




PCB Management

Environmental Health and Safety Guideline

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DEP Office of Environmental, Health and Safety Compliance Authorization

I, a duly authorized representative of the DEP Office of Environmental, Health and Safety, have reviewed this document, have found it to be acceptable and authorize its use for all DEP operations.

<u>Revision / Action</u>	<u>Signature</u>	
<u>Revision 0 /Authorization</u>	_____	Date: <u>11/15/2019</u>
<u>Revision 1 /Authorization</u>	 _____	Date: <u>07/09/2020</u>

PURPOSE

This guide provides the means to help identify, manage, and coordinate with Bureau EHS (BEHS) to address PCB (Polychlorinated Biphenyl)-containing materials at DEP facilities. It also covers the requirements for identification, marking, storage, and disposal of PCB-containing equipment and material.

SCOPE/APPLICABILITY

This guideline applies to all DEP facilities where PCBs may exist or are known to exist. The provisions apply to items and equipment that contain PCBs in concentrations at or above the specified regulatory level of 50 parts per million (ppm) or surfaces contaminated by such PCB Items. PCBs may be present in older equipment and building materials manufactured before July 2, 1979. Some of the common PCB Items that may still be present in DEP facilities include:

- Transformers and capacitors
- Older electrical equipment including voltage regulators, switches, re-closers, bushings, and electromagnets
- Fluorescent light ballasts
- Cable insulation
- Adhesives, mastics and tapes
- Oil-based paint
- Caulking

Typically, identification and management of PCBs will be required during renovation or construction, which may disturb historic items. Multiple Federal and State regulations address PCB-containing items, and requirements can be dependent upon the exact on-site conditions and materials. Compliance is not one-size-fits-all. Contact your Bureau EHS for guidance during the planning stages of work that may impact equipment or building materials that potentially contain PCBs.

BACKGROUND

Most provisions under the Toxic Substances Control Act (TSCA) apply only if PCBs are present, or were originally present, in concentrations ≥ 50 ppm. Those provisions that apply to PCBs at concentrations < 50 ppm also apply to contaminated surfaces with PCB concentrations $\leq 10 \mu\text{g}/100 \text{ cm}^2$ as measured by a standard wipe test. Provisions that apply to PCBs at concentrations ≥ 50 to < 500 ppm also apply to contaminated surfaces with PCB surface concentrations $> 10 \mu\text{g}/100 \text{ cm}^2$ to $< 100 \mu\text{g}/100 \text{ cm}^2$. Provisions that apply to PCBs at concentrations ≥ 500 ppm also apply to contaminated surfaces with PCB surface concentrations $\geq 100 \mu\text{g}/100 \text{ cm}^2$.

The New York State Department of Environmental Conservation (NYS DEC) regulates waste with PCBs ≥ 50 ppm under the [6 NYCRR Part 370 Hazardous Waste Regulations](#), as “B” code listed wastes. The TSCA and hazardous waste rules have some overlap, but there are distinct differences in requirements for sampling and managing PCB material, e.g., labeling required and the timeframes for removal.

This guideline provides direction on how to identify and manage PCB-containing materials (refer to Table 1).

Table 1. Examples of PCB Items

PCB Item	What is it?	Examples
PCB Container	Any package, can, bottle, bag, barrel, drum, tank or other device that contains PCBs or PCB Articles and whose surface has been in direct contact with PCBs	
PCB Article	Any manufactured article other than a PCB Container that contains PCBs and whose surface(s) has been in direct contact with PCBs	Capacitors, transformers, electric motors, pumps, pipes, circuit breakers, reclosers, voltage regulators, switches, etc.
PCB Equipment	Equipment or items that contain PCB Article or PCB oil	Electronic equipment, and fluorescent light ballasts and fixtures
PCB bulk product waste	Manufactured products containing PCBs in a non-liquid state as an ingredient with PCB concentrations ≥ 50 ppm at the time of designation for disposal	Plastics, applied dried paints, varnishes/waxes, coatings/sealants, caulking, adhesives, and felt/fabric products such as gaskets
PCB remediation waste	Waste containing PCBs as a result of a spill, release, or other unauthorized disposal	Soil, dust, rags, and other debris generated as a result of any PCB spill cleanup

PROCEDURE

PCB Articles

Transformers

PCB transformers fall under what TSCA regulations refer to as a “totally enclosed use.” A transformer with PCB oil can remain in use at a site under the following conditions: the operators and owners have registered the transformer with EPA, have labeled it

appropriately, and have implemented a detailed maintenance and inspection program. If you have questions about electrical equipment that was manufactured pre-1979 or are planning to decommission such equipment, contact your BEHS to address any PCB-related requirements for that work.

