



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



UPDATE TO REGDOC-1.1.2, LICENCE APPLICATION GUIDE: LICENCE TO CONSTRUCT A REACTOR FACILITY REGULATORY DOCUMENT

Presented at the June 28, 2022 Commission Meeting



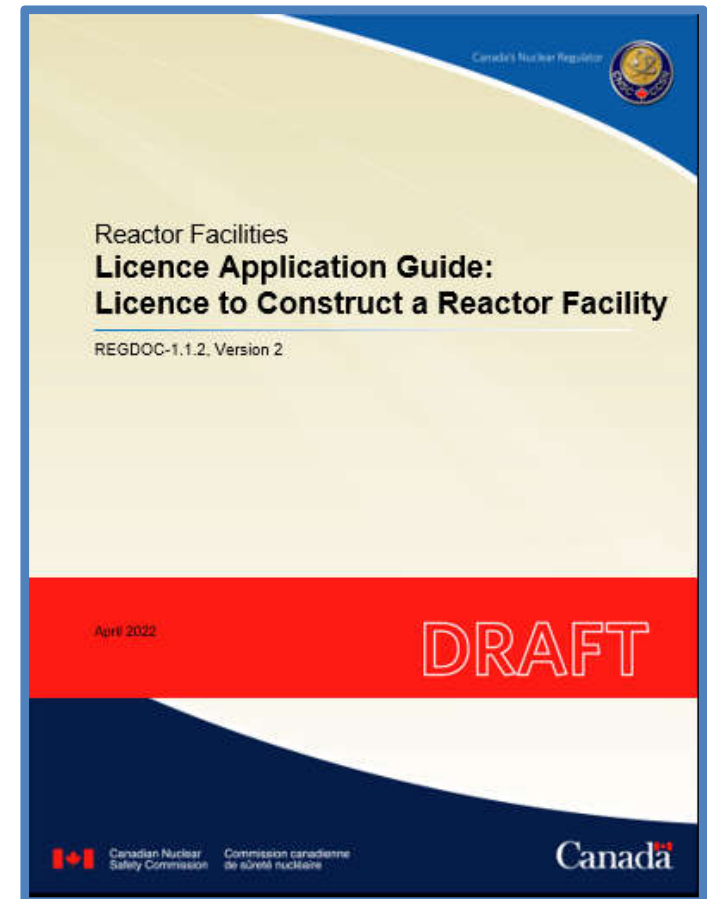
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PDF: 6821056

CMD 22-M23.A



PURPOSE

Request for approval of update to:
REGDOC-1.1.2, *Licence Application
Guide: Licence to Construct a
Reactor Facility, Version 2*





