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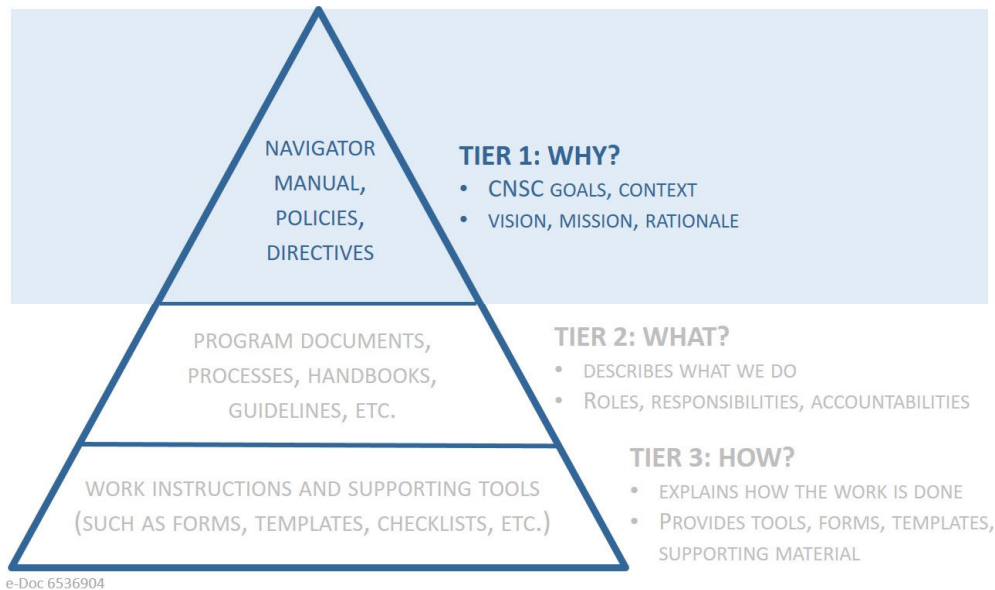
# SUMMARY OF CNSC SAFETY-RELATED POLICIES

E-Doc 6754574

## THIS DOCUMENT WITHIN THE NAVIGATOR PORTAL

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The documents within the CNSC's Navigator Portal are organized within the program and activity areas they support using a three-tier hierarchical framework. As a policy this document sits at the top tier of the hierarchy, setting out the context, goals and rationale associated with the given topic.



The documents and supporting tools associated with this *Summary of CNSC Safety-related Policies* are available in the CNSC Policy Suite section of the Navigator Portal on BORIS.

## DOCUMENT APPROVAL

NAME AND TITLE	ROLE	APPROVED	NEXT REVIEW DATE
<b>Ramzi Jammal</b> Chief Executive Officer - Acting	<b>Process Owner</b>	<div style="text-align: right; font-size: small;">2024-06-07</div> <input checked="" type="checkbox"/> Ramzi Jammal Ramzi Jammal CEO - Acting Signed by: Jammal, Ramzi	March 31, 2028

## DOCUMENT HISTORY

The following table shows the revision history for this document:

REVISION #	REASON FOR REVISION	REVISION REQUEST FORM	APPROVED BY	DATE
000	Initial release	N/A	Rumina Velshi	March 31, 2023
001	Approval by Chief Executive Officer - Acting	N/A	Ramzi Jammal	June 7, 2024

In keeping with the CNSC's commitment to continuous improvement, this document is subject to full review every five years (or sooner as needed).

If you have any comments or suggestions as to how this process can be improved, please provide your feedback in the associated *Comment disposition record* [6462916](#).

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## 1.0 INTRODUCTION

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### 1.1 Background

Regulation is a key instrument used by government to enable economic activity and to protect health, safety, security, and the environment in Canada. The Government of Canada has determined that the use of nuclear substances and nuclear energy offers benefits, and that associated risks must not be at an unreasonable level. These two facts drive the need for Canadian legislation and a regulatory body to oversee nuclear activities in Canada.

