

Nov. 14-15, 2019, EQC meeting

Hazard Index rules: Informational Item

A banner for 'Cleaner Air Oregon' featuring a background image of a blue sky with white clouds and a range of green mountains. The text is centered and reads: 'Cleaner Air Oregon' in large blue font, 'REFORMING OREGON'S INDUSTRIAL AIR QUALITY REGULATIONS' in smaller green font, and an invitation to Oregonians to help create new regulations in black font.

Cleaner Air Oregon

REFORMING OREGON'S INDUSTRIAL AIR QUALITY REGULATIONS

Inviting Oregonians to help create new regulations that protect what we all care about:
the health of our people, a clean environment, and the economic vitality of our communities.

Nov. 15, 2019
Ali Mirzakhali, Oregon DEQ

What is the Hazard Index Rulemaking?

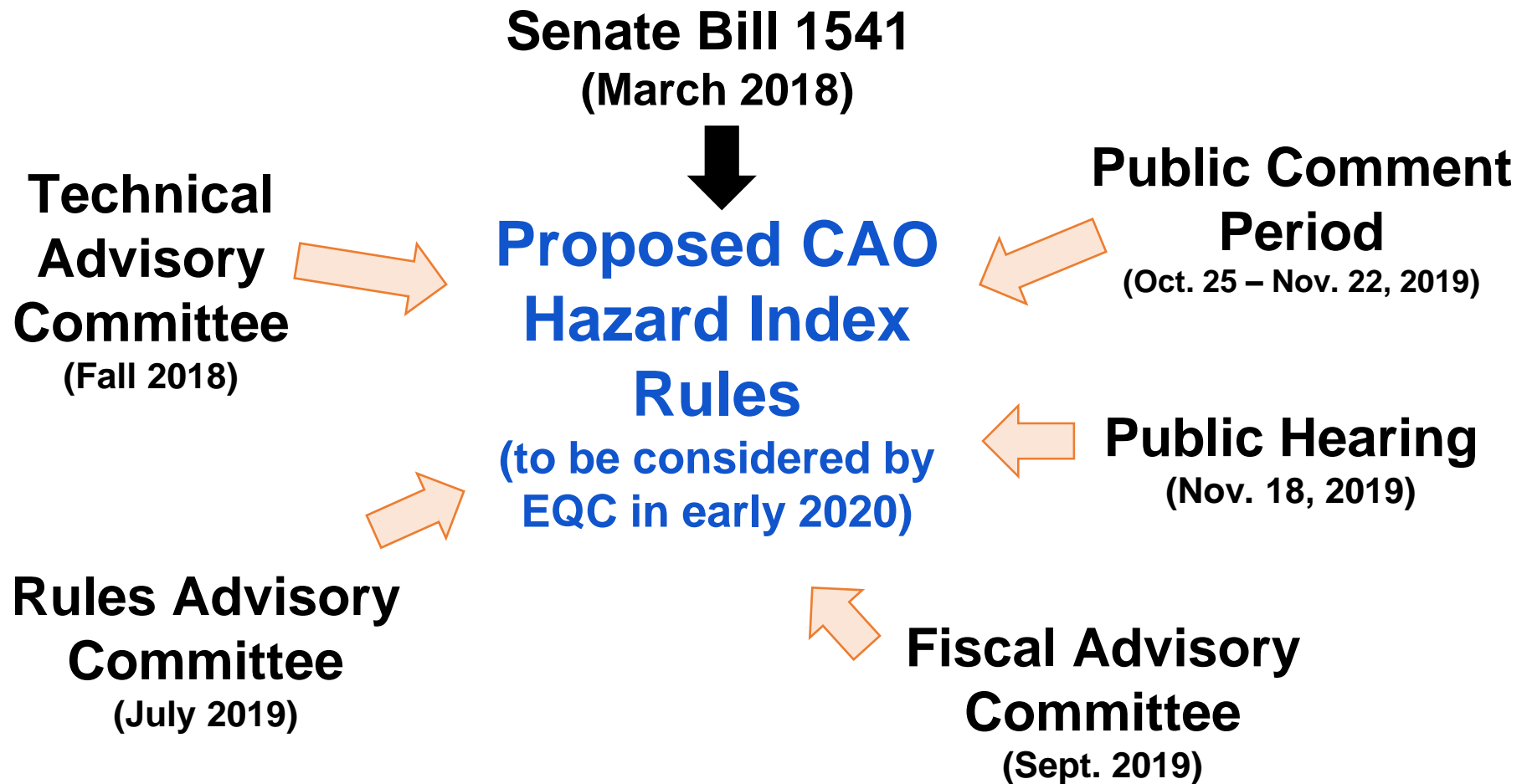
- This rulemaking is about changing the way that noncancer risk is regulated for some toxic air contaminants for existing facilities.

Senate Bill 1541 – March 2018

- Allows DEQ to charge fees that fund the program
- Imposes specific requirements on CAO, including:
 - Sets benchmarks, or Risk Action Levels, in statute
 - Allow lower benchmarks for toxic air contaminants expected to have developmental or other severe noncancer health effects



How were the HI rules developed?



