



Oregon

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November 25, 2024

Mutual Materials Company
2300 SE Hogan Rd
Gresham, Oregon 97080
Sent via email only

James Smith,

DEQ received the submittal of the Cleaner Air Oregon (CAO) Emissions Inventory (Inventory) for the Mutual Materials Company facility in Gresham, OR on July 25, 2024, 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 to the AQ520 form and supporting documents are required and must be submitted by **December 20, 2024**, in order to conditionally approve the Inventory:

General Comment

Total fluoride emissions: In a discussion with the facility on November 6, 2024, DEQ indicated that source testing must be conducted to determine the total fluoride emissions from the Tunnel Kiln (**KILN_TK**). DEQ sent an Official Information Request to Mutal Materials on November 18, 2024, requiring the source to conduct source testing for hydrogen fluoride (CASRN 7664-39-3) and total fluorides (DEQ Seq ID 239) of the **KILN_TK** exhaust. The facility is currently in the process of contacting source testing companies and requesting bids for this testing. The emission factor for total fluorides resulting from this testing will be used in the final Inventory. The hydrogen fluoride emissions information from this testing, along with any other data collected during the test (for example, hydrogen chloride (CASRN 7647-01-0), hydrogen bromide (CASRN 10035-10-6), chlorine (CASRN 7782-50-5), and bromine (CASRN 7726-95-6)), could also be used to update the Inventory.

Specific Comments

1. **Total fired brick throughput:** Please provide the following information regarding the throughput data provided in the AQ520 form for the yearly and daily values:
 - a. **Yearly throughput:**
 - i. The current permit uses 25,500 tons of brick fired per year to calculate the potential to emit from **KILN_TK**. The AQ520 form lists 25,000 tons of brick fired per year as the total throughput for **KILN_TK**. Please revise the AQ520 form to align with the current permitted value or substantiate the discrepancy.
 - b. **Daily maximum throughput:**
 - i. In DEQ's meeting with the facility on November 6, 2024, it was discussed that daily throughput for the **KILN_TK** is limited by the capacity of the brick dryer. Please confirm the daily throughput values listed in the AQ520 form are an

accurate estimate of the actual and maximum daily throughput given the current process configuration.

- ii. Please include an actual and maximum daily throughput value for the kiln drying of clay bricks without the manganese surface treatment (**KILN_TK**) in the AQ520 form. DEQ understands the intent is to only model the more conservative risk scenario with emissions calculated assuming production of bricks with the manganese surface treatment.

c. Consistency in throughput recordkeeping:

- i. The production rate listed in the 2023 Air Toxics Emissions Inventory is inconsistent with the rate listed in the 2023 Annual Report and the AQ520 form. Please provide an explanation for how material throughput is tracked and the possible reason for this discrepancy.

2. **Missing TACs from additive SDS's:** Update the AQ520 form to either include the missing Toxic Air Contaminants (TACs) or revise the mass fraction of TACs listed in the SDS's for the materials listed below; alternatively, provide information supporting that these should be excluded or that the current mass fractions are accurate:
 - a. **KILN_M** - Magna K: Missing the listed manganese (CASRN 7439-96-5) percentage of 36 to 46%;
 - b. **KILN_BX** - Brickox: Missing the listed manganese dioxide (CASRN 7439-96-5) percentage of 90 to 100% and the phosphorus (CASRN 7723-14-0) percentage of $\leq 1\%$, which should be reported as the mass of manganese and phosphorus, respectively;
 - c. **KILN_GB** - Gerstley Borate: Missing the listed manganese oxide percentage of 0.024%, which should be reported as the mass of manganese; and
 - d. **KILN_IONR** - Red Iron Oxide NR: The quartz (CASRN 14808-60-7) percentage listed in the SDS is 1% to 5%, but it is included in the AQ520 form and Table 4 of the supplementary document for the Inventory as 20%. This TAC has been correctly identified as crystalline silica (CASRN 7631-86-9) in the Inventory.
3. **Missing chromium emission factor for silos:** Revise the AQ520 form to include the total chromium (CASRN 18540-29-9) emission factor of 2.90×10^{-8} lb/ton from AP-42 Table 11.12-8, listed in Table 6 of the supplementary document for the Inventory, for TEUs **SILO_1** through **SILO_10**.
4. **Cement mixing activities:** AP-42 Section 11.12 Concrete Batching provides emission factors for central mix batching and several other emissions sources associated with concrete batch mixing, but only silo filling emissions are included in the AQ520 form. Please provide more detailed information on the potential emissions from the cement mixing process, including a discussion on the development of the daily and yearly throughputs for **SILO_1** through **SILO_10**.

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 503-913-6658 or Katie.Eagleson@deq.oregon.gov, and I look forward to your continued assistance with this process.

Sincerely,

Kathleen H Eagleson

Katie Eagleson, PE
Cleaner Air Oregon Project Engineer

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