The *Nuclear Safety and Control Act* (NSCA) came into force on May 31, 2000. It establishes the Canadian Nuclear Safety Commission (CNSC) and set out the CNSC's mandate, responsibilities and powers. The CNSC is the sole authority in Canada to regulate the development, production and use of nuclear energy, and the production, possession and use of nuclear substances, prescribed equipment and prescribed information in order to prevent unreasonable risk. The CNSC's mandate also requires it to implement Canada's international commitments on the peaceful use of nuclear energy and to disseminate objective scientific, technical and regulatory information to the public.

The CNSC plays an integral role in regulating the safe conduct of nuclear activities and operation of nuclear facilities in Canada. Safety is an overriding consideration in CNSC's daily work and incorporated into all activities, recommendations, and decisions. The CNSC relentlessly pursues respect, integrity, service, excellence responsibility, and safety as the most important values informing how it continually improves in meeting its responsibilities as a regulator.

### 1.2 Applicability

This document summarizes all CNSC Safety related policies that apply to all CNSC employees.

### 1.3 Purpose

The purpose of this document is to provide a comprehensive summary of CNSC policies that articulate our obligations and demonstrate the CNSC's commitment to safety. Combined with our Values and Ethic code, the CNSC has a robust policy framework to ensure safety is at the forefront of all our activities, recommendations and decisions, as we regulate the safe conduct of nuclear activities and operation of nuclear facilities in Canada, as well as the peaceful use of nuclear energy.

## 2.0 GENERAL PRINCIPLES

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### 2.1 Mandate

The CNSC's mandate, organizational priorities as well as its principles and values work together to ensure safety and security of regulated activities and facilities remains paramount in all of our actions, recommendations and decisions.

Safety is integrated into CNSC's mandate. Specifically, the NSCA is the enabling legislation that grants the CNSC its mandate and authority to regulate nuclear activities in Canada. More precisely, the NSCA provides the CNSC the authority to regulate the development, production and use of nuclear energy and the production, possession and use of nuclear substances, prescribed equipment, and prescribed information in Canada.

The mandate of the CNSC is informed by the objects of the Commission, set out in section 9 of the NSCA, which are:

- a) to regulate the development, production and use of nuclear energy and the production, possession and use of nuclear substances, prescribed equipment and prescribed information in order to:
  - i. prevent unreasonable risk, to the environment and to the health and safety of persons, associated with that development, production, possession or use,
  - ii. prevent unreasonable risk to national security associated with that development, production, possession or use, and
  - iii. achieve conformity with measures of control and international obligations to which Canada has agreed; and
- b) to disseminate objective scientific, technical and regulatory information to the public concerning the activities of the Commission and the effects, on the environment and on the health and safety of persons, of the development, production, possession and use referred to in paragraph (a).

### 2.2 Organizational priorities

To be a world-class regulator, ready for changes and challenges to come in the nuclear industry, the CNSC has defined four strategic priorities. Safety is at the forefront of all these priorities.

The CNSC strives to be:

- a) a modern nuclear regulator, considering scientific uncertainties, an evolving industry and changing regulatory expectations
- b) a trusted regulator, recognized as an independent, open, and transparent regulator, and as a credible source of scientific, technical, and regulatory information
- c) a global nuclear influence, leveraging and influencing global nuclear efforts, relevant to Canadian interests and activities, to enhance international nuclear safety, security, and non-proliferation
- d) an agile and inclusive organization, with an empowered and equipped workforce, able to quickly adapt to an evolving operating environment

## 2.3 Guiding principles and values

The CNSC is conscious of the potential impact that its decisions, actions, and behaviours have on the safety of its employees, and on its ability to verify that all licensees maintain safety and security requirements across their operations and per their licence conditions, and to ensure Canada's international obligations are met. The CNSC implements and maintains a robust integrated management system, which incorporates safety in all of its activities. To effectively deliver on its mandate, and ensure safety is paramount, the CNSC:

- a) is guided by defined values and expected behaviours;
- b) fosters a healthy culture for safety;
- c) ensures it employs competent staff with the right knowledge, skills and behaviours;
- d) is open and transparent with the public and interested stakeholders on its regulatory activities;
- e) has a comprehensive and robust regulatory framework for nuclear and radiation safety covering current activities and facilities;
- f) has a strong licensing and compliance framework;
- g) makes decisions based on science and ensures that integrity in the use of science is always maintained;
- h) applies a risk-informed approach in decision-making, which may be applied in a graded manner when applicable;
- i) creates an inclusive workplace where all employees can feel comfortable raising any concerns without fear of retaliation, intimidation, harassment or discrimination;
- j) engages and consults with the public, Indigenous nations and communities and interested stakeholders; and
- k) contributes to raising international safety standards.

