



# Nuclear Regulation - Unique

Your Energy Future

Calgary Study Tour

June 17, 2017 – Calgary, AB



Jason K. Cameron

Vice-President and Chief Communications Officer

Canadian Nuclear Safety Commission





# Canadian Nuclear Safety Commission

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



**We will never compromise safety!**



# CNSC Staff Located Across Canada

Available **24/7**

### Fiscal year 2017–18

- Human resources: 857 FTEs
- Financial resources: \$148 million
- (~70 percent cost recovery; ~30 percent appropriation)
- Licensees: ~1,700
- Licences: ~2,500

Calgary  
Western Regional Office

Saskatoon  
Uranium Mills and Mines  
Division Regional Office

Point Lepreau

**Headquarters (HQ) in Ottawa**  
**4 site offices at power reactors**  
**1 site office at Chalk River**  
**4 regional offices**

Chalk River

HQ

Laval Eastern Regional Office

Bruce

Darlington

Mississauga Southern  
Regional Office

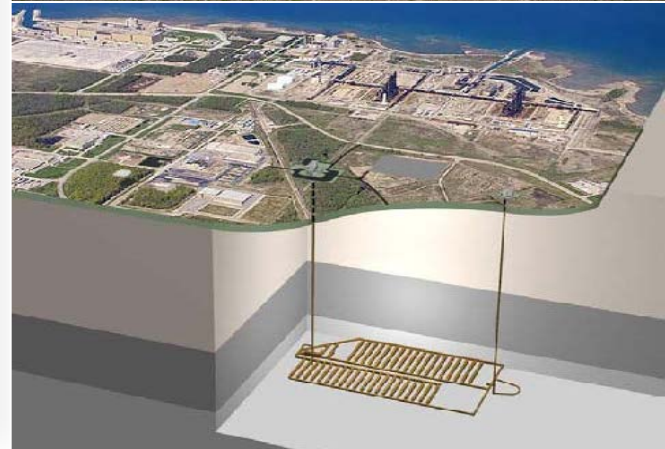
Pickering



## CNSC Regulates All Nuclear-Related 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
- Transportation of nuclear substances
- Nuclear security and safeguards
- Import and export controls
- Waste management facilities

...from cradle  
to grave





# Independent Commission

- Quasi-judicial administrative tribunal
- Agent of the Government of Canada (the Crown)
- Reports to Parliament thru Minister of Natural Resources
- Commission members are independent and part-time
- Commission hearings are public and webcast
- Staff presentations in public
- Decisions are reviewable by Federal Court

Transparent, science-based  
decision making





# Commission Members



**Dr. Michael Binder**  
President and Chief Executive  
Officer, CNSC  
(Term expires May 8, 2018)



**Dr. Alexander (Sandy) McEwan**  
Chair, Department of Oncology,  
University of Alberta  
Edmonton, Alberta  
(Term expires Mar. 6, 2018)



\* Up to five  
permanent vacancies

- In February, the government announced a new open, transparent and merit-based selection process for appointments to reflect Canada's diversity.

## Deep Geologic Repository (DGR) Joint Review Panel (JRP)



**Dr. Stella Swanson**  
Biologist and Environmental  
Consultant  
Rockglen, Saskatchewan



**Dr. Gunter Muecke**  
Professor,  
Department of Geology,  
Dalhousie University  
Halifax, Nova Scotia



**Dr. James F. Archibald**  
Professor,  
Department of Mining, Queen's  
University  
Kingston, Ontario



# New Interim Commission Members



**Dr. Sandor Jean Demeter**  
Medical doctor / physician advisor  
President-elect, Canadian Society of  
Nuclear Medicine  
Winnipeg, Manitoba  
(one-year term)



**Dr. Soliman A. Soliman**  
Mechanical engineer and member of  
Professional Engineers Ontario  
Mississauga, Ontario  
(one-year term)



**Mr. Rob Seeley**  
Chemical engineer,  
formerly of Shell Canada  
Limited  
Fernie, British Columbia  
(one-year term)

## Continuing Commission Members

Commission members can also be authorized to complete files they were working on at the time their terms expired:



