



# Canadian Update

Presentation to  
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Canadian Nuclear Safety Commission





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# 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



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# CNSC Staff Located Across Canada

Available **24/7**

### Fiscal year 2016–17

- Human resources: 850 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

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

Chalk River

HQ

Point Lepreau

Laval Eastern Regional Office

Bruce

Darlington

Mississauga Southern  
Regional Office

Pickering

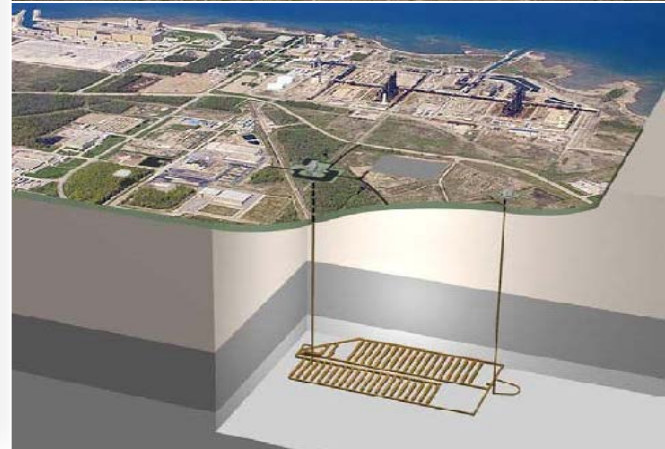


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## CNSC Regulates All Nuclear-Related Facilities and Activities in Canada...

- 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





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# Independent Commission

- Quasi-judicial administrative tribunal
- Agent of the Government of Canada (the Crown)
- Reports to Parliament through 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





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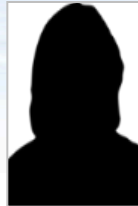
# Commission Members



**Dr. Michael Binder**

President and Chief Executive  
Officer, CNSC

(Term expires May 8, 2018)



**Vacant**



**Dr. Alexander (Sandy) McEwan**

Chair, Department of Oncology,  
University of Alberta  
Edmonton, Alberta

(Term expires Mar. 6, 2018)



**Vacant**

- In February, the Government of Canada announced a new open, transparent and merit-based selection process for Governor in Council appointments to reflect Canada's diversity.
- This lengthier selection process has resulted in a significant number of vacancies

## 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



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# New Interim Commission Members



**Dr. Sandor Jean Demeter**  
(one-year term)



**Mr. Rob Seeley**  
(one-year term)



**Dr. Soliman A. Soliman**  
(one-year term)

**Commission members Tolgyesi and Velshi are 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)



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# Update: Canada's Nuclear Power Plants

## Darlington (Ontario)

- Licence valid until November 30, 2025
- 10-year, \$12.8 billion four-unit refurbishment underway

## Pickering (Ontario)

- Licence valid until August 31, 2018
- Public hearing in April 2018 for proposed continued operation until 2024

## Bruce (Ontario)

- Licence valid until May 31, 2020
- Refurbishment application not yet filed

## Point Lepreau (New Brunswick)

- Refurbishment completed – returned to service November 2012
- Licence valid until June 2017; renewal hearings in January and May 2017

## Gentilly-2 (Quebec)

- In safe shutdown since December 28, 2012
- Decommissioning licence valid until June 30, 2026





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## Update: Operating Mines and Mills (All in Saskatchewan)

- Cigar Lake Mine
- Key Lake Mill
- McArthur River Mine
- McClean Lake Mines and Mill
- Rabbit Lake Mine and Mill  
(production suspended – April 2016)





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## Update: Proposed mining projects

- Midwest Project - on hold (Saskatchewan)
- Kiggavik Project - on hold (Nunavut)
- Matoush Project - Quebec government review of BAPE report conclusions (Quebec)
- Millennium Project - on hold (Saskatchewan)





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# Update: Canadian Nuclear Laboratories

