Oregon
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August 27, 2025

Eagle Foundry Co.
PO Box 250
Eagle Creek, OR 97022-0250
Sent electronically only

Greg Lasslett,

DEQ received the submittal of the Cleaner Air Oregon (CAO) Emissions Inventory (Inventory), Modeling Protocol (Protocol), Risk Assessment Work Plan (Work Plan), and Level 3 Risk Assessment for Eagle Foundry Co. (Eagle Foundry) in Eagle Creek, OR on March 4, 2025, and has completed an initial review. In accordance with Oregon Administrative Rule (OAR) 340-245-0030(2), DEQ has determined that the following additional information, corrections, and updates are required **by October 27, 2025**, to approve the Inventory, Protocol, Work Plan, and Risk Assessment:

General Comment

Eagle Foundry used a cumulative hazard index that includes all target organ systems to assess noncancer risk. This results in a conservative risk estimate. DEQ allows for the calculation of noncancer risk using separate hazard indices for different target organ systems under OAR 340-245-0200(3)(c)(C). Separating into target organ systems is not required for risk assessment approval, but it could result in a lower noncancer risk result.

Specific Comments

Emissions Inventory

1. Submit an updated AQ520 (Emissions Inventory) form including the following revisions, and incorporate changes into the Risk Assessment as applicable:
    a. In Worksheet 2, populate Columns C through M for the Reclaimed Bead Overflow Silo (TEU D1-5).
    b. In Worksheet 2, remove the 30-horsepower propane-fired emergency generator (EXEMPT_PROPGEN) if it is a categorically exempt Toxics Emissions Unit (TEU). Based on DEQ's analysis this generator is categorically exempt under OAR 340-245-0060(3)(b)(C)&(JJ) – these emission activities are already included in Eagle Foundry's AQ523 Form for Categorically Exempt TEUs.
    c. In Worksheet 2, update the following "Stack or Fugitive ID"s for consistency with the Table 3-5 in the Protocol:
        i. For the Small Palmer Bead Silo (TEU D1-1), update to "EP1_1" (small palmer baghouse); and
        ii. For the Big Palmer Mold Materials (TEUs MOLD_BP_V, MOLD_BP_I, MOLD_BP_C, and MOLD_BP_U), update to "EP2_3" (main foundry baghouse).

d. In Worksheet 2, confirm the maximum daily activity values for the Silos (TEUs D1-1, D1-3, D1-4, and D1-5). Silo emissions assume 8,760 hours of operation per year but only 20 hours of operation per day.
e. In Worksheet 4, update the emission type for Pattern Making (TEU PATTERN) to "fugitive" for consistency with Table 3-6 in the Protocol.

2. Submit an updated workbook showing supporting calculations, in native Excel format.

Modeling Protocol

3. Provide the following additional information and incorporate it into the Inventory, Protocol and Risk Assessment and Risk Assessment Report as applicable:
    a. Documentation demonstrating that welding emissions are fully captured by ducting and routed to a stack. If 100 percent capture cannot be substantiated, update the modeling to assume a justifiable split between fugitive and stack emissions and use release parameters appropriate to each emission type; and
    b. Update the AQ520 Form to reflect the modeled release parameters – the "Emission Type" column currently describes welding emissions as "Fugitive".
4. Submit an updated Protocol including the following revisions, and incorporate changes into the Risk Assessment as applicable:
    a. Update Figure 2-3 ("Process Flow Diagram—Foundry and Finishing") to include Slag Handling (TEU SLAG).
    c. In the first paragraph of Section 3, update the date of the "TAC emission inventory" used to reflect the most recent version.
    d. In Section 3 ("Emission Estimates and Model Sources"):
        i. Include a description of the Small Palmer (TEU S_PALMER);
        ii. Update the Exit Flowrates and Velocities for the Main Foundry Baghouse (EP2_3) and the Foundry Cooling Bunker (EP2_4) to use site-specific values for actual cubic feet per minute, from the DEQ approved source testing completed in March 2023;
        iii. Review and confirm the release height of 11.58 meters for emission points HT_1, HT_2, HT_3, and HT_4 – the release height appears to be significantly higher than the building height;
        iv. Include a specific reference for how each exit velocity and non-ambient temperature was determined for the stack release parameters in Table 3-5 and provide supporting documentation as needed; and
        v. Describe how the release height and length of side for the Pattern Making (Model ID PTRN) were determined in Table 3-6; and
        vi. For the SLAG Model ID in Table 3-6:
            1. Clarify the units for the Emission Rate for slag handling – these appear to be units of gram per second per meter squared instead of grams per second; and
            2. Update the table to the area source dimensions modeled (1.07 meters by 0.814 meters) instead of an Initial Lateral Dimension.
    e. In Section 3-2, update the model ID for Reclamation (TEU REC_R) to "EP2_2" for consistency with the AQ520 form and Table 3-5.
    f. In Section 3.3.1, correct the source test report dates for the Permanent Total Enclosure verification of the Air Arc enclosure – the final test report was dated June 15, 2023, and was approved by DEQ on June 22, 2023.

g. Update Section 3.8 to clarify that the Exempt TEUs discussed are those that are exempt under OAR 340-245-0060(3)(a) to differentiate them from TEUs that are categorically exempt under OAR 340-245-0060(3)(b), and remove the 30 hp propane generator from the list if it is exempt under OAR 340-245-0060(3)(b).
h. Update the "Total TAC" sums in Tables 3.1 through 3-4 to exclude total chromium (CASRN 7440-47-3) – only Chromium VI (CASRN 18540-29-9) is a TAC included in the risk assessment.
i. In Section 4.1, use the most recent version of AERMAP (v. 24142).
j. Update Table 4-4 and the meteorological data processing to reflect that surface data were not collected at an airport.
k. In Table 4-3, indicate the number or percentage of calm hours per quarter.
l. Update Section 4.2.4 to add further detail regarding the substitution of data from Q1 of 2021 with data from Q1 of 2019:
    i. Describe whether the missing data from Q1 of 2021 is intermittent or more continuous in nature; and
    ii. Clarify whether the substitution included all hours from Q1 of 2021 or if only the missing hours were substituted.

