



Regulatory Framework Update 2019



Staff Presentation to the Commission

November 6, 2019

CMD 19-M39



Objective

To provide the Commission with:

- Overview of the CNSC's Regulatory Framework Program
- Modern Regulator
- Broader Context



THE FRAMEWORK AT A GLANCE

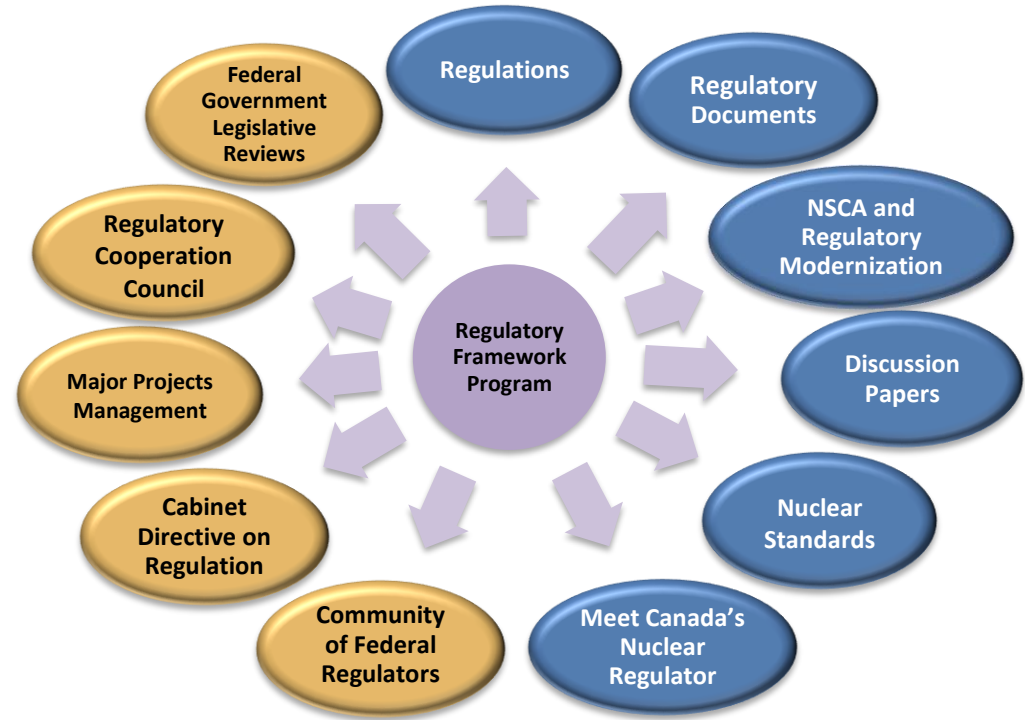
- About the Regulatory Framework
- Program highlights
- How has the program evolved?



Regulatory Framework Program Overview

Regulatory Framework
Documentation and Outreach

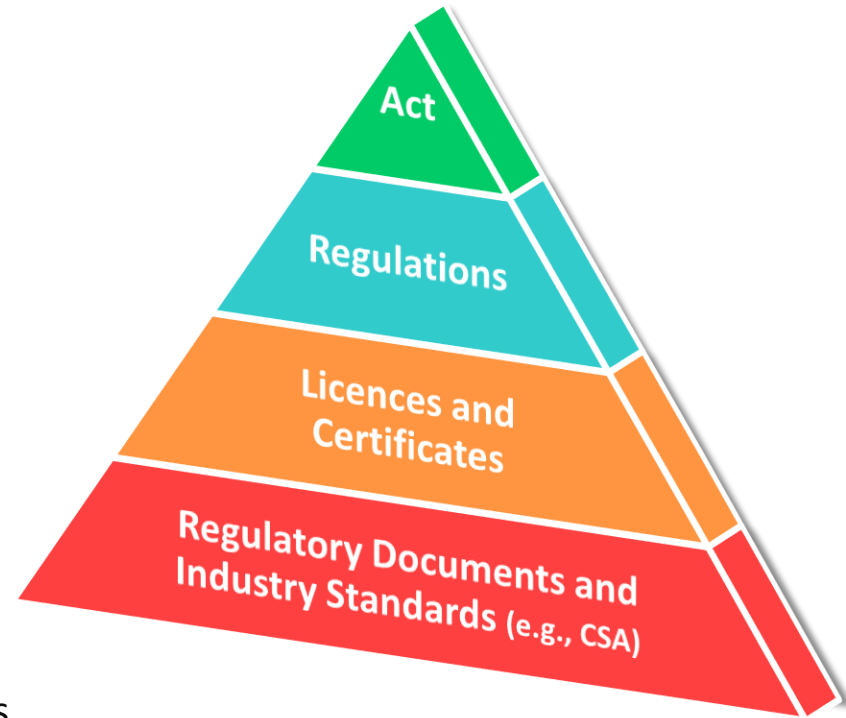
Government of Canada Agenda for
Legislative and Regulatory reform





