

WHAT ARE PCBs?

Polychlorinated biphenyls are commonly called PCBs. They were used as coolants, insulating materials, and lubricants in electric equipment. PCBs can still be found in products, such as old fluorescent light fixtures, electric appliances, and some paints and glues.



- Between 1929-1977 thousands of tons of PCBs were produced by developed countries
- 1977 - U.S. Environmental Protection Agency prohibited PCB production
- PCB levels in the environment have decreased since 1977

Uses and Properties of PCBs

PCBs

- Are a group of chemicals with a common structure
- Differ only in the amount of chlorine they contain
- Are clear to dark brown in color
- Are thick, oily liquids or solids
- Evaporate very slowly unless heated to high temperatures
- Strongly attach to soil particles
- Are stored in animal fat
- Have excellent insulating properties
- Do not dissolve readily in water
- Do not burn easily

Uses

- Coolants in electrical equipment like transformers
- Hydraulic and lubricating fluids
- Making plastic
- Making pesticides
- Ingredients in caulking compounds, paints, glues, and inks
- Making carbonless copy paper

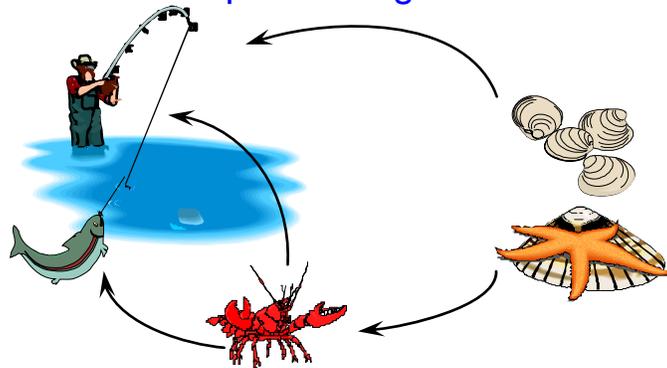
EXPOSED POPULATIONS

CERTAIN WORKERS CAN COME INTO CONTACT WITH PCBs DURING REPAIR OF EQUIPMENT, ACCIDENTS OR SPILLS.

Possible Job Related Contacts

Electric cable repair
Electroplating
Emergency Response
Firefighting
Hazardous waste hauling/site operating
Heat exchanging equipment repair
Metal finishing
Paving and roofing
Pipefitting/plumbing
Timber product manufacturing
Transformer/capacitor repair
Waste oil processing

PCBs stay in the environment for a long time and concentrate up in the food chain.



Possible Non-Job Related Contacts

- Contact with waste oils that have been illegally dumped on the roadside
- Breathing smoke and soot from transformer or capacitor fires
- Eating fish and shellfish that contains PCBs

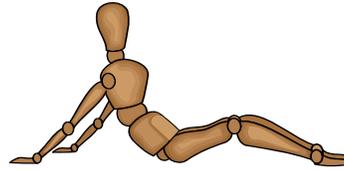
Special Populations at Risk



- Fetuses (babies before birth) and nursing infants whose mothers are exposed
- People with liver disorders
- People who use certain medications that may harm the liver

EFFECTS OF PCBs

PCBs in the Body



- Absorbed PCBs are slowly removed by natural body processes.
- Until removed, PCBs are stored in fat.
- Slow removal by the body causes PCBs to accumulate in some animals.
- Some animals are much more affected by PCBs than others.

Effects on Laboratory Animals



- Decreased birthweight when exposed at high doses.
- Tumors occur in some exposed animals.
- EPA considers PCBs to be probable human carcinogens (cancer-causing substances).

Known Human Effects



- The only proven effect in humans is chloracne, a skin condition similar to acne.
- Chloracne is resistant to treatment.
- Chloracne will go away after exposure is stopped.