### 2.3.1 Defined values

In carrying out its mandate, CNSC employees' actions and relationships are guided by the values of respect, integrity, service, excellence, responsibility, and safety. Safety is an overriding consideration in daily work. All employees are also expected to embody [\*CNSC's Values and Expected Behaviours\*](#).

### 2.3.2 Culture for safety and security

Safety and security culture are defined as the characteristics of a work environment, such as values, rules and common understandings that influence worker perceptions and attitudes about the importance that the organization places on safety and security. Experience has demonstrated the importance of a healthy culture for safety in maintaining the safety of workers, the public, and the environment. An organization that actively fosters a healthy culture for safety can have a powerful influence on employee attitudes and behaviours, and consequently on individual and corporate safety performance. In fostering a healthy culture for safety, security culture should also be taken into account as safety culture and security culture coexist and mutually reinforce one another. The CNSC expects licensees to foster and assess a healthy culture for safety and security across all their operations. The CNSC has influence on the behaviour of its licensees and is aware of the impact that its own culture

for safety has on those it licenses and regulates. Both the licensees' and the CNSC's ability to maintain a healthy culture for safety plays an important role in the safe conduct of nuclear activities and operation of nuclear facilities in Canada.

As the regulator, the CNSC promotes a healthy culture for safety through its [Regulatory Safety Culture Policy](#), which outlines the organization's commitment to fostering a healthy culture for safety and defines the traits that underpin and support the desired culture for safety it strives to achieve. The policy promotes leadership for safety, continuous learning and improvement, personal accountability, questioning attitude, safe environment for raising concerns and, communication and collaboration. All CNSC employees are accountable for their own actions and behaviours and are expected to continuously work to strengthen the organization's culture for safety.

### 2.3.3 Competent staff

To regulate the safe conduct of nuclear activities and operation of nuclear facilities in Canada, both the CNSC and licensees must employ competent staff. As per the NSCA, the CNSC employs staff required to carry out its mandate and ensures they are competent and qualified for the work they carry out. The CNSC continuously makes considerable effort in building a competent and agile organization so Canadians are assured nuclear activities and facilities are safely regulated. The CNSC's [Staffing Policy](#) ensures that the CNSC maximizes its ability to attract, develop and retain talent, while our Workforce Planning Process document provides guidance to plan for resources.

Likewise, licensees are required to have competent staff. As per the [General Nuclear Safety and Control Regulations](#), licensees shall ensure the presence of a sufficient number of qualified workers to carry on the licensed activity safely and in accordance with the NSCA, the regulations made under the NSCA and the licence. There are also certain regulations that have requirements with respect to certification of licensee personnel working in certain positions to provide additional assurance that these personnel have and maintain the required knowledge and skills to work safely.

### 2.3.4 Open and transparent regulatory activities

The CNSC is an independent agency of the Government of Canada and operates in an open and transparent manner. The Commission makes its decisions transparently, guided by clear rules of procedure. The CNSC disseminates scientific, technical, and regulatory information through various means (i.e., external webpage, social media). The CNSC posts regulatory actions (i.e., orders and administrative monetary penalties) to its external webpage. The CNSC also publishes regulatory oversight reports, which offer information on the safety performance of Canadian licensees.

Additionally, all Commission public hearings and meetings are open to anyone who wishes to attend. These proceedings are broadcast live through the CNSC's website and archived for months to follow. Commission meetings minutes, records of decision, proceeding transcripts, webcast archives and other related documentation including proceeding submissions are publicly available on the CNSC's website.

