

Mercury-containing Lamps - Canada-wide Standards

1. What is the Canada-Wide Standard for Mercury-containing Lamps?

The intent of the CWS is to reduce releases of mercury to the environment from mercury-containing lamps. By 2010, the mercury content of lamps will decline by 80%, from 1990 levels, thereby reducing emissions from manufacturing, land-filling, incineration and lamp breakage (currently 40 Kg/year). In addition, recycling initiatives could see a significant reduction in the amount of mercury going to landfills. This standard applies to all mercury-containing lamps, including fluorescent lamps such as the compact lamp and the more familiar four-foot lamps as well as high intensity discharge lamps (i.e. mercury-vapor, metal halide and high pressure sodium lamps (streetlights)). The lamp industry has committed to providing reports on the average content of lamps sold in Canada, so that the public can track progress.

2. What is the science on mercury?

Mercury is a naturally occurring substance as well as a pollutant originating from various human activities. Levels in soils, water and fish can vary across the country depending on the geology of the rocks and soils and the amount of pollution. Once mercury is released into the air, it can circle the globe several times before falling into lakes, streams, forests and fields. Present

levels in fish from some water bodies are unsafe for fish-eating wildlife, such as loons and otters. Fish in many areas cannot be eaten safely by humans. Elevated levels of mercury in the fish eaten by women of child-bearing age pose a threat to the health of their newborns, which are much more sensitive than adults. Overt signs of acute toxicity are not apparent in Canadians, but studies show that low levels of mercury can have subtle impacts on the neurobehavioral development and learning ability of children. Higher levels of mercury in children and adults are known to affect the kidneys and nervous system.

3. Extent of the problem

Mercury levels in fish have an impact on recreational and subsistence fish consumption in most jurisdictions, and affect First Nations' traditional way of life and food sources. These impacts are significant across northern Canada, though the source of most of the mercury is due to human activities in the south. A substantial component of the threat originates from mercury emitted in the United States and other northern hemispheric countries. These emissions of mercury are carried to Canada by prevailing wind patterns. Asian and European countries such as China and Russia emit mercury which is carried to Canada over the North Pole.

An average of 60 million mercury-containing lamps are sold in Canada annually. By reducing the mercury content of lamps, and promoting lamp recycling and

recovery programs and the use of energy efficient lighting systems in government buildings, mercury emissions from lamps will decrease substantially. Controlling Canadian emissions can help reduce the threat to both humans and wildlife, as well as set an example for other countries to follow.

4. Achieving the Standard

Efforts towards achievement of this CWS will begin with the initial actions listed in the companion document to the CWS. Jurisdictions' detailed plans for achieving this mercury CWS will be developed and implemented following the signing of the CWS, expected in May, 2001.

From an international perspective, this CWS will help Canada meet its international commitments (e.g. Canadian delivery of the North American Commission for Environmental Co-operation's Mercury Action Plan and the New England Governors/Eastern Canadian Premiers Mercury Action Plan) and obtain the necessary international efforts to reduce or eliminate mercury releases to the global pool.

Further information is available from the CCME's website at <http://www.ccme.ca>