**Mr. Dan D. Tolgyesi**  
President, Quebec Mining  
Association  
Québec City, Quebec  
(Term expired Oct. 19, 2016)

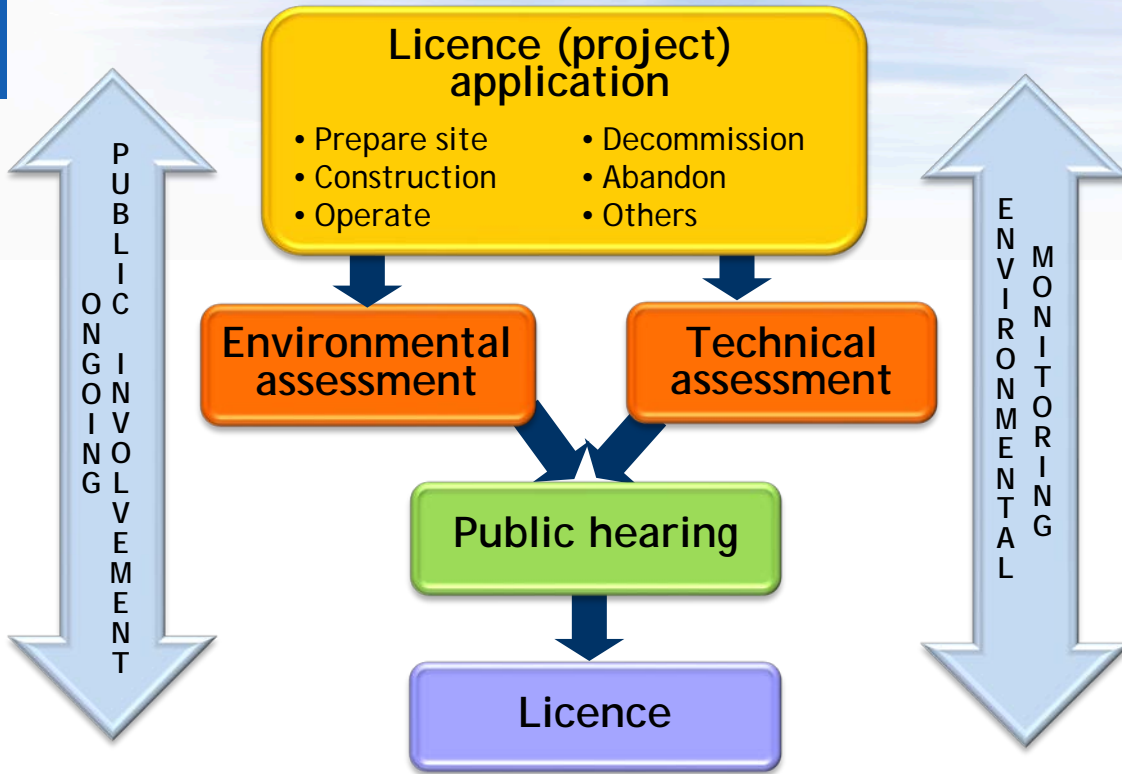


**Ms. Rumina Velshi**  
Former Director, Planning  
and Control, Darlington  
New Nuclear Project  
Toronto, Ontario  
(Term expired Dec. 14, 2016)

- Currently managing vacancies through interim appointments (on a one-year basis)



# Lifecycle Licensing Process



## Regulatory Oversight

- Licence conditions
- Inspections
- Compliance assurance
- Enforcement: from warnings to AMPs to prosecution

## Decision Making

- Independent
- Risk-informed
- Technically sound
- Based on credible, scientific evidence





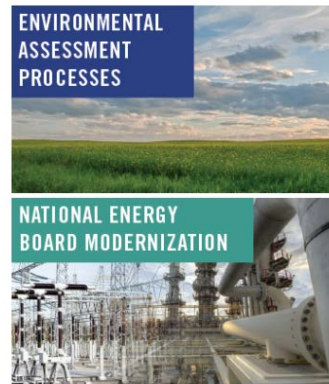
# Government Priorities

- Indigenous relations
- Openness and transparency
- Science-based decisions
- Climate change



# Government Reviews

- Environmental assessment process
- National Energy Board modernization
- *Fisheries Act* review
- *Navigation Protection Act* review





# CNSC Is a Unique Regulator in Canada



- Exclusive federal jurisdiction
- Independence from government
- Cradle-to-grave licensing and regulation
- Agent of Crown – Consults Indigenous groups
- Rigorous compliance program and enforcement activities
- Open and transparent – annual sector reports
- In-house nuclear and scientific expertise

## Nuclear Regulation is Unique - International

- International organizations:
  - UN: International Atomic Energy Agency
  - OECD: Nuclear Energy Agency
- International and regional regulatory groups:
  - Senior Regulators (CANDU)
  - International Nuclear Regulators Association
- Binding international treaties:
  - Convention on Nuclear Safety (power reactors)
  - Joint Convention (nuclear waste management)
- International standards and guidance
- International peer review missions



# Nuclear Regulation Has Its Unique Challenges

- Maintaining independence and ensuring transparency
- New technologies, innovation and adapting framework
- Timespan is longer than other sectors
- Knowledge / expertise management
- An accident anywhere is an accident everywhere

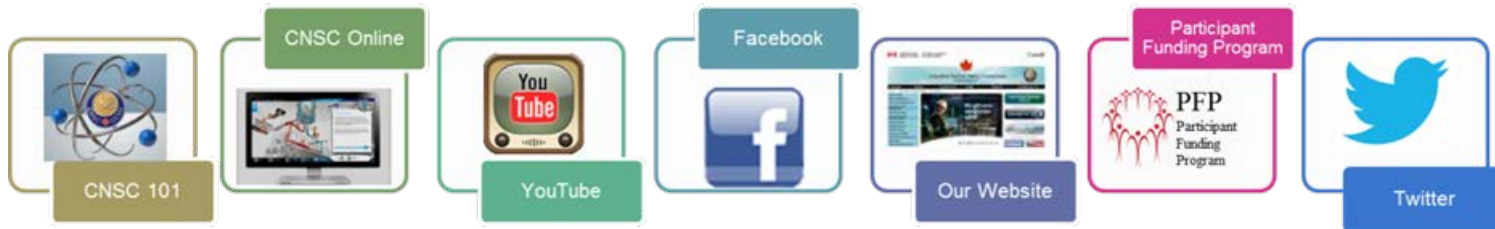


Challenges amplified by misinformation



# Evolving as a Regulator

- Need to accommodate new technologies and innovation
- The CNSC is staying ahead of the curve:
  - Long-term strategic plan (e.g., modernizing our regulatory framework)
  - Vendor design reviews (e.g., small modular reactors)
  - Focus on nuclear power plant refurbishments and decommissioning
  - Waste management (e.g., Deep Geologic Repository, transportation)
  - Indigenous and public engagement





Thank you! Questions?



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