Regulatory Framework

- ***Nuclear Safety and Control Act***
Enabling legislation
- **Regulations**
High-level requirements
- **Licences and Certificates**
Facility and/or activity-specific requirements
- **Regulatory Documents and Standards**
Additional requirements, industry standards and guidance
- **Regulatory Framework Plan**
5-year prioritized plan for cyclical document reviews





Regulatory Framework - Status

On track to modernize the regulatory framework by 2020/2021

- Published 48 out of 64 REGDOCs (Annex A)
- Supersede all legacy documents by 2020/2021
- Regulatory Framework Plan based on priorities

Modern and clear requirements, supported by guidance

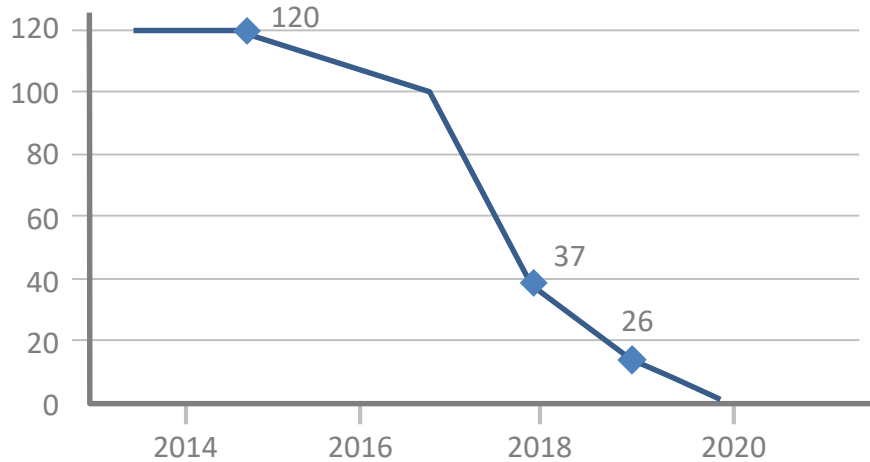
Program continues to respond to changes in the legislative context and an evolving nuclear industry

Flexible and adaptable

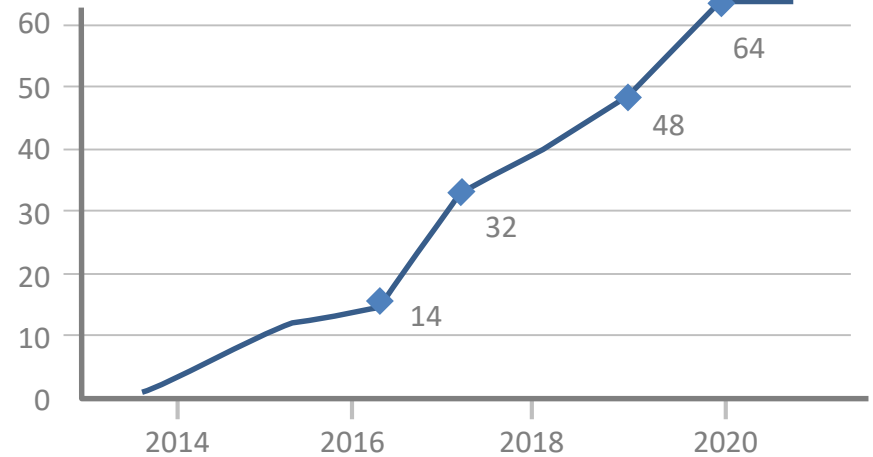


Accomplishments To Date

EXISTING LEGACY DOCUMENTS



PUBLISHED REGDOCS



Steady progress made over the last few years



Annual Framework Program Highlights

Regulations

CNSC Staff reviewing the following regulations:

Regulations	Status	Canada Gazette
<i>Radiation Protection Regulations</i>	Feedback	June 2020 (Part II)
Safeguards and Non-proliferation <ul style="list-style-type: none"><i>Nuclear Non-proliferation Import and Export Control Regulations</i><i>General Nuclear Safety and Control Regulations</i>	Drafting	June 2020 (Part I)
<i>Nuclear Security Regulations</i>	Analysis	January 2021 (Part I)



