



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

REGULATORY
POLICY

Managing Radioactive Waste

P-290

JULY 2004

REGULATORY DOCUMENTS

The legal framework within which the Canadian Nuclear Safety Commission (CNSC) operates includes the *Nuclear Safety and Control Act (Act)*, its Regulations and other legal instruments such as licences, certificates and orders. The legal framework is supported by regulatory documents issued by the CNSC, the main classes of which are:

Regulatory Policy (P): a document that describes the philosophy, principles or fundamental factors that underlie the CNSC's approach to its regulatory mission. It provides direction to CNSC staff and information to stakeholders.

Regulatory Standard (S): a document that describes CNSC requirements. It imposes obligations on the regulated party, once it is referenced in a licence or other legally enforceable instrument.

Regulatory Guide (G): a document that indicates acceptable ways of meeting CNSC requirements, as expressed in the *Act*, Regulations, regulatory standard or other legally-enforceable instrument. It provides guidance to licensees and other stakeholders.

Regulatory Notice (N): a document that provides licensees and other stakeholders with information about significant matters that warrant timely action.

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Ce document est également disponible en français sous le titre Gestion des déchets radioactifs

Document availability

The document can be viewed on the CNSC Internet web site at www.nuclearsafety.gc.ca. Copies may be ordered in English or French using the contact information below:

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MANAGING RADIOACTIVE WASTE

1.0 PURPOSE

This Regulatory Policy is intended to promote:

- the implementation of measures to manage radioactive waste so as to
 - protect the health and safety of persons and the environment,
 - provide for the maintenance of national security; and
 - achieve conformity with measures of control and international obligations to which Canada has agreed; and
- consistent national and international standards and practices for the management and control of radioactive waste.

2.0 SCOPE

This policy describes the philosophy that underlies the Canadian Nuclear Safety Commission's (CNSC) approach to regulating the management of radioactive waste and the principles that are taken into account when making a regulatory decision concerning radioactive waste management. These principles are relevant to all waste management phases, practices and considerations, including the generation, handling, processing, controlled release, storage, disposal and abandonment of radioactive waste.

The policy also expresses the CNSC's commitment to consulting and cooperating with provincial, national and international agencies on matters concerning harmonization of the regulation of radioactive waste management in Canada.

3.0 DEFINITION

In this policy, the term "radioactive waste" means any material (liquid, gaseous or solid) that contains a radioactive "nuclear substance," as defined in section 2 of the *Nuclear Safety and Control Act (NSC Act, Act)* and which the owner has declared to be waste. In addition to containing nuclear substances, radioactive waste may also contain non-radioactive "hazardous substances," as defined in section 1 of the *General Nuclear Safety and Control Regulations*.

4.0 BACKGROUND

The CNSC regulates the use of nuclear energy and materials to protect the health and safety of persons, the environment and national security and to respect Canada's international commitments on the peaceful use of nuclear energy. Under section 26 of the *NSC Act*, subject to exemptions authorized by the regulations, no person may possess, transfer, import, export, use, abandon, mine, produce, refine, convert, enrich, process, reprocess, package, transport, manage, store or dispose of a nuclear substance, except in accordance with a licence issued by the CNSC.

Since all radioactive waste contains nuclear substances, radioactive waste is subject to the *Nuclear Safety and Control Act* and its regulations. Stated explicitly, all of the exclusions, prohibitions, requirements, exemptions and limitations imposed by the *NSC Act*, the *General Nuclear Safety and Control Regulations*, the *Radiation Protection Regulations*, the *Class I Nuclear Facilities Regulations*, the *Class II Nuclear Facilities and Prescribed Equipment*

Regulations, the Uranium Mines and Mills Regulations, the Nuclear Substances and Radiation Devices Regulations, the Packaging and Transport of Nuclear Substances Regulations, the Nuclear Security Regulations, and the Nuclear Non-Proliferation Import and Export Control Regulations apply to radioactive waste.

Licensed activities produce many types of radioactive waste, such as uranium mill tailings, medical isotope waste, spent nuclear fuel, and cleaning material contaminated with low levels of nuclear substances; each presenting its own level of hazard. Since all nuclear substances associated with licensed activities will eventually become waste, the safe long-term management of that waste is taken into consideration during the review process for any licensed activity.

5.0 POLICY STATEMENT

When making regulatory decisions concerning the management of radioactive waste, it is the policy of the Canadian Nuclear Safety Commission to consider the extent to which the owners of the waste have addressed the following principles:

- a) The generation of radioactive waste is minimized to the extent practicable by the implementation of design measures, operating procedures and decommissioning practices;
- b) The management of radioactive waste is commensurate with its radiological, chemical and biological hazard to the health and safety of persons and the environment and to national security;
- c) The assessment of future impacts of radioactive waste on the health and safety of persons and the environment encompasses the period of time when the maximum impact is predicted to occur;
- d) The predicted impacts on the health and safety of persons and the environment from the management of radioactive waste are no greater than the impacts that are permissible in Canada at the time of the regulatory decision;
- e) The measures needed to prevent unreasonable risk to present and to future generations from the hazards of radioactive waste are developed, funded and implemented as soon as reasonably practicable; and
- f) The trans-border effects on the health and safety of persons and the environment that could result from the management of radioactive waste in Canada are not greater than the effects experienced in Canada.

It is also the policy of the CNSC to consult and cooperate with provincial, national and international agencies to:

- g) Promote harmonized regulation and consistent national and international standards for the management of radioactive waste; and
- h) Achieve conformity with the measures of control and international obligations to which Canada has agreed concerning radioactive waste.

6.0 POLICY AUTHORITY

This regulatory policy is issued under the authority of the *NSC Act*.