



# Oregon

Tina Kotek, Governor

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March 1, 2023

Hollingsworth & Vose Fiber Company  
1551 Crystal Lake Drive  
Corvallis, OR 97333  
*Sent via email only*

Anita Ragan,

Hollingsworth & Vose Fiber Company (H&V) was called in to Cleaner Air Oregon (CAO) on January 10, 2022, and submitted an Emissions Inventory (Inventory) on April 11, 2022. DEQ completed a review and, by correspondence dated June 8, 2022, requested that H&V provide additional information and make revisions to the Inventory by July 8, 2022. H&V submitted a revised Inventory on July 8, 2022. DEQ completed a review of the revised Inventory and provided a comment letter on September 22, 2022, requiring updates to the Inventory to be submitted by October 24, 2022, and requiring source testing for the purpose of emission factor development for the Inventory. H&V completed source testing in December 2022, and submitted a Source Test Report on February 4, 2023. DEQ has reviewed the October 24, 2022 Inventory submittal and Source Test Report and has determined that, in accordance with Oregon Administrative Rule ([OAR 340-245-0030\(2\)](#)), the following information, corrections, and updates are required in order to approve the Inventory:

## General Comments

Glass fiber emissions from Ceramic Filter Unit (CFU) stacks: DEQ recognizes that particles larger than 5 micrometers in length are not likely to travel through the CFU filtration media; however, potential emissions from these Toxic Emissions Units (TEUs) include leakage from ceramic filter seals and voids. In a cover letter provided with the Inventory submittal on October 24, 2022, H&V expressed their intent to perform voluntary emissions testing in order to estimate glasswool fiber emissions from CFU stacks. In an email to me on November 21, 2022, you indicated that the testing had already been completed and the test report would be provided to DEQ for review. DEQ agrees to review the test data and H&V's proposed emissions estimates in order to determine their appropriateness for use in the Inventory. The specific comments below include a request for H&V to provide the test data and include emissions estimates in the Inventory.

Glass fiber emissions from glass fiber handling areas: These areas include baling and packaging areas where the final product is transferred from the collecting drums and conveyors to be compressed and baled, and areas where the final product is stored prior to shipment. In a cover letter dated October 24, 2022, H&V indicated that these areas are exempt TEUs under [OAR 340-245-0060\(3\)\(a\)](#), because they "are inside of the building and away from any potential point of release to atmosphere. Any PM resulting from the handling of glass fiber in this enclosed area settles and is regularly cleaned up as a housekeeping measure." DEQ staff observed the handling areas in Glass Plant 1 and Glass Plant 2 during a site visit on December 14, 2022 and found that there is potential for particulate emissions, as indicated by evidence of airborne material and potential airflow out of the buildings (for example, the outward-blowing fans in the roof of Glass Plant 1). For these reasons, the handling areas cannot be considered exempt TEUs, and emissions must be estimated in the Inventory. H&V must also address potential glass fiber emissions from outdoor storage areas.

02-2173 Hollingsworth & Vose Fiber Company

Designation of TEUs and emission points on the AQ520 Form: In our September 22, 2022 letter, DEQ requested that H&V update the AQ520 form to include additional line items for TEUs with multiple emission points. H&V has asserted that this request is inconsistent with Oregon rules, specifically [OAR 340-245-0060\(1\)\(b\)](#), which states: “An individual emissions-producing activity that exhausts through multiple stacks or openings must be designated as an individual TEU.” DEQ understands this concern and to clarify the intent of the request, DEQ does not intend that each line item listed on Tab 2 of the AQ520 form will necessarily be designated as a separate TEU for permitting purposes. The request for the addition of line items was made for clarification when verifying consistency between the Toxic Air Contaminant (TAC) emission rates and release points in the Inventory and those provided in the subsequent Modeling Protocol and Risk Assessment. For example, each of the designated raw materials handling TEUs incorporates multiple emission factors (e.g., transport and mixing) and multiple emission points; therefore it is important that the Inventory correspond with the distribution of emissions for these activities in the subsequent submittals. DEQ maintains the initial request in this letter, but has revised the language to reflect this intent.

Verification of 100 percent capture efficiency for raw materials handling areas: Based on the Source Test Report submitted by H&V on February 4, 2023, the data provided are not sufficient to demonstrate that the raw materials handling areas meet the criteria for a Permanent Total Enclosure (PTE) – see Attachment A. DEQ’s letter dated September 22, 2023, required verification of capture efficiency by EPA Method 204 or an alternative, DEQ-approved method. Therefore, the testing must be repeated and a revised source test report meeting the requirements of EPA Method 204 must be submitted, as stated in the specific comments below.

