



Commission canadienne
de sûreté nucléaire

Canadian Nuclear
Safety Commission

308

INFO23_VA

Les enjeux de la filière uranifère au Québec

6211-08-012

Regulating Uranium Mines and Mills in Canada



Canadian Nuclear Safety Commission

suretenucleaire.gc.ca

12 September 2014

e-Doc 4495707

Canada 

Presentation Outline



- CNSC as Canada's Nuclear Regulator
- CNSC's Regulatory Framework
- Regulatory Oversight: Licensing and Compliance

Canadian Nuclear Safety Commission



- Established in May 2000, under the *Nuclear Safety and Control Act* (NSCA)
- *Replaced the Atomic Energy Control Board (AECB), established in 1946, under the Atomic Energy Control Act*
- Exclusive jurisdiction over all nuclear-related matters in Canada
- CNSC is an independent regulatory quasi-judicial tribunal:
 - arms length from the federal government and independent in its regulatory decision-making capacity
 - members appointed for fixed terms, can be removed only for cause

Canadian Nuclear Safety Commission (cont'd)



- Independent, but not isolated from government:
 - subject to normal administrative requirements
 - reports to Parliament through the Minister of Natural Resources
 - appears before Parliamentary committees
 - cooperates with other governmental agencies/departments
 - subject to directives on broad policy matters under section 19 of the NSCA

Canada's Independent Nuclear Regulator

Our Mission



The CNSC's mission: To regulate the use of nuclear energy and materials so that the **health**, **safety** and **security** of Canadians and the **environment** are protected, and to implement Canada's **international commitments** on the peaceful use of nuclear energy.



Advanced Exploration

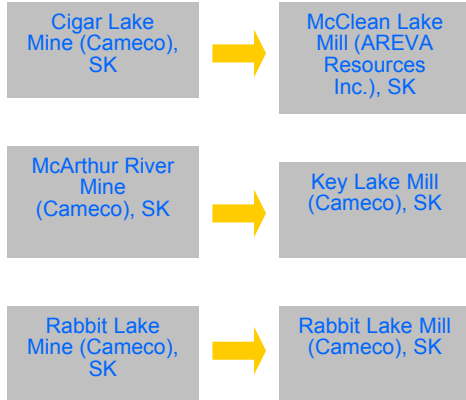
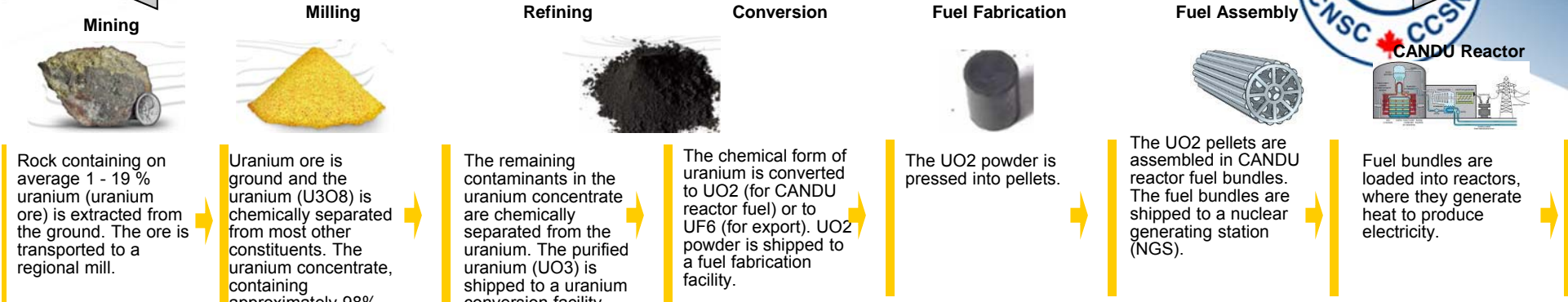
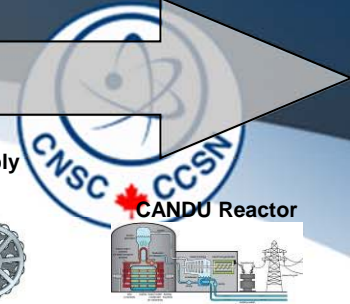


- Examples of activities that would require CNSC authorization:
 - bulk sampling
 - mining through an ore body



CNSC Regulates all Nuclear-Related Facilities and Activities

Imports, Exports and Safeguards Controlled information, controlled material, controlled equipment



