



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



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



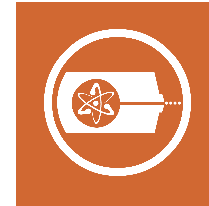
Uranium mines and mills



Uranium fuel fabrication and processing



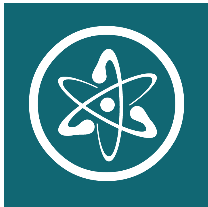
Nuclear power plants



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

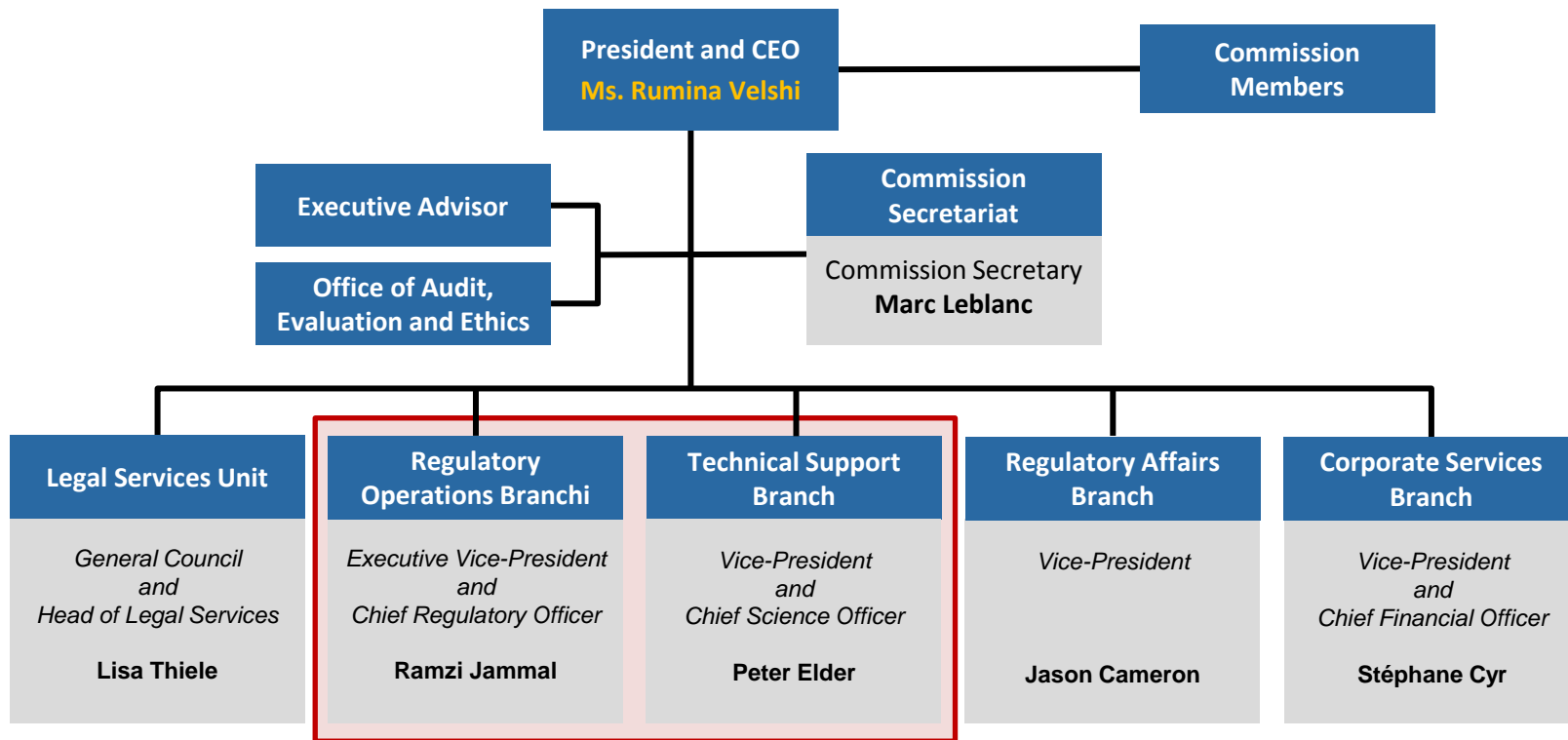
Headquarters (HQ) in Ottawa
4 Site Offices at Power Plants
1 site Office at Chalk River
4 Regional Offices

Licenseses: 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!



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada

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