



Oregon

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May 26, 2022

Entek International LLC
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Sent via email only

Kim Medford,

DEQ received the submittal of the Cleaner Air Oregon (CAO) Modeling Protocol for ENTEK International LLC (Entek) in Lebanon, OR on February 17, 2022, as well as the Risk Assessment Work Plan (Work Plan) on March 18, 2022. Additionally, DEQ met with Entek to discuss these documents on April 19, 2022. DEQ has completed an initial review of these documents.

DEQ conditionally approves the Work Plan with the requirement that the following comments on Section 5, the Uncertainty Analysis, and specifically the bullet points on “Acute Assessments,” be addressed in the final report submitted with the Risk Assessment:

1. **Bullet 1:** If risk-based concentrations are developed using toxicity reference values derived from exposures of less than 24 hours (such as eight hours or one hour), using a 24-hour averaging period may underestimate risk. DEQ agrees that risks may be overestimated for the reasons provided.
2. **Bullet 3:** The acute TRV for TCE is based on severe fetal cardiac malformations that can occur during a short developmental window that may be as short as one day. Therefore, it is not appropriate to state that acute impacts are based on an assumption of 15 to 364 times the actual exposure.

In accordance with Oregon Administrative Rule (OAR) 340-245-0030(2), DEQ has determined that the following additional information, corrections, and updates are required **30** days from the issuance of this letter, by **June 25, 2022**, in order to approve the Modeling Protocol:

1. **Submit a revised AQ520 CAO Emissions Inventory Form**
Section 3.6 ‘Natural-Gas-Fired Boilers (TEU-2.3 and TEU 2.1)’ indicates, “The emission rates shown in Tables 3-1 and 3-2 correct cell reference errors identified in the DEQ-approved emission inventory that incorrectly looked up the annual natural gas fuel usage instead of annual diesel usage to calculate annual emissions.” Please submit a revised Emissions Inventory with these corrections.
2. **Emission Rates**
Please provide the following information regarding the proposed emission rates:
 - a. In Table 3-2, the pounds per day [lb/day] emission rates incorrectly match the pounds per year [lb/year] rates in Table 3-1 – please revise.
 - b. In Table 3-3, the “Acute Risk Equivalent Emission Rate” are derived from the annual emission rates, rather than the daily emission rates – please revise.

- c. In Table 3-5, Acetone emissions from C-STK are allocated at 42%, please provide justification for the allocation of these emissions.
 - d. Leak Detection and Repair (LDAR) emissions:
 - i. The LDAR analysis submitted along with the Stipulated Emissions Inventory, 2022 01-11 LDAR Component Emissions Spreadsheet_final.xlsx, indicates that Zone 12B, Solvent Tanks Phase Separator, is a fugitive emissions source that accounts for ~10% of the fugitive emissions; however, Table 3-4 only includes Zone 12A emissions, along with Zone 11, as being released from a modeling ID of STK_Z11 - Zone 12B is not included. Please provide support for this discrepancy.
 - ii. The total emissions from the LDAR zones of 684.58 pounds per year are consistent between the LDAR analysis submitted with the Stipulate Emissions Inventory and the emission rates in the Modeling Protocol; however, the distribution of the emissions among the emission points, or Zones, is not consistent (see Attachment A). Please substantiate these discrepancies and revise the appropriate document for re-submittal.
- 3. Modeling Receptors and Exposure Location Assignment**
- a. Please address the following concerns related to determining the extent of the facility boundary:
 - i. Please provide information demonstrating that Taxlot 104 on Map Number 12S2W10B (see Attachment B, Figure 1), the land between the Entek manufacturing facility on Taxlot 1600 and the Entek warehouse located on Taxlot 100, is included on the lease of the warehouse from Western Warehousing LLC and should be considered as part of the Entek source; and
 - ii. Please provide information demonstrating that the operations and emissions associated with the Entek Manufacturing Inc facility on Taxlot 1100 on Map Number 12S2W10BA (see Attachment B, Figure 1) are included in the current Title V Air Quality permit in order for this facility to be considered as part of the Entek source for the purposes of this Risk Assessment. It is our understanding that Entek Manufacturing is not included in the Entek International TV permit.
 - b. Regarding the property on Taxlot 1400 on Map Number 12S2W03C (see Attachment B, Figure 1):
 - i. Please provide documentation that Entek will restrict public access to this area by installing both physical (e.g., fencing) and administrative (e.g., signage) controls; and
 - ii. Because exposure locations in the CAO program are assessed based on the underlying zoning, which in this case is Exclusive Farm Use, please request an exposure location change using [AQ521](#) & [522](#) forms for modeling receptors on this taxlot consistent with its use.
 - c. In Figure 4-9, there are homes labelled as ‘Worker’ exposure locations directly east of the facility (see Attachment B, Figure 2) – please update these to ‘Residential’ exposure locations.
 - d. Roadways should only be classified as “risk not evaluated” for receptors within the 25m and 50m spacing grid because further out the receptors are intended to characterize the general exposure location for an area. For example, if a modeling receptor at the 200-meter spacing interval happens to fall on a road inside a residential area, and there are few other receptors that are capturing that residential area, the receptor should be classified as a residential exposure location in order to more accurately characterize the

people being exposed in that area. As an example, see the residential area in the southeast portion of figure 4-5. Please revise this figure, and the exposure location assignment of any receptors, accordingly.