Parameters for advisory committees

- Must be consistent with statute
- Work within recently adopted rules
- Work within legislatively appropriated program resources
- Timely rulemaking - implementation is underway

Technical Advisory Committee Recommendations

Consider reproductive effects a developmental effect.

Consider a toxic air contaminant to have developmental or reproductive effects even it also causes other health effects at lower doses.

No science-based process available to identify chemicals expected to have other severe health effects.

Rules Advisory Committee Recommendations

Do not consider reproductive effects a developmental effect.

Use chemicals with toxicity reference values based on more than one target organ to define “severe”.

Certain other very hazardous chemicals without developmental effects or which are not otherwise captured are addressed by the proposed HI rules (e.g., phosgene) – U.S. DOT Inhalation Hazards List

Chemicals Regulated Under CAO



600-plus chemicals

Based on lists from California, Washington, EPA and Oregon's toxics focus list.

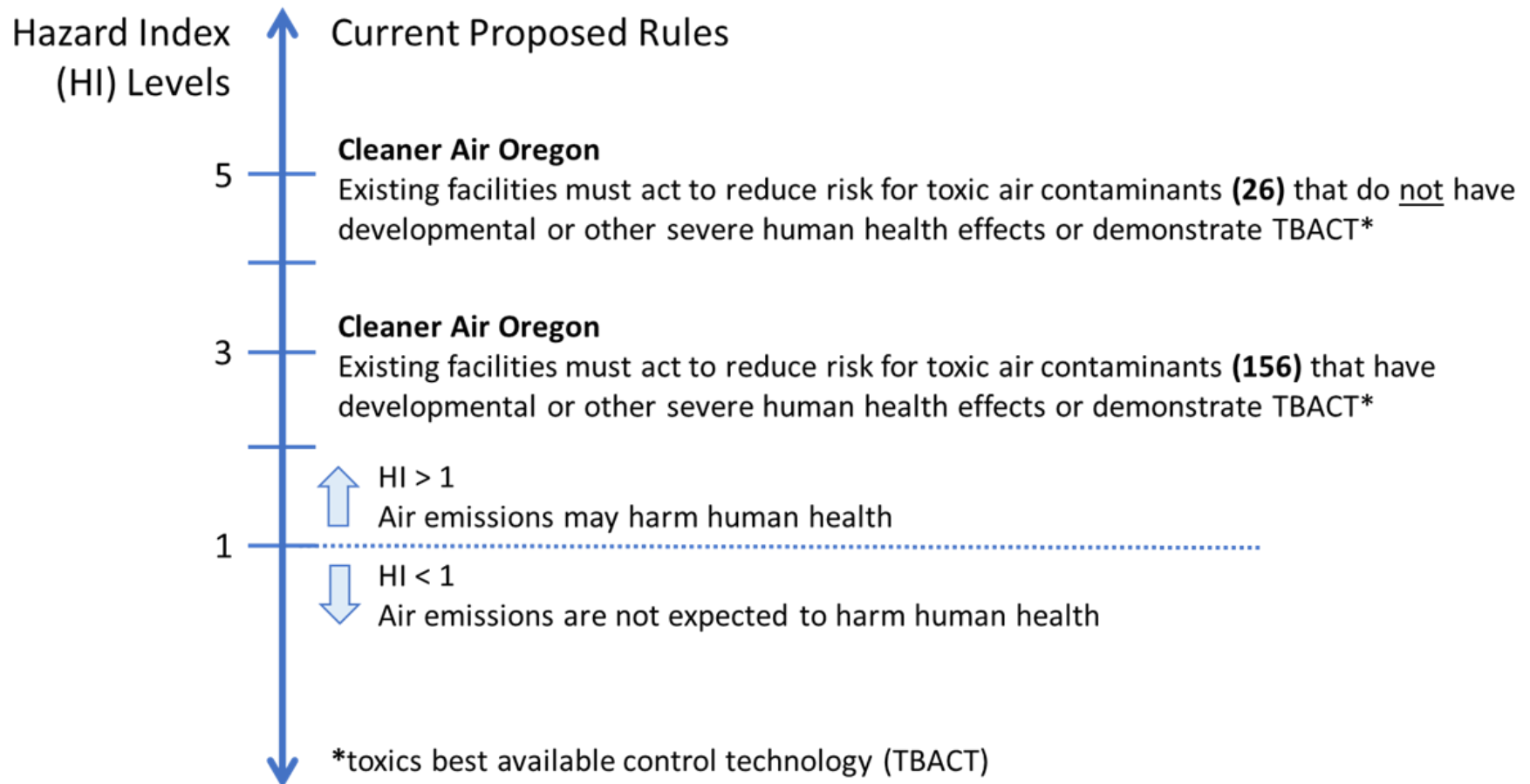
259 chemicals

have toxicity reference values based on cancer and/or non-cancer effects

182 chemicals

have toxicity reference values for non-cancer effects