Capacitors

Small capacitors that contain less than 1.36 kg (3 lbs.) of dielectric fluid are not hazardous waste under NYS DEC regulations, but must be disposed of in accordance with TSCA PCB Bulk Product Waste regulations unless manufactured after 1979 or marked “No PCBs.” See *Attachment A* for TSCA Disposal Requirements. Contact BEHS for additional help with managing capacitors.

PCB Bulk Product Waste

PCBs were used in a variety of building products that may still be present in DEP facilities. TSCA regulates such material as PCB bulk product waste once you remove it from service for disposal. Specifically, bulk product wastes are manufactured products containing PCBs in a non-liquid state, at any concentration ≥ 50 ppm at the time of designation for disposal. The typical types of PCB bulk product waste at DEP facilities are light ballasts, paints and caulking materials. However, materials with < 50 ppm PCBs are not PCB bulk product waste or TSCA-regulated.

Fluorescent Light Ballasts (PCB Equipment)

Light ballasts manufactured between July 1, 1979, and July 1, 1998 must be labeled as “non-PCB” or “non-PCB- containing.” When removed from service, ballasts without a “non-PCB” label that manufactured prior to July 1, 1998 must be stored, managed and disposed of as PCB bulk product waste. See *Attachment A* for TSCA Disposal Requirements. Contact BEHS for additional help with managing ballasts, and during the planning stages of lighting replacement projects.

Painted Surfaces and Building Materials

Generally, you should remove PCB-containing caulk and other PCB-containing building materials during planned renovations and repairs (when replacing windows, doors, roofs, ventilation, etc.). Prior to design of work that may demolish or remove building materials or equipment, coordinate with BEHS and contractor management to obtain available historical information, including data in LATS (DEP Legacy Assessment Tracking System), for the presence of PCB-containing materials and equipment.

Prior to removal, coordinate with BEHS to develop a sampling plan specific to the planned work. There is no requirement to test the facility as a whole, or to make assumptions for areas

not impacted by work based on results in the work area. Do not test building materials for PCBs unless the equipment or surfaces are to be disturbed or removed within a defined scope of work. Whenever PCB-containing materials are tested or removed, coordinate with BEHS to update the information in LATS.

Work by DEP employees on surfaces and equipment containing PCB paints or coatings or on surfaces or equipment whose PCB content is unknown can be safely conducted in accordance with the safe work practices described in the DEP Lead Management Policy. Implement the same measures recommended for preventing exposure to lead from lead-containing paint disturbance.

Routine operations and maintenance, such as repainting, can be performed on PCB-containing painted surfaces. Consult with your Bureau EHS for direction on the project and updates needed in LATS.

PCB Remediation Waste

TSCA regulates waste resulting from a spill, release, or other unauthorized disposal containing PCBs ≥ 50 ppm as PCB remediation waste. Remediation waste does not include materials such as paint or coatings to which PCBs were added during manufacture (as noted above, paint would be PCB bulk product waste).

PCB Spills

Fresh spills that have had a very limited time to migrate from the spill site or otherwise spread into the ambient environment, i.e., less than 72 hours old, should be cleaned up in accordance with [40 CFR 761 Subpart G - PCB Spill Cleanup Policy](#). These are typically liquid spills, such as from a broken light ballast. A quick and effective cleanup means recovery of almost all of the spilled material based on visible traces. Dispose of all cleanup waste assuming that the waste contains the same PCB levels as the material spilled. After recovery of all spilled material, verify the spill cleanup using approved methods on all impacted surfaces.