- Pickering NGS, Pickering, ON
- Point Lepreau NGS, Point Lepreau, NB
- Bruce A and B NGS, Kincardine, ON
- Darlington NGS, Clarington, ON

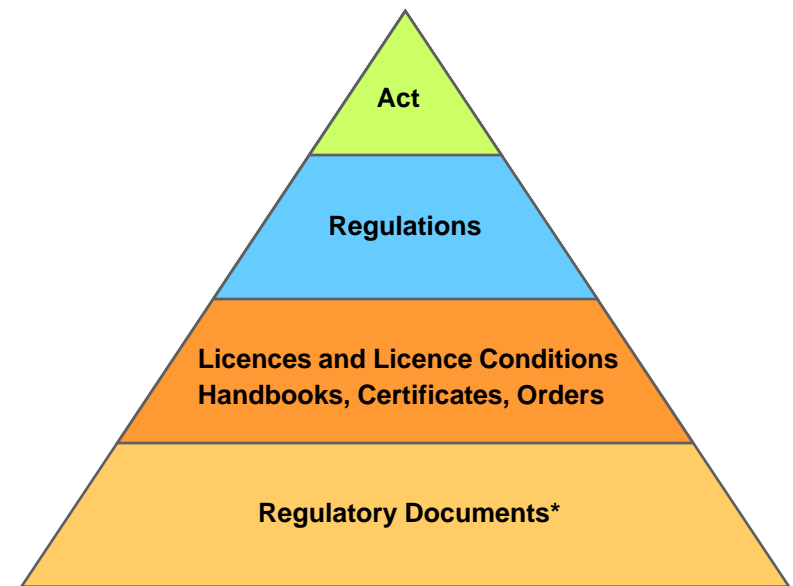
Waste Management

Overview of the CNSC's Regulatory Framework



- **Nuclear Safety Control Act (NSCA):**
 - enabling legislation
- **Regulations:**
 - high-level and generally applicable requirements
- **Licences and licence conditions handbooks, certifications, orders:**
 - facility and/or activity specific requirements
- **Regulatory documents:**
 - include requirements and guidance

Elements of the Regulatory Framework



* Include requirements and guidance

Overview of the Nuclear Safety and Control Act (NSCA)



- Under the *Constitution Act* (1982), nuclear power is a federal responsibility:
 - peace, order and good government (s. 91)
 - NSCA, para. 92(10)(c) – s. 71
- NSCA and associated regulations in force since 2000
- Provides modern framework for regulation of nuclear sector – decoupled from research and development activities
- Preamble indicates Parliament's intent in legislating for national and international interest

Statutory Powers under NSCA



- Court of record, hearing powers (s. 20)
- Arrangements, programs (s. 21)
- Licensing (s. 24, 37)
- Financial guarantees (s. 24)
- Orders of the Inspector and Designated Officers (s. 35, 37)
- Regulation-making (s. 44), including *Rules of Procedure*
- Emergency orders (s. 47)
- Punishment for offences (s. 48)
- Administrative monetary penalties (s. 65.01)

Other Federal Acts That Apply to Uranium Mines and Mills



- Federal/provincial and municipal acts, regulations and policies may apply to CNSC licensees
- Examples of other federal acts that may apply to licensees:
 - *Canadian Environmental Assessment Act, 2012*
 - *Canadian Environmental Protection Act*
 - *Canada Labour Code*
 - *Fisheries Act*
 - *Migratory Birds Convention Act*
 - *Navigable Waters Protection Act*
 - *Nuclear Fuel Waste Act*
 - *Nuclear Liability Act*
 - *Species at Risk Act*
 - *Transportation of Dangerous Goods Act*
- CNSC works collaboratively with other federal departments including Environment Canada, Transport Canada, Fisheries and Oceans and Employment and Social Development Canada

Other Jurisdictions



- In addition to federal legislation, operators of uranium mines and mills are also subject to provincial and territorial regulations and requirements
 - the main regulators responsible for safety and environment (e.g., CSST and the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques)
- CNSC works closely with its provincial counterparts in licensing, compliance programs and inspections

Looking for harmonization to avoid duplication and inefficiencies

Aboriginal Consultation



- Duty to consult
- Consideration of potential or established Aboriginal or treaty rights:
 - James Bay and Northern Quebec Agreement
- Intergovernment approach
- Commitment to consult with Aboriginals
- Ongoing consultation during the project period



