

Department of Toxic Substances Control (DTSC)

Public Workshop

Toxicity Criteria Regulation: (R-2016-08)

Toxicity Criteria for Human Health Risk Assessments and Health-Based Decision-Making

August 28, 2017

2:00 – 4:00 PM

Cal Center, Eureka Room
Sacramento, California

August 31, 2017

2:00 – 4:00 PM

Cypress, All-Staff Room
Cypress, California

Webcast Link: <https://video.calepa.ca.gov/>



Today's Agenda

☐ **Opening Remarks**

Stacey Lear, Public Participation Specialist

☐ **Overview of the Regulation – Presentation**

Kevin Depies, Engineering Geologist

Kimberly Gettmann, Ph.D., Staff Toxicologist

☐ **Discussion**

Mohsen Nazemi

Ray Leclerc

Kimberly Gettmann

Kevin Depies

Vivian Murai, Attorney

Audience Members



Toxicity Criteria Regulation

- Adds Sections to Division 4.5, Title 22
- Specifies Toxicity Criteria for Risk Assessments, Screening Levels and Remediation Goals
- Applies to all Hazardous Waste & Hazardous Substance Cleanup Sites in California
- Codifies existing practice



Toxicity Criteria

- Use:

- Human Health Risk Assessments
- Risk-Based Screening Levels
- Risk-Based Cleanup Goals or Remediation Goals

- Types of Toxicity Values:

- Noncancer Value – the amount of a chemical that one can ingest or breathe everyday for a lifetime that is not anticipated to cause harmful health effects.
- Cancer Value – quantifies the upper bound estimate of the excess cancer risk resulting from a lifetime oral or continuous inhalation exposure to a chemical.



State

Cal EPA

OEHHA

DTSC

Establishes
Toxicity Criteria

1. Uses Toxicity Criteria
- and
2. Oversees their use

Federal

US EPA

NCEA/ORD

Superfund

IRIS Program
establishes
toxicity criteria

Establishes
toxicity criteria
called **PPRTVs**

US EPA's OSWER Directive (Guidance) 9285.7-53 (2003)

- Use best professional judgement
- Use the best science available
- Provides a hierarchy as a starting point for selecting toxicity criteria
- Tier 1 value not necessarily better than Tier 3 value



Toxicity Criteria Regulation

- Specifies the Required Toxicity Criteria Statewide to Protect Sub-Populations Factoring in California's Unique Conditions and Population Diversity.
- For use in all:
 - Risk Assessments
 - Risk-based screening levels
 - Risk-based remediation goals



Toxicity Criteria Regulation

- Goal: Establish an Applicable or Relevant and Appropriate Requirement (ARAR) that will apply to all Federal California sites.



Toxicity Criteria Regulation

- The regulation will not:
 - Replace Maximum Contaminant Levels (MCLs)
 - Change the Department's existing practices for human health risk assessments



Regulation Summary

- ❑ Adopts certain toxicity criteria for all human health risk assessments, screening levels and remediation goals.
- ❑ Sets screening levels at 1×10^{-6} for cancer risk and hazard quotient of 1 for non-cancer.



Regulation Sections

Section 69021 parallels OSWER Directive 9285.7-53, but factors in California's unique conditions.

1. OEHHAs peer-reviewed toxicity criteria listed in Appendix I
2. US EPA IRIS toxicity criteria
3. Values from other credible sources (consistent with federal guidance)



Regulation Sections

- Sections 68400.5 and 69022(a) provide a narrative standard
- Section 69022(b) sets screening levels for individual chemicals of potential concern to:
 - a) 1×10^{-6} for cancer risk
 - b) 1 for non-cancer hazard quotient
- Section 69022(c) specifies consistency with California HSC 25356.1.5(a)(1)



Example – Tetrachloroethylene (PCE)

- Potential Impact
 - **Continues California's Present Practice.**
 - Relative to federal toxicity criteria (IRIS), fewer sites will automatically qualify for no further action.
 - Avoids weakening existing protection for susceptible populations, e.g., children, pregnant women, frail elderly, ethnically susceptible.
 - Adjacent sites will face the same human health risk screening, cleanup and toxicity value requirements.

PCE Indoor Air Screening Levels ($\mu\text{g}/\text{m}^3$)		
	Residential	Commercial/Industrial
OEHHA Toxicity Criteria	0.46	2
IRIS Toxicity Criteria	11	47



Next Steps

- Second Workshop in Cypress on August 31, 2017
- Public Hearing

September 20, 2017

2:00 – 4:00 PM

8800 Cal Center Drive, Sacramento, CA
Board Room

Webcast Link: <https://video.calepa.ca.gov/>

- Response to Public Comments
- California Office of Administrative Law Review
- Adoption of Final Rule



Formal Comments are being accepted in writing
through September 20, 2017 at:

Attn: Toxicity Criteria Rule
Mr. Kevin Depies
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826

Or E-mail to

ToxCriteriaRule@dtsc.ca.gov

For more information go to:

<http://dtsc.ca.gov/LawsRegsPolicies/Regs/Toxicity-Criteria-for-Human-Health-Risk-Assessment.cfm>

