

Background

DEQ and Oregon Health Authority (OHA) are currently reviewing the inhalation toxicity reference values (TRVs) used in DEQ's air quality programs. Oregon Administrative Rules (OAR), adopted by the Oregon Environmental Quality Commission, specify sources of toxicity information considered to be authoritative in terms of their scientific rigor and comprehensive methods for deriving TRVs (<u>OAR 340-247-0030</u>). There are four authoritative sources in rule: the U.S. Environmental Protection Agency (EPA), U.S. Agency for Toxic Substances and Disease Registry (ATSDR), California's EPA (CalEPA), and Oregon DEQ in consultation with the Air Toxics Science Advisory Committee (ATSAC). DEQ uses the term TRV when referring to similarly derived health-based toxicity values developed by other agencies.

Not all the inhalation TRVs from authoritative sources are **final**; some TRVs are in different **draft** stages such as out for public comment or external peer review. Authoritative sources follow a multi-year, comprehensive process to develop TRVs and derivation documentation prior to release for public comment. For example, ATSDR follows several steps to develop minimal risk levels (MRLs), including review by scientific experts in two workgroups: an internal ATSDR health effects/MRL group and an external peer review group (ATSDR 2024). The EPA's Superfund program uses public comment draft MRLs from ATSDR in their <u>Regional Screening Level</u> (RSL) tables:

"ATSDR provides both 'Final' and 'Draft' values, both of which are utilized in the RSLs. Typically, draft values are excluded from the RSL hierarchy. However, ATSDR's draft values have undergone external peer review and meet the criteria for inclusion in the RSL hierarchy" (EPA 2024).

For this rulemaking, OHA toxicologists reviewed all authoritative source information for all current and potential new TRVs by May 2024 in order for Eastern Research Group to independently review for quality control. To learn more about the TRV update and review process, refer to <u>Document 1: Overview of TRV</u> <u>Process</u>. Since then, DEQ and OHA have continued to monitor authoritative sources for new TRVs in development (e.g., looking at email updates from authoritative sources and checking EPA regional screening level spreadsheet updates). DEQ and OHA incorporated all new updates to inhalation TRV information from all authoritative sources as of **August 8, 2024**, including TRV information that was not yet finalized by authoritative sources. DEQ and OHA checked the list of draft TRVs on **December 2, 2024**, and updated the information for TRVs that had since become final. DEQ and OHA will continue to monitor TRVs updates from authoritative sources as applicable from authoritative sources before the public comment period of the current DEQ rulemaking.

The purpose of this document is to highlight which of DEQ's current TRV proposals for the 2025 <u>TAC Review</u> <u>and Update Rulemaking</u> are based off TRVs not yet finalized by authoritative sources. DEQ and OHA expect that some draft TRVs may become final by the time this DEQ TRV rulemaking reaches the public comment period.

DEQ Proposal

DEQ has been incorporating all TRV information from authoritative sources, including draft TRVs. In 10 cases the TRV that DEQ is proposing to select for a specific toxic air contaminant is a draft TRV (Table 1). DEQ is proposing to use these TRVs regardless of whether the authoritative source finalizes the value before DEQ's rulemaking ends. DEQ wanted to highlight these cases for ATSAC and get their feedback on DEQ selecting draft TRVs from authoritative sources.

Table 1. Toxic Air Contaminants where DEQ is proposing to use a TRV that is not yet finalized by DEQ's authoritative sources as of August 8, 2024.

CAS RN Chemical Abstract Services Registry Number	Chemical Name in TRV Workbook	Inhalation TRV Category and Proposed Value* (ug/m ³)	Authoritative Source & Link to Documents	Current Status of TRV Development
107-02-8	Acrolein	Acute = 7* Chronic Noncancer = 0.9*	ATSDR	 DEQ's proposed acute and chronic noncancer TRVs are from the ATSDR draft for public comment toxicological profile released in May 2024 ATSDR's public comment period closed in August 2024
107-13-1	Acrylonitrile	Acute = rescinded	ATSDR	 ATSDR draft for public comment toxicological profile released in August 2023 ATSDR's public comment period closed in November 2023 This draft tox profile rescinded the previous acute MRL from 1990, so DEQ is proposing to remove the previous ATSDR acute TRV from DEQ rules
75-00-3	Chloroethane (Ethyl chloride)	Acute = 34,000	ATSDR	 ATSDR draft for public comment toxicological profile released in January 2024 ATSDR's public comment period closed in April 2024
110-54-3	Hexane	Acute = 21,000	ATSDR	 ATSDR draft for public comment toxicological profile released in May 2024 ATSDR's public comment period closed in August 2024
78-79-5	Isoprene, except from vegetative emission sources	Cancer = 0.19	<u>CalEPA</u> (Office of Environmental Health Hazard	 OEHHA public review draft for cancer inhalation unit risk (IUR) factor technical support document released in February 2024 OEHHA's public comment period closed in April 2024