NSCA Regulations



- *General Nuclear Safety and Control Regulations*
- *Radiation Protection Regulations*
- *Nuclear Security Regulations*
- *Uranium Mines and Mills Regulations*
- *Class I Nuclear Facilities Regulations*
- *Class II Nuclear Facilities and Prescribed Equipment Regulations*
- *Nuclear Substances and Radiation Devices Regulations*
- *Packaging and Transport of Nuclear Substances Regulations*
- *Nuclear Non-Proliferation Import and Export Control Regulations*
- *CNSC Cost-Recovery Fees Regulations*
- *Canadian Nuclear Safety Commission Rules of Procedure*
- *Canadian Nuclear Safety Commission By-laws*

Licences and Licence Conditions, Handbooks, Certificates, Orders



- Licences and Licence Conditions Handbooks:
 - the CNSC issues licences for various nuclear activities and facilities
 - once issued, the company or corporation becomes a CNSC licensee
- Certificates:
 - the CNSC issues certificates that indicate that a nuclear device or person working in the nuclear sector meets specific requirements
- Orders:
 - an inspector may make an order to address a safety concern, to which the licensee must adhere.
 - orders are referred to the Commission for review

Regulatory Documents



- Clarify requirements
- Provide guidance on how to comply with requirements
- Are developed through consultation
- Some examples:
 - decommissioning
 - financial guarantees
 - mine waste management
 - environmental protection
 - radiation protection

CNSC Cost Recovery Fees Regulations



- CNSC sets the annual amount payable by the licensee as part of the cost recovery program
- Fees are based on a cost estimate and must comply with the federal cost recovery policy:
 - corporate costs
 - travel costs
 - etc.
- Approximately 1.4 to 1.5 million dollars for mines currently in operation



Financial Guarantees



- Subsection 24(5) of the NSCA stipulates that:
“A licence may contain any term or condition that the Commission considers necessary for the purposes of this Act, including a condition that the applicant provide a financial guarantee in a form that is acceptable to the Commission.”
- Financial guarantees are required for uranium mines and mills to ensure the availability of funds for decommissioning
- Total costs (100%) are estimated on the basis of a decommissioning plan that is reviewed and approved by CNSC and the province
- Regulatory documents:
 - G-206: *Financial Guarantees for the Decommissioning of Licensed Activities*
 - G-219: *Decommissioning Planning for Licensed Activities*

Financial Guarantees: Uranium Mines and Mills

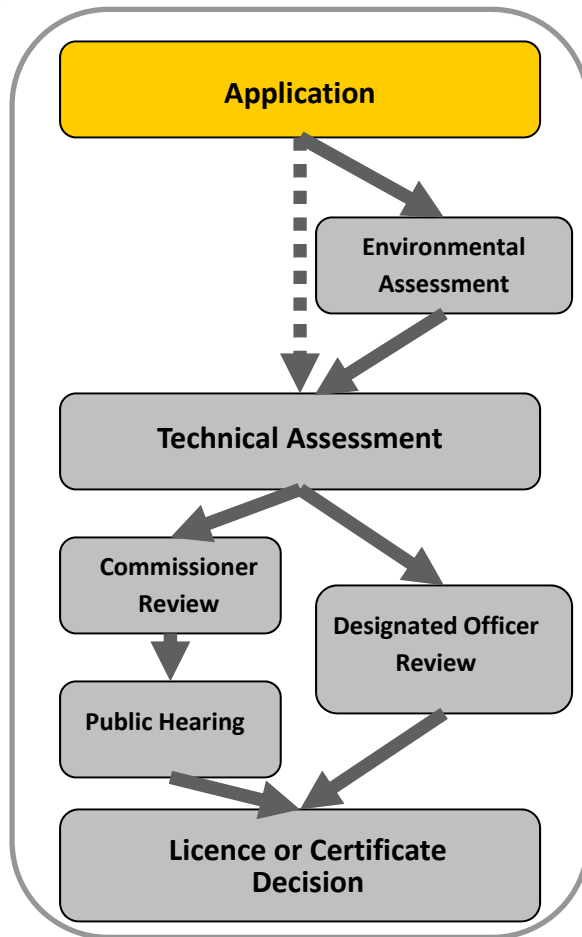


Facility	Amount in Canadian Dollars (2013)
Cigar Lake Project	49.2
McArthur River Operation	48.4
Rabbit Lake Operation	202.7
Key Lake Operation	225.1
McClellan Lake Operation (includes Midwest)	43.1
Total financial guarantees for the five facilities	568.5

