 2026. Hampton previously submitted a Cleaner Air Oregon (CAO) Emissions Inventory (EI) on May 2, 2025. DEQ issued a written request on November 14, 2025, requiring additional information and a revised EI. Hampton submitted a revised EI on January 30, 2026. This response is comprised of the specific responses to DEQ's individual requests below, supporting information for these responses, revised supporting emissions calculations, and revised AQ520 forms for the two scenarios, typical operations and boiler startup. We are hopeful that this response to DEQ's second set of questions on the EI will enable DEQ to expeditiously approve the EI, allowing Hampton to finish the CAO risk assessment process.

Responses to DEQ Requests

This section includes DEQ's request in italics, followed by Hampton's response.

1. *Boilers:*
    a. *For TEUs B1, B1 SU PRE-ESP, and TEU B1 SU POST-ESP, update the emission factor for hydrochloric acid (CASRN 7647-01-0) to include data from the September 17, 2025 source test report (2.79E-4 pounds per MMbtu heat input) in the average.*
    b. *Update the following references for consistency with the emission factors used:*
        i. *In Table 2B of the Supporting Calculations, the mercury emission factor reference for steady-state should be the site-specific source tests.*
        ii. *In Worksheet 3 of the "Hampton Tillamook AQ520_BSTARTUP_Final" AQ520 form, update "Reference/Notes" column for the zinc emission factor for TEU B1 SU PRE-ESP. The note should be for mechanical collection instead of ESP/fabric filter control.*

Response: Hampton has revised emission factors for both hydrochloric acid and mercury in the supporting emissions calculations and the corresponding AQ520 forms to include the September 2025 source test results as part of the averages. Additionally, Hampton has revised the zinc and compounds emissions factor reference for Pre-ESP emissions for the startup scenario.

2. *Kilns: Information provided in Hampton's January 30, 2026, letter, indicates that kiln vents are closed for approximately 8-12 hours during temperature ramp-up for each batch. Based on the information provided, update emission factors for maximum daily kiln emissions to capture the maximum emissions during any 24-hour period – this includes updating the "hrs/charge" used in the equations provided in Tables 1 and 2 of Hampton's January 30, 2026 letter, to:*
    a. *Western Hemlock: 28 hours. Minimum total batch time of 40 hours minus the 12-hour ramp-up time when vents are closed; and*
    b. *Douglas-Fir: 24 hours. Because the minimum total batch time (29 hours) minus the ramp-up time (12 hours) is less than 24-hour period for acute emissions estimates, use 24 hours.*

    Response: Hampton has revised the kiln maximum daily emissions to reflect the 12-hour ramp times as requested by DEQ. The Western Hemlock emissions are assumed to be over a period of 28 hours, and Douglas Fir emissions are assumed to be over 24 hours.

3. *Bottom ash handling (TEUs ASH2TRK, STOCKP, PILE2TRK):*
    a. *Update the moisture content assumed for PILE2TRK in Table 6 of the Supporting Calculations to 1 percent (at a maximum), or provide analytical data representative of pile moisture content throughout the year to support a less conservative assumption; and*
    b. *Update the composition data for molybdenum trioxide (CASRN 1313-27-5) to 22.35 milligrams per kilogram (mg/kg), to account for an assumption of 100 percent oxidation from elemental molybdenum (14.9 mg/kg x 1.5 (ratio of molecular weights of molybdenum trioxide and molybdenum) = 22.35 mg/kg);*

    Response: Hampton has revised the moisture content for PILE2TRK to 1 percent, as requested, though revision appears to be unnecessarily conservative given the climate of Tillamook. Hampton has also revised the molybdenum trioxide composition information to account for the molecular weight of the compound.

4. *Wind erosion (TEU WE_AP): Update the parameters used in the "EPA Alternate Methodology" equation in Table 14 of the Supporting Calculations:*
    a. *The activity (pile area in square meters) should reflect the area of the erodible surface of the pile – please confirm that the area provided reflects the full surface area of the pile rather than the pile footprint and provide calculations demonstrating this; and*
    b. *Review the calculations for correcting wind speed at the mean pile height to wind speed at the anemometer height in the Emissions Calculations ("Wind Parameters" tab), and revise as needed: the threshold wind speed U at the anemometer height should equal the threshold wind speed at mean pile height (5.4 meters per second) x [ln(anemometer height / zo) divided by [ln(mean pile height / zo] (see AP-42 Section 13.2.5 Equation 1 and Equation 5);*

Response: Hampton has revised the area calculation for wind erosion of the bottom ash stockpile to account for the surface area of the pile, as well as revised the calculations for wind speed, as requested.

5. *Unpaved Roads (TEUs UPRL and UPRA):*
    a. *Correct the calculation in Table 13 of the Supporting Calculations and emissions (pounds per day and pounds per year) in the AQ520 forms – the "Daily E (lb/VMT)" column is using the value for "VMT/day" instead of the vehicle weight in tons;*
    b. *In Worksheet 3 of the AQ520, update the "Reference/Notes" column for all UPRA TACs from "truck travel to log pile" to "truck travel to ash pile"; and*
    c. *Hampton utilized data from the Tillamook airport meteorological station to arrive at an average 152 days of precipitation per year. DEQ has historically allowed sources to use the precipitation information in the contour diagram in AP-42 Figure 13.2.2-1, which indicates 180 days of precipitation per year. Hampton may use either 152 or 180 days in the final calculations.*

Response: Hampton has revised the calculation of emissions to reference the correct column of vehicle weight. Additionally, Worksheet 3 has been updated to reference the correct description of "truck travel to ash pile". Hampton has also revised the number of precipitation days to 180 days per year.

