



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

Canada

# RAMP 2018 FALL USERS' MEETING WELCOME ADDRESS AND INTRODUCTION



**Peter Elder**

**Vice-President and Chief Science Officer Technical Support Branch**

2018 Fall International Radiation Protection Computer Code Analysis and  
Maintenance Program (RAMP) Users' Group Meeting

29 October 2018, Ottawa, Ontario

[nuclearsafety.gc.ca](http://nuclearsafety.gc.ca)

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# CANADIAN NUCLEAR SAFETY COMMISSION



- Established in 2000 under the *Nuclear Safety and Control Act* (NSCA)
- Reports to Parliament through the Minister of Natural Resources
- Created to replace the Atomic Energy Control Board (founded in 1946)



# OUR MANDATE

- Regulate the use of nuclear energy and materials to protect **health, safety, security** and the **environment**
- Implement Canada's **international commitments** on the peaceful use of nuclear energy
- Disseminate **objective scientific, technical** and **regulatory information** to the public





# POLICY vs REGULATION

- CNSC is a regulatory body
- Safety is our mandate
- Little to no nuclear policy authority
- Other jurisdictions play an important role
- Federal nuclear policy – domain of Natural Resources Canada
- Provinces make decisions on energy





# THE CNSC REGULATES ALL NUCLEAR FACILITIES AND ACTIVITIES IN CANADA



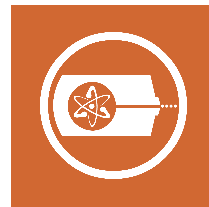
Uranium mines  
and mills



Uranium fuel fabrication  
and processing



Nuclear power  
plants



Nuclear substance  
processing



Industrial and medical  
applications



Nuclear research and  
educational activities



Transportation of  
nuclear substances



Nuclear security  
and safeguards



Import and export  
controls



Waste management  
facilities

## OVER THE FULL LIFECYCLE OF THESE ACTIVITIES

# TRANSPARENT, SCIENCE-BASED DECISION MAKING



- Quasi-judicial administrative tribunal
- Agent of the Crown (duty to consult)
- Reports to Parliament through Minister of Natural Resources
- Commission members are independent and part-time
- Commission hearings are public and webcast
- Decisions are reviewable by Federal Court



# INDEPENDENT COMMISSION

**Ms. Rumina Velshi**



**CNSC President and CEO**  
**August 22, 2018**  
**Five-year term**

**Dr. Sandor Demeter**



**Reappointed**  
**March 12, 2018**  
**Five-year term**

**Mr. Timothy Berube**



**Appointed**  
**March 12, 2018**  
**Four-year term**

**Dr. Marcel Lacroix**



**Appointed**  
**March 12, 2018**  
**Four-year term**

**Ms. Kathy Penney**



**Appointed**  
**March 12, 2018**  
**Four-year term**



# CNSC STAFF LOCATED ACROSS CANADA



**AVAILABLE 24/7**

Headquarters (HQ) in Ottawa  
4 Site Offices at Power Plants  
1 site Office at Chalk River  
4 Regional Offices