PCB Remediation

Spills older than 72 hours and all found PCB-containing materials must be managed under [40 CFR 761.61- PCB remediation waste](#), referred to in the regulations as the “self-implementing procedure.” This method is appropriate for a general, moderately-sized site where there should be low residual environmental impact from remedial activities. An EPA Regional Administrator may authorize a different approach for larger or more environmentally diverse sites.

The self-implementing clean up requires notification to EPA of the planned cleanup.

Coordinate with BEHS to ensure that appropriate notifications, cleanup plan, and cleanup criteria meet all the applicable requirements.

PCB Waste Classification

This section applies only if there is a reason to suspect the waste could be PCB-containing.

PCB characterization is determined by laboratory analysis. Coordinate with BEHS to ensure that an appropriate sampling plan is developed to help inform project planning and disposal requirements.

Characterizing PCB-containing waste streams (i.e., determining whether wastes are regulated under TSCA) must be based on the total PCB concentration at the source (e.g., paint/coating, caulk, etc.) prior to any disturbance that may be initiated through abatement, removal or construction/demolition activities:

- 1) If any source sample from a specific work area indicates that PCBs in paints/coatings/caulks are ≥ 50 ppm, then characterize all waste from that area (including paint chips, paint stripper products, HEPA vacuum filters, personal protective equipment (PPE), polyethylene barrier sheeting, HEPA vacuum filters, rags, paper towels, etc.) as TSCA-regulated waste. In addition, the waste may be NYS hazardous waste under RCRA. Segregate all waste streams into separate drums and label the drums with PCB waste labels (including out-of-service date when PCB waste is first placed in drum) and Hazardous Waste (Pending Analysis) label. Perform RCRA sampling of Total PCBs to determine whether the waste is NYS listed hazardous waste. If PCBs are ≥ 50 ppm in the waste, it is NYS listed hazardous waste and drums must be labeled with RCRA hazardous waste labels (B001 – B007 codes).
- 2) If any source samples from a specific work area indicate that PCBs in paints/coatings/caulks are < 50 ppm, then characterize all waste from that area (including PPE, polyethylene barrier sheeting, HEPA vacuum filters, etc.) as PCB-containing waste. Segregate all waste streams into separate drums.

Provide all appropriate documentation, from manifests to LATS data updates, to the facility.

PCB Waste Storage

Time Limits

Under TSCA regulations, when a facility determines waste to be PCB waste, and removes the PCB waste from service with the intent to dispose of it, the facility must dispose of that waste within 1 year from the date of that determination (40 CFR 761.65 (a)(1)). This waste would be anything regulated as PCB-containing (with PCBs ≥ 50 ppm) equipment or building materials, as well as the cleanup materials generated during a remediation.

PCB remediation waste or PCB bulk product waste may be stored at the cleanup site or site of generation for 180 days. The storage site is subject to a number of conditions including requirements for a liner and a cover that will prevent any migration of wastes into the adjacent subsurface soil, ground water or surface water (40 CFR 761.65 (c)(9)).

Note that RCRA storage time limits may differ depending on the facility's waste generator status; it is necessary to ensure compliance with both TSCA and RCRA as they have different time limits. PCB-containing waste ≥ 50 ppm cannot be stored at Satellite Accumulation Areas (SAAs), as provided by RCRA. Consult with BEHS on the specific requirements.

Storage Requirements

- 1) Mark PCB containers, items containing PCBs, and PCB storage areas according to 40 CFR 761.40 (a) (see Attachment B). Date PCB Items (on the items themselves or on the PCB container) when they are removed from service for disposal. Store PCB Items in a way that makes it possible to locate them by the date you removed them from service. Include all additional markings as required by 6 NYCRR Part 373-2 (d);
- 2) Inspect storage areas weekly. Transfer immediately any leaking PCB Items and their contents to properly marked non-leaking containers. Clean up any spilled or leaked materials immediately and dispose of the materials and residues containing PCBs in accordance with 40 CFR 761.61. Maintain records of inspections, maintenance, cleanup and disposal in accordance with 40 CFR 761.180(a) and (b) and 6 NYCRR Part 373-2.
- 3) Ensure containers used to store liquid or non-liquid PCB waste meet DOT's hazardous materials regulations (40 CFR 761.65 (c)(6)); larger stationary bulk storage containers for storing liquid PCBs must be designed, constructed, and operated in compliance with OSHA 29 CFR 1910.106 ("Flammable and combustible liquids") (40 CFR 761.65(c)(7)). Storage and container management must also conform with 6 NYCRR Part 373-2;
- 4) Keep records, including the quantity of PCB waste and the date any waste was added to or removed from the container.