As a *quasi-administrative* tribunal and court of record, the Commission provides extensive reasoning for its decisions relating to hearing via records of decision. The Commission's



decisions are based on licensee submissions including the application, recommendations from CNSC expert staff, and interventions from Indigenous Nations and communities, the public and stakeholders.

Through its openness and transparency, the CNSC's operations are always open to public scrutiny, leading to more engagement and consultation which can help enhance safety. For more information on public engagement and Indigenous relationships, see section 2.3.10.

### **2.3.5 Comprehensive and robust regulatory framework**

The CNSC's regulatory framework consists of the NSCA and other laws passed by Parliament that govern the regulation of Canada's nuclear industry, as well as regulations, licences and documents that the CNSC uses to regulate the industry.

In addition to the NSCA and the regulations made under it, the CNSC has developed regulatory documents, which are a key part of its regulatory framework for nuclear activities in Canada. They provide additional clarity to licensees and applicants by explaining how to meet the requirements set out in the NSCA and the regulations made under it.

The CNSC maintains an efficient and streamlined regulatory framework by making appropriate use of standards. These include, but are not limited to, standards created by independent, third-party standard setting organizations such as the Canadian Standards Association Group, the American Society of Mechanical Engineers, the International Commission on Radiological Protection, and the Institute of Electrical and Electronic Engineers. Domestic or international standards may be referenced in CNSC regulatory documents.

### **2.3.6 Strong licensing and compliance framework**

The CNSC has established a strong licensing framework providing guidance to applicants on the information to submit in an application to conduct a licensed activity. As per subsection 24(4) of the NSCA, a licence will not be issued, renewed, amended, replaced, or transferred unless the Commission is of the opinion that the applicant:

- a) is qualified to carry on the activity that the licence will authorize the licensee to carry on; and
- b) will, in carrying on 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.

A licensee always bears the primary responsibility for safety, including compliance with regulatory requirements. All licensees are required to conduct their activities in accordance with the licensing basis<sup>1</sup>. To verify licensee's compliance with regulatory requirements, the CNSC undertakes compliance awareness, verification and enforcement measures as necessary.

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<sup>1</sup> Licensing basis is defined in subsection 6.1.1 of [REGDOC-3.5.3, Regulatory Fundamentals](#)

### 2.3.7 Science-based decisions

As a science-based organization, regulatory recommendations and decisions must be informed by science. Maintaining integrity in the use of science is of utmost value to the CNSC when making all recommendations and decisions regarding the safe conduct of nuclear activities and operation of nuclear facilities. The CNSC commits itself to maintaining integrity of science through its [\*Policy on Science in a Regulatory Environment\*](#). The CNSC encourages debate on scientific and technical issues. When differences of scientific or regulatory opinion occur, staff are expected to give fearless advice and raise issues using available policies and mechanisms, such as the [\*Open Door Policy\*](#), [\*Non-Concurrence Process\*](#) and [\*Differences of Professional Opinion Process\*](#).

The CNSC maintains research initiatives and programs to ensure it keeps abreast of new scientific information and develops its own knowledge base. Research is carried out on a wide range of topics, from health studies on nuclear workers and host communities to research on the long-term management of nuclear waste in geological repositories.

Directed by CNSC staff, research initiatives and programs are often completed with the support of independent third parties and/or in collaboration with national and international partners, providing valuable expertise, state-of-the-art facilities and the best available data. The outcomes of these research activities help CNSC staff better understand and address new or emerging safety issues; gain third-party perspectives on nuclear science; and share scientific knowledge with the nuclear industry and the public at large.

### 2.3.8 Risk-informed approach

The CNSC defines risk as the chance of injury or loss, defined as a measure of the probability and severity of an adverse effect (consequence) to health, property, the environment or other things of value; mathematically, risk is the probability of occurrence (likelihood) of an event multiplied by its magnitude (severity).