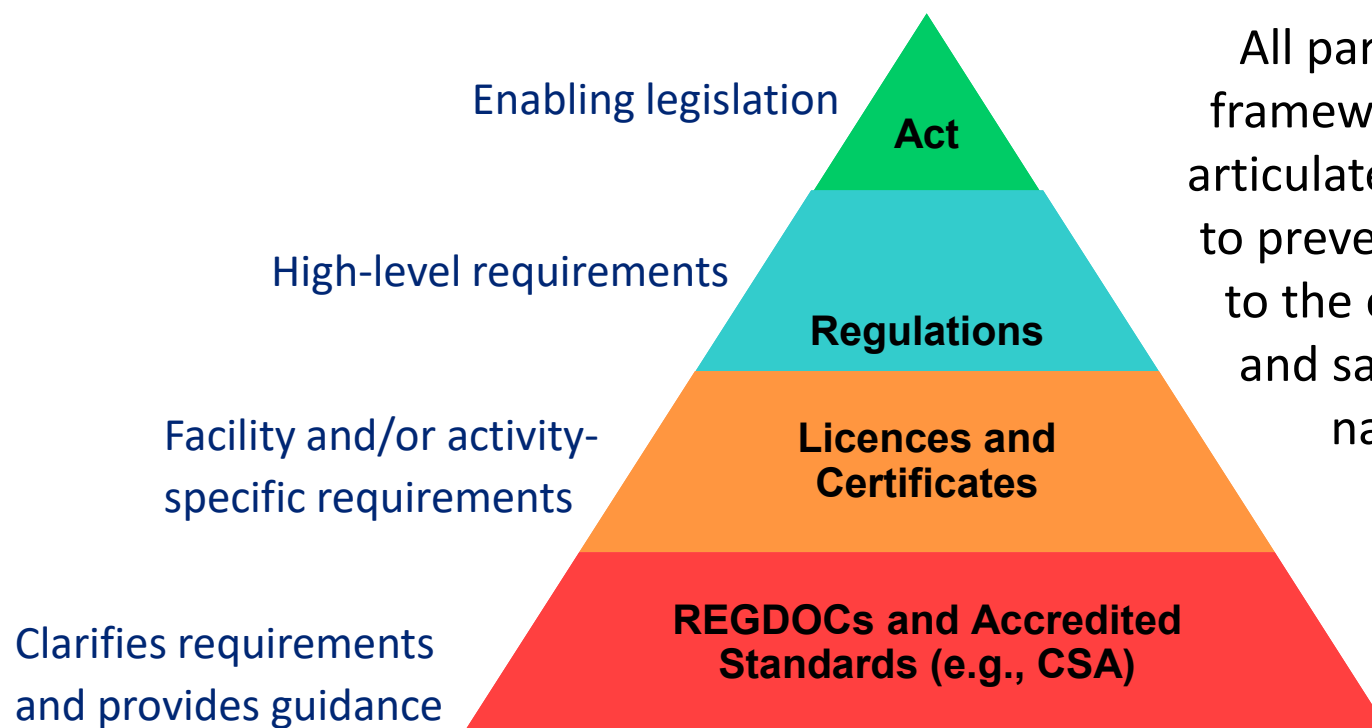
OUTLINE



- ✓ CNSC's regulatory framework
- ✓ REGDOC development process
- ✓ Purpose and scope of REGDOC
- ✓ Public consultation and key issues
- ✓ Conclusion and recommendation



THE CNSC'S REGULATORY FRAMEWORK



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.



PURPOSE OF LICENCE APPLICATION GUIDES

- Requirements are outlined in regulations
 - Licence application guides elaborate on these requirements and provide guidance on what information to include in an application
- Structured information according to:
 - Type of regulated facility or activity
 - Project lifecycle stage
- Points to relevant expectations in other REGDOCs in :
 - Appropriate safety and control areas, and
 - Other regulatory areas



REGDOC STRUCTURE

1.0 Regulated Facilities and Activities

- 1.1 Reactor Facilities
 - *1.1.2, Licence Application Guide: Licence to Construct a Reactor Facility, Version 2*
- 1.2 Class IB Facilities
- 1.3 Uranium Mines and Mills
- 1.4 Class II Facilities
- 1.5 Certification of Prescribed Equipment
- 1.6 Nuclear Substances and Radiation Devices

2.0 Safety and Control Areas

- 2.1 Management System
- 2.2 Human Performance Management
- 2.3 Operating Performance
- 2.4 Safety Analysis
- 2.5 Physical Design
- 2.6 Fitness for Service
- 2.7 Radiation Protection

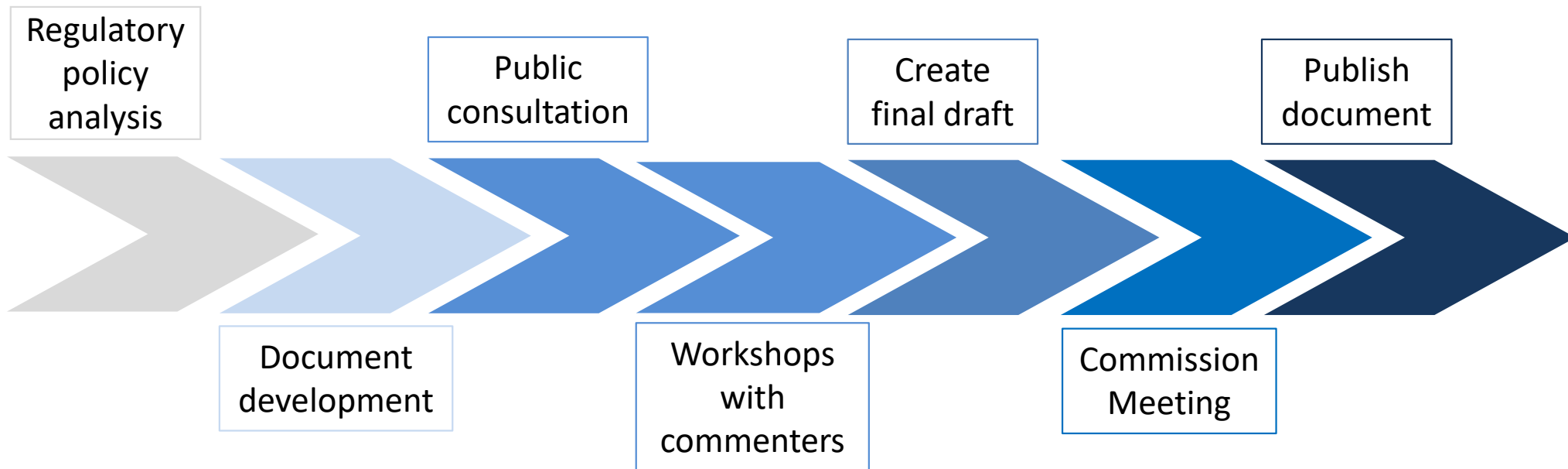
- 2.8 Conventional Health and Safety
- 2.9 Environmental Protection
- 2.10 Emergency Management and Fire Protection
- 2.11 Waste Management
- 2.12 Security
- 2.13 Safeguards and Non-Proliferation
- 2.14 Packaging and Transport

