PCBs

Polychlorinated Biphenyls (PCBs)

PCBs are synthetic chemicals once used in electrical equipment, caulks, paints, and other construction materials, and are a common contaminant at brownfield sites. Even though they were banned in the U.S. in 1979, PCBs still linger in the environment, posing ongoing health and environmental challenges. Due to the significant hazards posed by PCBs, it is regulated under special federal laws that regulate reporting, testing, cleanup, and disposal of these materials.

EXAMPLES:

- Electrical equipment (transformers and capacitors) in the oil
- Construction materials (caulk, paint, and finishes)
- Industrial machinery and adhesives

REMEDIATION STRATEGIES

During the remediation process, PCB-contaminated soil, sediment, and water can be safely treated, removed, or contained to prevent further environmental and human exposure. The process is regulated by federal, state, and local standards and is conducted by trained and certified professionals using approved technologies and methods.

EXCAVATION AND REMOVAL

Contaminated soil or sediment is dug up and safely transported to an approved disposal facility.

CONTAINMENT OR CAPPING

A protective barrier is placed over contaminated areas to keep PCBs from spreading.

THERMAL TREATMENT

High heat is used to destroy or separate PCBs from soil or sediment.

CHEMICAL TREATMENT

Special chemicals are added to break PCBs down into safer substances

SOLIDIFICATION/STABILIZATION

Materials are mixed with binding agents to prevent PCBs from moving through soil or water.

HEALTH RISKS

Exposure: PCBs can enter the body through inhalation, ingestion of contaminated food or water, or skin contact.

Health Effects: Exposure to PCBs is associated with cancer, immune system suppression, liver damage, and reproductive health issues.

Groups at Highest Risk: Children and pregnant mothers

EPA BANS ONGOING USES OF PCBS

uconn-tab@uconn.edu

tab.program.uconn.edu