

## **BACKGROUNDER: MERCURY**

### **CANADA-WIDE STANDARDS FOR MERCURY EMISSIONS FROM COAL-FIRED ELECTRIC POWER GENERATION PLANTS**

Mercury is a toxic, persistent, bioaccumulative substance. It converts in water to the highly toxic form, methylmercury, which accumulates in fish and other species, damaging the central nervous system and causing reproductive failure among loons and river otters.

Human exposure to mercury - primarily by eating contaminated fish - may cause neurological and developmental damage. Low exposure to mercury may cause problems, such as learning disabilities in children. Women of childbearing age, pregnant women, children, and populations who depend on fish as a traditional food source are most at risk.

Environment ministers have determined that mercury levels in fish and wildlife across Canada warrant efforts to reduce mercury emissions to protect not only fish and wildlife, but also human health.

Since 1998, through the CCME, Environment ministers have set Canada-wide standards (CWSs) for mercury emissions from base-metal smelters and from waste incinerators, as well as CWSs for mercury-containing lamps and dental amalgam waste. The CWS on dioxins and furans from conical incinerators in Newfoundland and Labrador will also reduce mercury emissions (see page 2 for more information).

In 2003, the coal-fired electric power generation (EPG) sector emitted an estimated 2,695 kilograms of mercury. Electric power generation is the largest single remaining source of mercury emissions in Canada from human activities. Therefore, Environment Ministers have agreed to set a mercury CWS for this sector, with the goal of reducing mercury emissions from existing plants and ensuring new plants achieve emission levels based on best available technologies economically achievable, or equivalent.

The proposed CWS consists of two sets of targets:

- provincial caps on mercury emissions from existing coal-fired EPG plants, with the 2010 provincial caps representing a 65% national capture of mercury from coal burned; and
- capture rates or emission limits for new plants, based on best available technologies economically achievable, effective upon final endorsement of the standard.

A possible second phase of the CWS may explore the capture of 80% or more of mercury from coal burned for 2018 and beyond.

For the full text of the *Canada-wide Standards for Mercury Emissions from Coal-fired Electric Power Generation Plants*, see [www.ccme.ca](http://www.ccme.ca) under “What’s new.”

## **CANADA-WIDE STANDARDS FOR MERCURY: A REPORT ON PROGRESS**

*Canada-wide Standards for Mercury: A Report on Progress* presents updates on the status of the implementation of the three Canada-wide standards for mercury endorsed to date by CCME:

- Mercury Emissions (hazardous waste, sewage sludge, municipal waste, and medical waste incineration; as well as base-metal smelting);
- Mercury-Containing Lamps; and
- Mercury for Dental Amalgam Waste.

A Canada wide standard is also in place for dioxins and furans from conical incinerators in Newfoundland and Labrador, which will see these facilities phased out by 2008. This phase out will reduce mercury emissions in addition to the reduction of dioxins and furans.

For the full text of *Canada-wide Standards for Mercury: A Report on Progress*, see [www.ccme.ca](http://www.ccme.ca) under “What’s new.” A progress report on the conical incinerators can also be found on the CCME web site. Additional information is also available on the web sites of member jurisdictions.