The CNSC uses a risk-informed approach for regulatory oversight of all nuclear activities and facilities as outlined in its [\*Policy on the Use of a Risk-Informed Approach for Regulatory Oversight of Nuclear Activities and Facilities\*](#). When applying the risk-informed approach the following principles are adhered to:

- a) regulatory requirements are met;
- b) sufficient safety margins are maintained; and
- c) defence in depth is maintained.

In using this approach, regulatory requirements and guidance may be applied in a graded manner, commensurate with the risk posed by the regulated activity.

There are instances when societal factors may be taken into consideration when using a risk-informed approach. For example, the impact on the health of Canadians is taken into consideration should a facility that provides medical care or produces medical isotopes be shutdown for a prolonged period of time or has limited operations. Still, when taking societal factors into consideration, in allowing the continuation of the conduct of a licensed activity, the benefits must outweigh the risks, and must not give rise to any unreasonable risks.

### 2.3.9 Inclusive workplace

Managers at the CNSC are accountable for creating a healthy and safe environment to empower all employees to raise any concerns without fear of retaliation, intimidation, harassment, or discrimination, as well as ensure all raised issues are addressed in a respectful manner. Through the organization's [\*Workplace Harassment and Violence Prevention Policy\*](#), the CNSC promotes a workplace that is free of discriminatory, harassing, or violent behaviour, where employees can work together productively and effectively. In creating a respectful and safe working environment, employees should feel empowered to raise issues and make appropriate recommendations with safety in mind.

The CNSC values a diverse workforce and strives to be an inclusive workplace where all employees are able to effectively use their skills, expertise and experience to help the CNSC deliver on its mandate and achieve regulatory excellence. Valuing diversity and promoting inclusive practices that help to ensure all voices are heard is integral in creating a safe working environment for all employees. The CNSC has a variety of employee networks that provide an opportunity for employees to connect, while providing strategic direction and leadership to foster health, safety and inclusion for everyone.

Gender-based Analysis Plus (GBA+) is used by the CNSC to assess how diverse groups of women, men and non-binary people may experience policies, programs and services. It promotes inclusive decision making by recognizing the potential differential impacts of such initiatives, helping CNSC build policies, programs and services that work for everyone.

As a Federal Government organization, the CNSC is subject to the Canadian Human Rights Act, which prohibits discriminatory practices in employment matters and in the provision of services, based on 11 prohibited grounds. The other piece of important legislation is the Employment Equity Act, which supports the taking of positive measures to correct conditions of disadvantage experienced by four designated groups: women, Aboriginal peoples, persons with disabilities, and members of visible minorities.

CNSC promotes initiatives and programs to help level the playing field for equity-seeking groups who have been historically underrepresented and disadvantaged, to help create the kind of workplace where every employee, regardless of who they are, feels safe expressing themselves and their opinions.

### 2.3.10 Engagement with the Public and Indigenous Nations and communities

As an agent of the Government of Canada and as Canada's nuclear regulator, the CNSC recognizes and understands the importance of consulting and building relationships with Canada's Indigenous peoples. The CNSC is aware that its stakeholders may have concerns with regards to the nuclear sector and that it is important to seek opportunities to work together in ensuring the safe and effective regulation of nuclear energy and materials. Interested parties, Indigenous Nations and communities and members of the public are able to be heard at public Commission hearings and meetings which are webcast live and often held in facility host communities to make them as accessible as possible to local residents.

Additionally, consultation with CNSC staff, the public, licensees, Indigenous Nations and communities, and interested parties, is an important part in the process that is used to develop and refine all aspects of the regulatory framework. The CNSC takes into

consideration comments and feedback received from all its stakeholders. Input and feedback from stakeholders improve the awareness, clarity and applicability of the regulatory expectations to ensure the effective regulation of the development, production and use of nuclear energy and the production, possession and use of nuclear substances, prescribed equipment and prescribed information in Canada.

### **2.3.11 International arrangements**

The CNSC, on behalf of Canada, participates in international arrangements (including international agreements, working groups, committees, peer reviews as well as bilateral and multilateral cooperation) to enhance safety globally and fulfil its international obligations on the peaceful use of nuclear energy.

