

Add Chapter 50. Corrective Action

Article 1. Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals Health-Based Decision-Making

68400.5. Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals Health-Based Decision-Making

For any release of hazardous waste or hazardous constituents, the human health risk assessment calculations, including, but not limited to, all cancer risk and non-cancer hazard screening levels and corrective action objectives, shall ~~comply with and use~~ the toxicity criteria specified in California Code of Regulations, title 22, sections ~~69020-69021~~ and attain the human health protection specified in section 69022, subdivisions (a) and (b).

Authority cited: sections 25150, 25159, 25159.5, 58004, and 58012, Health and Safety Code. Reference: sections 25150, 25159, 25159.7, 25187, and 116365, Health and Safety Code; section 71110, Public Resources Code.

Add Chapter 51. Site Remediation

Article 2. Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals Health-Based Decision-Making

69020. Background, Applicability and Purpose and Applicability

(a) This Chapter applies to the cleanup (e.g., response or ~~corrective-remedial~~ action) of releases of hazardous waste or hazardous waste constituents, hazardous materials, and hazardous substances (collectively, hazardous substances) to the environment, that are subject to the provisions of Health and Safety Code, Division 20, Chapters ~~6.5, 6.8,~~ and 6.82. Section 69021 specifies the required toxicity criteria for use in setting all human health risk-based screening levels and human health risk-based remediation goals, and in all human health risk assessments for those sites.

(b) ~~The purpose of this Chapter is to adopt~~ toxicity criteria, consistent with Health and Safety Code section ~~25356.1.5,~~ for all human health risk assessments, human health risk-based screening levels, and human health risk-based remediation goals statewide, where those levels are memorialized in documents approved after the effective date of this Chapter. ~~The California Office of Environmental Health Hazard Assessment (OEHHA) develops toxicity criteria using modeling parameters consistent with and inclusive of California's diverse demographic as authorized under state and federal law, including, but not limited to, Public Resources Code, section 71110 and the with the California Children's Environmental Health Protection Act (Senate Bill No. 25, Escutia, chaptered 1999, 1998-99 Reg. Sess.).~~ These toxicity criteria are substantive standards of control that provide health-based protection for the entirety of California's diverse population, including its most sensitive receptors, from harmful exposures to hazardous substance(s) released to the environment. This Chapter clarifies, without changing, the Department's existing practices for human health risk assessment, and for deriving both human health risk-based screening levels and human health risk-based remediation goals. This Chapter does

not replace applicable Maximum Contaminant Levels (MCLs) established under Health and Safety Code section 116365 or Title 42 United States Code section 300g as remediation goals.

(c) Terms used in this Chapter shall have the following meanings:

(1) “Contaminant of Potential Concern” (COPC) is a chemical or contaminant at or from the Site that is identified as a potential threat to human health or the environment, and whose site-specific data are of sufficient quality for use in any risk assessment.

(2) “Department” means the California Department of Toxic Substances Control.

(3) “IRIS” means the United States Environmental Protection Agency’s (U.S. EPA’s) Integrated Risk Information System identified in the U.S. EPA Office of Solid Waste and Emergency Response Directive Number 9285.7-53 (December 5, 2003, at page 3). This Chapter incorporates by this reference the unit risk factor, oral slope factor, reference dose, and reference concentration values in this U.S. EPA IRIS database, available online at <https://www.epa.gov/iris>, as of September 30, 2017 it may be updated.

(4) “OEHHA” means the California Environmental Protection Agency’s (CalEPA’s) Office of Environmental Health Hazard Assessment.

(5) “Remediation Goal” is a contaminant concentration that is: (i) media-specific (e.g., for the air, groundwater, surface water, or soil affected by a release); (ii) site-specific (factoring in, for example, potential receptors, exposure pathways, contaminant background concentrations and reasonably anticipated future land uses); (iii) protective of human health and the environment; and (iv) ~~uses~~ used as a final cleanup goal for the response or corrective action.

(6) “Screening Level” (SL) is a generic risk-based concentration derived from standardized risk assessment equations combining exposure information assumptions with applicable toxicity criteria. ~~SL~~ Screening Levels are contaminant concentrations considered to be protective for humans (including sensitive groups) over a lifetime. ~~SLs~~ Screening Levels calculated using the toxicity criteria under this Chapter do not address non-human health endpoints such as ecological impacts.

(7) “Site” has the same meaning as the term “facility” as defined by Health and Safety Code section 25323.9 and also includes “hazardous waste facilities” and “sites” as those terms are defined in 22 CCR 66260.10.

(8) “Total Petroleum Hydrocarbons” (TPH) is a term to describe a large family of several hundred chemical compounds derived from crude oil.

