

Dear Ms. Eagleson:

Thank you for your responses to The Willamette Valley Company, LLC (WVC) Cleaner Air Oregon modeling protocol, which was provided on January 21, 2022. We have been working together with Maul Foster & Alongi, Inc. (MFA) to address each of your comments. The following letter provides responses to the items identified in the February 23, 2022 request for information clarification, which are organized in the same manner as presented in the request.

- 1) **(BUILDING 1, BUILDING 2)** From elevation information gathered using Google Earth, the heights of both buildings are shorter than the listed height of 35 feet in Table 3-1 of the CAO MP. The LRAPA height estimates for these TEUs are as follows:
  - BUILDING\_1: 6 meters (19.7 feet)
  - BUILDING\_2: 8 meters (26.2 feet)

Please verify the building heights of both TEUs, as a height below 20 feet would result in a change in the dispersion factors for that TEU.

We measured the heights of both buildings using a digital laser measure (Model GLM165-40) and found their heights to be as follows:

- BUILDING\_1: 20.4 feet
- BUILDING\_2: 26.5 feet

The level 1 risk assessment will be updated to reflect these heights. The proposed changes are shown in Table 3-1 of the revised modeling protocol.

- 2) **(BUILDING 1, BUILDING 2)** Please verify the exhaust points for the three dust collectors at the facility. The CAO MP indicates that all three contribute to the fugitive emissions of these TEUs, but the Notice of Intent to Construct application received on May 6, 2021, for the installation of a third dust collector (EU#28) indicated that Dust Collector 1 (EU#1) exhausts to the atmosphere as a point source.

We reviewed the exhaust configuration of Dust Collector 1 (EU#1) and determined that the stack emits directly to atmosphere. The exhaust stack is located beside building 660 (TEU ID: BUILDING\_2) and the emergency generator (TEU: EGEN) and has a height of 11 feet and 4 inches. As a result of this discovery, MFA will revise the release type for products manufactured in this building (PATCH ISO, PLYWOOD PATCH RESIN, POLYUREAS, EPOXIES, SPIKEFAST RESIN) using the following configuration.

Based on engineering judgement, it's expected that approximately 90 percent of fugitive solids loss during material filling operations will be captured by forced draft ventilation through the overhead hoods. As a result, MFA proposes to assume 90 percent of solids-based toxic air contaminants (TACs) be allocated to the Dust Collector #1 exhaust stack (TEU ID: BUILDING\_2-STK). The remaining 10 percent will be characterized as a fugitive building source (TEU ID: BUILDING\_2-FUG).

As there are no known mechanisms to drive vapor loss during filling and blending operations, it's expected that the forced draft ventilation in the overhead vents will capture 100 percent of any vapor loss. Therefore, MFA proposes to assume 100 percent of vapor-based TACs be allocated to the Dust

Collector #1 exhaust stack (TEU ID: BUILDING\_2-STK). The revised emissions allocation for products manufactured in building 2 are provided in Table 3-3 of the revised modeling protocol.

3) **(BUILDING 2)** Table 3-3 of the CAO MP separates out the following compounds:

- Toluene-2,4-diisocyanate → 4.6E-3 lb/yr
- Toluene-2,6-diisocyanate → 1.1E-3 lb/yr
- Toluene diisocyanates (2,4- and 2,6-) → 3.8E-4 lb/yr

Only toluene diisocyanates (2,4- and 2,6-) has an RBC, but its yearly emission rate is listed as lower than the other speciated isomers. The toluene diisocyanates (2,4- and 2,6-) emission rate should be additive and include of all the toluene diisocyanates isomers.

For purposes of the level 1 risk assessment, MFA will combine daily and/or annual Toluene-2,4-diisocyanate, Toluene-2,4-diisocyanate, and Toluene diisocyanate (2,4- and 2,6) emissions for comparison against the Toluene diisocyanate (2,4- and 2,6) risk-based concentrations. This update is reflected in Table 3-3 of the revised modeling protocol.

4) **(EGEN)** Table 4-1 Dispersion Factors:

- Non-Residential Child: Value not interpolated for a stack height of 8 feet, listed as the 5-foot stack dispersion factor
- Non-Residential Worker: Value not interpolated for a stack height of 8 feet, listed as the 5-foot stack dispersion factor

Please revise.

As the height of the EGEN stack is less than the 5-meter height in OAR 340-245-8050 Stack Emission Dispersion Factors Tables 3A and 3B, MFA will use dispersion factors representative of the 5-meter height. The dispersion factors are provided in Table 4-1 of the revised modeling protocol.

5) **(MDI\_BULK, RESIN\_BULK)** The dispersion factors in Table 4-1 for these TEUs do not appear to account for the correct stack height of 32 feet listed in Table 3-1, as the magnitudes of the dispersion factors listed in the CAO MP differ greatly from the factors for this stack height in OAR 340-245-8050 Stack Emission Dispersion Factors Tables 3A and 3B. Please verify stack height and revise.

We have verified the stack height for both TEUs and will use interpolated dispersion factors for the level 1 risk assessment. The updated interpolated dispersion factors are provided in Table 4-1 of the revised modeling protocol.

Please contact me if you have any questions about the responses provided above.

Sincerely,

Andrew Rogers

Attachments:

Revised Level 1 Modeling Protocol