



PCB Storage Requirements

BACKGROUND: Polychlorinated biphenyls (PCBs) are a class of organic chemicals that were widely used in industrial applications due to their practical physical and chemical properties. Historically PCBs were used as dielectric fluids (for example, in utility transformers, capacitors), and hydraulic fluids, and other applications requiring stable, fire-retardant materials. Due to findings that PCBs may cause adverse health effects and due to their persistence and accumulation in the environment, the Toxic Substances Control Act (TSCA), enacted on October 11, 1976, banned the manufacture of PCBs after 1978 [Section 6(e)]. The first PCB regulations, promulgated at 40 *Code of Federal Regulations (CFR)* Part 761, were finalized on February 17, 1978, and have been most recently amended on June, 1998 [63 *Federal Register (FR)* 35384].

These PCB regulations include requirements specifying disposal methods and marking (i.e., labeling) procedures. They also control PCB use.

The requirements specified at 40 *CFR* Part 761.65 require most PCB wastes to be stored in a facility that meets the specifications of that section. Additionally, the regulations include rules concerning time limits for PCBs and PCB items in storage, rules concerning leaking electrical equipment, and rules concerning types of containers used to store PCBs and PCB items.

To assist the Department of Energy (DOE) in its efforts to comply with the TSCA statute and implementing regulations, the Office of Environmental Policy and Guidance has prepared a document entitled *Guidance Booklet on Storage and Disposal of Polychlorinated Biphenyl (PCB) Waste*. This Information Brief supplements the PCB guidance document by responding to common questions concerning storage requirements for PCBs. It is one of a series of Information Briefs pertinent to PCB management issues.

STATUTE: Toxic Substances Control Act of 1976 (TSCA)

REGULATION: 40 *CFR* Part 761

- REFERENCES:**
1. *Guidance Booklet on the Storage and Disposal of Polychlorinated Biphenyl (PCB) Waste*, DOE Office of Environmental Policy and Guidance, RCRA/CERCLA Division (EH-413), DOE/EH-413-9914, November 1999.
 2. *PCB Manufacturing, Processing, Distribution in Commerce, and Use Bans*, Final Rule, Environmental Protection Agency, 44 *FR* 31514, May 31, 1979.
 3. *PCB Use in Electrical Equipment*, Final Rule, Environmental Protection Agency, 47 *FR* 37342, August 25, 1982.
 4. *TSCA Statement of Policy for Compliance and Enforcement of PCB Storage for Disposal Regulations*, Final Rule, Environmental Protection Agency, 48 *FR* 52402, November 17, 1983.
 5. *The PCB Mark*, EH-413 TSCA Information Brief, EH-413-0009/0702, Office of Environmental Policy and Guidance, RCRA/CERCLA Division, July 2002.
 6. *PCB Manifesting and Notification Rule*, EH-413 TSCA Information Brief, EH-413-0008/0702, Office of Environmental Policy and Guidance, RCRA/CERCLA Division, July 2002.
 7. *PCB Spill Response and Notification Requirements*, EH-413 TSCA Information Brief, EH-413-0010/0702, Office of Environmental Policy and Guidance, RCRA/CERCLA Division, July 2002.
 8. *TSCA Compliance Program Policy 6-PCB-6*, U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, as cited in 63 *FR* 35414m June 29, 1998.

What are the different types of storage?

The TSCA regulations in 40 *CFR* Part 761 distinguish between two different types of storage: storage for use or reuse and storage for disposal. Storage for use or reuse is keeping a PCB or PCB Item awaiting installation, servicing, repair, refilling, use as a spare or replacement, or emergency use. Storage for disposal is storage of a PCB 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. The regulations for storage for use or reuse are generally less stringent than those for storage for disposal. [However, the regulations for the two types of storage are inextricably intertwined. Thus, some PCBs and PCB Items stored for use or reuse must be stored under the same conditions as those stored for disposal.] (See question “What types of PCBs and PCB Items must be stored in a PCB Storage unit?”)

What is considered a “PCB storage unit”?