(d) Any other terms not defined above shall have the meanings specified in the following:

(1) Health and Safety Code section 25100 et seq., and its implementing regulations.

(2) Health and Safety Code section 25300 et seq.

Authority cited: sections 25150, 25159, 25159.5, 25351.5, 25395.64, 25395.71, 25395.92, 58004, and 58012, Health and Safety Code. Reference: sections 25150, 25159, 25159.7, 25187, 25355.8, 25356.1, 25356.1.5, 25395.92, 25395.94 and 116365, Health and Safety Code; section 71110, Public Resources Code; and section 300.430 of Title 40 of the Code of Federal Regulations; sections 300g and 9621 of Title 42 of the United States Code.

69021. Applicable Toxicity Criteria

All Consistent with Health and Safety Code section 25356.1.5, all human health risk assessments, human health risk-based screening levels, and human health risk-based remediation goals used for the cleanup of sites described under section 69020, subdivision (b), shall use the cancer and non-cancer toxicity criteria for each contaminant of potential concern (COPC) from the following sources in the order listed below:

(a) The OEHHA's peer reviewed unit risk factors, oral slope factors, chronic reference exposure levels (RELs), and reference dose(s) (RfDs), and blood lead value in Table A and B of as listed in Appendix I to this Chapter, shall be used for the COPCs which that are listed in that this Appendix, so long as the Appendix I values remain no less stringent than toxicity criteria available from the source in subdivision (b) below. If Appendix I does not list toxicity criteria for a specific COPC, or contains a value that is less stringent, then the toxicity criteria listed under section 69021, subdivision (b) shall be used.

(b) The peer reviewed unit risk factors, oral slope factors, reference doses (RfDs), and reference concentrations (RfCs), identified in U.S. EPA's Integrated Risk Information System (in IRIS) shall be used where section 69021, subdivision (a) above either Appendix I does not specify toxicity criteria for a particular COPC, or the IRIS toxicity criteria value is more stringent than the value listed in Appendix I. If neither Appendix I nor IRIS does not lists toxicity criteria for a specific COPC, then the toxicity criteria listed under section 69021, subdivision (c) shall be used.

(c) Toxicity criteria from another source, that applies the best available science and is health-based, may be used in human health risk assessments upon approval by the Supervising Toxicologist, of the Department's Human and Ecological Risk Office, or his or her designee, when neither subdivision (a) nor subdivision (b) above specifies toxicity criteria for the particular COPC. Other sources include, but are not limited to: OEHHA toxicity criteria that are not listed in Appendix I (e.g., those toxicity criteria used in U.S. EPA's Regional Screening Levels), U.S. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs)(excluding TPH PPRTVs), Agency for Toxic Substances and Disease Registry Minimal Risk Levels, PPRTV Appendix Screening Toxicity Values, and U.S. EPA Superfund Health Effects Assessment Summary

Table values. However, use of TPH PPRTVs is not required, but may be determined to be appropriate based on site-specific circumstances. Any selected toxicity criteria or value used under this subdivision shall be consistent with Health and Safety Code section 25356.1.5, subdivisions (b) and (c).

Authority cited: sections 25150, 25159, 25159.5, 25351.5, 25395.64, 25395.71, 25395.92, 58004, and 58012, Health and Safety Code. Reference: sections 25150, 25159, 25159.7, 25187, 25355.8, 25356.1, 25356.1.5, 25395.92 and 25395.94, Health and Safety Code; section 71110, Public Resources Code; and section 300.430 of Title 40 of the Code of Federal Regulations.

69022. Screening Levels and Remediation Goals

(a) ~~Consistent with the purpose of this Chapter, a~~All human health risk assessments, human health risk-based screening levels, and human health risk-based remediation goals shall ~~use~~ protect human health by using the toxicity criteria specified in section 69021 above.

(b) When based on human health risk or non-cancer hazard, to protect human health, screening levels for individual COPCs shall be set to:

- (1) An incremental excess lifetime cancer risk to an individual of 1×10^{-6} , and
- (2) A hazard quotient of 1.

(c) All human health risk-based remediation goals for response actions conducted under Health and Safety Code, Division 20, Chapter 6.8, shall comply with Health and Safety Code section 25356.1.5(a)(1).

Authority cited: sections 25150, 25159, 25159.5, 25351.5, 25395.64, 25395.71, 25395.92, 58004, and 58012, Health and Safety Code. Reference: sections 25150, 25159, 25159.7, 25187, 25355.8, 25356.1, 25356.1.5, 25395.92 and 25395.94, Health and Safety Code; section 71110, Public Resources Code; and section 300.430 of Title 40 of the Code of Federal Regulations.