Licence or Certificate Decision



Licensing Process

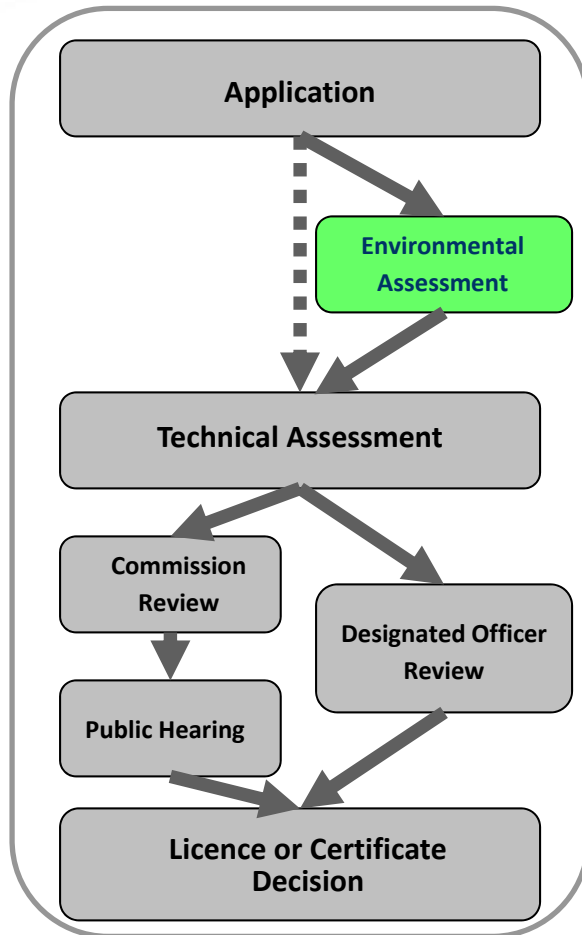


- Applicants must demonstrate that they are qualified
- The *Regulations* outline the information required to apply for a licence

Environmental Assessment



Licensing Process

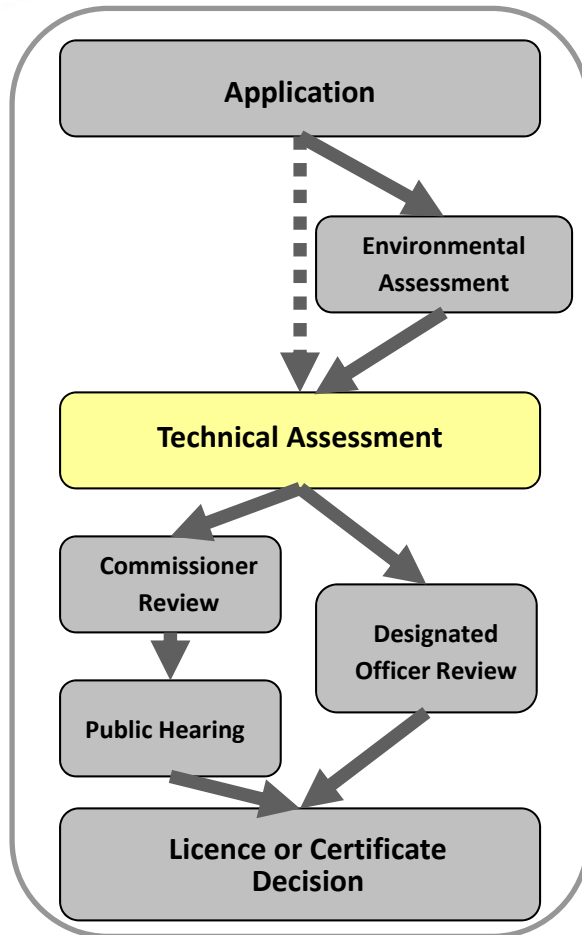


- An EA is required for activities listed under the *Canadian Environmental Act, 2012, Regulations*
- Purpose:
 - predict the environmental effects of a specific project
 - minimize or avoid adverse environmental effects before they occur
 - incorporate environmental factors into decision making
 - provide opportunities for public participation
- No licence can be granted unless there is a decision that the project will not likely cause significant adverse environmental effects

Technical Assessment



Licensing Process

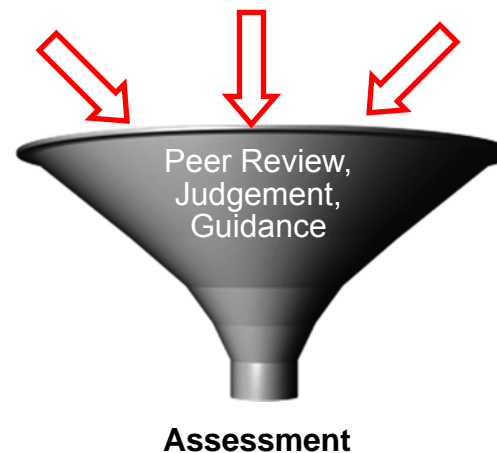


Safety and Control Areas

- Management system
- Human performance management
- Operating performance
- Safety analysis
- Physical design
- Fitness for service
- Radiation protection
- Conventional health and safety
- Environmental protection
- Emergency management and fire protection
- Waste management
- Security
- Guarantees
- Packaging and transport

