

## FREQUENTLY ASKED QUESTIONS DEMOLITION - HAZARDOUS MATERIAL INSPECTION

### **In addition to asbestos, what other hazardous materials must be removed from a building prior to demolition?**

**Answer:** Federal EPA NESHAP regulations only require asbestos inspections of buildings for pre-demolition purposes. What ACM can remain is primarily a function of specific state requirements (see FAQ - What Asbestos Can Remain).

AET (like all environmental professionals) recommend a hazardous material inspection also be conducted in buildings prior to demolition. This inspection in response to the EPA's Resource Conservation and Recovery Act (RCRA) 40 CFR Part 261 regulations which controls the land disposal of hazardous waste.

Solid waste within the demolition stream are evaluated in accordance with EPA's Toxicity Characteristic Leaching Procedure (TCLP) (primarily for heavy metals) which simulate landfill conditions and potential liquid waste discharge which would occur into the environment.

PCB containing materials within the waste stream are restricted for disposal by EPA's Toxic Substance Control Act (TSCA) 40 CFR Part 761 Regulation.

### **Representative hazardous materials which are routinely identified prior to demolition include:**

#### 1. **Lead**

- a. **Lead-Based Paint (LBP):** Paint chip samples or direct reading instrumentation is used to identify LBP on building components. Paint coatings containing greater than 0.5% lead by weight or 1.0 mg/cm<sup>2</sup> by XRF are considered abatable lead by HUD. Paint below 0.06% or 600 ppm by weight is considered lead-free. RCRA D008 defines lead as a hazardous waste where it exceeds 5 mg/L by TCLP.
- b. **Emergency Lights/Batteries:** Commonly contain lead-calcium batteries which also need to be identified and recycled or properly disposed of.

#### 2. **Mercury**

- a. **Florescent light Tubes:** Can contain small amounts (about 4 milligrams of mercury).
- b. **Switches:** Small amounts of mercury is also found in older thermostats and some lever controls.

*RCRA D009 defines mercury as hazardous waste where it exceeds 0.2 mg/L by TCLP.*

#### 3. **PCB's**

- a. **Light ballasts:** Can contain 1-3 fluid ounces of PCB liquid which is sealed within the capacitor. After 1978 all manufacturers of ballasts were required to identify PCB content by proper labeling. The label must state "contains no PCB's" or an assumption should be made that the ballast contains PCBs.
- b. **Oil-filled Transformers and Capacitors:** PCB was used in the dielectric fluid in this equipment and between 1928 and 1978.
- c. **Elevator Hydraulic Fluid:** although somewhat rare, PCB content has been confirmed in this liquid.

#### 4. **Radioactivity**

- a. **Smoke Detectors:** Can contain small quantities (<35 kBq) of Americium-241.
- b. **Exit Signs:** Can contain small quantities (2.5 mg) of tritium.

**CONCLUSION:** Removal of hazardous materials identified in the pre-demolition inspection is essential to protect facility owners contingent liabilities associated with improper transportation and disposal of demolition waste as well as to protect demolition workers, the public, and the environment.

When you need professional help or advice, email Alan Sutherland, CIH, CHMM at [a.sutherland@actinc.biz](mailto:a.sutherland@actinc.biz) or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services we provide at our website [www.actinc.biz](http://www.actinc.biz).