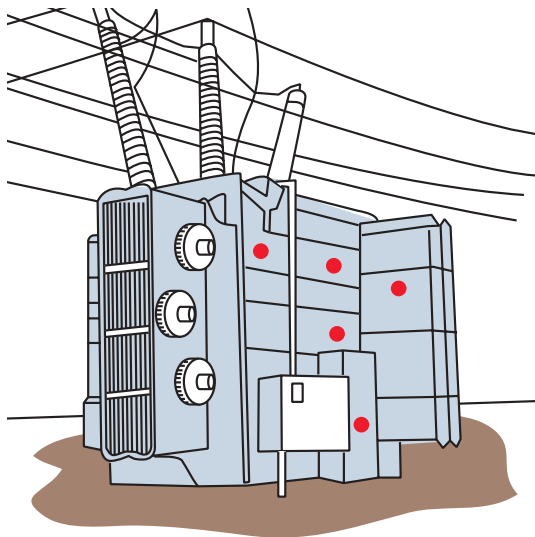




NORTHWEST TERRITORIES CONTAMINANTS FACT SHEETS

PCBs



● Contaminants

People in the Northwest Territories are becoming more aware of contaminants in the environment. One of these contaminants is PCBs, or polychlorinated biphenyls. They are part of the POPs, or persistent organic pollutants, contaminant group.

This fact sheet will describe what PCBs are, where they come from and what this means to the health of people who eat traditional food in the Northwest Territories.

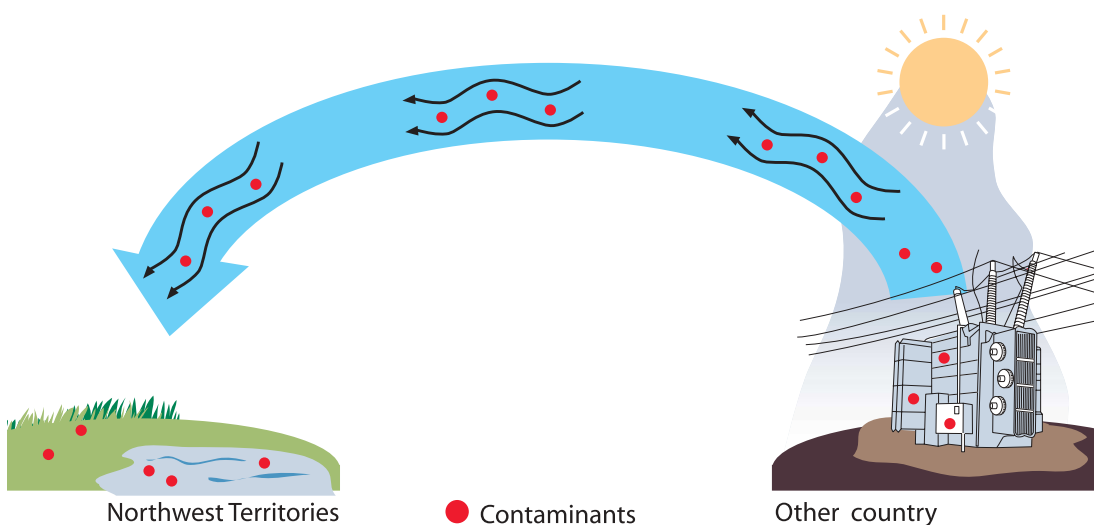
PCBs were made by people for use in electrical equipment.

PCBs were invented in 1929 and widely used until the 1970s, in electrical components, such as transformers and capacitors. PCBs were also added to paints, caulking, sealants, and asphalt, since they did not corrode easily, were fire resistant, and were flexible when dried. Canada imported over 40,000 tonnes of PCBs since the 1930s.

PCBs are now banned in North America and are no longer produced. However, some eastern European and developing countries still use them.

PCBs last a long time and can come from far and near.

PCBs are persistent – meaning they last a very long time in nature. Air and water currents have spread PCBs over great distances. On warm days, they can slowly evaporate into the air and can then travel for long distances until they reach cooler temperatures in arctic regions. PCBs can also be released into the air by burning, such as in garbage dumps.



In the Northwest Territories PCBs can be found at some old military sites (such as DEW-line sites) and certain old mines, where poor handling of equipment occurred and soil was contaminated. In addition, many of the buildings at these sites are covered in paint that contains PCBs.

Many of these sites have or are being cleaned up. Research indicates that most of the PCBs in wildlife are not from these local sources, but rather from the PCBs brought to the North in the air.

Animals that are naturally lean do not accumulate many PCBs.

PCBs can be absorbed by plants, wildlife and people. Most PCBs are stored in fat. Animals that eat only plants and are naturally lean do not accumulate many PCBs. But animals (predators) that eat other animals (prey) are higher on the food chain and can build up PCBs. This is called biomagnification.

Levels of PCBs in the Northwest Territories are generally low.

In all land mammals in the Northwest Territories, including caribou, muskox and moose, PCB levels are extremely low. Generally, they are more elevated in the marine mammals than in land mammals. But PCB levels in marine mammals have been slowly declining. Generally, PCB levels in seal blubber are lower than in beluga blubber. In fish, the levels of PCBs depend on the type of fish, where they live, and the age of the fish. Overall, levels in fish are very low.

The effects of low levels of PCBs on people are not well understood.

Scientific knowledge of the effects of PCBs on human health is mostly based on cases where people have accidentally been exposed to very high levels for short times. But people are more likely to be exposed to low levels for longer periods.



People are taking action against PCBs.

Because of growing concern about health and environmental effects of PCBs and other persistent chemicals, a United Nations treaty was finalized in 2000.

Bans on manufacturing PCBs in North America helped stop new PCBs from being made or imported. However, many PCBs are still used in electrical equipment. New regulations have been made to make sure that equipment containing PCBs is carefully handled to avoid spills or leaks.

Good News...



Traditional foods are safe to eat!

Even though some low levels of PCBs may be present, traditional foods are some of the healthiest foods available. Land mammals have very low levels of PCBs. Exposure from marine mammals depends on various factors.

To avoid exposure to PCBs you can:

- Eat more meat instead of muktuk and blubber in marine mammals.
- Follow any special health advisories.
- Avoid burning painted wood, especially from DEW-line sites, because if the paint contains PCBs, you could be exposed to high levels in the smoke.

Did you know...

A total of 122 countries agreed to phase out the group of chemicals that includes PCBs. Canadian Aboriginal groups helped to lead the effort that produced the international treaty.

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