- e. Please ensure correspondence between the exposure location figures provided and the modeling receptor/exposure location crosswalk provided.

4. Building Downwash Modeling Parameters

In figure 4-3 there are a number of buildings not included in the downwash assessment (e.g., the building the Carbon Stack is attached to) – please substantiate why these buildings were excluded or revise the Modeling Protocol to include them in the downwash assessment.

5. Meteorological Data

Because on-site meteorological data is available beginning in 2017, please use all available full year meteorological data from 2018-2021 and revise the Modeling Protocol to reflect this update.

DEQ is requesting that you submit additional information to complete your Modeling Protocol. 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 the 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 (971.337.4102, JR.giska@deq.oregon.gov), and I look forward to your continued assistance with this process.

Sincerely,



J.R. Giska
CAO Program Engineer

Cc: Augustin Figueroa, Entek International LLC
Tom Wood, Stoel Rives
Mike Eisele, DEQ
Claudia Davis, DEQ
Matt Davis, DEQ
File

ATTACHMENT A:

Type	Table 3-1: Modeling Protocol			From LDAR		Difference (Modeled - LDAR)
	Model ID	Description	lbs/year	LDAR Zone(s)	lbs/year	
Point	STK_Z45	Zone 4 & 5: Stack	257.91	4 & 5	273.1	-15.23
Point	STK_Z11	Zones 11 and 12A: Stack	152.23	11 and 12A	158.8	-6.62
Fugitive	TCE1_1	Zone 1: Fugitive	2.66	Zone 1 (half)	2.66	0.00
Fugitive	TCE1_2	Zone 1: Fugitive	2.66	Zone 1 (half)	2.66	0.00
Fugitive	TCE4	Zone 6-9: Fugitive	38.40	6 through 9	13.8	24.56
Fugitive	TCE16	Zone 16 & 18: Fugitive	0.10	16 & 18	0.1	0.00
Fugitive	TCE15_1	Zone 15	38.70	14 & 15 (split into 5)	38.13	0.58
Fugitive	TCE15_2	Zone 15	38.70	14 & 15 (split into 5)	38.13	0.58
Fugitive	TCE15_3	Zone 15	38.70	14 & 15 (split into 5)	38.13	0.58
Fugitive	TCE15_4	Zone 15	38.70	14 & 15 (split into 5)	38.13	0.58
Fugitive	TCE15_5	Zone 15	38.70	14 & 15 (split into 5)	38.13	0.58
Fugitive	TCE13_V	Zone 13: Fugitive	0.01	Zone 13	0.01	0.00
Fugitive	TCE19_V	Zone 19: Fugitive	23.32	Zone 19	2.1	21.23
Fugitive	TCE20_V	Zone 20: Fugitive	13.80	Zone 20	13.9	-0.12
Fugitive	Missing (2,3,10,12B,17)			Zones 2,3,10,12B,17	26.7	-26.70
Total			684.58	Total	684.58	0.00

ATTACHMENT B:

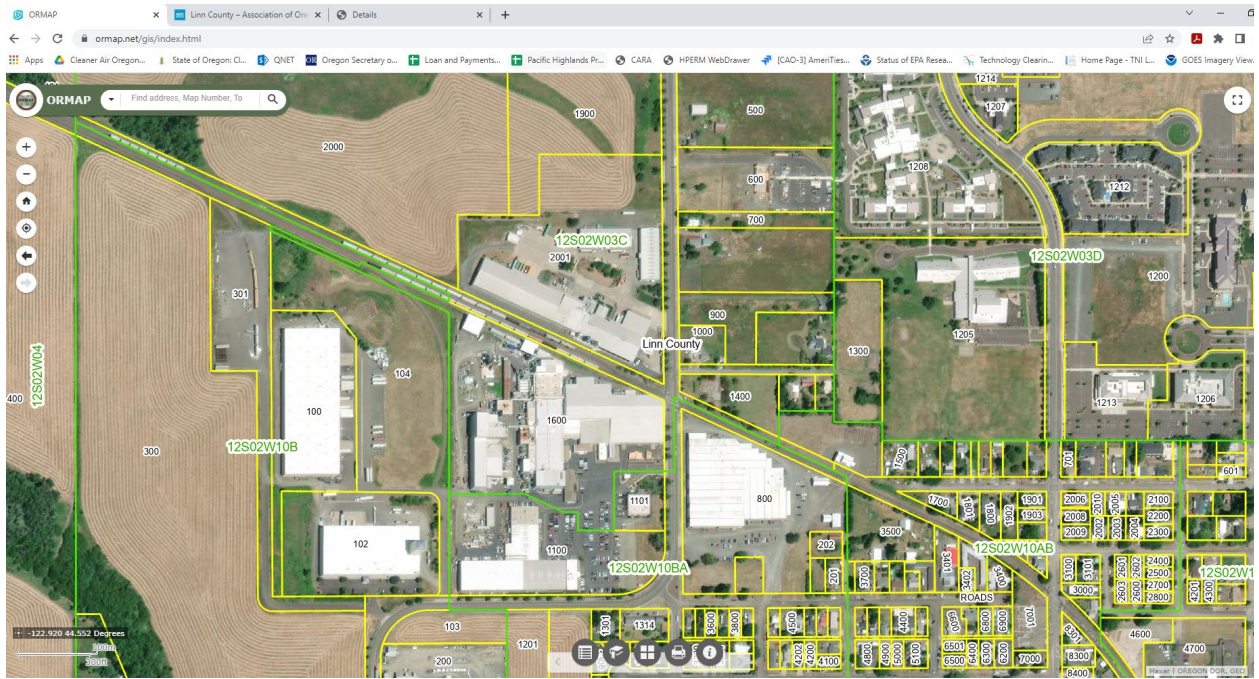


Figure 1: Aerial view of taxlots of the source and surrounding area.

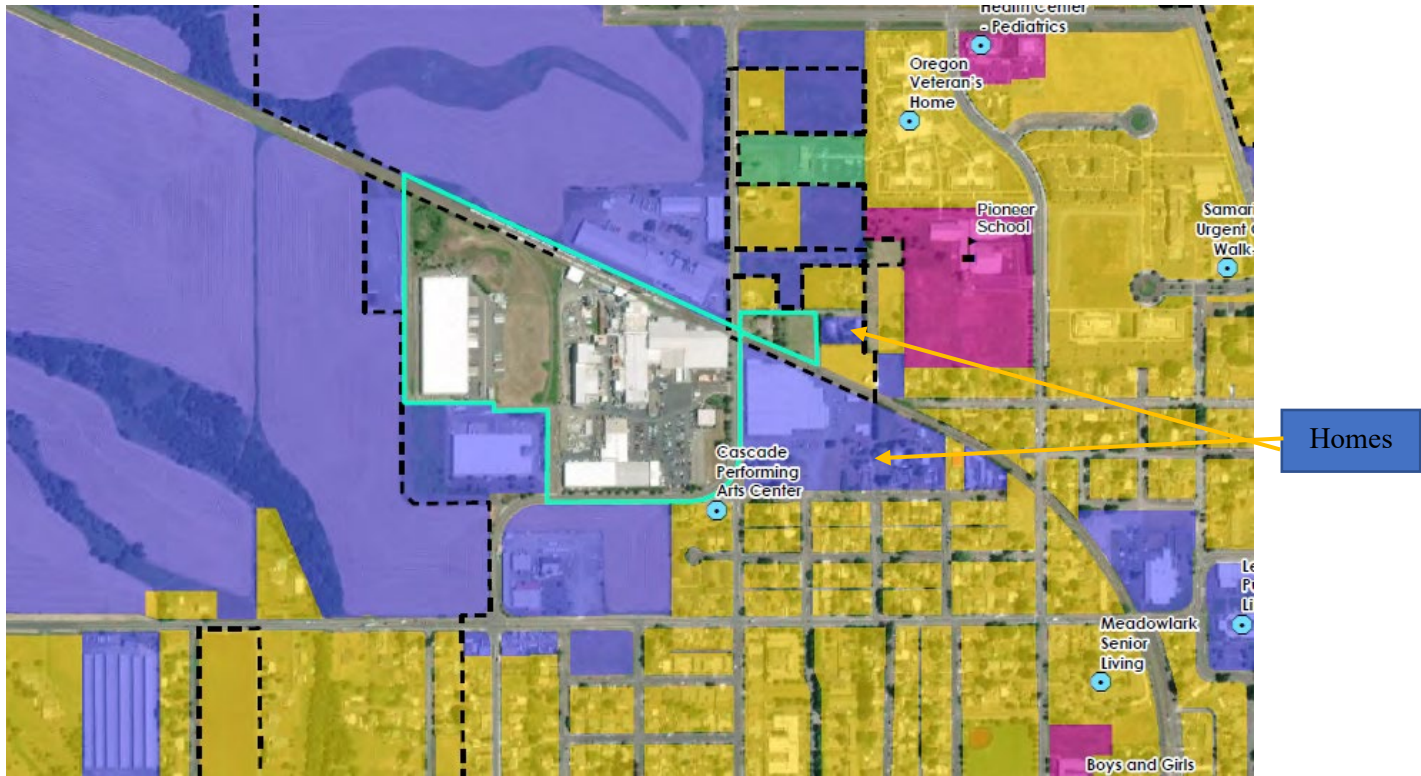


Figure 2: Aerial view of proposed exposure locations around the facility.