Canada is a signatory to a number of key international treaties that establish common obligations and mechanisms to ensure the maintenance of nuclear safety and the protection of people and the environment. Many of the treaties that the CNSC is responsible for implementing in Canada (in whole or in part) are multilateral treaties administered by the International Atomic Energy Agency.

The CNSC works bilaterally and multilaterally with partners around the world to maintain a safe, secure and peaceful international nuclear sector. The types of international instruments used include treaties, agreements, conventions, charters, protocols and Memoranda of Understanding. The CNSC also participates in international fora to provide global nuclear leadership and to benefit from international experience and best practices.

All international arrangements promote the safe conduct of nuclear activities and operation of nuclear facilities globally and internationally, and support Canada's international obligations on the peaceful use of nuclear energy.

## **3.0 RESPONSIBILITIES**

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### **3.1 CNSC staff**

CNSC staff carry out the work necessary to fulfill the CNSC's mandate, while ensuring safety is never compromised.

CNSC staff demonstrate their commitment to CNSC values through actions, attitudes, behaviours, and decisions.

### **3.2 The Commission**

The Commission, subject to the approval of the Governor in Council, may make and amend regulations as it deems necessary for attaining the objects of the NSCA.

The Commission grants licences to conduct nuclear activities in Canada. Commission decisions are science- and safety-based; they may not be overturned by the Government of Canada, and they are reviewable only by the Federal Court of Canada. These measures help ensure the independence of the Commission.

### **3.3 CNSC**

The CNSC is accountable to Parliament and to Canadians for assuring that its responsibilities are properly discharged.

The CNSC ensures that regulated parties are informed of regulatory requirements and provided with guidance on how to meet them. The CNSC compliance program seeks to achieve a sensible balance between incentives that encourage compliance and graduated enforcement actions in case of non-compliance.

### **3.4 Licensees**

Licensees are always primarily responsible for safety. They are directly responsible for managing regulated activities in a manner that protects health, safety, security and the environment, and that conforms with Canada's domestic and international obligations on the peaceful use of nuclear energy.

## 4.0 REFERENCES

REFERENCES		
#	ITEM	E-DOC/LINK
<b>REFERENCE DOCUMENTS</b>		
1	<i>Nuclear Safety and Control Act</i>	<a href="#">Justice Laws Website</a>
2	<i>Regulatory Safety Culture Policy</i>	<a href="#">5547441</a>
3	<i>Policy on the Use of a Risk-Informed Approach for Regulatory Oversight of Nuclear Activities and Facilities</i>	<a href="#">5185215</a>
4	<i>Policy on Science in a Regulatory Environment</i>	<a href="#">5094894</a>
5	<i>Workplace Harassment and Violence Prevention Policy</i>	<a href="#">6438090</a>
6	<i>Occupational Health and Safety Policy</i>	<a href="#">5620026</a>
7	<i>Working Alone Directive</i>	<a href="#">6526883</a>
8	<i>Inclusive Workplace Policy</i>	<a href="#">5039208</a>
9	<i>CNSC's Values and Expected Behaviours</i>	<a href="#">BORIS</a>
10	<i>CNSC's Values and Ethics Code</i>	<a href="#">6446715</a>
11	<i>Values and Ethics Code for the Public Sector</i>	<a href="#">Treasury Board Website</a>
12	<i>Navigator Manual</i>	<a href="#">3050716</a>
13	<i>REGDOC-3.5.3, Regulatory Fundamentals</i>	<a href="#">CNSC Website</a>
14	<i>Open Door Policy</i>	<a href="#">5046788</a>
15	<i>Non-Concurrence Process</i>	<a href="#">5012876</a>
16	<i>Differences of Professional Opinion Process</i>	<a href="#">3858318</a>
17	<i>Staffing Policy</i>	<a href="#">5309816</a>
Note: Further safety-related documentation may be found on the CNSC's <a href="#">Policy Suite</a> webpage.		

## APPENDIX A – CNSC’S COMMITMENT TO SAFETY

At the CNSC, safety is an overriding consideration in daily work. In carrying out our mandate, we support our organizational priorities, where safety is at the forefront.

### Achieving Our Vision

