

5. PCB Articles, Containers and Liquids & Regional Contact Information

Brochure Series

Guiding States and Brownfield Projects through the PCB Rules under TSCA:

Navigating the TSCA process is complex and represents a challenge for many Brownfield remediation and redevelopment projects which can stretch limited funds. This brochure series focuses on the topics most relevant to the states and their Brownfield stakeholders:

1. Working with the Federal and State PCB Regulations on Brownfield Sites: When and What Federal Involvement is Required;

2. Characterization: Sampling and Testing Approaches for PCBs;

3. Cleanup and Management of PCBs;

4. PCBs in Building Materials; and

5. PCB Articles, Containers and Liquids.

This fifth, and final brochure, focuses on Toxic Substance Control Act (TSCA) regulations for the storage, continued use, and disposal of specific PCB articles and containers typically encountered at Brownfield sites. These items might also be governed by state-specific regulations. Regional contact information is provided at the end of this brochure to help determine site and state-specific requirements.

PCBs articles hold or once held PCB-containing material and include transformers, capacitors, hydraulic systems, switches, and voltage regulators, and circuit breakers. PCB containers include any package, can, bottle, barrel, drum, tank, or other device that contains PCBs or PCB Articles and whose surface(s) has been in direct contact with PCBs.

The following are some questions and references to TSCA regulations to consider when assessing the appropriate management of PCB articles and containers.

What is the concentration of PCBs in the article or container?

Federal TSCA regulations categorize non-liquid material contaminated by PCBs into three groups based on their concentrations (40 CFR 761.3):

- PCB Containing - Greater than or equal to 500 parts per million (ppm)
- PCB Contaminated - Greater than or equal to 50 ppm to 499 ppm
- Non-PCB Containing - Less than 50 ppm to 499 ppm. This category is generally not subject to the requirements in the federal PCB regulations.

PCB concentration may be established by manufacturer's information, service records, or by directly testing the equipment. Brochure 2 of the series provides information on testing procedures.

If you are not aware of the concentration of PCBs, 40 CFR 761.2 provides assumptions allowed under TSCA.

Scenario No. 1: You are performing a site investigation on a Brownfields and observe a spill of oil adjacent to a transformer that is marked as "non-PCB containing". Can you assume the spilled material is non-PCB (<50 ppm)?

Answer: No. The PCB concentration groups, as listed above, apply only to equipment while in use. In addition, the transformer may have historically used fluids with higher PCB concentrations; therefore, additional testing is required.

Is the PCB article or container subject to the storage regulations?

- TSCA storage regulations are based on the PCB concentration of the article or container and the planned future use of the material. The following articles and containers are typically subject to TSCA storage requirements:
 - Articles and containers with a PCB concentration of 50 ppm or greater. Some exceptions are provided in 40 CFR 761.60.
 - Drained electrical equipment (such as transformers) with a PCB concentration of 500 ppm or greater.
- Any PCB-containing or PCB-contaminated electrical equipment that is not energized and connected to the electrical distribution system is 'stored' and subject to TSCA storage requirements.

TSCA regulations distinguish between two different types of storage:

- **For use or reuse (40 CFR 761.35).** Storage for use or reuse is keeping a PCB Article awaiting installation, servicing, repair, refilling, use as a spare or replacement, or emergency use.
- **For disposal (40 CFR 761.65).** Storage for disposal is storage of a PCB Article or PCB Item that is unfit for service, unauthorized for servicing or use, considered or declared a waste (e.g. a material on which PCBs are spilled or released), or projected for disposal.

Scenario No. 2: You have removed a transformer from service and are evaluating whether the unit will be reused or disposed. Is the transformer in use, in storage for disposal, or in storage for reuse?

Answer: You must treat a transformer or other PCB Article that is removed from service as either in storage for reuse or in storage for disposal. If you have not yet determined to dispose of the transformer, treat it as in storage for reuse.

What is the proper storage for reuse?

You may store working PCB Articles in good condition for future use, whether you know or assume they contain PCBs, if you meet these conditions:

- Store the equipment indefinitely at a permitted hazardous waste storage facility (40 CFR 761.65(b)). Equipment inspections must be carried out every 30 days.
- Store the equipment for less than five years from the date removed from service and maintain a storage-for-reuse record for the equipment. Include in the record the date the equipment was removed from service, the intended use, and equipment location. Storage of the equipment longer than five years is possible following EPA approval.

PCB articles that held liquids with PCB concentrations less than 50 ppm are considered excluded PCB products (see 40 CFR 761.3). These articles are not regulated for storage or disposal under TSCA.

What is the proper storage for disposal?