CAS RN Chemical Abstract Services Registry Number	Chemical Name in TRV Workbook	Inhalation TRV Category and Proposed Value* (ug/m ³)	Authoritative Source & Link to Documents	Current Status of TRV Development
			Assessment, OEHHA)	
90-12-0	1-Methylnaphthalene	Acute = 0.7	DEQ based on <u>ATSDR</u>	 ATSDR draft for public comment toxicological profile released in May 2024 ATSDR public comment period closed in August 2024 DEQ derived the proposed acute TRV by modifying the 2024 provisional ATSDR intermediate MRL. For more details, see DEQ notes in <u>Document 4: Proposed TRVs</u> where DEQ is the Authoritative Source.
91-57-6	2-Methylnaphthalene	Acute = 2.8	DEQ based on <u>ATSDR</u>	 ATSDR draft for public comment toxicological profile released in May 2024 ATSDR public comment period closed in August 2024 DEQ derived the proposed acute TRV from ATSDR's 2024 provisional intermediate inhalation MRL for 2- methylnaphthalene. For more details, see DEQ notes in <u>Document 4: Proposed TRVs where DEQ is the Authoritative</u> Source.
91-20-3	Naphthalene	Acute = 0.3 Chronic = Rescinded	ATSDR	 ATSDR draft for public comment toxicological profile released in May 2024 ATSDR public comment period closed in August 2024 DEQ proposes to rescind the chronic noncancer TRV because ATSDR's public comment draft toxicological profile in May 2024 states there is not adequate data to support a chronic TRV that is lower than the proposed acute TRV. The proposed acute TRV is directly from ATSDR's draft toxicological profile. ATSDR states that this acute 24-hour TRV is low enough that it is protective against any chronic health noncancer health effects.

CAS RN Chemical Abstract Services Registry Number	Chemical Name in TRV Workbook	Inhalation TRV Category and Proposed Value* (ug/m ³)	Authoritative Source & Link to Documents	Current Status of TRV Development
156-60-5	trans-1,2- Dichloroethene	Acute = 12,000	ATSDR	 ATSDR draft for public comment toxicological profile released in August 2023 ATSDR public comment period closed in November 2023
108-05-4	Vinyl acetate	Acute = 3,500	ATSDR	 ATSDR draft for public comment toxicological profile released in August 2023 ATSDR public comment period closed in November 2023

*An asterisk next to the TRV value indicates that more than one TRV option was available from a DEQ authoritative source. Details on the TRV options can be found in <u>ATSAC Workbook 2: TRV Derivations</u>. For more general information on these specific TRVs, refer to <u>ATSAC Workbook 1:</u> <u>DEQ Proposed TRVs</u>.

Bold text indicates a TRV that is new – i.e., the existing rules do not have a TRV for that TAC in that category.

References

ATSDR. 2024. "ATSDR: Minimal Risk Levels (MRLs)." Agency for Toxic Substances and Disease Registry (ATSDR). https://www.atsdr.cdc.gov/minimal-risk-

levels/about/?CDC_AAref_Val=https://www.atsdr.cdc.gov/minimalrisklevels/index.html.

EPA. 2024. "EPA: Regional Screening Levels (RSLs) - User's Guide." U.S. Environmental Protection Agency (EPA). https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide.

Contact

Oregon Department of Environmental Quality Cleaner Air Oregon Program <u>cleanerair@deq.oregon.gov</u>

Prepared By

This document was prepared by Oregon Health Authority. Authors:

Holly Dixon, PhD Public Health Toxicologist

David Farrer, MS, PhD Public Health Toxicologist

Dana Crosby, MPH Environmental Health Assessment Program Coordinator

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age or sex in administration of its programs or activities. Visit DEQ's <u>Civil Rights and Environmental Justice page</u>.

Translation or other formats

<u>Español</u> | <u>한국어</u> | <u>繁體中文</u> | <u>Pyccкий</u> | <u>Tiếng Việt</u> | <u>Boo-452-4011</u> | TTY: 711 | <u>deqinfo@deq.oregon.gov</u>