6. *Welding (TEU WELD): Update emissions for consistency with the San Diego County Air Pollution Control District's (SDAPCD) "Welding Operations" document:*
    a. *FCAW E71T: Update the emission factor for chromium VI (CASRN 18540-29-9) to 0.0002 pounds per thousand pounds (lb/Mlb), to reflect a 10 percent total chromium to chromium VI conversion rate for flux-cored arc welding (FCAW);*
    b. *SMAW 7018:*
        i *Include chromium VI (CASRN 18540-29-9) using an emission factor of 0.0033 lb/Mlb [chromium emission factor from AP-42 Section 12.19 with a 55 percent total chromium to chromium VI conversion rate for shielded metal arc welding (SMAW)];2 and*
        ii *Update emission factors for fluorides (DEQ ID 239), aluminum (CASRN 7429-90-5), and crystalline silica (CASRN 7631-86-9) to use a particulate matter emission factor of 18.4 lb/Mlb [AP-42 Section 12.19];*
    c. *GMAW E70S:*
        i *Include chromium VI (CASRN 18540-29-9) using an emission factor of 0.00005 lb/Mlb [chromium emission factor from AP-42 Section 12.19 with a 5 percent total chromium to chromium VI conversion rate for gas metal arc welding (GMAW)];2 and*
        ii *Update emission factors for fluorides (DEQ ID 239), aluminum (CASRN 7429-90-5), and crystalline silica (CASRN 7631-86-9)*

to use a particulate matter emission factor of 5.2 lb/Mlb [AP-42 Section 12.19];

iii *Update the fume correction factor for crystalline silica to 0.5464 pounds metal per pound fume.*

Response: Hampton has revised the welding emission calculations as requested by DEQ to correspond to SDAPCD guidance.

7. *Plasma cutting (TEU PLASMA):*
    a. *Based on draft guidance from the South Coast Air Quality Management District:*
        i *Update the hexavalent chromium emission factor to 6.22x10-2 pounds Cr6+ per pound chromium emitted (see Section 3.2.2 of the draft guidance); and*
        ii *Update the PM emission factor ("fume generated" in Table 8 of the Supporting Calculations) for semi-dry cutting to assume a 75 percent reduction from the dry cutting emission factor, which is equivalent to 1.25 percent of material removed (see Tables 2 and 3 of the draft guidance).*
    b. *For the PLASMAH-PMW TESU, review the actual usage estimates in Table 1 of the Supporting Calculations for the "Planer Millwright Shop - Plasma handheld" unit and update as needed for consistency– based on the annual value of 63 hours, the daily usage should be at least 0.173 hours.*

Response: Bridgewater has significant concerns about DEQ's reliance in this instance on draft guidance issued by another agency, South Coast Air Quality Management District ("SCAQMD"). Foremost, we are concerned that DEQ may not itself have verified the elements of the guidance in question (or the sources upon which those guidance elements are based). Bridgewater is also concerned about applying the guidance as requested because the guidance is in draft form and expressly states in a section entitled "Disclaimer" that it "may be subject to changes and updates" by SCAQMD. Finally, we respectfully question whether the CAO program's purpose of providing regulatory predictability to businesses in the CAO process (OAR 340-245-0005(2)(c)) is achieved by DEQ asking Hampton to apply SCAQMD's draft guidance, which was not issued until June 2026, more than a year after Hampton's EI was submitted to DEQ. Nevertheless, because Hampton wants to complete the EI without facing another round of time-consuming and costly information requests from DEQ, Hampton has elected to accept DEQ's requests and has revised the Plasma Cutting emissions calculations to reflect the Draft guidance's approach.

8. *For the Workhorse II anti-stain (TEU ANTI-S), provide documentation that the proprietary ingredients listed in the Safety Data Sheet (alkyl amine, organic acid, and trialkyl nitrogen oxide compounds) do not contain TACs.*

   Response: Hampton has continued to request a revised Safety Data Sheet or other information from the manufacturer on the proprietary ingredients, and they have not provided sufficient information to confirm it does not contain TACs.

9. *For Carton Black Ink (TEU INKS), provide documentation that the trade secret "surfactant" and "lactam" listed in the Safety Data Sheet do not contain TACs.*

   Response: Hampton requested a revised Safety Data Sheet from the manufacturer, and they provided a version that included ingredients, which are not TACs, provided in Appendix A.

10. *Include the chipper as an Exempt TEU on Worksheet 2 and provide estimated maximum daily and annual throughput in oven dried tons – this unit has some potential to emit TACs but amounts are expected to be low.*

    Response: The chipper has been added to the Worksheet 2 of the AQ520 forms as an Exempt TEU, with estimated throughputs in bone dried tons

11. *In Worksheet 2 of the AQ520 forms, populate the actual Annual and Max Daily Activity Information Columns with data from calendar year 2024.*

    Response: Hampton has revised the AQ520 forms to include information on calendar year 2024 activity for non-exempt TEUs.

CONCLUSION

Thank you in advance for considering Hampton's responses and the updated EI. We hope DEQ will expeditiously review and approve the EI, allowing Hampton to move forward with completing its CAO review.

Respectfully Submitted,

Travis Quarles, PE

Managing Consultant

Appendix A

Safety Data Sheet for Carton Black Ink