

Media Backgrounder

December 21, 1994 - Environment and Energy Minister announces interim drinking water objective for tritium of 7,000 becquerels per litre (Bq/L) down from 40,000 Bq/L.

- Tritium is a radioactive form of hydrogen that occurs naturally, but is found at higher concentrations in wastewater from Canadian Deuterium Uranium (CANDU) nuclear reactor operations.
- *Exposure* to radiation, and the amount of harm that a dose of radiation may cause to body tissue, is measured in *sieverts*.
- The International Council for Radiation Protection (ICRP) recommends that the maximum allowable dose, excluding background radiation and medical/dental x-rays, be set by national governments at 1 millisevert (mSv) per year.
- The World Health Organization (WHO) has recommended a maximum of 0.1 mSv per year, or 10% of the ICRP allowable dose level, for exposure to radiation in drinking water.
- The federal government, through the Atomic Energy Control Board (AECB) is responsible and has the expertise required for licensing, monitoring and setting limits for emissions of radionuclides in Canada, including effluent from nuclear power plants.
- The AECB currently uses 5 mSv per year as the maximum allowable dose, in licensing nuclear facilities. In addition, the AECB sets stringent operating limits.
- *Radioactivity*, or how much radiation is given off by a radioactive source, is measured in *becquerels*.
- The 7,000 Bq/L annual drinking water objective for tritium is equivalent to the 0.1 mSv annual dose for tritium in drinking water established by the WHO. Actual levels in Ontario drinking water are below 100 Bq/L of tritium on an annual average basis.
- Ontario Hydro has made a corporate commitment to continue to control its tritium discharges so that levels at water treatment plants near its facilities stay below 100 Bq/L on an annual average basis.
- Provincial governments have the authority to set drinking water objectives in their jurisdictions. However, these objectives are normally developed through a federal-provincial process to ensure consistent water quality across Canada.
- Drinking water objectives apply to water works that supply water for domestic and household purposes. *They are not the same as effluent limits for contaminants in wastewater discharged into a water body.*

Ministry of Ministère de
Environment l'Environnement
and Energy et de l'Énergie

December 22, 1994

Ontario sets lower interim drinking water objective for tritium; asks the federal government to reduce limits for radioactive emissions

Environment and Energy Minister Bud Wildman today announced an interim drinking water objective for tritium of 7,000 becquerels per litre (Bq/L) down from 40,000 Bq/L. The Ontario drinking water objective for tritium is interim until the Canadian Drinking Water Guidelines for radionuclides are revised through a federal-provincial process.

Mr. Wildman also asked the federal government to tighten discharge limits of radioactive emissions from nuclear facilities, including the release of tritium in wastewater from nuclear power plants, in keeping with recommended international standards. The federal government is responsible and has the expertise required for regulating nuclear power plants, including the discharge of radionuclides into the environment.

In addition, the minister asked the federal government to accelerate the review of the Canadian Drinking Water Guidelines for radionuclides, including tritium, in drinking water. These guidelines are developed through a federal-provincial process to ensure consistent drinking water quality across Canada.

Today's announcement follows public consultation and a ministry review of scientific criteria for setting guidelines for tritium in drinking water. The public consultation was conducted by the Advisory Committee on Environmental Standards (ACES), an independent body of experts responsible for recommending standards for environmental contaminants to the minister. Moreover, Ontario Hydro has made a corporate commitment to continue to control its tritium discharges so that levels at water treatment plants near its facilities stay below 100 Bq/L on an annual average basis. It will also report publicly on its performance record in this regard.

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Attachment: Media backgrounder

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