Other Areas

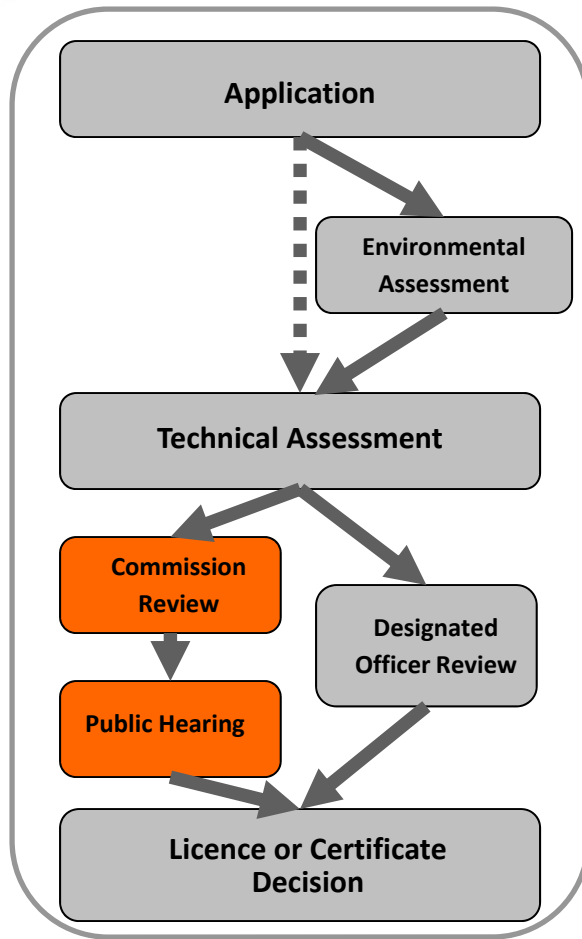
- Financial Guarantees
- Consultations and communications



Commission Hearings and Meetings



Licensing Process

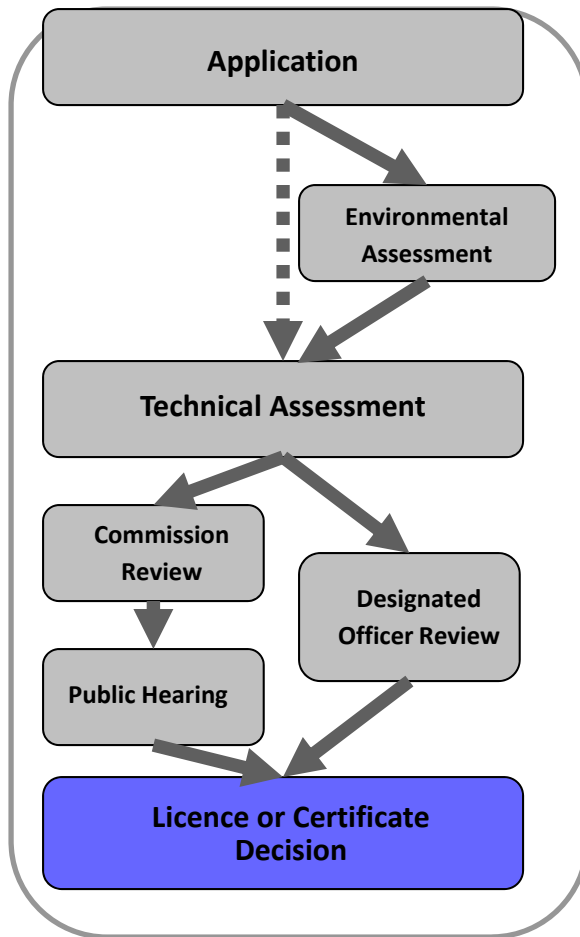


- The Commission makes independent, fair and transparent decisions through public hearings and meetings
- Proceedings are as informal and expeditious as possible
- The Commission makes decisions on the basis of the evidence brought before it

