



POLYCHLORINATED BIPHENYLS (PCBs)



What are they?

PCBs are human-made chemicals of varying toxicity. Because they are good insulators and are nonflammable, PCBs have been widely used as coolants and lubricants in transformers and other electrical equipment. Evidence that PCBs damage the environment and may cause health hazards led to the end of PCB manufacture in the United States in 1977.

How can exposure occur?

Although PCBs are no longer manufactured, human exposure still occurs. Many older transformers, which have a lifespan of at least 30 years, use fluids that contain PCBs. PCBs are very persistent and are widely distributed in the environment. They have been found in over 300 Superfund sites. Levels of PCBs can be found in outdoor air, on soil surfaces, and in water. PCBs can be released into the environment from:

- Poorly maintained hazardous waste sites that contain PCBs
- Illegal or improper dumping of PCB wastes
- Leaks of gases from electrical transformers that contain PCBs
- Disposal of PCB-containing consumer products into municipal rather than hazardous waste landfills.

Eating PCB-contaminated fish can be a major source of exposure. Exposure from drinking water or from breathing outdoor air containing PCBs is less common. Once in the air, PCBs can be carried long distances — they have even been found in snow and seawater in the Antarctic. Contaminated indoor air may also be a major source of human exposure to PCBs.

How can they affect human health?

PCBs can cause such health problems as liver damage, skin irritation, cancer, and reproductive system damage. While the role of PCBs in causing cancer and other health problems in people cannot be clearly demonstrated, research shows there is cause for people to be concerned about PCB exposure.

For more information on PCBs, visit:

http://www.epa.gov/superfund/students/clas_act/haz-ed/ff_09.htm

<http://www.epa.gov/pcb/>