PCB Waste Storage Areas

Storage Areas, as further described in 40 CFR 761.65 (b)(1)), must meet the following criteria:

- 1) An adequate roof and walls to prevent rainwater from reaching the stored PCBs and PCB Items;

- 2) An adequate floor and curbing constructed of Portland cement, concrete, or a continuous, smooth, non-porous surface;
- 3) No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area; and
- 4) A location that ensures the waste is above the 100-year flood water elevation.

40 CFR 761.65 (c)(1) allows temporary storage of certain items for up to thirty (30) days from the date of their removal, in an area that does not comply with the storage area requirements above, provided that you attach a notation to the PCB Item or PCB Container (containing the item) indicating the date of removal from service:

- 1) Non-leaking PCB Articles and PCB Equipment;
- 2) Leaking PCB Articles and PCB Equipment if the PCB Items are placed in a non-leaking PCB Container that contains sufficient sorbent materials to absorb any liquid PCBs remaining in the PCB Items;
- 3) PCB Containers containing non-liquid PCBs such as contaminated soil, rags, and debris; and
- 4) PCB Containers containing liquid PCBs at concentrations ≥ 50 ppm, provided a Spill Prevention, Control and Countermeasure Plan has been prepared for the temporary storage area and the liquid PCB waste is in packaging authorized in the DOT Hazardous Materials Regulations.

ATTACHMENT A
TSCA Disposal Requirements for Fluorescent Light Ballasts^{1, 2}

PCB Capacitor	PCB Potting Material³	Labeling, Transportation and Manifesting for Disposal	Disposal Reference in 40 CFR 761	Disposal Options
“No PCBs” label		Not regulated under TSCA	N/A	Not regulated under TSCA
None	<50 ppm	Not regulated under TSCA	N/A	Not regulated under TSCA
Intact and non-leaking or none	≥50 ppm	Is a PCB bulk product waste. No labeling is required. Manifesting is required for disposal in accordance with 761.62 (a); is not required under 761.62 (b); may be required under 761.62 (c).	.50(b)(2)(ii) .62(a)-(c)	761.62 (a): TSCA Incinerator, TSCA/RCRA Landfill, Alternate Destruction Method, Decontamination (761.65(d) storage approval may be required), Coordinated approval, 761.62 (b): State approved landfill (leach test required), 761.62 (c): Risk-based approval
Intact and non-leaking	<50 ppm	No labeling or manifesting required.	50(b)(2)(i) 60(b)(2)(ii)	As municipal solid waste 40 CFR 761 subpart D options
Leaking	<50 ppm or ≥50 ppm	Disposal as PCB bulk product waste. No labeling is required. Manifesting is required for disposal in accordance with §761.62(a); may be required under §761.62(c).	.62(a) or (c)	761.62 (a): TSCA Incinerator, TSCA/RCRA Landfill, Alternate Destruction Method, Decontamination (§761.65(d) storage approval may be required), Coordinated approval 761.62 (c): Risk-based approval

Source: www.epa.gov

1. Small capacitors as defined by 6 NYCRR 371.4(e)(3)(ii), are exempted from the New York State hazardous waste regulations. Disposal is governed by federal requirements for management and disposal of fluorescent light ballasts.
2. Fluorescent light ballasts have two potential sources of PCBs, the capacitor contained within the ballast and the potting material used to insulate the capacitor.
3. According to data submitted in the TSCA Section 21 petition, ballasts manufactured prior to July 1978, have a better than 50% chance of containing PCBs at 50 ppm or greater in their potting material. (Federal Register Vol. No. 124 page 35404).

ATTACHMENT B
PCB Label

