

Updating Washington's Air Toxics Rule

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Agenda

- Purpose, objectives, agenda
- Introductions
- Presentation
 - Scope of rulemaking
 - Overview of rule
- Discussion
 - Methods to update list
 - Draft table
- Additional concerns?
- Conclusion



Purpose & Outcome

Purpose

- To identify participants and their reasons for participating
- To review the scope of this rulemaking and the schedule for discussing other topics
- To discuss the methods for updating the list of toxic air pollutants to reflect current science
- To begin discussing the draft table

Outcome

- Understand the rulemaking scope
- Understand the methods we will use to update table
- Identify participant concerns
- Understand the general structure of draft changes





Introductions

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SCOPE OF RULEMAKING

Update Chapter 173-460 WAC

First rulemaking

July 2018 – Winter
2019

Revise list of toxic
air pollutants

Explore options

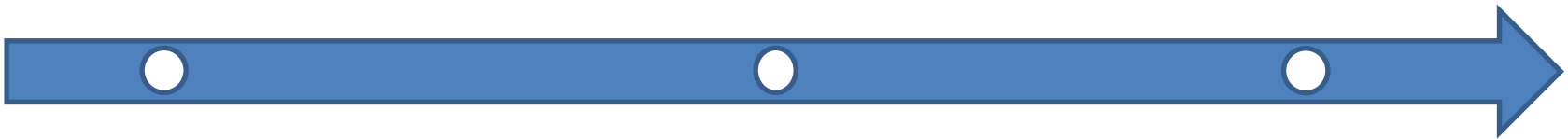
July 2018 – Winter
2019

Assess what else
could be revised

Potential additional rulemakings

* 2020 - 2021

* 2022 - 2023



Rulemaking Schedule

- Update table of ASIL, SQER, and de minimis emission values
- Exploratory Process – separate action
- Oct. 10 meeting
 - Draft table
 - Toxicity equivalency factors
 - Early life adjustment factors
 - Mercury
- Nov. 16 meeting: Criteria pollutants
- Dec. 11 meeting: Ammonium sulfate

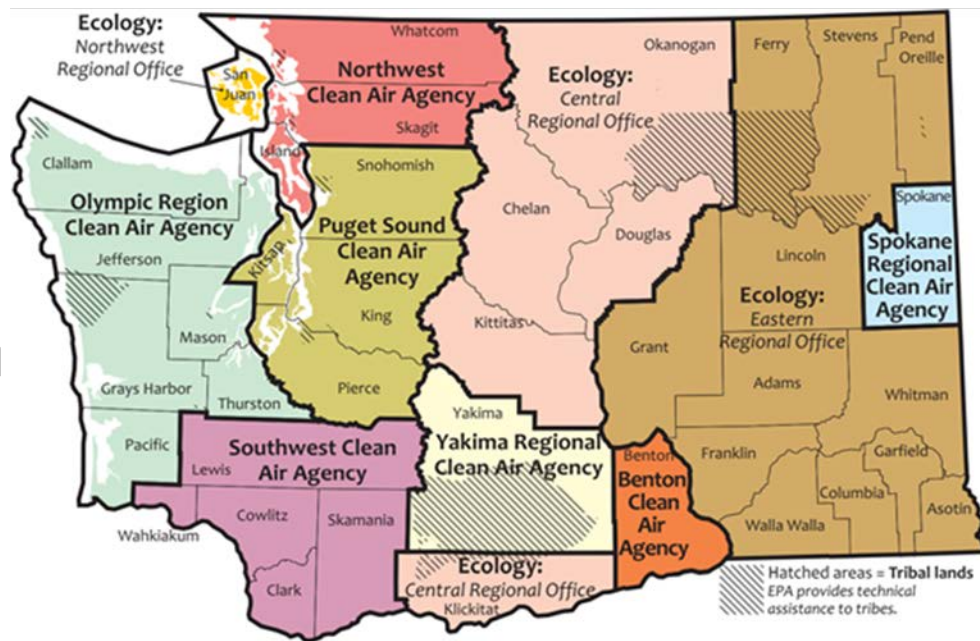


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OVERVIEW OF WASHINGTON'S AIR TOXICS RULE

