Chapter 32: Polychlorinated Biphenyls

General Requirements

Product ID: 724 | Revision ID: 2159 | Date published: 9 December 2019 | Date effective: 9 December 2019
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/pcbReqGeneral.pdf

1 Purpose

The purpose of these requirements is to reduce contamination from *polychlorinated biphenyls (PCBs)*. They cover labeling, decommissioning, and disposal of *PCB items* (defined as any *PCB article*, *PCB-article container*, *PCB container*, or *PCB equipment* containing, deliberately or unintentionally, PCBs) and the use of personal protective equipment. They apply to workers, supervisors, equipment owners, and Waste Management.

2 Requirements

Regulations require that all PCB items, including those stored for use and reuse, must be labeled and inspected as described below.

2.1 Labeling

PCB items must be labeled as follows:

1. Items containing a PCB concentration of 500 ppm or greater must be labeled as *PCB*, using a yellow label with black lettering (see Figure 1).
2. Items containing a PCB concentration of 50 to 499 ppm are recommended to be labeled as *PCB-contaminated*, using an orange label with white lettering.
3. Items containing a PCB concentration of 49 ppm or less are recommended to be labeled non-PCB, using a green label with white lettering.

If the PCB concentration is unknown, testing and analysis may be called for, as determined by the PCB program manager.

Note the yellow label is also required for container of equipment being decommissioned (see Section 2.3) and for PCB-contaminated waste regardless of concentration and areas used to store PCBs and PCB items for disposal (see Section 2.4).

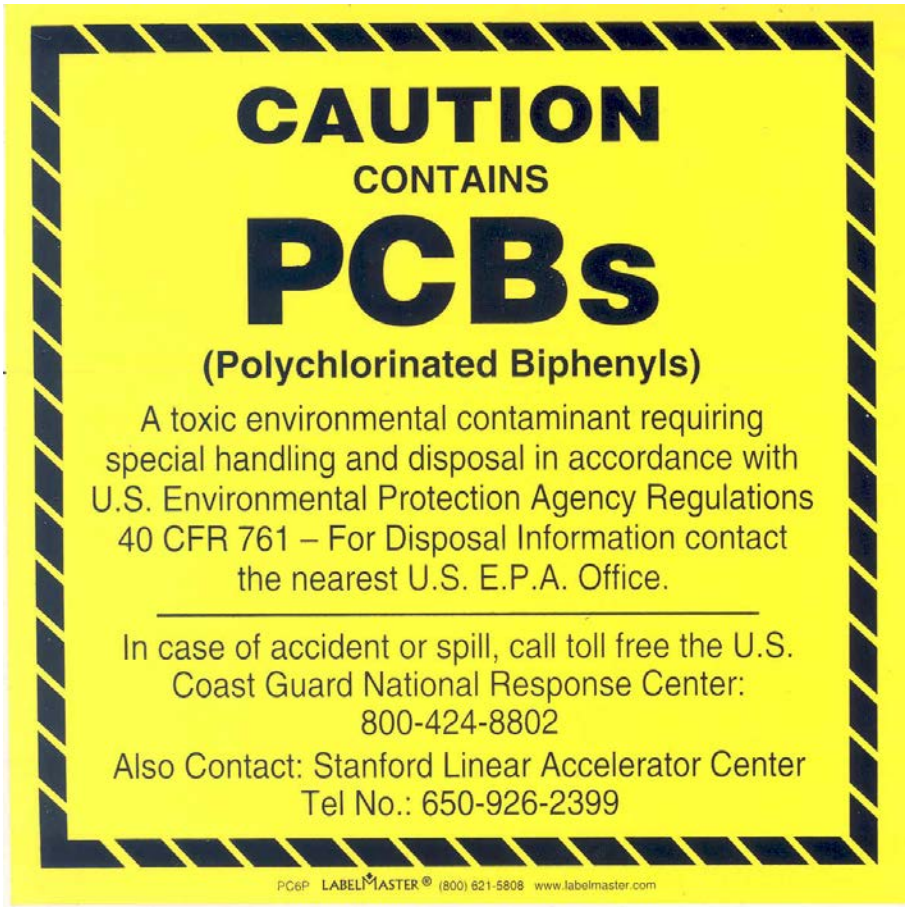

Figure 1 Yellow Label Used to Identify PCB Items

2.1.1 No PCB Label Required

In general, the following kinds of electrical equipment do not contain PCBs and do not require labels:

- Large, low-voltage capacitors
- Small capacitors that are normally used in alternating circuits
- Fluorescent light ballasts marked by the manufacturer as having no PCBs
- Any electrical equipment manufactured after July 2, 1979
- Any electrical equipment for which the PCB concentration has been determined to be below 50 ppm by sampling

2.2 Inspection

Inspection requirements for equipment containing 500 ppm or more PCBs are stringent, but SLAC no longer has any such equipment, so these inspection requirements do not apply.

PCB-contaminated equipment should be inspected by the department that is responsible for it, as part of the department's normal maintenance and inspection efforts.

Equipment and items stored for disposal must be inspected following the storage area inspection requirements of Chapter 17, "Hazardous Waste".

2.3 Decommissioning

When decommissioning, or recommissioning, equipment or buildings that may contain PCBs or PCB items, the owner must contact the PCB program manager.

When PCB equipment is decommissioned

- The date it was taken out of service must be included on the label.
- The presence of PCBs must be indicated on the Hazardous Waste Pickup and Empty Container Request Form used to request pickup by Waste Management.
- The delivered container must be marked with both hazardous waste and yellow PCB labels above (Figure 1).

2.4 Disposal

In addition to the requirements of this program, PCB items declared waste (that is, no longer appropriate for use) must be treated as hazardous waste, meeting the requirements of

- Chapter 17, "Hazardous Waste"
- Chapter 52, "Hazardous Materials and Waste Transportation"

PCB-contaminated waste must be labelled with the yellow label above (Figure 1), regardless of concentration. The primary SLAC waste that contains PCBs is fluorescent light ballasts, but this label is also used for PCB containers that hold such waste as soil, oil, and wipes that have been used to clean a PCB-related spill.

Areas used to store PCBs and PCB items for disposal must be marked as containing PCBs.

2.5 Personnel

There are no general restrictions on personnel working with PCB-containing equipment. PCBs and PCB-contaminated items must be treated, however, as hazardous material/waste.

2.5.1 Personal Protective Equipment

Personnel working with PCB-contaminated equipment and items are required to wear the appropriate personal protective equipment (PPE). Because PCBs bio-accumulate, workers must avoid all exposure to skin and eyes and avoid any potential for accidental ingestion by wearing

- Suitable chemical and/or oil resistant gloves (see the glove manufacturer's specifications for suitability)

- Goggles if there is potential for a chemical or oil splash hazard
- Protective clothing such as a coverall or work apron

2.5.2 PCB Exposure

In case of possible exposure to PCBs, personnel must follow the requirements of Chemical Safety: Accidental Exposure Requirements.

3 Forms

The following are forms required by these requirements:

- None

4 Recordkeeping

The following recordkeeping requirements apply for these requirements:

- Records relative to the disposal of PCBs over each 12-month period are required, including manifests and certificates of disposal. Waste Management retains these.

5 References

SLAC Environment, Safety, and Health Manual (SLAC-I-720-0A29Z-001)

- Chapter 32, “Polychlorinated Biphenyls”
- Chapter 16, “Spills”
- Chapter 17, “Hazardous Waste”
  - Hazardous Waste Pickup and Empty Container Request Form (SLAC-I-800-0A08R-001)
- Chapter 40, “Chemical Lifecycle Management”
- Chapter 52, “Hazardous Materials and Waste Transportation”
- Chapter 53, “Chemical Safety”
  - Chemical Safety: Accidental Exposure Requirements (SLAC-I-730-0A09S-041)