## Chalk River Laboratories licence valid until March 31, 2018

### Three EAs for decommissioning underway

- **Near Surface Disposal Facility Project (Chalk River)**
  - Public comment period on EIS (will be open until at least August 16, 2017)
  - Commission hearing (January 2018)
- **Decommissioning of the Whiteshell Reactor #1 (Pinawa)**
  - Public comment period on EIS (September 2017)
  - Commission hearing (October 2018)
- **Nuclear Power Demonstration Closure Project (Rolphton)**
  - Public comment period on EIS (September 30 – December 30, 2017)
  - Commission hearing (December 2018)



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## Update: Long-Term Waste Management

### **Port Hope Area Initiative and Gunnar Remediation Project – ongoing OPG’s Western Waste Management Facility (at Bruce site)**

- Relicensing hearing held in April 2017

### **OPG’s Pickering Waste Management Facility (at Pickering site)**

- Relicensing hearing held in April 2017

### **NWMO – Selecting a high-level radioactive waste site**

- Site selection studies continue in 9 of 22 interested communities
- CNSC involved early to explain regulatory role and meet communities / Indigenous groups

### **Repatriation of Highly Enriched Uranium in Liquid Form**

- All required certifications and approvals granted by Canadian and United States officials



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## Update: OPG's Deep Geologic Repository (DGR) for low- and intermediate-level waste

- Proposed storage of low- and intermediate-level waste from Ontario's nuclear power plants
- Joint Review Panel (JRP) held 33 days of public hearings; received 246 interventions and 20,000 pages of documentation
- JRP submitted report to Minister of Environment and Climate Change in 2015 for decision, recommending approval of project
- Minister requested additional information on alternate locations, cumulative environmental effects and mitigation measures in February 2016
- OPG submitted requested information to the Minister in January 2017
- Additional information requested by the Canadian Environmental Assessment Agency in April 2017
- Minister's decision expected in Fall 2017



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# Update: New Government

## Reviews and decisions

- Environmental assessment processes  
(public comment on expert panel report until May 5, 2017)
- National Energy Board modernization  
(expert panel report to the Minister by May 15, 2017)
- *Fisheries Act* review  
(committee report tabled in Parliament on February 24, 2017)
- *Navigation Protection Act* review  
(committee report tabled in Parliament on March 23, 2017)



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# Update: New Government

## Rebuilding relationships with Canada's Indigenous peoples

- Cabinet Committee on Diversity and Inclusion looks at initiatives to strengthen relationships with Indigenous Canadians
- Working group of six ministers to ensure Canada's laws, policies and programs protect Aboriginal and treaty rights
- *United Nations Declaration on the Rights of Indigenous Peoples*
  - free, prior and informed consent

## Generation Energy

- A cross-country dialogue on Canada's energy future



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# Recent Notable Activities

## Commission hearings

- Port Hope Conversion Facility; Point Lepreau Nuclear Generating Station; Western Waste Management Facility; Pickering Waste Management Facility

## Small modular reactors (SMRs)

- Commencement of phase 1 vendor design reviews (VDRs) for LeadCold Nuclear Canada (molten lead) and UltraSafe Nuclear Inc. (high temperature gas) designs
- Phase 1 VDR for Terrestrial Energy Inc. (molten salt) design began February 2016
- Expression of interest from a total of seven vendors for phase 1 VDRs

## Fall 2016 Report of Commissioner of Environment and Sustainable Development

- CNSC Corrective Action Plan completed on March 31, 2017 and addressed all five recommendations





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## Upcoming Notable Events

### Regulatory Framework – August 2017

- REGDOC-2.2.4, *Fitness for Duty* (which includes content on drug and alcohol testing), will be presented for a decision at a public Commission meeting in August 2017

### Nuclear Energy Agency SMR Workshop (Ottawa) – August 2017

- CNSC, UK ONR and US NRC to discuss potential multilateral cooperation in the regulatory reviews of SMRs

### DGR Regulators' Forum Workshop (Sweden) – September 2017

- Follow-up from Ottawa workshop in March 2016
- Topical discussions on regulatory approaches to DGRs



Working  
collaboratively to  
ensure the safe  
use of nuclear  
technology for  
peaceful purposes



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# Thank you! Questions?



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