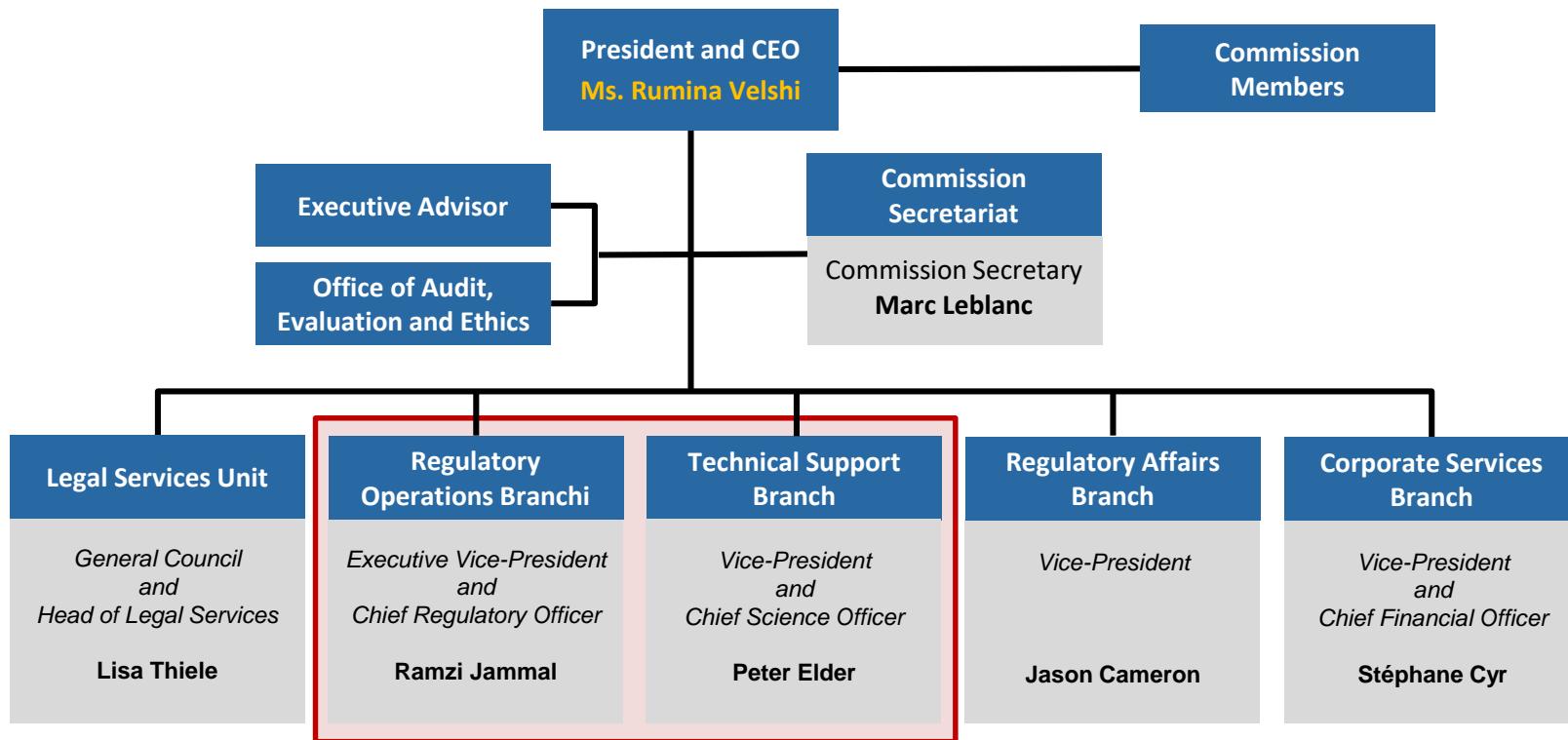
**Licensees: 1,700**

**Licences: 2,500**





# ORGANIZATIONAL STRUCTURE





# CNSC'S TECHNICAL SUPPORT BRANCH

- Headed by a vice-president and chief science officer who reports directly to the CNSC president
- Responsible for technical advice and recommendations including contributions to international initiatives and regulatory framework
- Functions as a partner with the Regulatory Operations Branch, providing documented technical recommendations

## REGULATORY DECISION MAKING BASED ON EVIDENCE AND SCIENTIFIC INFORMATION



# EMERGENCY PREPAREDNESS AND RESPONSE

- Importance of federal and provincial / territorial coordination
- International coordination with other organizations (International Atomic Energy Agency and US Nuclear Regulatory Commission)
- Post-accident recovery
  - REGDOC-2.10.1 Vol II, *Framework for Recovery in the Event of a Nuclear or Radiological Emergency*
- Emergency Preparedness Review (EPREV)
  - IAEA peer review mission to Canada June 3-14, 2019

**READY TO RESPOND, HOPEFUL WE'LL NEVER NEED TO**



# RADIATION PROTECTION

- In 2011, the International Committee on Radiation Protection (ICRP) revised the dose limits for the lens of the eye to workers
- CNSC is proposing to revise the *Radiation Protection Regulations* to align with the most recent ICRP recommendations
- CNSC has hosted two webinars on the scientific basis and implementation of the ICRP's recommendations



# CURRENT CHALLENGES AT THE CNSC

- Modernization of government reviews and initiatives
- Power plant refurbishments / life extensions, continued operations
- Radioactive waste management
- Alcohol and drug testing
- New technologies (e.g., Small Modular Reactors)



# CNSC REMAINS A WORLD CLASS REGULATOR



## SAFETY IS OUR HIGHEST PRIORITY

- Independent
- Flexible robust regulatory framework
- Well-resourced with the capacity, expertise and agility to regulate effectively
- Forward-looking to stay ahead of the technological curve – ready for emerging technologies

# STRENGTHENING PUBLIC TRUST



## TRANSPARENCY

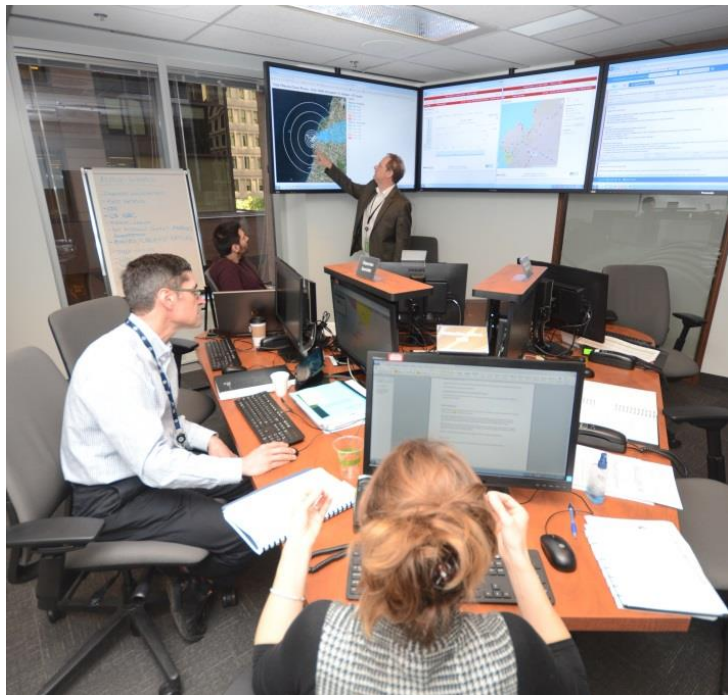
- Open/responsive and understandable information

## ENGAGEMENT

- Public
- Civil society
- NGOs
- Indigenous groups
- Domestic and international



# CNSC'S PARTICIPATION IN RAMP



- CNSC has been a member of RAMP since 2015
- Radiological Assessment System for Consequence AnaLysis (RASCAL) computer code is used in the CNSC's Emergency Operations Centre for dispersion modelling and dose assessment
- VARSKIN computer code is used by staff to calculate occupational dose to the skin following exposure to radiation





# CONCLUDING THOUGHTS

- Participation in the 2018 Fall Users' RAMP Meeting will provide training in the areas of:
  - risk assessment, radiation protection, dosimetry and emergency management
- Meeting outcomes will support implementation of the CNSC's regulatory framework in protecting people and the environment
- The Symposium will bring together regulators, industry and academia to discuss the implementation of the ICRP's recommendations



# Questions

# Thank You!



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## Connect With Us

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