There are several different types of regulated PCB storage units. There is the **TSCA general storage unit**, a unit that meets the requirements of 40 *CFR* Part 761.65(b)(1). There is an **alternative storage unit**, a unit that meets the requirements of 40 *CFR* Part 761.65(b)(2). An alternative storage unit may be a Resource Conservation and Recovery Act (RCRA) storage unit permitted by the EPA, permitted by an authorized state, or operated under interim status. An alternative storage unit may also be a storage unit allowed under a PCB waste management approval, TSCA PCB Coordinated Approval, or state PCB waste management program. (The state PCB waste management program must be no less stringent in the protection of health and the environment than TSCA.) There are also **30-day temporary storage units** and **180-day, on-site storage units**.

What types of PCBs and PCB Items must be stored in a PCB storage unit?

Liquids ≥ 50 ppm of PCBs (i.e., dielectric fluid) used to service transformers, switches, electromagnets, and voltage regulators must be stored in PCB storage units meeting the requirements of 40 *CFR* Part 761.65(b)(1) or (b)(2). PCB Articles that are stored for use or reuse for a storage period of five or more years must be stored in a PCB storage unit meeting the requirements of 40 *CFR* Part 761.65(b)(1) or (b)(2). All PCBs and PCB Items stored for disposal for a storage period over 30 days must be in a PCB storage unit meeting the requirements of 40 *CFR* Part 761.65(b)(1) or (b)(2) also. All PCB bulk product waste or PCB remediation waste not in a 30-day temporary storage or 180-day, on-site storage unit must be stored in a PCB storage unit also meeting the requirements of 40 *CFR* Part 761.65(b)(1) or (b)(2).

What PCB Articles may be stored outside adjacent to PCB storage units?

Two types of PCB Articles, (1) PCB Large High Voltage Capacitors (i.e., capacitors with ≥ 3 lbs. of dielectric fluid and designed for ≥ 2000 volts, AC or DC) and (2) undrained PCB-Contaminated electrical equipment may be stored outside adjacent to a PCB storage unit meeting the requirements of 40 *CFR* Part 761.65(b)(1) or (b)(2). These two types of PCB Articles may be stored in such a way under the following conditions: they are (1) structurally undamaged and non-leaking, (2) palletized, (3) inspected weekly, and (4) stored outside only when there is only ten percent unfilled space inside the PCB storage unit.

What is considered a temporary storage unit under the regulations and how does that differ from a PCB storage facility?

A temporary storage unit is a storage unit in which PCB waste may be stored for 30 days or less from the date of removal from service and that does not have to meet the requirements of 40 *CFR* Part 761(b)(1) or (b)(2). However, a temporary storage unit must meet the following conditions: (1) only non-leaking PCB Articles and PCB Equipment may be stored, (2) leaking PCB Articles or PCB Equipment must be placed into a non-leaking container with sufficient sorbent material, (3) a Spill Prevention Control and Countermeasures (SPCC) Plan is in effect for any stored liquid with ≥ 50 ppm of PCBs (see last question), (4) the unit is marked (see Information Brief, *The PCB Mark*), and (5) any item of movable equipment that has come into contact with PCBs must be decontaminated before removal from the unit.

Are any types of PCBs or PCB Items exempt from the TSCA storage regulations at 40 *CFR* Part 761.65?

Yes. The TSCA regulations at 40 *CFR* Part 761 do not regulate storage of the following materials:

- PCBs and PCB Items with a PCB concentration < 50 ppm, as long as the PCB concentration was not the result of dilution; and
- drained electrical equipment (such as transformers) with a PCB concentration of < 500 ppm.

Additionally, PCB Items at any PCB concentration are exempt from the storage requirements of 40 *CFR* Part 761.65 if they are stored for a period of up to five years as long as they are authorized and fit for service (i.e., in good condition) and the following information is recorded: (1) date of removal from service, (2) projected location of future use, and (3) if applicable, date due for servicing.

Is there a time limit on how long PCBs and PCB Items may be stored for disposal in a PCB storage unit?