Licence or Certificate Decision

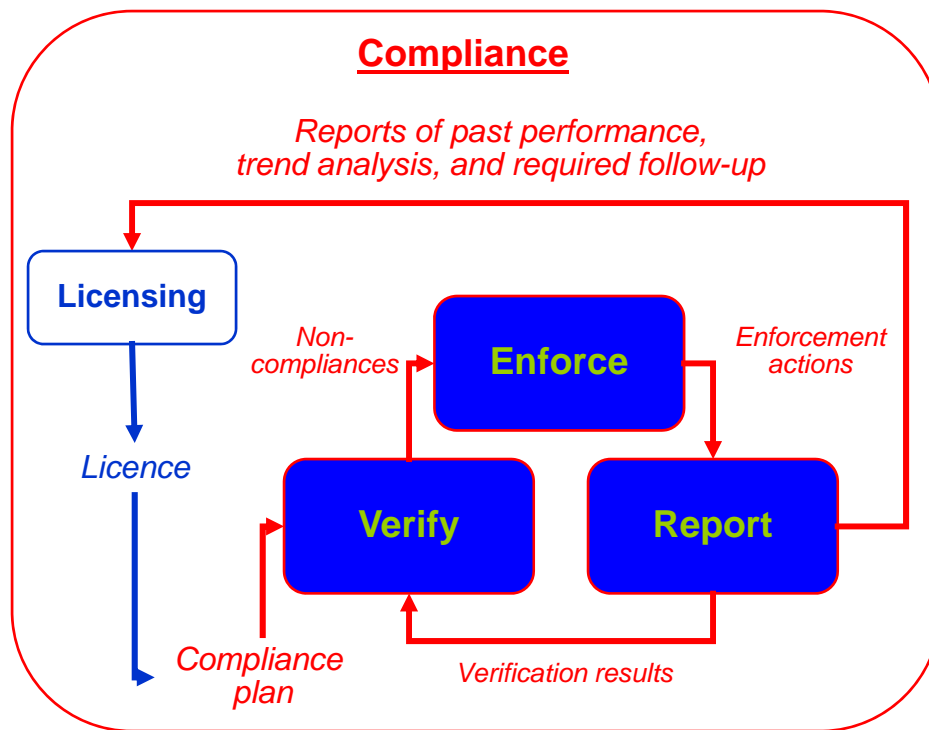


Licensing Process



- The decision will take the form of a licence grant or a letter of refusal
- The decision is made public in the form of a written document
- Conditions may be placed on a licence:
 - licensees must meet all conditions of the licence

Compliance Process



Verify



Enforce

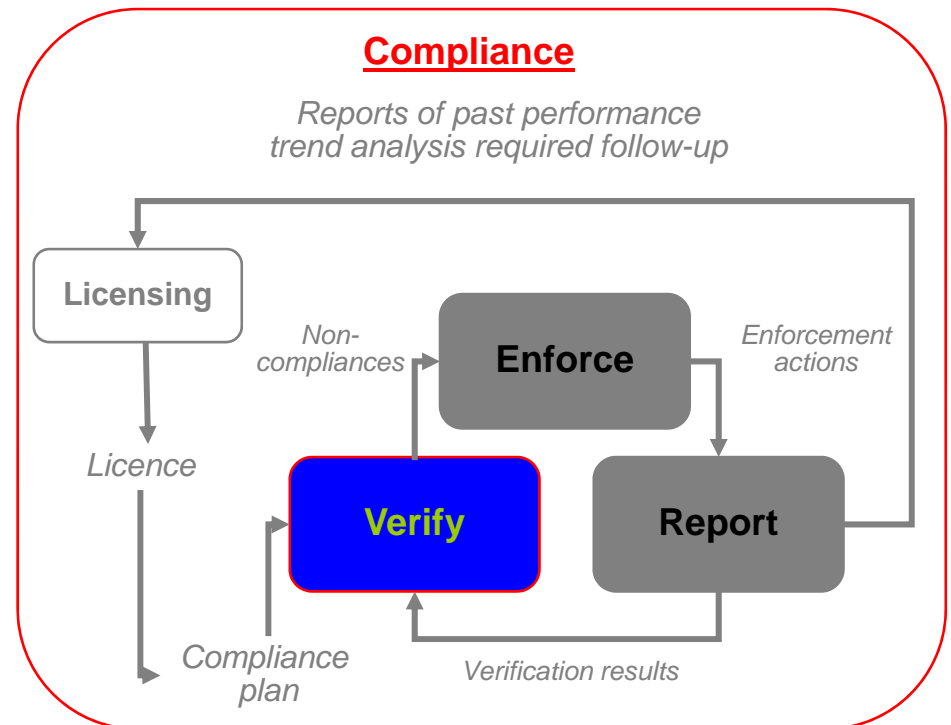


Report

Verifying Compliance



- The CNSC verifies that licensees abide by the terms of their licences through inspections and desktop reviews
- The scope, frequency and complexity of inspections are risk-based and take into consideration the licensee's compliance history:
 - approximately 4 to 6 inspections per year
 - each inspection takes from 2 to 4 days
- Inspectors are empowered under the NSCA to enforce regulatory requirements