Annual Framework Program Highlights

Documents Published (1/2)

New REGDOCs or revisions to REGDOCs since last update to Commission:

REGDOCs

- Licence Applicant Guide: Licence to Construct a Nuclear Power Plant **(1.1.2)**
- Supplemental Information for Small Modular Reactor Proponents **(1.1.5)**
- Human Factors **(2.2.1)**
- Management System **(2.2.1)**
- Minimum Staff Complement **(2.2.5)**
- Personnel Certification, Certification of Persons Working at Nuclear Power Plants **(2.2.3, Vol. III)**
- Fitness for Duty: Nuclear Security Officer Medical, Physical, and Psychological Fitness **(2.2.4, Vol. III)**
- Nuclear Criticality Safety **(2.4.3)**



Annual Framework Program Highlights

Documents Published (2/2)

New REGDOCs or revisions to REGDOCs since last update to Commission:

REGDOCs

- General Design Considerations: Human Factors **(2.5.1)**
- Conventional Health and Safety **(2.8.1)**
- Framework for Radioactive Waste Management and Decommissioning in Canada **(2.11)**
- Waste Management: Management of Uranium Mine Waste Rock and Mill Tailings **(2.11. 1, Vol. II)**
- High Security Facilities: Nuclear Response Force **(2.12.1, Vol I)**
- Security of Nuclear Substances: Sealed Sources and Cat. I, II, and III Nuclear Material **(2.12.3, Ver. 2)**
- Indigenous Engagement **(3.2.2, Ver. 1.1)**
- Pre-licensing Review of Vendor's Reactor Design **(3.5.4)**



Annual Framework Program Highlights

What's Coming

CNSC Staff plan to present the following documents to the Commission in the coming months:

December 2019

Reporting Requirements for Waste Nuclear Substance Licensees, Class II Nuclear Facilities and Users of Prescribed Equipment, Nuclear Substances and Radiation Devices **(3.1.3)**

April 2020

- Waste Management **(2.11.1, Vol. I)**
- Safety Case for Long-Term Radioactive Waste Management **(2.11.1, Vol. III)**
- Decommissioning **(2.11.2)**
- Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities **(3.3.1)**

May 2020

- Radiation Protection **(2.7.1)**
- Dosimetry **(2.7.2)**



Standards

CSA Group and IAEA Safety Standards support CNSC's regulatory framework

- Reflects state-of-the-art knowledge
- Accounts for operational experience
- Best practices

CNSC Staff participate and input in standard development, domestically and internationally

Public accessibility to CSA Group nuclear standards through CNSC's website



Evolution of the Framework

CLARIFYING REQUIREMENTS: 2013 to 2018

- Build cohesive and modern framework
- Focus on clarifying regulatory requirements and developing REGDOCs
- Develop licence application guides
- Archive legacy documents
- Consultation and transparency

Development

READINESS AND RESPONDING: 2019 and beyond

- Continue cyclical reviews of REGDOCs
- Align with Government of Canada's legislative and regulatory reform agenda
- Respond to innovation
- Facilitate regulatory cooperation
- To be agile and trusted
- Support engagement and outreach

Modern Regulator



MODERN REGULATOR

- Modern Regulation
- Innovation and Continuous Improvement
- Enhanced Engagement and Outreach



Modern Regulator: Modern Regulation

15

- Balance prescriptive versus performance-based regulatory approaches
- Focus on objectives and understanding impacts
- Allow for flexibility and use of novel approaches
- Address challenges
- Align with Government of Canada's approach to regulation making

Responsive regulatory framework



Modern Regulator: Innovation and Continuous Improvement

16

- Strengthening program effectiveness through peer-reviews such as the Integrated Regulatory Review Service mission
- Benchmarking against other Federal regulators
- Adopting best-practices
- Understanding disruptive, innovative and emerging technologies

Commitment to improvement



Modern Regulator: Enhanced Engagement and Outreach

17

- Engage more directly with civil society groups
- Use of modern communication, technology and on-line tools and software to collect feedback
- Explore accessibility of regulatory information using digital platforms
- Use Meet-the-Nuclear-Regulator sessions to enhance awareness and build public trust

Building trust



BROADER CONTEXT

- Regulatory Alignment and Reform
- Summary



Modern Regulator: Regulatory Alignment and Reform

19

- ***Impact Assessment Act***: Broader scope of assessment and new formal early engagement process
- **Regulatory Modernization**: Facilitate competitiveness, agility and innovation in the Canadian regulatory system
- ***Cabinet Directive On Regulation***: Enhanced requirements on regulators across the lifecycle of regulations
- **Regulatory Cooperation**: Explore best-practices and regulatory alignment