New Source Review in Chapter 173-460 WAC

- Supplements WAC 173-400-110
- Quantify emissions increases from new or modified emission unit(s)
 - New emissions > *de minimis*, require tBACT & NOC order
 - Air toxics tiered review



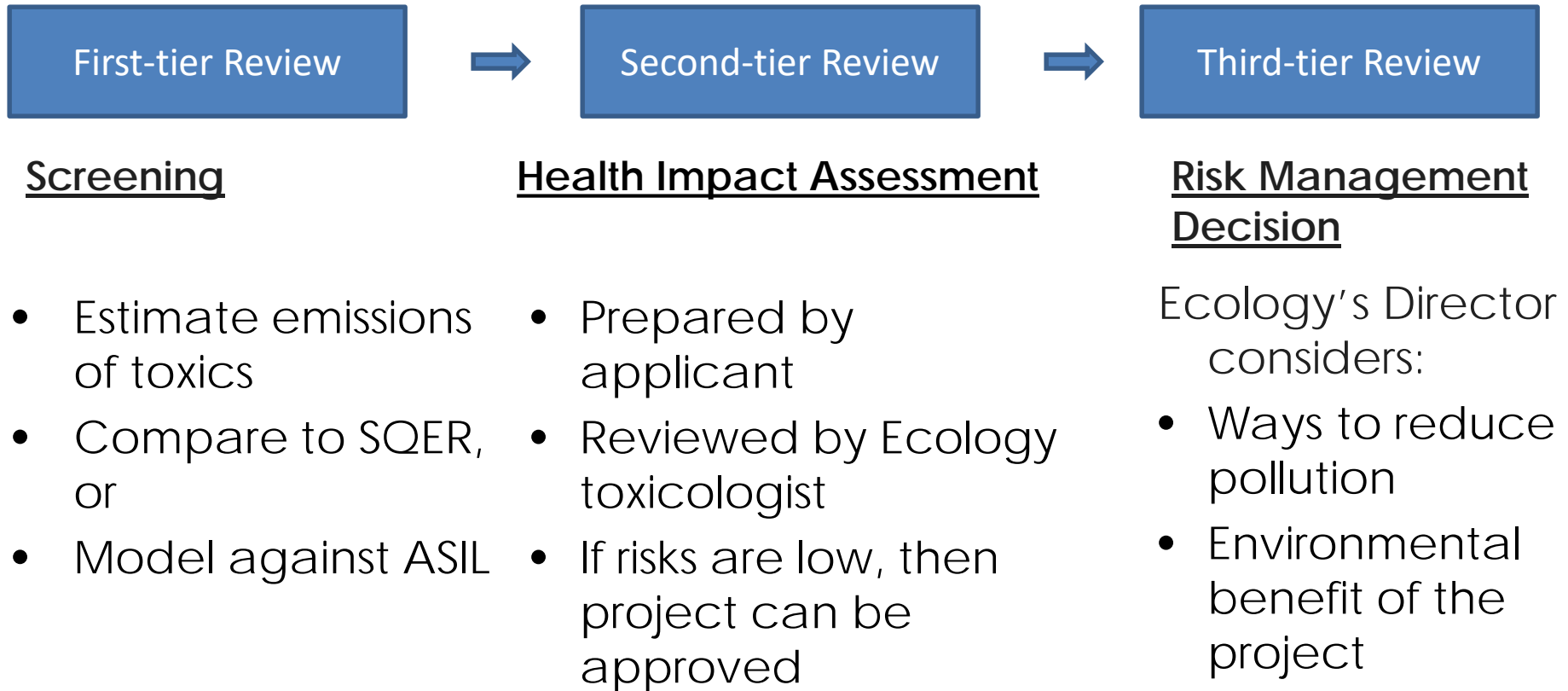
New Source Review

WAC 173-460-150 Table of ASIL, SQER, and de minimis values

About 400 chemicals