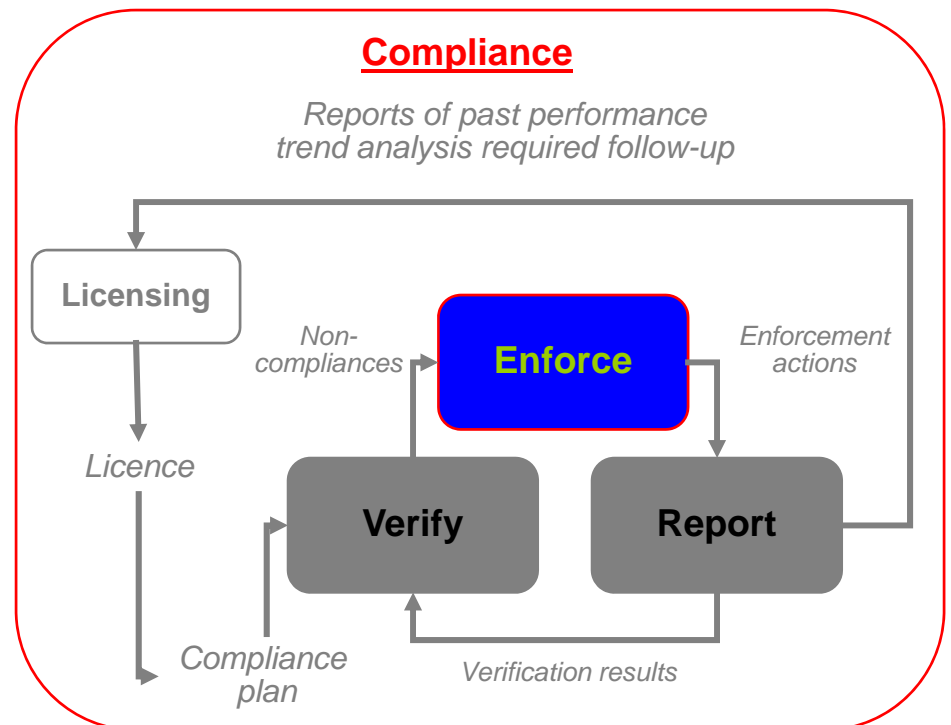
Enforcing Compliance



- The CNSC uses a graduated enforcement approach that takes into consideration the non-compliance and the licensee's compliance history
- Inspectors and the Commission have various powers. For example, they can:

Inspector:

- recommend/suggest potential improvement
- request that actions be taken
- request information under the General Nuclear Safety and Control Regulations
- issue an order or administrative monetary penalty (AMP)

