

Bilag 59



Mid-Atlantic Toxic Substances

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 Polychlorinated Biphenyls (PCBs)

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PCB Transformers

What is a PCB Transformer?

A PCB Transformer is a transformer that contains PCBs at concentrations greater than 500 parts per million (ppm). Polychlorinated biphenyls (PCBs) were used in electrical transformers because of their useful quality as being a fire retardant. These transformers were manufactured between 1929 and 1977. The majority of these PCB Transformers were installed in apartments, residential and commercial buildings, industrial facilities, campuses, and shopping centers constructed before 1978. If your facility currently uses or plans to dispose of a PCB Transformer you should be aware that the United States Environmental Protection Agency (EPA) regulates the use, storage and disposal of PCB Transformers. PCB-Contaminated Transformers containing between 50 and 499 ppm PCBs are also subject to EPA's regulations.

Do You Own a PCB Transformer?

Generally, a transformer will have a nameplate attached to one side of the unit indicating the trade name of the dielectric fluid, the approximate weight in pounds, and the amount of fluid, usually in gallons.

Since PCBs were marketed under different trade names, the nameplate on a PCB Transformer may not carry the specific term "PCBs". Trade names for PCBs could include:

- Abestol, Aroclor, Askarel, Chlophen
- Chlorextol, DK, EEC-18, Fenclor
- Inerteen, Kennechlor, No-Flamol, Phenoclor
- Pyralene, Pyranol, Saf-T-Kuhl, Solvol
- Non-Flammable Liquid

If the nameplate says "PCBs" or any of the names on the above list, then the transformer most likely contains PCBs in concentrations of between 600,000 and 700,000 ppm. Should your transformer's nameplate not carry any of the above labels, or if the label is missing or illegible, your utility company may be able to tell you if the transformer contains PCBs. Otherwise the only way to be certain is to test the electrical fluid.

PCB Transformer Regulations

Certain requirements have been established to assist the owners or operators in the use of PCB Transformers. These regulations can be found in Title 40 of the Code of Federal Regulations (40 C.F.R.), Part 761. If you are the owner or operator of a commercial building, you have a special responsibility to reduce the potential threat of a fire in or near a PCB

Transformer. A commercial building is a non-industrial building - such as an apartment house, school, train station, hospital, or store - which is typically accessible to the general public. These requirements for PCB Transformers currently in use include

Use:

- Certain PCB Transformers must be equipped with enhanced electrical protection or removed from service (40 C.F.R. § 761.30 (a)(1)(iv));
- All PCB Transformers must be registered with fire response personnel (40 C.F.R. § 761.30 (a)(1)(vi));
- PCB Transformers in use in or near commercial buildings must be registered with the building owners (40 C.F.R. § 761.30 (a)(1)(vii));
- Combustible materials must not be stored within a PCB Transformer enclosure or within 5 meters of a PCB Transformer enclosure or PCB Transformer (40 C.F.R. § 761.30 (a)(1)(viii));
- Visual inspections of each PCB Transformer must be conducted quarterly (40 C.F.R. § 761.30 (a)(1)(ix));
- Visual inspections must be conducted daily if the PCB Transformer is leaking and corrective measures must be taken immediately (40 C.F.R. § 761.30 (a)(1)(x)).

Labels:

- Proper PCB identification labels must be affixed to the access to the transformers and also the transformer itself (40 C.F.R. § 761.40 (a)).

Recordkeeping:

- Records of inspections and maintenance must be maintained (40 C.F.R. § 761.30 (a)(1)(xii));
- Annual documents and annual document logs describing the inventory and disposition of PCB Transformers and other PCB Equipment must be kept (40 C.F.R. § 761.180 (a)).
- **All records for inspections and annual documents must be retained for a minimum of three (3) years after the last PCB Item has been disposed of.**

Storage and Disposal

PCB Transformers removed from service can be temporarily stored up to 30 days on pallets while incorporating inspection safeguards. Otherwise, PCB Transformers that are stored for disposal in an area that meets the requirements of 40 C.F.R. § 761.65(b) must be disposed of within a year.

Spills

If a PCB spill occurs in your facility, you should report the spill within 24 hours to the **EPA Region 3 Emergency Response Section (215-814-3255) and the National Response Center (800-424-8802)**. Immediately take control measures for the spread of the spill by damming or libbing the leak, using absorbent materials, and cordon off the area. Once a spill is contained, cleanup must be initiated within 48 hours of the spill. For more information concerning the PCB spill cleanup requirements, see EPA's PCB Spill Cleanup Policy at 40 C.F.R. § 761.120 and the Requirements for PCB Spill Cleanup at 40 C.F.R. § 761.125.

The above information contains only a partial summary of the PCB Regulations. Please refer to the full text of the Code of Federal Regulations (C.F.R.) at 40 C.F.R. Part 761 to determine which requirements apply to your circumstances.

Additional Reference Materials Related to PCBs:

- PCB Information Package
- PCBs in Fluorescent Light Fixtures
- Decontamination Levels for PCB Cleanup
- Verification of PCB Spill Cleanup by Sampling and Analysis
- The Toxics Substances Control Act
- Guidance on Remedial Actions for Superfund Sites with PCB Contamination
- PCB Transformers and the Risk of Fire

Further Information

For further information regarding the use, storage and disposal of PCB Transformers, please contact the EPA, Region 3, Land and Chemicals Division at (215) 814-2177, (215) 814-2151 or in WV or VA call (304)231-0501.

- Toxic Substances Control Act (TSCA) Hotline: 202-554-1404
- EPA Region 3 Customer Hotline: 800-438-2474
- EPA, Region 3, Land and Chemicals Division: (215) 814-2177, 2151 or (304) 231-0501
- E-mail to: [Kelly Bunker](mailto:bunker.kelly@epa.gov) (bunker.kelly@epa.gov) or [Craig Yussen](mailto:yussen.craig@epa.gov) (yussen.craig@epa.gov)

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Serious Health Concerns

There are a number of adverse health effects associated with this chemical. Tests on animals show that PCBs can harm reproduction and growth, and can cause skin lesions and tumors. When PCB fluid is partially burned-as it may be in a transformer fire-the PCB fluid produces by-products, which include polychlorinated dibenzo dioxin and polychlorinated dibenzo furans , that are much more toxic than the PCBs themselves. Tests on rats show that furans can cause anemia and other blood problems. Dioxin is associated with a number of health risks, and has been shown to cause cancer of the liver, mouth, adrenal gland, and lungs in laboratory animals.

For further information regarding the disposal of PCB ballasts, please contact the EPA, Region 3, Land and Chemicals Division at (215)814-2177 or (215) 814-2165.