

Polychlorinated Biphenyls (PCB's) Equipment Procedures

Generally, materials containing 50 ppm or greater PCBs are regulated under the Toxic Substance Control Act (TSCA). TSCA provides requirements for the manufacture, processing, distribution in commerce, use, disposal, storage, and marking of PCBs and PCB Items. Always wear appropriate personal protection equipment when handling oil containing equipment.

Definitions

- Non-PCB transformer: Any transformer containing less than 50 ppm PCB.
- PCB-Contaminated Electrical Equipment: Any electrical equipment, including transformers, that contain 50 ppm or greater PCB, but less than 500 ppm PCB.
- PCB Transformer: Any transformer that contains 500 ppm PCB or greater.
- PCB Equipment: Any manufactured article that contains PCBs, including fluorescent light ballasts.

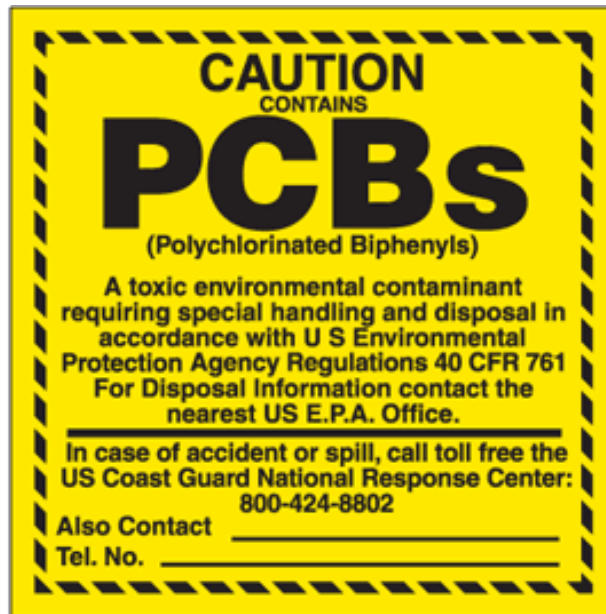
Electrical Transformers



All transformers require registration with EHS and labeling with PCB level. Note: PCB-contaminated transformers with ≥ 50 but less than < 500 ppm PCBs do not require the yellow PCB label, but must still be labeled with PCB ppm content.

All PCB transformers should have already been drained, retrofilled with non-PCB mineral oil and tested, replaced, or removed from service. However, retrofilled transformers may still contain low levels of PCBs (< 50 ppm PCB) or be PCB-contaminated (≥ 50 but < 500 ppm).

If any PCB transformers (≥ 500 ppm PCBs) are identified through testing or procured (such as during purchase of building), EHS must be notified immediately. PCB transformers must be labeled with an appropriate marking and the room must be labeled (both within 7 days).



Additionally, the fire department must be notified, and quarterly inspections must be conducted. PCB transformers, depending on voltage and location, are prohibited from certain uses. A PCB-contaminated transformer which is identified through testing as a PCB transformer must be registered within 30 days with the EPA, if the location has not been previously EPA-registered. Procured PCB transformers do not require registration, as EPA assumes previous owner has completed the registration. EHS maintains a database of transformers and other PCB equipment.

Transformer Draining and Removal

Draining and removal of transformers requires special procedures. Please contact EHS prior to commencing work for contractor and disposal vendor information. EHS must make all waste disposal arrangements, except for scrap metal disposal. The proper procedure is based upon the level of PCBs in the transformer.

All drums of drained fluid and solvent must be immediately moved onto secondary containment if not picked up by EHS or disposal vendor immediately. Drums and transformer carcasses must be transported off-site for disposal within thirty (30) days of "Out of Service" date. Note: Transformer "Out of Service" date is date transformer is taken off-line. All manifests for removal of oil and PCB containing material must be signed by EHS staff.

Spills and Leaks



All spills and leaks of fluids containing ≥ 50 ppm PCBs shall immediately be reported to EHS at 785-3555 (off-hours call campus police at 911). In some cases EHS may have to report releases to the Connecticut DEEP or the federal EPA. Decontamination with appropriate solvent and post-clean-up sampling (wipe tests) may be required. Collect all PPE that might be contaminated with PCBs for proper disposal.

