



DRAFT
REGULATORY
STANDARD

**Environmental Protection Policies,
Programs and Procedures at Class I
Nuclear Facilities and Uranium Mines and
Mills**

S-296

Issued for public comment
September 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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About this Document

The purpose of this Regulatory Standard is to help assure that licensees implement, adequate environmental protection policies, programs and procedures at Class I nuclear facilities and uranium mines and mills, in accordance with regulatory requirements and the purpose of the *Nuclear Safety and Control Act* (“NSC Act”, “Act”).

Comments

This draft regulatory standard is being issued for public consultation. The CNSC invites affected stakeholders and interested persons to assist in the further development of this document by commenting in writing on the document’s content and usefulness.

Direct your comments to the postal or e-mail address below by December 17, 2004 referencing file 1-8-8-296S. The CNSC will take your comments into account when developing this draft further. All comments will be subject to the provisions of the federal *Access to Information Act*.

Document Availability

This and other similar documents can be viewed on the CNSC Website at www.nuclearsafety.gc.ca. To order a printed copy of the document in English or French, please contact:

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**ENVIRONMENTAL PROTECTION POLICIES, PROGRAMS
AND PROCEDURES AT CLASS I NUCLEAR FACILITIES AND
URANIUM MINES AND MILLS**

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ENVIRONMENTAL PROTECTION POLICIES, PROGRAMS AND PROCEDURES AT CLASS I NUCLEAR FACILITIES AND URANIUM MINES AND MILLS

1.0 PURPOSE

The purpose of this Regulatory Standard, when incorporated in a licence or other legally enforceable instrument, is to help assure that licensees implement adequate environmental protection policies, programs and procedures, other than for licences to abandon, at Class I nuclear facilities and uranium mines and mills, in accordance with the *Nuclear Safety and Control Act* (“*NSC Act*,” “*Act*”) and regulations.

2.0 SCOPE

This document sets out the environmental protection policies, programs, and procedures that licensees shall implement at Class I nuclear facilities and uranium mines and mills when a licence condition requires such policies, programs and procedures.

3.0 RELEVANT LEGISLATION

The following provisions of the *NSC Act* and *Regulations* are relevant to this standard:

Subsection 24(4) of the *NSC Act* prohibits the Commission from issuing, renewing, amending or replacing a licence, unless in the opinion of the Commission, the applicant is (a) qualified to carry on the activity that the licence will authorize the licensee to carry on, and (b) will, in carrying out that activity, make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed;

Subsection 24(5) of the *NSC Act* provides that a licence issued by the Canadian Nuclear Safety Commission (CNSC) may contain any term or condition that the Commission considers necessary for the purposes of the *Act*;

Paragraph 3(g) of the *Class I Nuclear Facilities Regulations* stipulates that an application for a CNSC licence, other than a licence to abandon, shall contain, in addition to other information, “the proposed environmental protection policies and procedures;” and

Paragraph 3(c)(v) of the *Uranium Mines and Mills Regulations* stipulates that an application for a licence in respect of a uranium mine or mill, other than a licence to abandon, shall contain, in addition to other information, “the proposed environmental protection policies and programs.”

4.0 TERMINOLOGY

The Glossary at the end of the document defines the special terms used in this regulatory standard.

5.0 ENVIRONMENTAL PROTECTION POLICIES, PROGRAMS AND PROCEDURES

5.1 Objective

The objective of the Environmental Protection policies, programs and procedures is to assure adequate provision for protection of the environment at Class I nuclear facilities and uranium mines and mills. This shall be accomplished through an integrated set of documented activities that are typical of an Environmental Management System (EMS).

5.2 Framework

The Environmental Protection policy, programs, and procedures shall provide a documented framework for action to assure the prevention of pollution and unreasonable risk to the environment. This framework shall define the licensee's *Environmental Protection Policy*, and shall identify the planning, development, and implementation programs and procedures that support that Policy. The supporting programs and procedures shall incorporate identification, measurement, and evaluation of environmental performance indicators and targets, and shall include maintenance and review activities, as well as elements that address continual improvement. In addition, the framework shall provide the governing and directing principles and actions that will be applied to assure its consistent application.

The licensee shall ensure that the framework consists of the following major elements:

1. environmental protection policy;
2. planning;
3. implementation and operation;
4. measurement and evaluation; and
5. senior management review.

Each element is described in further detail below.

5.2.1 Environmental Protection Policy

The licensee shall establish and maintain an *Environmental Protection Policy* to guide the implementation of the environmental protection programs and procedures, and to assure continual improvement of environmental performance. The policy shall provide the context within which overall environmental protection goals shall be set and reviewed.