3.0 Other Regulatory Areas

- 3.1 Reporting Requirements
- 3.2 Public & Indigenous Engagement
- 3.3 Financial Guarantees
- 3.4 Commission Proceedings
- 3.5 CNSC processes and practices
- 3.6 Glossary of CNSC terminology



REGDOC DEVELOPMENT PROCESS



REGDOCs are developed through an iterative development process



PURPOSE OF THIS REGULATORY DOCUMENT

- Clarifies requirements and provides guidance on applying for a licence to construct a reactor facility
- Prepares applicants to submit information that demonstrates they will meet sub-section 24(4) of the *Nuclear Safety and Control Act*
- Articulates that the application, and the supporting documents, become the safety case for the reactor facility
- Outlines the required administrative information



HISTORY OF DEVELOPMENT

- RD/GD-369, *Licence Application Guide: Licence to Construct a Nuclear Power Plant*
 - Published in 2011
 - Intended for water-cooled technologies
- REGDOC-1.1.2, *Licence Application Guide: Licence to Construct a Nuclear Power Plant V1*
 - Published in 2019
 - Rebranding in the REGDOC format
 - Updates limited to formatting – no update to content



UPDATES TO VERSION 1 (1/2)

- Restructures information into the Safety and Control Area framework and Other Regulatory Areas
- Removes duplicated information addressed in REGDOC-1.1.3, *Licence Application Guide: Licence to Operate a Nuclear Power Plant*



UPDATES TO VERSION 1 (2/2)

Enhances clarity on:

- Implementation of risk-informed decision making for licensing phases
 - Including hold points if needed
- Information to be submitted
- Submission of application information over a defined period of time
- Application of a risk-informed, graded approach
- Alternative ways to meet a requirement
- Use of supporting information



