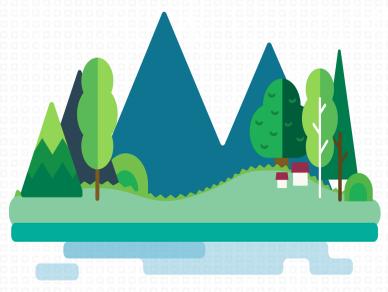


What are TRVs and ABCs and what might change?



Air toxics programs at the Oregon Department of Environmental Quality (DEQ) use toxicity values to determine health risk from breathing in a chemical. There are currently two separate lists of toxicity values; one in the Cleaner Air Oregon program (toxicity reference values, TRVs) and one in the original Oregon Air Toxics program (ambient benchmark concentrations, ABCs).

How is health risk determined?



Risk is a combination of how harmful a chemical is (toxicity information) and how long and in what ways a person is in contact with a chemical (exposure information).

Toxicity values provide the toxicity information needed to evaluate risk. Risk assessors then apply several exposure factors as appropriate (such as number of years exposed), to assess risk.

TRV

Toxicity Reference Values

A TRV is the amount of the chemical in air that may cause health problems when inhaled. TRVs are currently used in Cleaner Air Oregon and other programs across the country.

How are TRVs developed?



Scientists examine the best available scientific research on a chemical in order to develop a TRV. Setting and updating TRVs is a rigorous and resource intensive process.



Oregon TRVs are based on federal and state authoritative sources, like the U.S. Environmental Protection Agency (EPA). DEQ uses values from these agencies because they conduct comprehensive reviews of all available data.

Every three years, DEQ reviews all the authoritative sources to see if updates to TRVs are needed based on the current science of each chemical.

A TRV depends on the type of health effect (cancer or noncancer) and whether exposure is for a long or short period of time (chronic or acute).

A chemical can have up to three different TRVs.

- Noncancer acute
- Noncancer chronic
- Cancer

As of 2020, 259 chemicals have TRVs. Oregon TRVs were established in 2018.

RBC

In Cleaner Air Oregon, TRVs are used to calculate risk based concentrations (RBCs) by integrating information about chemical exposure. DEQ uses RBCs to evaluate health risks and determine whether the risk is above a level requiring a facility to take action.

Ambient Benchmark Concentrations

ABC

ABCs help DEQ identify, evaluate, and address toxic air contaminant problems in Oregon airsheds. ABCs were developed to be reference values, not regulatory standards.

ABCs only account for risk from long-term exposures (chronic).

There is only one kind of health risk (cancer or noncancer) for a chemical, not both, like TRVs.

55 chemicals have ABCs.

How were ABCs developed?

ABCs were based on consensus recommendations from the Oregon Air Toxics Science Advisory Committee (ATSAC), a panel of experts on toxic air contaminants.

ABCs were established before Cleaner Air Oregon. The first set of ABCs were adopted into rule in 2006.



The creation of Cleaner Air Oregon made ATSAC's role unclear. Now that Cleaner Air Oregon is established DEQ wants to clarify ATSAC's role.

Goals

NEW

In the Air Toxics Alignment Rulemaking, one of DEQ's goals is to integrate these two lists of toxicity values and strengthen the process for setting and updating these values.

Establish a clear, uniform list of toxicity values and clarify the relationship between TRVs and ABCs.

ABCs were established before Cleaner Air Oregon, and they are similar to the TRVs used in Cleaner Air Oregon in many ways. DEQ wants to clarify the relationship between these lists of toxicity values and maximize the usefulness of the available information for each chemical.

Strengthen the update process to engage the scientific community.

This rulemaking will explore opportunities to repurpose and rescope the ATSAC to consult on updating this unified list of toxicity values during the three year TRV review process. TRVs would then be used as the scientific basis for both RBCs in Cleaner Air Oregon and non-regulatory ABCs in other DEQ Air Programs.



There will be opportunities to participate and contribute during this rulemaking. The rulemaking process includes discussions with an advisory committee and the public. For more information on the goals of this rulemaking, visit ORDEQ.org/AirToxics2021.

For more information:

Check out our website! Rulemaking updates will be posted on ORDEQ.org/AirToxics2021

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Oregon Health Authority



To comment on the proposed rules, please participate in the public comment period that is anticipated to begin in 2021. Our website will provide instructions on how to submit comments via email.