### **Specific Comments**

1. By **March 31, 2023**, Submit to DEQ a revised Inventory (AQ520 form), along with all supporting calculations in Excel format and supplemental information needed to verify emissions calculations as required under [OAR 340-245-0040\(4\)\(b\)\(C\)](#), including the following updates:
  - a. Revise the Inventory to include quantitative estimates of glasswool fiber (DEQ SEQ ID 352) emissions for the following TEUs, based on the best available data:
    - i. Ceramic Filter Unit (CFU) stacks, including:
      1. Flame Blown (TEU FB);
      2. Rotary Fine (TEU RF); and
      3. Rotary Coarse/Ultra Rotary Coarse (TEU RC); and
    - ii. Glass fiber handling areas, including but not limited to:
      1. The baling/packaging areas in:
        - a. Glass Plant 1; and
        - b. Glass Plant 2; and
      2. Outdoor storage areas – if emissions from these areas are controlled through specific housekeeping or operational practices, please describe these;
  - b. Revise the Inventory to include estimated emissions from the CFU stacks for the TAC present in the bulking agent (TEUs FB, RF, RC, and GM);
  - c. Update the Inventory to include revised emission factors for organic TACs from glass plant processes (TEUs RF, RC, FB, and GM), based on the results of the source testing completed in December 2022, as requested and described in Items I.4 and II.1 of DEQ’s September 22, 2022 letter. DEQ’s approval of the source test results for organic TACs is included in Attachment A; and
  - d. Update the AQ520 form to include additional line items for TEUs with multiple emission

- points:<sup>1</sup>
- i. On Tab 2, for each emission point: designate a unique TEU ID in column A. TEU IDs may be listed in the format “[TEU Name]\_[Emission Point]” to indicate that a single TEU has multiple emission points which are broken out for clarity on the AQ520;
  - ii. On Tab 2, for each emission point: provide an individual “Stack or Fugitive ID” in column E and activity information, as appropriate, in columns F-M; and
  - iii. On Tab 3, list emission factor information and calculated emissions for each unique TEU ID.
2. By **March 31, 2023**, provide the following additional documentation to support the Inventory:
    - a. Test reports for the Method 5 testing and microscopy analysis of CFU stack emissions referenced in the email from Anita Ragan to Julia DeGagné on November 21, 2022; and
    - b. Any additional documentation needed to support the emissions estimates reported in response to Item 1.a above.
  3. By **April 3, 2023**, repeat the verification of a PTE for the raw materials handling areas (TEUs RMH\_BA, RMH\_ZN, RMH\_F, RMH\_S, RMH\_D, RMH\_L, RMH\_N), and submit a source test report demonstrating that it meets the criteria in Sections 5.1 and 5.3 through 5.5 of EPA Method 204.

DEQ is requesting that you submit additional information to complete your Inventory. If you think that any of that information is confidential, trade secret or otherwise exempt from disclosure, in whole or in part, you must comply with the requirements in [OAR 340-214-0130](#) to identify this information. This includes clearly marking each page of the writing with a request for exemption from disclosure and stating the specific statutory provision under which you claim exemption. Emissions data is not exempt from disclosure.

DEQ remains available to discuss this information request with you and answer any questions you may have. Failure to provide additional information, corrections, or updates to DEQ by the deadlines above may result in a violation of [OAR 340-245-0030\(1\)](#).

If you have any questions regarding this letter please contact me directly at (503) 866-9643 or [Julia.degagne@deq.oregon.gov](mailto:Julia.degagne@deq.oregon.gov), and I look forward to your continued assistance with this process.

Sincerely,



Julia DeGagné  
Air Toxics Project Manager

Enc: Attachment A: DEQ Source Test Report Review Memorandum

Cc: Cindy Frost, H&V  
Chad Darby, Maul Foster Alongi  
Amy DeVita-McBride, Maul Foster Alongi  
Tom Wood, Stoel Rives

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<sup>1</sup> TEUs with a shared emission factor and control efficiency, and which have emissions that are split evenly among all emission points may continue to be listed as a single line item.

Mike Eisele, DEQ  
JR Giska, DEQ  
Thomas Rhodes, DEQ  
Keith Andersen, DEQ  
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