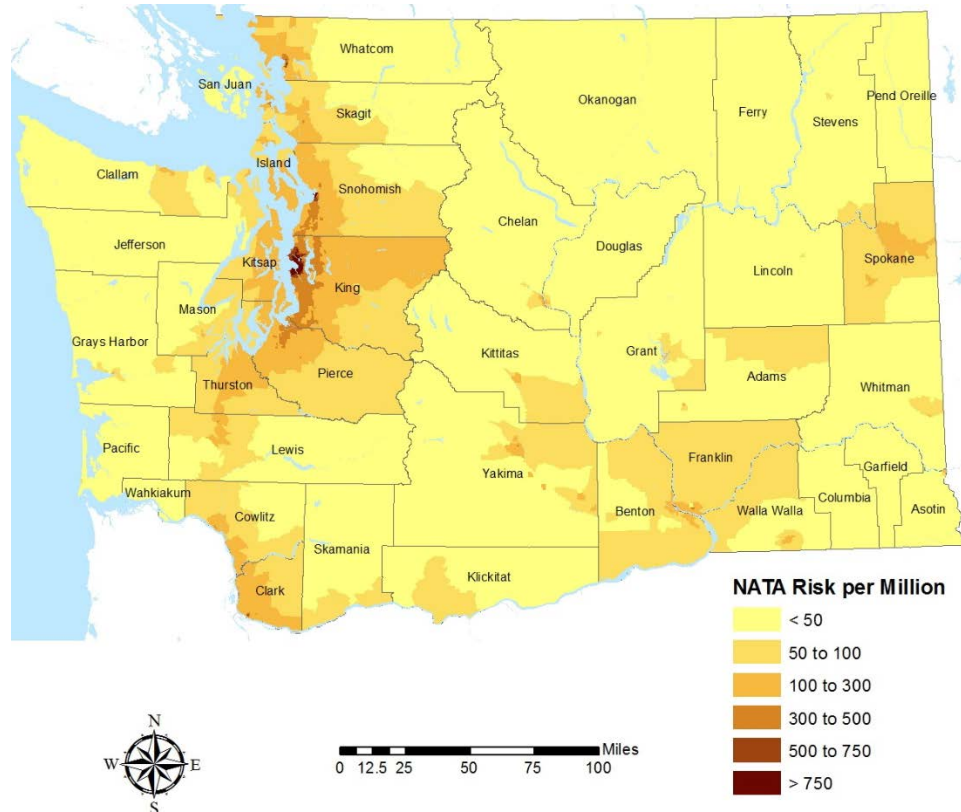


Air Toxics – Tiers of Review



Consider Background

“Background concentrations of TAPs will be considered as part of a second tier review.”



Persistence of Pollutants

- Rule focused on human health
- Multi-pathway exposures considered in 2nd Tier Review



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DERIVATION OF ASIL, SQER, & DE MINIMIS VALUES