Integrated and aligned



Summary

20

- Comprehensive and clear regulatory framework
- Ready and agile for an evolving industry
- Regulatory alignment
- Enhanced engagement
- Continuous improvement

Agile, trusted and responsive regulator



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada

Connect With Us

Join the conversation



nuclearsafety.gc.ca





PUBLISHED REGDOCS



ANNEX A

Regulatory Framework Update 2019, CMD 19-M39

Published REGDOCs (1/5)

1. REGDOC-1.1.1, *Site Evaluation and Site Preparation for New Reactor Facilities*
2. REGDOC-1.1.2, *Licence Application Guide: Licence to Construct a Nuclear Power Plant*
3. REGDOC-1.1.3, *License Application Guide: Licence to Operate a Nuclear Power Plant*
4. REGDOC-1.1.5, *Supplemental Information for Small Modular Reactor Proponents*
5. REGDOC-1.5.1, *Application Guide: Certification of Radiation Devices or Class II Prescribed Equipment*
6. REGDOC-1.6.1, *Licence Application Guide: Nuclear Substances and Radiation Devices*
7. REGDOC-2.1.1, *Management System*
8. REGDOC-2.1.2, *Safety Culture*
9. REGDOC-2.2.1, *Human Factors*
10. REGDOC-2.2.2, *Personnel Training*
11. REGDOC-2.2.3, *Personnel Certification*
 - I. REGDOC-2.2.3, *Personnel Certification: Radiation Safety Officers*
 - II. REGDOC-2.2.3, *Personnel Certification: Exposure Device Operators*
 - III. REGDOC-2.2.3, *Personnel Certification: Persons Working at Nuclear Power Plants*

Published REGDOCs (2/5)

12. REGDOC-2.2.4, *Fitness for Duty:*
 - I. REGDOC-2.2.4, *Fitness for Duty: Managing Worker Fatigue*
 - II. REGDOC-2.2.4, *Fitness for Duty: Managing Alcohol and Drug Use*
 - III. REGDOC-2.2.4, *Fitness for Duty: Nuclear Security Officer Medical, Physical, and Psychological Fitness*
13. REGDOC-2.2.5, *Minimum Staff Complement*
14. REGDOC-2.3.1, *Conduct of Licensed Activities: Construction and Commissioning Programs*
15. REGDOC-2.3.2, *Accident Management*
16. REGDOC-2.3.3, *Periodic Safety Reviews*
17. REGDOC-2.4.1, *Deterministic Safety Analysis*
18. REGDOC-2.4.2, *Probabilistic Safety Assessment for Nuclear Power Plants*
19. REGDOC-2.4.3, *Nuclear Criticality Safety*
20. REGDOC-2.5.1, *General Design Considerations: Human Factors*
21. REGDOC-2.5.2, *Design of Reactor Facilities: Nuclear Power Plants*
22. REGDOC-2.5.4, *Design of Uranium Mines and Mills: Ventilation Systems*

Published REGDOCs (3/5)

23. REGDOC-2.5.5, *Design of Industrial Radiography Installations*
24. REGDOC-2.5.7, *Design, Testing and Performance of Exposure Devices*
25. REGDOC-2.6.1, *Reliability Programs for Nuclear Power Plants*
26. REGDOC-2.6.2, *Maintenance Programs for Nuclear Power Plants*
27. REGDOC-2.6.3, *Aging Management*
28. REGDOC-2.7.3, *Radiation Protection Guidelines for the Safe Handling of Decedents*
29. REGDOC-2.8.1, *Conventional Health and Safety*
30. REGDOC-2.9.1, *Environmental Protection: Environment Principles, Assessments and Protection Measures*
31. REGDOC-2.10.1, *Nuclear Emergency Preparedness and Response*
32. REGDOC-2.11.1, *Waste Management*
 - I. REGDOC-2.11, *Framework for Radioactive Waste Management and Decommissioning in Canada*
 - II. REGDOC-2.11.1, *Waste Management: Assessing the Long Term Safety of Radioactive Waste Management*
33. REGDOC-2.12.1, *High Security Facilities*
 - I. REGDOC-2.12.1, *High Security Facilities: Nuclear Response Force*
 - II. REGDOC-2.12.1, *High-Security Facilities: Criteria for Nuclear Security Systems and Devices*

Published REGDOCs (4/5)