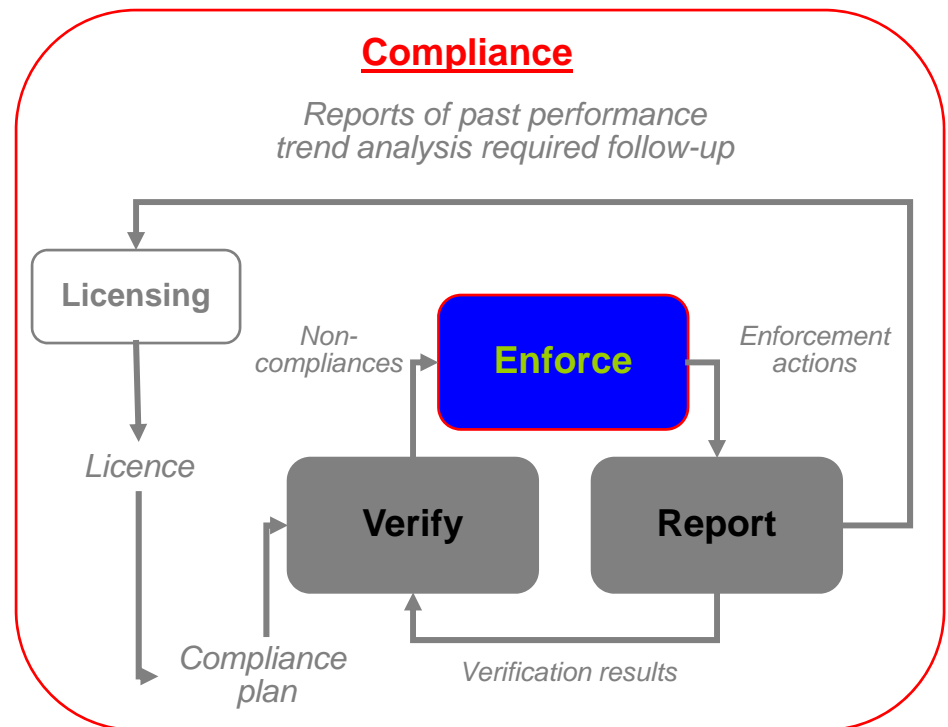


Enforcing Compliance (cont'd)



Commission:

- summon licensees to appear
- impose restrictions or revoke licenses
- recommend prosecution to the Attorney General of Canada



Accident and Incident Management

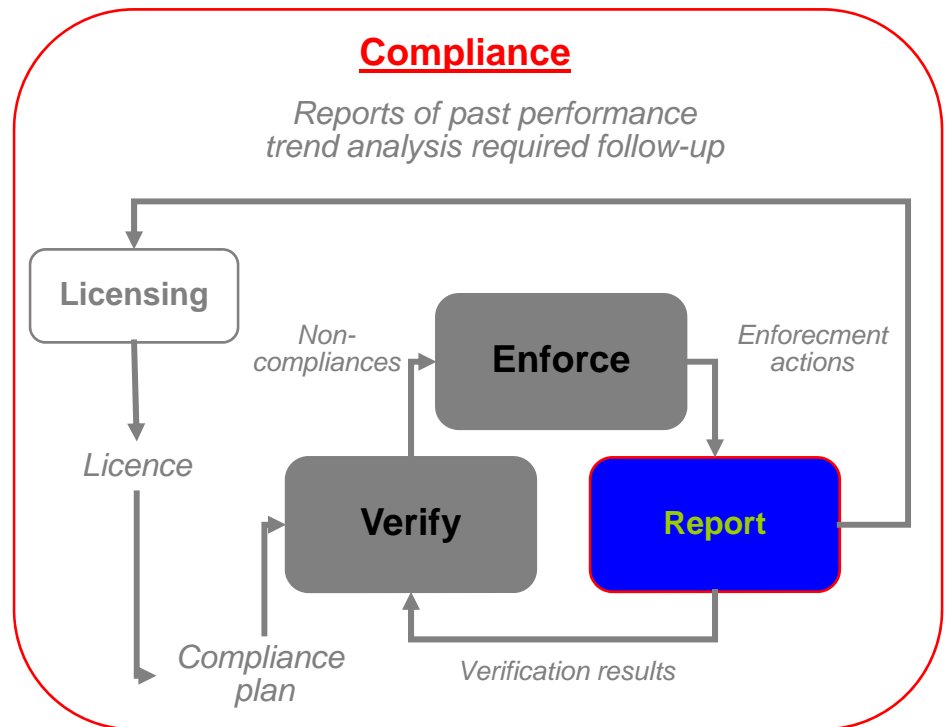


- Multi-level response to ensure adequate resources and communication with province and municipality
- Severe Accident Management Guidelines
- Mandatory reporting:
 - 24 hours to report an incident (spill, accident)
 - 21 days to file a detailed report (safety analysis)
 - reporting the incident to the Commission, depending on severity (Early Notification Report [ENR])
 - CNSC inspectors carry out an on-site audit
- Minor incidents are reported in a monthly report
- Transparency through communication to the public and media

Reporting Compliance



- The final stage is reporting compliance, the key component of the cyclical licensing compliance program
- CNSC staff provide reports to:
 - the Commission (e.g., orders)
 - the public
 - licensees
 - the Government of Canada
 - the International Atomic Energy Agency
 - other stakeholders



The CNSC Staff Report on the Performance of Canadian Uranium Mines and Mills: 2013 will be presented to the Commission on October 1 and 2.

Conclusion



- Canada's uranium mines are strictly regulated
- By assessing, controlling and monitoring the process, we can better understand and minimize the risks for humans and the environment
- CNSC works closely with its provincial counterparts in regulating uranium mines and mills



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

nuclearsafety.gc.ca

facebook.com/CanadianNuclearSafetyCommission

youtube.ca/cnsc/ccsn

Thanks!