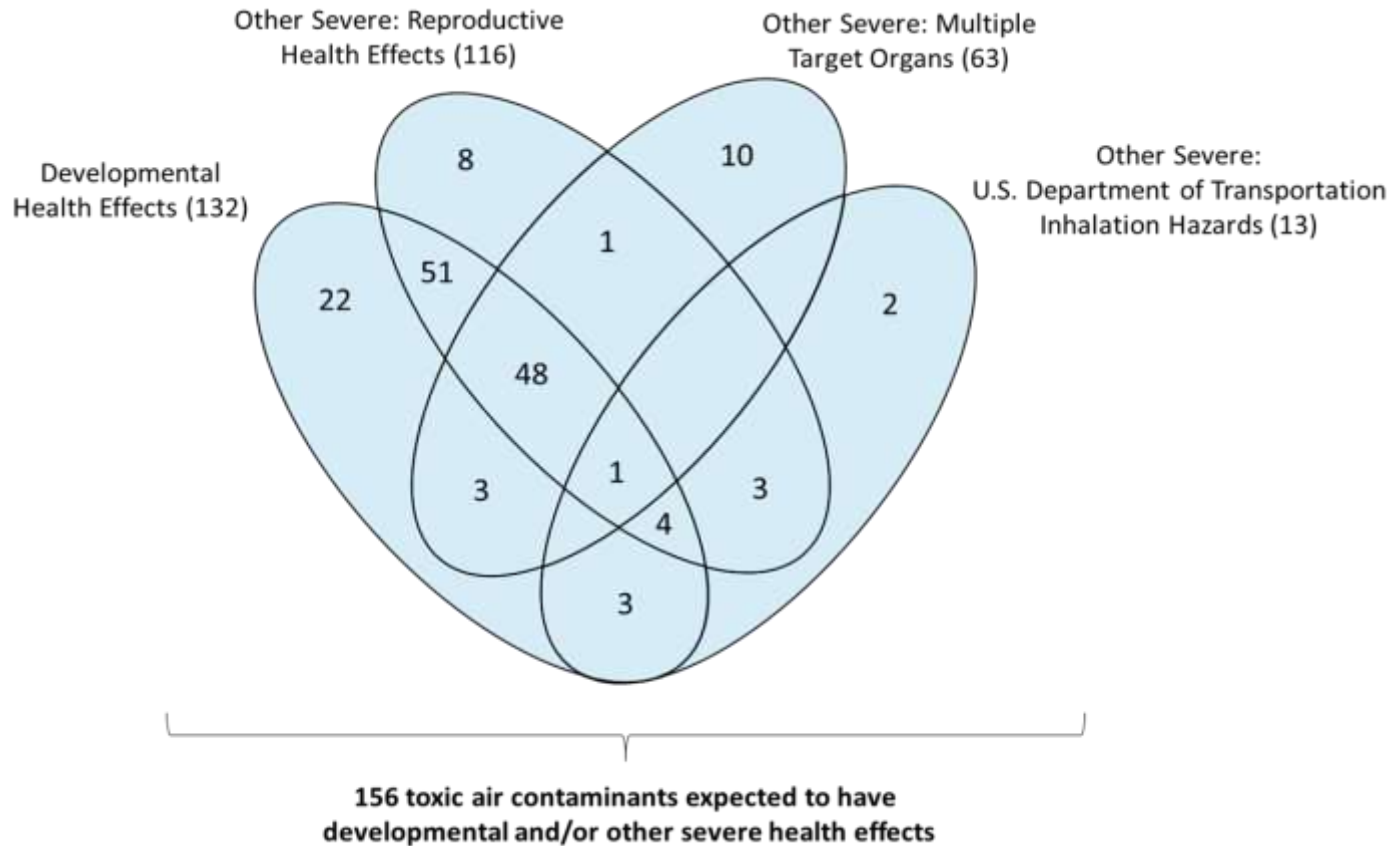
Description of Proposed HI Rules



Categories of Developmental or Other Severe Health Effects

		Number of Toxic Air Contaminants
Developmental Health Effects		132
Other Severe Health Effects	Reproductive Health Effects	116
	Multiple Target Organs	63
	U.S. Department of Transportation Inhalation Hazards	13
Expected to have Developmental and/or Other Severe Health Effects		156

Overlapping Lines of Evidence



Determine Risk for Mixed Emissions

- Developed Risk Determination Ratio formula:

$$Risk_{HI3} = \sum_{HI3 \text{ chemicals}} \frac{\text{Concentration}}{\text{Risk Based Concentration}}$$

$$Risk_{HI5} = \sum_{HI5 \text{ chemicals}} \frac{\text{Concentration}}{\text{Risk Based Concentration}}$$

$$\text{Risk Determination Ratio} = \frac{Risk_{HI3}}{3} + \frac{Risk_{HI5}}{5}$$

HI3 = Toxic air contaminants assigned noncancer TBACT RAL of 3.

HI5 = Toxic air contaminants assigned noncancer TBACT RAL of 5.

Next Steps

- Comment period closes Nov. 22, 2019.
- Public hearing Nov. 18, 2019.
- Hazard Index rules to EQC in early 2020.

Information

Hazard Index rulemaking web page:

<https://oregon.gov/deq/aq/cao/Pages/default.aspx>

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