Canada Releases First National Report on Mercury in the Environment



On March 8, 2016, the federal government released the <u>Canadian Mercury Science Assessment</u>, which provides baseline measurements that policymakers and researchers can use to understand how changes in mercury emissions and climate affect changes in mercury levels in the environment and humans.

Why the focus on <u>mercury</u>' Mercury is a metal released into the ecosystem through both natural events, such as forest fires and volcanic eruptions, and human activities, such as coal burning and metal smelting.

Exposure to mercury is hazardous because it's a neurotoxin'that is, a substance that damages, destroys and impairs the functioning of nerve tissue. It can also impact immune and reproductive systems. High levels of exposure to mercury can lead to serious illness and, in some cases, death.

The assessment found that mercury remains a risk to Canadian ecosystems and human health. Other key highlights of the assessment include:

• In humans, the average exposure of Canadians to mercury is low, but methylmercury remains a potential public health issue for those who consume a lot of predatory fish and traditional wildlife food items, and vulnerable groups such as unborn babies, infants and children.

- There are aquatic environments in Canada where average mercury levels in biota are high enough to be of concern. The species at greatest risk for impaired health and reproduction from mercury exposure include large predatory fish, fish-eating mammals and fisheating birds.
- Levels of mercury over the last 40 years have increased in 31% of Canadian wildlife populations studied, decreased in 21% and remained stable in 48%.
- Mercury emissions from the waste sector have been reduced by 76%, electric power generation by 30%, iron and steel industries by 54%, and chemical industries by 95%. But due to the steady increase in development of the oil sands, the upstream petroleum sector has shown increases in mercury emissions and currently accounts for about 4.6% of total Canadian mercury emissions.
- Human activities such as the creation of reservoirs, mining, previous chlor-alkali production that used mercury cells, and activities that release mercury to the atmosphere (coal burning, municipal waste incineration, cement production and metals smelting) have contributed or are contributing to observed mercury levels in Canada.
- Additional domestic and international mercury emission reduction measures are predicted to benefit Canadian ecosystems and ultimately result in lower levels of mercury in fish than if no new emissions reduction controls are put in place. Without additional controls, future fish mercury levels will likely rise above current levels.

Learn about the requirements for <u>mercury emissions</u> under the environmental laws and requirements for <u>products containing mercury</u> that the federal government introduced in 2014. In addition, because many <u>light bulbs contain small amounts of mercury</u>, make sure your workers know how to safely clean up such bulbs when they break.