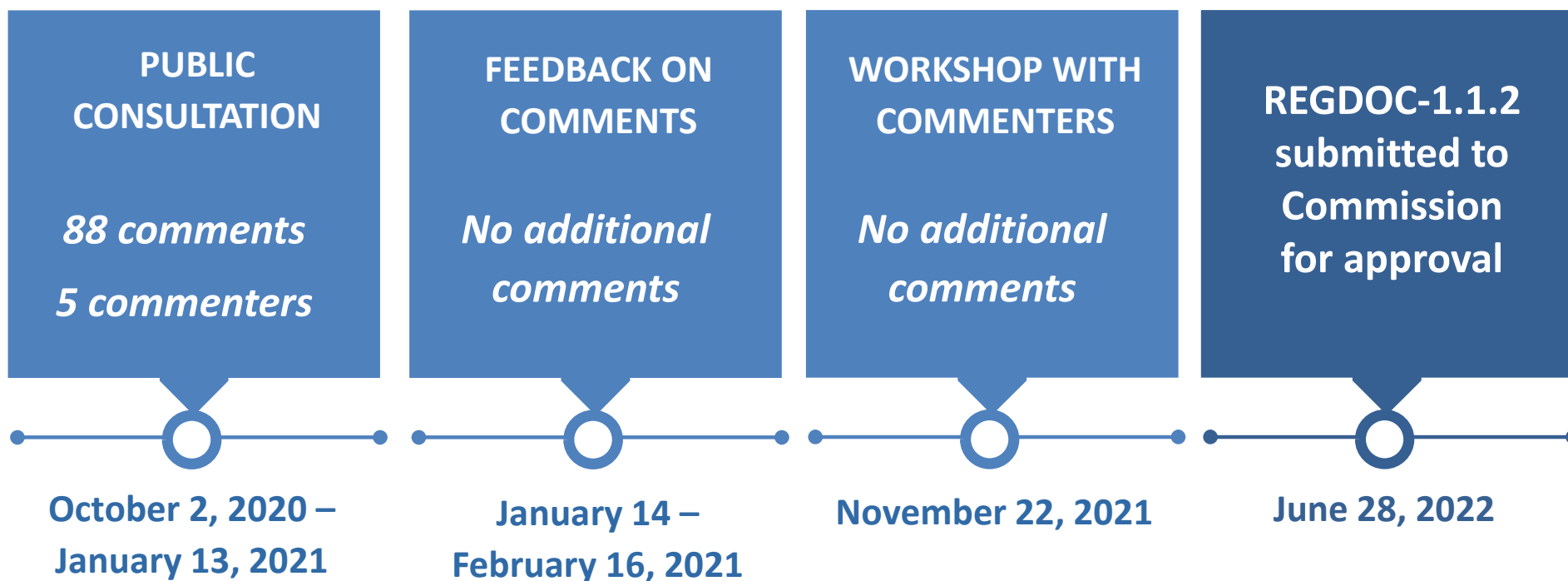
KEY SAFETY AND CONTROL AREAS

- 1. Management System**
- 2. Human Performance Management**
- 3. Operating Performance**
- 4. Safety Analysis**
- 5. Physical Design**
6. Fitness for Service
7. Radiation Protection

- 8. Conventional Health and Safety**
- 9. Environmental Protection**
- 10. Emergency Management and Fire Protection**
11. Waste Management
- 12. Security**
- 13. Safeguards and Non-Proliferation**
14. Packaging and Transport



PUBLIC CONSULTATION





CONSULTATION THEMES

- Duplicated content within REGDOC-1.1.2 and REGDOC-1.1.3
- Application of a risk-informed, graded approach to innovation
- Level of detail required for a licence to construct application
- Management system and intelligent customer concept



1

THEME 1: Duplicated content

Issue:

- Stakeholders expressed the concern that some requirements and guidance were duplicated from REGDOC-1.1.3, *Licence Application Guide: Licence to Operate a Nuclear Power Plant*

CNSC Response:

- REGDOC was significantly revised to clarify the scope of construction activities and reduce requirements and guidance that might be duplicative



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THEME 2: Application of a risk-informed, graded approach to innovation

Issue:

- Stakeholders had concerns with the application of a risk-informed graded approach to small modular reactors (SMRs)

CNSC Response:

- REGDOC was revised for clarity, with additional information on the risk-informed, graded approach
- Applicability to diverse SMR technologies was a key consideration
 - Flexibility is available, but safety claims must be proven



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THEME 3: Level of detail required

Issue:

- Stakeholders expressed concern that the level of detail required by the REGDOC is excessive

CNSC Response:

- REGDOC was revised to enhance focus on construction information
- Level of detail is expected to be project-specific and based on the activities covered under the licence application



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THEME 4: Management system and intelligent customer concept

Issue:

- Stakeholders expressed concern regarding the requirements and guidance pertaining to the ‘intelligent customer’ concept

CNSC Response:

- REGDOC was revised for clarity and to better capture the intent for management system
- ‘Informed customer’ was used in place of ‘intelligent customer’ to enhance alignment with international best practice



CONCLUSION

This draft REGDOC:

- Realigns content into the Safety and Control Area framework
- Clarifies the requirements and guidance related to small and large reactor facilities
- Was developed through an iterative process with stakeholder engagement



RECOMMENDATION

CNSC staff recommend that:

The Commission approve **REGDOC-1.1.2**, *Licence Application Guide: Licence to Construct a Reactor Facility, Version 2*



Questions

