



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada

The CNSC's Regulatory Framework: 2025 Update

Staff Presentation to the Commission

Regulatory Policy Directorate

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CMD 25-M11

Purpose

- **Provide an update** on the CNSC's Regulatory Framework
- **Highlight recent accomplishments** and planned work for the next year
- **Provide an overview** of CNSC's prescriptive and performance-based regulations (2021 action from the Commission)

Current Regulatory Context

Cabinet Directive on Regulatory and Permitting Efficiency for Clean Growth Projects

Federal entities are expected to drive culture change within their organizations and take actions to accelerate clean growth, protect the environment and biodiversity, and meet the objectives of their respective mandates.

SMR readiness plan

CNSC received \$50.7M over 5 years starting in 2022–23 to implement the organization's SMR readiness plan.

- The plan includes a pillar on regulatory predictability to optimize CNSC's regulatory framework for SMRs.

The Regulatory Framework

Enabling legislation:

NSCA

High-level requirements:

Regulations

Facility and/or activity
specific requirements:

Licenses and certificates

Clarifies requirements
and provides guidance:

Regulatory documents

All parts of the regulatory framework work together to articulate objectives to be met to prevent unreasonable risk to the environment, health and safety of persons and national security.

Regulatory Framework Plan

CNSC's 5-year plan for the development and/or review of regulations and REGDOCs is driven by:

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- The use of a priority matrix to consider current developments in the nuclear industry and environment, taking into account any emerging risks and trends.
- The need to align with federal regulatory policies (i.e., Cabinet Directive on Regulation and other requirements - see Annex A).
- The assessment of the most appropriate regulatory tools - with particular attention to the balance of performance-based and prescriptive regulatory requirements.

Priority Matrix

Projects on the Regulatory Framework Plan must meet risk-informed criteria and demonstrate operational feasibility.

The use of criteria is consistent across the CNSC.

The priority matrix is based on these three areas:

Importance

- Health, safety and security
- Regulatory certainty
- Compliance and enforcement

Urgency

- Timelines and priorities
- Obligations and benefits
- Regulatory burden

Operational

- Effort required
- Resources required
- Time required to complete

Regulatory Analysis

The CNSC's regulatory analysis process is collaborative (all branches are involved) and sets the stage for success as we navigate the regulation and REDGOC making process.

Our analysis is used to determine:

<p>What issue are we solving?</p> <p>Compliance? Consistency? Licensee capacity?</p>	<p>What is our evidence-base?</p> <p>Operational experience? Independent Research? International comparisons?</p>	<p>What is the best tool to address the issue?</p> <p>Regulation? REGDOC? Standards?</p>
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Instrument Selection

Under the *Cabinet Directive on Regulation*, agencies such as the CNSC are responsible for assessing which regulatory or non-regulatory instrument is optimal to achieve policy results by:

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- consulting with potentially affected Indigenous peoples and other interested parties;
- demonstrating they have considered relevant domestic and international best practices, including opportunities to align with other regulations; and,
- assessing, where appropriate, the use of performance-based regulations to minimize burden.

A recent Federal Court of Appeal ruling (*Power Workers Union vs. Canada*) found that CNSC staff were effective in their choice of instrument (in this case, the Fitness for Duty REGDOC) and appropriately developed and consulted on regulatory requirements contained in the REGDOC.

Commission Action: Prescriptive and Performance-Based Regulations

In 2021, Commission members requested additional information on the use of prescriptive versus performance-based regulations.

- Performance-based regulation is focused on assessing licensee program outcomes, providing licensees flexibility in how they meet objectives.
- Prescriptive regulation is focused on assessing licensee program measures and activities, providing certainty regarding fundamental requirements.

See Annex B for more details on both approaches

Finding an effective balance between prescriptive and performance-based requirements is a common regulatory challenge, both domestically and internationally and across industry types.

Finding the Balance between both Approaches

CNSC regulates using a **mix of the prescriptive and performance-based approaches**

Looks at operational context, technological complexity and change, and implementability

Not one-size-fits-all

Framework is flexible, selecting approach that makes the most sense and will best achieve the regulatory objective

- Clarified during review of REGDOC 3.5.3, *Regulatory Fundamentals*
- Annex D of REGDOC 3.5.3, *Regulatory Fundamentals* sets out how the CNSC takes a risk-informed approach to regulations - looks at prescriptive versus performance-based approach as a continuum

Both approaches have a place in ensuring health, safety, security and environmental protection.