The Environmental Protection Policy shall be:

1. commensurate with the likelihood and significance of adverse environmental effects of the licensed activities;
2. inclusive of a commitment to continual improvement and to pollution prevention;
3. defined, documented, approved, implemented, and maintained by management;
4. reviewed and revised by senior management;
5. overseen and implemented by an individual designated by senior management as responsible for the environmental protection framework;
6. communicated to all staff and contractors; and
7. made available to the public.

5.2.2 Planning

The licensee shall establish a documented planning procedure to ensure that the *Environmental Protection Policy* is implemented through a system of performance measurement and evaluation. Goals shall be set by initial and periodic review of environmental risks arising from licensed activities, using past, present, and future environmental issues to guide the planning process. The individual designated as responsible for the environmental protection framework shall be responsible and accountable for the overall planning process.

The licensee shall ensure that the planning process incorporates identification and updating of:

1. environmental risks and impacts arising from licensed activities;
2. environmental performance indicators and targets that address these environmental risks, as well as environmental protection policy statements; and
3. legal and other requirements.

5.2.3 Implementation and Operation

The licensee shall establish documented procedures to effectively implement and operate the environmental protection framework. This shall be done through definition of the activities to be carried out, and through communication to all parties involved in, or affected by, those activities. Documentation shall clearly indicate the roles, responsibilities, authorities, and resources involved in framework implementation.

Procedures shall include organizational, training, and communication elements that provide individuals (staff and contractors) with the tools required to fulfill their responsibilities.

The implementation and operation procedures shall address:

1. organizational structure and responsibilities;
2. goals, objectives, and overall management plans;
3. human, physical, and financial resources;
4. internal and external communication and reporting;
5. training, awareness and competence;
6. document control and records;
7. change controls;
8. facility operational monitoring and control; and
9. environmental emergency preparedness and response.

5.2.4 Measurement and Evaluation

The licensee shall establish documented procedures to measure, monitor, and evaluate ongoing environmental performance relative to diverse performance indicators and targets. This process shall include both periodic and continuous feedback mechanisms to assess and implement any corrective actions required to achieve performance targets.

The procedures for measurement and evaluation shall address:

1. performance indicators and targets;
2. monitoring and measurement;
3. non-conformance and corrective and preventative action; and
4. annual internal audits.

5.2.5 Senior Management Review

Senior management shall review the environmental protection framework initially and at least once every five years. The licensee shall document the management review and any actions arising from it.

The comprehensive senior management review shall:

1. address the design, suitability, operation, and effectiveness of the environmental protection framework;
2. consider existing and emerging environmental risks and issues arising from licensed activities;

3. be designed to identify improvements;
4. assess and rectify any chronic deficiencies identified through ongoing evaluations;
and
5. include the results and recommendations obtained from inspections, reviews, corrective actions, and audits.

5.2.6 Reporting

The licensee shall submit a brief annual summary to the CNSC outlining the success of the implementation of the environmental protection framework. The summary shall provide an overview of the achievements and effectiveness of the environmental protection framework.

GLOSSARY

environment

the components of the Earth, including:

- (a) land, water, and air, including all layers of the atmosphere;
- (b) all organic and inorganic matter and living organisms; and
- (c) the interacting natural systems that include components referred to in (a) and (b).

environmental management system

consists of organizational structures, planning activities, responsibilities, programs, procedures, practices, processes, and resources for developing, implementing, achieving, reviewing and maintaining an environmental protection policy.

licensed activity

an activity described in any of paragraphs 26(a) to (f) of the *Act* that a licence authorizes the licensee to carry on. ^[1]

licensee

a person who is licensed to carry on an activity described in any of paragraphs 26(a) to (f) of the *Act*. ^[1]

mine

includes an excavation site and a removal site. ^[1]

mill

a facility at which ore is processed and treated for the recovery of uranium concentrate, including any tailings-handling and water treatment system associated with the facility. ^[1]

ore

a mineral or chemical aggregate containing uranium in a quantity and of a quality that makes mining and extracting the uranium economically viable. ^[1]

performance indicator

a quantifiable variable related to the actions of a proposed or licensed activity that may cause or indicate an adverse environmental effect if a certain threshold value is reached. ^[4]

performance target

a limit on a performance indicator designed to prevent unreasonable risks to the environment. More than one limit may be set or considered for a performance indicator. ^[4]

REFERENCE

1. *Nuclear Safety and Control Act and the General Nuclear Safety and Control Regulations*, published by the Canadian Nuclear Safety Commission, Ottawa, 2000.
2. *Environmental Management Systems—General Guidelines on Principles, Systems and Supporting Techniques, ISO 14004*, published by the International Organization for Standardization, Geneva, Switzerland, 1996.
3. *Guide to the Preparation of a Comprehensive Study: for Proponents and Responsible Authorities*, published by the Canadian Environmental Assessment Agency, Hull, 1997.
4. *P-223 Protection of the Environment*, the Canadian Nuclear Safety Commission Regulatory Policy, Ottawa, 2001.