Fluorescent Light Ballasts



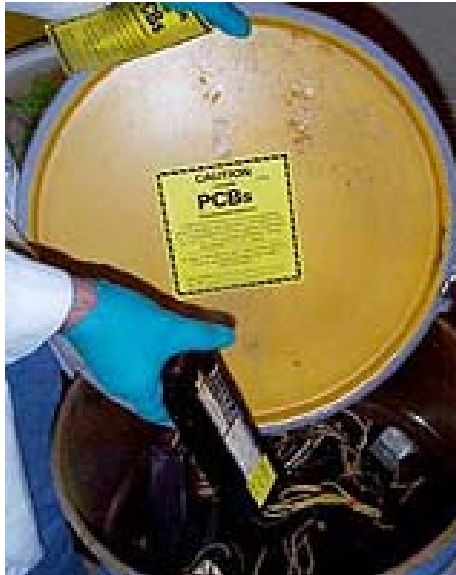
Fluorescent light ballasts manufactured before a certain date may contain PCBs. Following are guidelines for fluorescent light ballasts.

A. Regulatory Status

1. PCB and non-PCB containing ballasts are regulated by Connecticut as CT Regulated Waste and MUST be disposed of by Environmental Health and Safety (EHS).
 - All ballasts are shipped off-site for recycling.
 - All PCB ballasts are shipped off-site within 30 days of their out-of-service date.
 - A hazardous or non-hazardous waste manifest is used.
 - Manifests are to be signed by a member of the Environmental Affairs Section (EAS) of Environmental Health and Safety (EHS) at Yale University. Call 432-6545

B. Ballast Container Management

1. Segregate PCB ballasts from non-PCB ballasts.
2. Place intact non-leaking PCB ballasts into pre-labeled/pre-marked DOT approved 30 gallon or 55 gallon steel drums, which are to be provided by EAS.



Note: PCB ballasts should be placed into the drums that have the yellow “Caution Contains PCBs (Polychlorinated Biphenyls)” marking. Non-PCB ballasts should be placed into the drums that do not have the yellow “Caution Contains PCBs (Polychlorinated Biphenyls)” marking.

3. Keep each drum closed unless ballasts are being added. Use the lid, ring and bolt to accomplish.
4. Store drums containing PCB ballasts in an area posted with a PCB storage label, which is to be provided by EAS.
5. Store PCB and non-PCB ballast drums in a secure, dry area away from public access.
6. Fill each PCB and non-PCB ballast drum to 3/4 full.
7. Fax to 432-6148 or email to waste.requests@yale.edu a “Construction Site Waste Container Delivery Request” form to EHS for delivery of containers.
8. Contact EAS at 432-6545 to arrange for removal of containers.

C. Other Important Notes

1. Daily inspections of the work areas should be done by the site manager/supervisor to assure no drums are left uncovered or any ballasts are left lying on the ground.
2. Any **PCB ballasts** that have broken apart and/or are leaking a chemical substance should be wrapped in plastic and placed into their own leak-proof container. Always wear appropriate personal protective equipment.



Label each container of broken and/or leaking **PCB ballasts** with the words “**Non-RCRA Regulated Waste**” and “**Leaking PCB Lamp Ballasts**”, store the containers as described above, and notify EHS at 432-6545 immediately.

Any **non-PCB ballasts** that have broken apart and/or are leaking a chemical substance should be wrapped in plastic and placed into their own leak-proof container. Label each container of broken and/or leaking **non-PCB ballasts** with the words “Non-RCRA Regulated Waste” and “Leaking Non-PCB Lamp Ballasts”, store the containers as described above, and notify EHS at 432-6545 immediately.

3. In the event of a spill or accident involving PCB or non-PCB ballasts, contact EHS at 785-3555.
4. If any regulatory agency should come on site (OSHA, CTDEEP, EPA)
 - Ask the representative to wait until a member of EHS arrives.
 - Contact EHS immediately (785-3555) with the name of the representative and the agency.
 - DO NOT deny the representative access to the site, but request that the inspectors await the arrival of an EHS representative.