Risk Assessment Work Plan

5. Submit an updated Work Plan including the following revisions, and incorporate updates into the Risk Assessment as applicable:
    a. Renumber Table 4-10 ("Summary Of Statewide Zoning And Exposure Type Categorization") as Table 4-9 to match the text in Section 4.7 (the Work Plan currently does not have a Table 4-9).
6. Update the Risk Assessment, Figure 4-4, and the "Summary Of Statewide Zoning And Exposure Type Categorization" table as follows:
    a. Child exposure locations should be assessed for worker or residential exposure as well, whichever is appropriate (for example, schools should include worker exposure and in-home daycares should include residential exposure).
    b. In Table 4-10, update the "Corresponding Exposure Type Classification" for commercially zoned areas from "Non-Residential Worker or Child (if applicable)" to "Non-Residential Worker and Child (if applicable)" because daycares and schools should also include worker exposure.
    c. Adjust the receptors so that all receptor distances extend from the property boundary, rather than from the center of the facility (currently only the 25-meter receptors extend out to 200 meters from the property boundary).
    d. Evaluate Eagle Creek Explorers Nature School and Daycare (24347 SE Filbert Road) as both a child and residential exposure location.
    e. Review the receptors that are outside of the right-of-way and ensure they are assessed appropriately based on the most current Clackamas County zoning information. This includes but is not limited to:
        i. Receptors in areas zoned for Exclusive Farm Use: If local zoning laws allow for one or more residential structures, Exclusive Farm Use should be assessed for residential and acute exposure by default.
            1. If it can be demonstrated that all allowable residential structures have already been constructed on a taxlot, only the residential portions of the

taxlot must be assessed for residential exposure, and an exposure location change request is not required.

2. If all allowable residential structures have not already been constructed on a taxlot, and Eagle Foundry wishes to request the use of an exposure classification other than residential (for example, worker and acute for farm outbuildings or acute-only for farm fields), you must submit the AQ521 Exposure Location Change Request Form and the AQ522 Exposure Location Change Request Table stating the requested changes;[1] and

ii. Receptors in other residentially zoned areas:

1. If Eagle is proposing to assess any of these as either worker and acute or acute-only exposure, you must submit the AQ521 Exposure Location Change Request Form and the AQ522 Exposure Location Change Request Table stating the requested changes;[1] and
2. This includes but is not limited to the receptors directly north and northeast of the facility that are located within the "Rural Residential Farm Forest 5-Acre" zoning.

Risk Assessment

7. Please submit updated Risk Assessment tables and an updated Risk Assessment Result Summary with the following revisions:
   a. Clarify the table references in the second paragraph of Section 6 – gas combustion TEUs are compared to the Risk Action Levels in Table 6-6, and significant TEUs are compared to the Risk Action Levels in Table 6-7.
   b. Update the rounding in Table 6-7 to be consistent with OAR 340-245-0200(4). Specifically, risk that exceeds the Source Permit Level (noncancer hazard index greater than 0.5 or excess cancer risk greater than 5) should be rounded to the nearest whole number.
   c. In Section 6.3 for acute risk assessments:
      i. In the second bullet, clarify or remove the statement "The Level 3 RA was conducted assuming all sources at the facility are simultaneously operating at maximum capacity for 24 hours" – DEQ did not evaluate whether melting was modeled at the physical capacity of the equipment, and many other TEUs were modeled below their daily physical capacity.
      ii. In the third bullet, remove the reference to "maximum capacity".
   d. In Section 6.3 for cancer and chronic risk assessments:
      i. Update the first bullet to clarify that DEQ's Risk Based Concentrations assume a 70-year, 24-hour per day exposure duration for residential cancer risk only. Child and worker cancer risk RBCs rely on different assumptions (see DEQ's Recommended Procedures for Toxic Air Contaminant Health Risk Assessments (October 2022)). Chronic noncancer risks for all scenarios are appropriate for exposures longer than one year.

[1] DEQ recommends that Exposure Location Change requests be limited to those receptors that may impact the risk assessment; in general this will make verification of these exposure locations easier for Eagle Foundry during annual reporting and reduce the likelihood that Eagle Foundry will need to reassess risk in case of a change in land use.

ii. Clarify or remove the second bullet – few of the TEUs were modeled at their maximum annual physical capacity.

DEQ requests that you submit additional information to complete your Protocol, Work Plan, and Risk Assessment. 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 and answer any questions you may have. Failure to provide additional information, corrections, or updates to DEQ by the deadlines in this letter may result in a violation of OAR 340-245-0030(2).

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

Sincerely,

Julia DeGagné
Cleaner Air Oregon Project Engineer

Cc: Joules Vaca, DEQ
J.R. Giska, DEQ
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