Recent Accomplishments (2024/25)

- **Published 4 REGDOCs:**
 - **REGDOC 1.2.3** - *Licence Application Guide: Licence to prepare Site for a Deep Geological Repository*
 - **REGDOC 2.4.5** - *Nuclear Fuel Safety and Qualification*
 - **REGDOC 3.1.1.** - *Reporting Requirements for Nuclear Power Plants*
 - **REGDOC 2.9.2** - *Controlling Releases to the Environment*
- Completed strategic review of the CNSC's regulatory readiness for Small Modular Reactor (SMR) and innovative technologies.
- Improved the CNSC's consultation program to increase engagement with Indigenous communities, the public, and ENGOs.
- Shifted from single REGDOC revisions to "thematic" analysis – that is, review of specific regulatory themes that cut across various REGDOCs.

We continue to ensure the Regulatory Framework is flexible, technology neutral and ready for future developments in industry, policy and the environment

Upcoming Regulatory Framework projects

Regulation Projects Moving towards final Publication (*Canada Gazette*, Part II)

- *Regulations Amending the Class II Nuclear Facilities and Prescribed Equipment Regulations* – miscellaneous amendments
- *Regulations Amending Certain Regulations Under the Nuclear Safety and Control Act (Import, Export and Safeguards)*
 - Associated 2.13 REGDOC series to be developed and posted for public consultation after Regulations are published
- *Nuclear Security Regulations*
 - Associated 2.12 REGDOC series to be developed and posted for public consultation after Regulations are published

REGDOC consultations

- Draft REGDOC-2.3.3, Periodic Safety Reviews – Fall 2025
- Draft REGDOC-3.2.2, Indigenous Engagement – Summer 2025
- Draft REGDOC-2.6.3, Aging Management – Fall 2025

REGDOC projects

- REGDOC-1.3.1, *Licence Application Guide: Uranium Mines and Mills* – Commission decision expected Summer 2025
- REGDOC-2.10.1, *Nuclear Emergency Preparedness and Response* – consultation period closed in April – Commission decision expected Fall 2025

Discussion papers

- Fusion readiness – Impacts on the Regulatory Framework - consultation planned for Summer 2025
- Flood Hazard Assessment - consultation planned for Summer 2025

Conclusion

CNSC's Regulatory Framework is modern and relevant by being...

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Responsive

- Is the Framework ready for new technologies, e.g., SMRs, fusion, proton therapy?
- Has the Act and associated regulations remained effective in managing new regulatory challenges?

Transparent

- Is the Framework accessible to Indigenous peoples and the public, e.g., digital, plain language, clear explanations of changes?
- Do we have an open, accessible and modern approach to regulatory consultation and engagement?

Efficient

- Do we have the right balance of performance-based and prescriptive regulations?
- Do we have an adequate understanding of the costs and benefits associated with regulatory requirements?

Questions?

Thank you



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Annex A: Reporting requirements

- Treasury Board Secretariat (TBS) requires regulators to publish two complementary plans: a **Regulatory Stock Review Plan** (RSRP) and **Forward Regulatory Plan** (FRP).
- The CNSC **RSRP** is a list of planned reviews proposed over ten years.
 - This list gives licensees, Indigenous peoples and interested parties an opportunity to plan how they will interact with the CNSC on upcoming consultations.
- The CNSC **FRP** sets out anticipated regulatory proposals that the CNSC intends to bring forward, typically within *two years*.
 - Reviews noted on the RSRP can often lead to regulatory changes which then appear on the FRP.

TBS directs regulators to publish the RSRP and FRP by April 1 of each year, delayed this year due to federal elections.

Annex B: Contrasting Prescriptive and Performance-based approaches

Prescriptive Regulations

- Detail the design and process of how to comply with the regulations.
- Regulated parties have little to no choice regarding how to comply.
- Are generally easier to monitor and enforce, but they provide very little flexibility.
- May impede innovation; companies are less inclined to invest in new technologies or materials if there is concern that they may not comply with regulations.

Performance-based Regulations

- Provide flexibility in compliance; focus on specific and measurable outcomes rather than on the precise factors to be controlled or the means of controlling them.
- Regulated parties can propose method to achieve the outcome (the how), but without compromise to safety.
- Provides flexibility for regulated parties to introduce new technologies, processes, procedures that enhance safety.
- Can create uncertainty if industry is unclear on how to meet the requirements.