Deriving Acceptable Source Impact Levels

Toxicity Values



Cancer Effects

URF: Unit Risk Factor

$$ASIL = \frac{\text{target cancer risk}}{\text{URF} \times \text{ELAF}}$$

Noncancer Effects

RfC: Reference Concentration

REL: Reference Exposure Level

MRL: Minimal Risk Level

ASIL = chronic RfC, REL or MRL

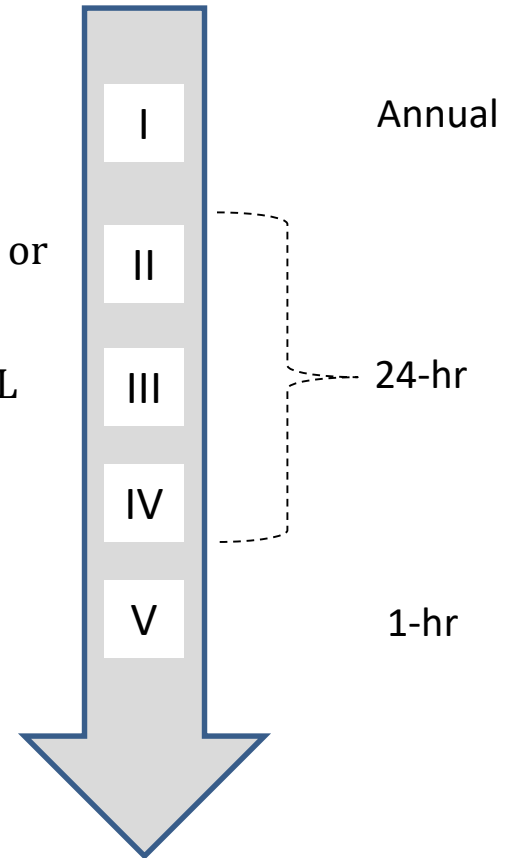
ASIL = intermediate MRL

ASIL = acute MRL

ASIL = acute REL

Hierarchy

Averaging Time



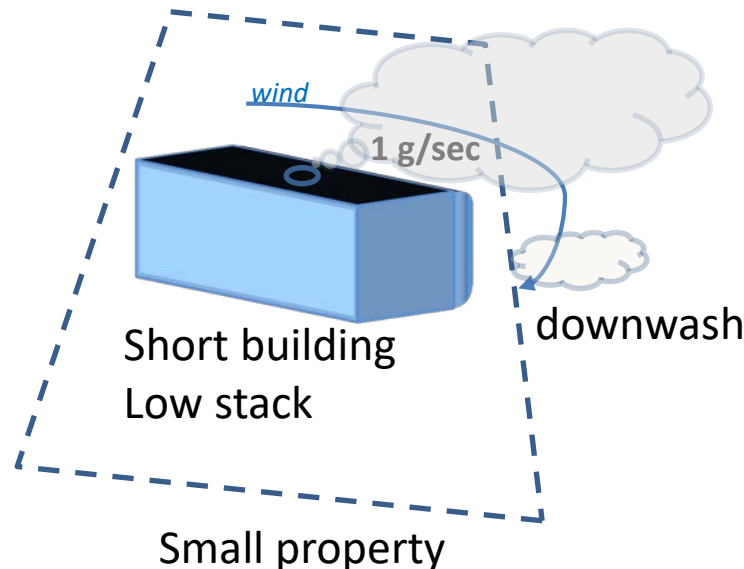
ATSDR



Deriving Small Quantity Emission Rates (SQER) and De Minimis Values

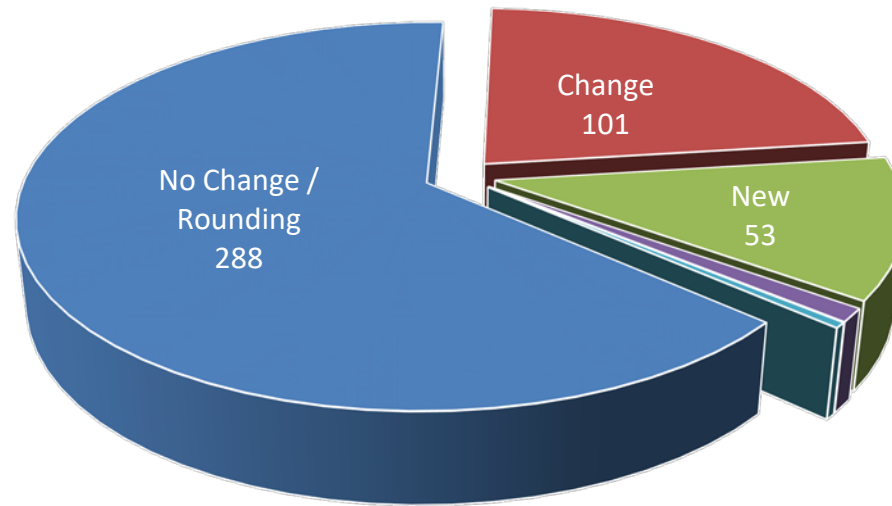
$$\text{SQER (lb/yr)} = \frac{\text{Annual ASIL } (\mu\text{g/m}^3) \times 1 \text{ (g/sec)} \times 60 \text{ (sec/min)} \times 60 \text{ (min/hr)} \times 8760 \text{ (hr/yr)}}{\text{AERSCREEN annual concentration } (\mu\text{g/m}^3) \times 453.6 \text{ (g/lb)}}$$

$$\text{De minimis (lb/yr)} = \frac{\text{SQER (lb/yr)}}{20}$$



Broad Overview of Draft Acceptable Source Impact Level (ASIL)