Yes. Any PCB waste must be disposed of within one year from the date it was determined to be a PCB waste and the decision was made to dispose of it. PCB/radioactive wastes are exempt from the one-year limit if attempts to secure disposal have been unsuccessful and records to this effect are made available to the EPA. Upon written justified request the EPA may grant one-year extensions, and additional extensions as appropriate, for those subject to the one-year storage limit who have been unable to arrange for disposal.

Managers of PCB waste should be aware that they may be liable for violating the one-year storage limit if the PCB waste is not disposed within one year. *TSCA Compliance Program Policy PCB-6* allows generators 270 days in which to get their wastes to disposers and 90 days for disposers to dispose of the wastes. If the wastes do not get to the disposer within 270 days and the disposer is unable to dispose of the wastes within one year from the date of removal from service, the liability for violating the one-year limit falls on the generator. If the wastes get to the disposer within 270 days and the disposer is unable to dispose of the wastes within one year from the date of removal from service, the liability for violating the one-year limit falls on the disposer.

What are the storage requirements for leaking PCB electrical equipment?

Most PCB electrical equipment must be drained prior to disposal. To prevent leaks while in storage, it may be worthwhile to drain waste PCB electrical equipment (where practicable) prior to storage.

If leaks occur while a PCB Item is in storage, the leaking PCB Item must be transferred immediately to a properly marked, non-leaking container. The spilled or leaked material must then be cleaned up according to the TSCA PCB Spill Cleanup Policy at 40 *CFR* Subpart G (if it is a recent spill) or 40 *CFR* Part 761.61(a) (if it is not a recent spill). (See Reference #7 for the TSCA PCB Spill Cleanup Policy.) Records of cleanups must now be kept with the annual records.

How often should PCBs and PCB Items in storage be inspected for leaks?

PCBs and PCB Items stored in a PCB storage unit or stored in accordance with the temporary storage provisions must be inspected for leaks at least once every 30 days. PCBs and PCB Items stored on pallets adjacent to a PCB storage facility must be checked for leaks weekly. Records of inspection must now be kept with the annual records.

What types of containers are required to store various PCBs and PCB Items?

The TSCA regulations require the use of containers that meet specifications established by the U.S. Department

of Transportation (DOT) in the Hazardous Materials Regulations (HMR) at 49 *CFR* Parts 171-180. However, alternative storage containers may be used if a container larger than DOT-specified containers is needed. Larger than DOT-specified containers (e.g., tanks, tank trucks, tank cars) may be used if they meet Occupational Safety and Health Administration (OSHA) standards (29 *CFR* Part 1910.106). The key standard is the structural safety of the containers because PCBs are much higher in specific gravity than most petroleum products.

For PCB waste that is radioactive, containers other than those meeting HMR performance standards may be used subject to the following conditions: the containers used for liquids do not leak, the containers are stored in areas meeting all applicable State or Federal regulations, and the containers meet all regulations and requirements pertaining to nuclear criticality safety.

The obsolete DOT-specification containers (specification S, 2SL, 5, 5B, 6D, 17C, or 17E) may be used on a "transition basis" provided that they (1) were filled before October 1, 1996, and (2) not emptied and then refilled after that date. The obsolete DOT-specification containers may also be used if filled before October 1, 1996, and not transported across a public road.

What is a SPCC Plan and when must it be prepared?

The SPCC Plan is developed by the facility to provide for the following: appropriate containment and/or diversionary structures to collect spills and prevent PCBs from reaching navigable water, appropriate storage tank and transfer facility design, periodic inspection for leaks, and corrective action to repair any leaks or faulty equipment.

SPCC Plans must be prepared and implemented for liquids with ≥ 50 ppm of PCBs placed in (1) temporary storage or (2) larger than DOT-specified containers used for purposes of consolidation. (Such containers include tanks, portable tanks, and parked tank trucks or tank cars.) Managers should be aware that the TSCA requirements for a SPCC Plan can be satisfied by including PCBs in SPCC Plans developed by the facility under the Clean Water Act.

Questions of policy or questions requiring policy decisions will not be dealt with in EH-413 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning the subject material covered in this Information Brief to Beverly Whitehead, RCRA/CERCLA Division, EH-413, (202) 586-6073, or beverly.whitehead@eh.doe.gov.

