



The National Park Service EnviroFact Sheet

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Managing Polychlorinated Biphenyl (PCB) Waste (SW-9) **DRAFT**

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PCBs are mixtures of synthetic organic chemicals. Due to their non-flammability, chemical stability, high boiling point and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications. The most common source of PCBs at NPS facilities is lighting ballasts and transformers. This fact sheet addresses issues related to ballasts.

According to the EPA, ballasts manufactured prior to July 1978 have a greater than 50% chance of containing PCBs at 50 parts per million (ppm) in their potting material.

Fluorescent light ballasts manufactured **between July 1, 1979, and July 1, 1998**, were required to be marked by the manufacturer with the statement "No PCBs." It is acceptable to treat ballasts with this mark as unregulated for PCBs. (NOTE: It is possible to discover ballasts manufactured after July 1, 1998 that do not have a "No PCBs" label – these are considered PCB-free.)

If there is no label indicating that there are no PCBs, the EPA suggests two options: first, you could assume that the material contains PCBs at 50 ppm or greater or, second, you could contact the manufacturer.

FOR MORE INFO...

EPA PCB Home Page:
<http://www.epa.gov/opptintr/pcb/>

Minnesota Pollution Control Agency, "Managing PCBs in Fluorescent Light Ballasts":
http://www.pca.state.mn.us/waste/pubs/4_48a.pdf

EPA TSCA Hotline:
202-554-1404

APPLICABLE REGULATIONS

The Toxic Substances Control Act (TSCA) banned the production, processing, and distribution of Polychlorinated Biphenyls (PCBs) in the United States. Under TSCA, leaking PCB-containing ballasts must be incinerated in an EPA-approved high-temperature incinerator. Non-leaking PCB ballasts may be disposed of in conventional municipal solid waste landfills. The complete regulatory requirements governing the use and disposal of PCBs are found in 40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions." Some states may require that PCB waste be treated as a hazardous waste.

DISPOSAL

Disposal options depend on whether the PCBs are found in an intact and non-leaking small capacitor, a non-intact or leaking small capacitor, or in the potting material. Therefore, it is very important to determine if PCB-containing ballasts are leaking before they are removed from use.

Leaking Ballasts

Leaking PCB-containing ballasts, and all parts the leaking material contacts, are considered PCB wastes and are subject to TSCA requirements. PCB contaminated wastes must be incinerated at an EPA-approved, high-temperature incinerator. The TSCA Information Hotline, (202) 554-1404, can answer questions regarding the proper removal, packing, storage, transportation, and disposal of leaking PCB-containing ballasts and other PCB wastes.

Non-Leaking Ballasts

Intact, non-leaking PCB-containing ballasts may be disposed of in municipal solid waste (MSW) landfills. EPA recommends packing and sealing the intact ballasts in 55-gallon drums. However, it is important to note that state and/or local governments may have additional, more stringent requirements for disposing of PCB-containing light ballasts. Additionally, some MSW landfills may refuse to accept non-leaking PCB-containing ballasts or ballasts that are not labeled "No PCBs." Generators of PCB-containing ballasts are encouraged to consult with state and local officials, and MSW landfill operators, prior to disposing of known, non-leaking PCB-containing ballasts.

Generally, there are three methods of disposing of non-leaking PCB-containing ballasts that are considered to be more environmentally responsible than disposal in MSW landfills.

- **High temperature incineration** – This method destroys the PCBs, permanently removing them from the waste stream and limiting future generator liability.
- **Recycling** – With this method, recyclers remove the PCB-containing ballasts, which are subsequently incinerated or landfilled. Usable materials, such as metals, are then reclaimed for secondary uses.
- **Disposal in Chemical or Hazardous Waste Landfill** – This disposal method neither eliminates PCBs from the waste stream nor limits potential future generator liability. While this is not the disposal method NPS would prefer, the waste is disposed of in a more controlled and monitored environment than MSW landfills.



Managing DEHP-containing Ballasts

Di (2-ethylhexyl) Phthalate (DEHP) is the most commonly used of a group of related chemicals called phthalates or phthalic acid esters. DEHP containing ballasts are found in the same types of fixtures as PCB containing ballasts, but are not specifically regulated under TSCA. Proper management and disposal of DEHP-containing ballasts includes understanding federal, state and local requirements and identifying ballasts containing DEHP. DEHP may be found in ballasts designed for the following lighting fixtures: 1) four-foot fluorescent fixtures manufactured between 1979 and 1985; 2) eight-foot fluorescent fixtures manufactured between 1979 and 1991; and 3) HID fixtures manufactured between 1979 and 1991. To determine if ballasts contain DEHP, contact the manufacturer or send a sample capacitor to a laboratory for testing.

The preferred methods for disposing of DEHP-containing ballasts are high temperature incineration and recycling. **NPS recommends that all known and suspected DEHP ballasts be sent to an EPA-approved disposal facility for high temperature incineration.**

PCB WASTE MANAGEMENT COMPLIANCE CHECKLIST

Checklist Item	Notes
1. Determine whether your state has adopted more stringent standards for the management of PCB and DEHP waste.	
2. Verify that all leaking PCB-containing ballasts are handled as "PCB Waste" under TSCA.	
3. Verify that known or suspected PCB and DEHP ballasts to be disposed of are placed in segregated, labeled containers and stored in a secure location for disposal.	
4. Confirm that known or suspected leaking and non-leaking PCB- and DEHP- containing ballasts are sent to a USEPA permitted TSDF for high temperature incineration.	
5. Confirm that certificates of destruction are received for PCB and DEHP ballasts that are incinerated.	
6. Ensure that uniform hazardous waste manifests or other disposal records, including certificates of destruction, for PCB and DEHP ballasts are maintained at the park.	