- Within one year of the date removed from service, you must ensure PCBs achieve final disposition – meaning they are actually incinerated or otherwise managed. Include the time needed to transport and dispose of the equipment in this time limit. Therefore, one year, minus transport and disposal time, is the maximum time you can store the item. Since actual disposal of PCBs may take several months, be sure to budget enough time for transport, intermediate storage and final disposal.
- You may store PCBs for disposal for up to 30 days from the date removed from service in a temporary PCB storage area. You must then either transport the PCBs off site for disposal or move them to a permanent PCB storage area. Permanent PCB storage areas meet strict storage conditions and have notified the EPA using EPA form 7710-53.
- An area used to store articles or containers with PCB concentrations of 50 ppm or greater prior to disposal must meet the criteria specified in 40 CFR 761.65(b). This regulation addresses the requirements for adequate roofing and walls, impervious floors with curbing, restrictions on openings, adequate containment, and a location above the 100-year flood plain. However, certain PCB items may be stored temporarily (up to thirty days) in areas not meeting these requirements. A notation must be attached to the PCB Item or a PCB Container (containing the item) indicating the date the item was removed from service. Additional requirements are specified in 40 CFR 761.65(c).

What are the disposal options for certain articles or containers?

Disposal options are provided in the table below. Please refer to the sections for specific TSCA language, since significant restrictions do exist.

Transformers	761.60(b) (1)	Incinerator, chemical waste landfill
Small Capacitors (contains less than 3lbs of dielectric fluid)	761.60(b) (2) (ii)	Municipal solid waste facility
Large High or Low Voltage Capacitor (contains more than 3lbs of dielectric fluid)	761.60(b) (2) (iii)	Incinerator, chemical waste landfill
Hydraulic Machines	761.60(b) (3)	Municipal or non-municipal solid waste facility and scrap metal recovery
Containers (e.g. drums or tanks)	761.60(c)	Incinerator, municipal solid waste facility

*Scenario 3: Can non-intact PCB Articles (e.g. transformers and capacitors) be disposed of as **bulk product waste**?*

Answer: No they cannot be disposed of as bulk product waste. The definition of PCB bulk product waste at 40 CFR 761.3 states "PCB bulk product waste does not include PCBs or PCB Items regulated for disposal under 761.60(a) through (c). PCB Articles are regulated for disposal under 761.60(b).

What are labeling and record keeping requirements for articles and containers?

Labeling. Labels are required for in-use and stored PCB-contaminated equipment (except for small capacitors). Labels are also required for PCB wastes and in transformer access areas.

Any large, low-voltage capacitor, small capacitor used in alternating-current circuits, or fluorescent light fixture ballast manufactured between July 1, 1978 and July 1, 1998, that does not contain PCBs must be marked by the manufacturer with the words, "No PCBs," in accordance with 40 CFR 761.40(g). Manufacturers' markings should enable the consumer to differentiate between items that contain PCBs and those that do not.

Record keeping. TSCA record keeping provisions require that owners maintain information about the weight of the PCBs; the identification of PCB-containing items; the dates of storage, transfer, and disposal; and the names of shippers and receivers. The generator (owner) is responsible for manifesting all PCB containers shipped off-site for disposal, for verifying that PCB containers have been disposed of properly, and for maintaining a signed copy of the manifest. Certificates of disposal alone are not sufficient.

If the generator stores at least 45 kilograms of PCBs in a PCB container or, one or more PCB transformers, or 50 or more large, high or low voltage PCB capacitors, then an annual document log of required records (e.g. manifests, certificates of disposal, inspection and cleanup records) must be maintained (40 CFR 761.180).

References

EPA Website: <http://www.epa.gov/epawaste/hazard/tsd/pcbs/index.htm>.

The following documents are available at the EPA website:

- *Code of Federal Regulations Part 761*
- *The Polychlorinated Biphenyl (PCB) Site Revitalization Guidance, Nov. 2005.*
- *PCB Questions and Answers Manual, Updated January 2009.*
- *EPA Region 1 Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls, Revision 4, May 5, 2011.*

Regional Contacts by State

Connecticut

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PCB questions should be directed to the EPA Region 1 Regional PCB Coordinator

EPA Region 1 Contact Information

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TSCA Hotline - 202-554-1404 or e-mail
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For **State Contact Information**,
please see Brochure 5 - **PCB Articles,**
Containers and Liquids

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This guidance document addresses cleanup and disposal requirements for Polychlorinated Biphenyls (PCBs) only. This guidance document does not replace or supplant the requirements of the Toxic Substances Control Act (TSCA) PCB regulations. Please refer to the PCB regulations at 40 CFR Part 761 for specific regulatory and legal requirements.