34. REGDOC-2.12.2, *Site Access Security Clearance*
35. REGDOC-2.12.3, *Security of Nuclear Substances: Sealed Sources and Cat. I, II, and III Nuclear Material*
36. REGDOC-2.13.1, *Safeguards and Nuclear Material Accountancy*
37. REGDOC-2.13.2, *Import and Export*
38. REGDOC-2.14.1, *Packaging and Transport*
 - I. REGDOC-2.14.1, *Information Incorporated by Reference in Canada's Packaging and Transport of Nuclear Substances Regulations, 2015*
 - II. REGDOC-2.14.1, *Radiation Protection Program Design for the Transport of Nuclear Substances*
39. REGDOC-3.1.1, *Reporting Requirements for Nuclear Power Plants*
40. REGDOC-3.1.2, *Reporting Requirements for Non-Power Reactor Class I Facilities and Uranium Mines and Mills*
41. REGDOC-3.2.1, *Public Information and Disclosure*
42. REGDOC-3.2.2, *Indigenous Engagement*
43. REGDOC-3.4.1, *Guide for Applicants and Intervenors: Writing CNSC Commission Member Documents*
44. REGDOC-3.5.1, *Information Dissemination: Licensing Process for Class I Nuclear Facilities & Uranium Mines and Mills*

Published REGDOCs (5/5)

45. REGDOC-3.5.2, *Compliance and Enforcement: Administrative Monetary Penalties*
46. REGDOC-3.5.3, *Regulatory Fundamentals*
47. REGDOC-3.5.4, *Pre-licensing Review of a Vendor's Reactor*
48. REGDOC-3.6, *Glossary of CNSC Terminology*



REGDOCS IN DEVELOPMENT



ANNEX B

Regulatory Framework Update 2019, CMD 19-M39

REGDOCs In Development (1/2)

1. REGDOC-1.4.1, *Licence Application Guide: Class II Nuclear Facilities and Prescribed Equipment*
2. REGDOC-1.2.1, *Guidance on Deep Geological Repository Site Characterization*
3. REGDOC-1.6.2, *Developing and Implementing an Effective Radiation Protection Program for Nuclear Substances and Radiation Exposure Device Licences*
4. REGDOC-2.2.3, *Personnel Certification: Initial Certification Examinations*
5. REGDOC-2.4.4, *Safety Analysis for Class IB Nuclear Facilities*
6. REGDOC-2.5.6, *Design of Nuclear Substance Laboratories and Nuclear Medicine Rooms*
7. REGDOC-2.7.1, *Radiation Protection*
8. REGDOC-2.7.2, *Dosimetry: Technical and Quality Assurance Requirements for Dosimetry Services*
9. REGDOC-2.7.2, *Dosimetry: Ascertaining Occupational Dose*
10. REGDOC-2.9.2, *Environmental Protection: Controlling Releases to the Environment*

REGDOCs In Development (2/2)

11. REGDOC-2.11.1, *Waste Management: Management of Radioactive Waste*
12. REGDOC-2.11.1, *Waste Management: Safety Case for Long-Term Radioactive Waste Management*
13. REGDOC-2.11.2, *Decommissioning*
14. REGDOC-2.14.1, *Packaging and Transport: Radiation Protection Program Design for the Transport of Nuclear Substances*
15. REGDOC-3.1.3, *Reporting Requirements for Class II Nuclear Facilities and Users of Prescribed Equipment, Nuclear Substances and Radiation Devices*
16. REGDOC-3.3.1, *Financial Guarantees*
17. REGDOC-3.5.3, *Regulatory Fundamentals: Cost-Benefit Information*



DEVELOPING REGULATIONS AND REGDOCS



ANNEX C

Regulatory Framework Update 2019, CMD 19-M39



Regulation Consultation and Commission Decision

1. Develop Regulatory Proposal

- Consultation and feedback
- Regulatory Impact Analysis

2. Develop Regulatory Package

- Draft Regulatory Package
- **Brief Commission**
- Governor in Council approval to consult
- Regulations published in *Canada Gazette*, Part I for feedback

3. Make Regulations

- Regulatory Package
- **Commission makes the Regulations**
- Governor in Council approval of Regulations
- Regulations published in *Canada Gazette*, Part II

Regulations are made by the Commission and approved by GIC



REGDOC Consultation and Commission Decision

1. Develop REGDOC proposal

- Consultation and feedback
- Result of Analysis

2. Develop REGDOC

- Draft REGDOC
- CNSC approval to consult
- Draft REGDOC published on CNSC's website for feedback

3. Approve REGDOC

- Regulatory Document
- **Commission approval of REGDOC**
- REGDOC published on CNSC's website
- No Governor in Council approval

REGDOCs are approved by the Commission