

Immediate Response Activity Screening Levels

Section xxxxx: Immediate Response Activity Screening Levels

- (1) The department may establish immediate response activity screening levels for the purpose of determining that there may be an immediate or imminent threat to the public health, safety, or welfare, or the environment, as a result of a release or threatened release. Immediate response activity screening levels are intended to identify those conditions specified in Section xxxxx(2)(a) through (f).
- (2) Except as provided for in subsections (4) and (5), the department shall determine methodologies for the development of immediate response activity screening levels for a relevant exposure pathway as deemed necessary, reasonable, and appropriate, and specify immediate response activity obligations within specified time-frames.
- (3) The department shall utilize only reasonable and relevant exposure pathways in determining the need for the immediate response activity screening levels. Relevant exposure pathways for which immediate response activity screening levels shall be developed under this subsection include:
 - (a) Acute inhalation risks due to hazardous substances in indoor air as a result of subsurface vapor intrusion.
 - (b) Acute inhalation risks due to vapor intrusion of hazardous substances in subsurface soil gas to indoor air.
 - (c) Acute inhalation risks due to migration of hazardous substances in subsurface soil gas to an open excavation.
 - (d) Risks due to volatilization of hazardous substances in water in a sump to indoor air.
 - (e) Fire or explosion hazards due to hazardous substances in groundwater that may volatilize to soil gas or indoor air.
 - (f) Acute risks due to direct dermal contact with hazardous substances in soil.
 - (g) Other exposure pathways identified by the department that are or may result in an immediate or imminent threat to public health, safety, or welfare, or the environment.
- (4) If a hazardous substance poses an acute toxicity risk to humans through the inhalation route of exposure, immediate response activity screening levels developed by the department shall be based on acute inhalation toxicity benchmarks below which no adverse, non-cancer human health effects are likely to occur and exposure assumptions that appropriately characterize the patterns of human exposure and best represent the relevant exposure pathway. The immediate response activity screening level to address acute inhalation toxicity risk shall be derived from any of the following:
 - (a) Toxicity data that provide a no observed adverse effect level equating to, or extrapolated using appropriate uncertainty or modifying factors, to an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects

Immediate Response Activity Screening Levels

- over an acute duration of exposure that best represents the relevant exposure pathway but no greater than 14 days.
- (b) In the absence of toxicity data described in subdivision (a); toxicity data that provide a no observed adverse effect level equating to, or extrapolated using appropriate uncertainty or modifying factors, to an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a duration of exposure no greater than 364 days.
 - (c) In the absence of toxicity data described in subdivision (a) and (b); toxicity data that provide a lowest observed adverse effect level based on non-serious adverse health effects and extrapolated to a no observed adverse effect level using appropriate uncertainty or modifying factors and equating to an estimate of human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a duration of exposure no greater than 364 days. For purposes of this subdivision, “non-serious adverse health effects” are those effects that are reversible upon discontinuation of exposure and only mildly symptomatic over a duration of exposure of no greater than 364 days.
 - (d) An acute inhalation toxicity benchmark value selected by the department as more appropriate and that is supported by the weight of evidence in scientific data. Selection of an acute inhalation benchmark values must consider all of the following:
 - (i) Relevance to the human population.
 - (ii) Protection of the general public, including sensitive subpopulations.
 - (iii) Toxicity endpoints based on the most appropriate and sensitive adverse health endpoint, including developmental and/or reproductive endpoints, as documented in the scientific literature. For purposes of this subdivision, the “most sensitive adverse health endpoint” is the first adverse health effect that occurs or that is expected to occur in humans as the dose of a hazardous substance increases.
 - (iv) Exposure times consistent with the averaging times of the monitoring data available for the assessment.
 - (v) Toxicity endpoints no more severe than reversible upon discontinuation of exposure to a hazardous substance and mildly symptomatic.
 - (vi) Data used by the department to establish immediate response activity screening levels under this subsection shall be available to the public upon request.
- (5) Immediate response activity screening levels may be developed by the department, as appropriate, to address fire and explosion hazards requiring immediate action under Section xxxxx(2)(b).