

Remediation of PCBs in Massachusetts



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Laws & Regulations

- M.G.L. Chapter 21E
 - Mass. Oil & Hazardous Material Release Prevention & Response Act
 - www.malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter21e

- Mass. Contingency Plan (MCP)
 - 310 CMR 40.0000
 - www.mass.gov/dep/cleanup/laws/mcptoc.htm



Notification Requirements

➤ 2-hour notification (verbal):

- Sudden Release or Threat of Release
 - ≥ 10 gal. PCB-contaminated material, PCBs unknown or < 500 ppm;
 - ≥ 1 gal. PCB-contaminated material, PCBs ≥ 500 ppm;
 - ≥ 1 lb. PCBs

- Poses or Could Pose an Imminent Hazard
 - PCBs ≥ 10 mg/kg in top 12" of soil, within 500 ft. of school, residence, or playground [unless access restricted by fencing or pavement];
 - Short-term (5 yrs.) risk levels $>$ Excess Lifetime Cancer Risk (ELCR= 1×10^{-5}) or Hazard Index (HI=10)
 - Long-term risk levels $>$ 10x ELCR (ELCR= 1×10^{-5}) or HI (HI=1)



Notification Requirements

➤ 72-hour notification (verbal):

- Condition of Substantial Release Migration (SRM)
 - Discharge of separate-phase oil or hazardous material to surface waters, subsurface structures, or underground utilities or conduits
- $\geq \frac{1}{2}$ inch NAPL

➤ 120-day notification (written):

RC-S1	2 mg/kg	Soils within 500 ft. of school, residence, playground, or in RCGW-1 area
RC-S2	3 mg/kg	All other soils
RC-GW1	0.5 ug/l	Current Drinking Water Source area or Potential Drinking Water Source Area
RC-GW2	5 ug/l	All other groundwater



Cleanup Standards

- Must hire Licensed Site Professional (LSP)
- Must achieve or approach Background, if feasible
- Activity & Use Limitations (AULs)
- **Method 1 Standards**

Soil	Groundwater
S-1 = 2 mg/kg	GW-1 = 0.5 ug/l
S-2 = 3 mg/kg	GW-2 = 5 ug/l
S-3 = 3 mg/kg	GW-3 = 10 ug/l

- **Method 3 Risk Characterization**
 - Site-specific risk characterization
 - Cumulative Cancer Risk Limit = ELCR = 1×10^{-5}
 - Cumulative Non-cancer Risk Limit = HI = 1
 - Environmental Risk Characterization



Further Considerations

- Upper Concentration Limits (UCLs)
 - UCL (soil) = 100 mg/kg
 - UCL (gw) = 100 ug/l
 - Remove, if feasible
 - If not feasible, achieve Permanent Solution with AUL and
 - Permanently fixate or immobilize,
 - Construct Engineered Barrier, or
 - UCLs located > 15 ft. below grade
- Capping
 - Must complete up through Phase III for Permanent Solution
- Real-time Dust Monitoring



Contact

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