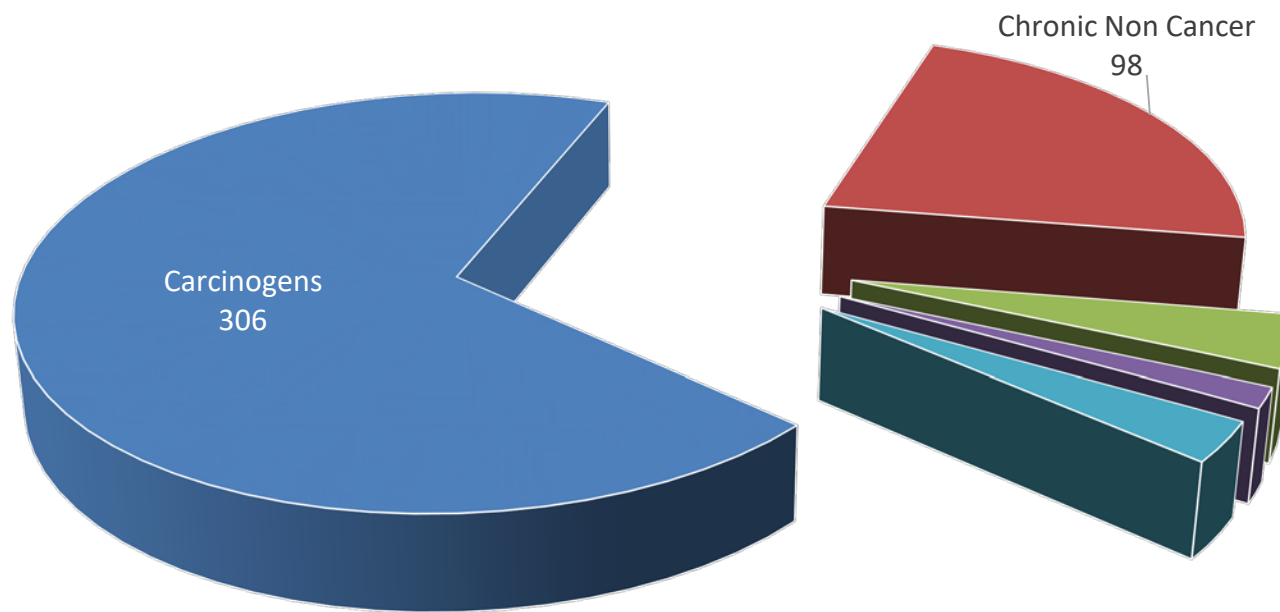
Draft ASILs vs Current ASILs



■ No Change / Rounding ■ Change ■ New ■ Deleted ■ Undetermined



Acceptable Source Impact Level (ASIL) Basis



■ Carcinogens ■ Chronic Non Cancer ■ Intermediate MRL ■ Acute MRL ■ Acute REL



DRAFT ASIL Spreadsheet Heading Explanations

Column	Description	Notes
A	2018 ASIL Update <ul style="list-style-type: none">• Change• No Change• New• Delete• Undetermined	<ul style="list-style-type: none">• Reasons for “Change” noted in Column T
B	CAS #	<ul style="list-style-type: none">• Based on CAS reported by EPA, ATSDR, or OEHHA
C	Common Name	
...	...	<ul style="list-style-type: none">• ...

[Link to spreadsheet](#)



Questions?

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More information

- 460 Rulemaking webpage
- 460 Exploratory Rulemaking webpage
- Sign up for air toxics distribution list

