



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire



Canada

# CANADIAN NUCLEAR SAFETY COMMISSION

*Ensuring the safety of Canada's nuclear sector*

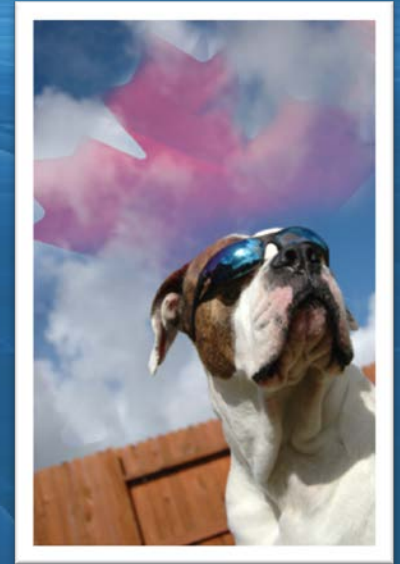
**Michael Binder, President**  
Canadian Nuclear Safety Commission  
February 22, 2017 – Ottawa, Ontario

Presentation to the Canadian  
Association of Nuclear Host  
Communities



# The Canadian Nuclear Safety Commission

- Regulates the use of nuclear energy and materials to protect **health, safety,** and **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**



# The CNSC Regulates All Nuclear Facilities and Activities in Canada...

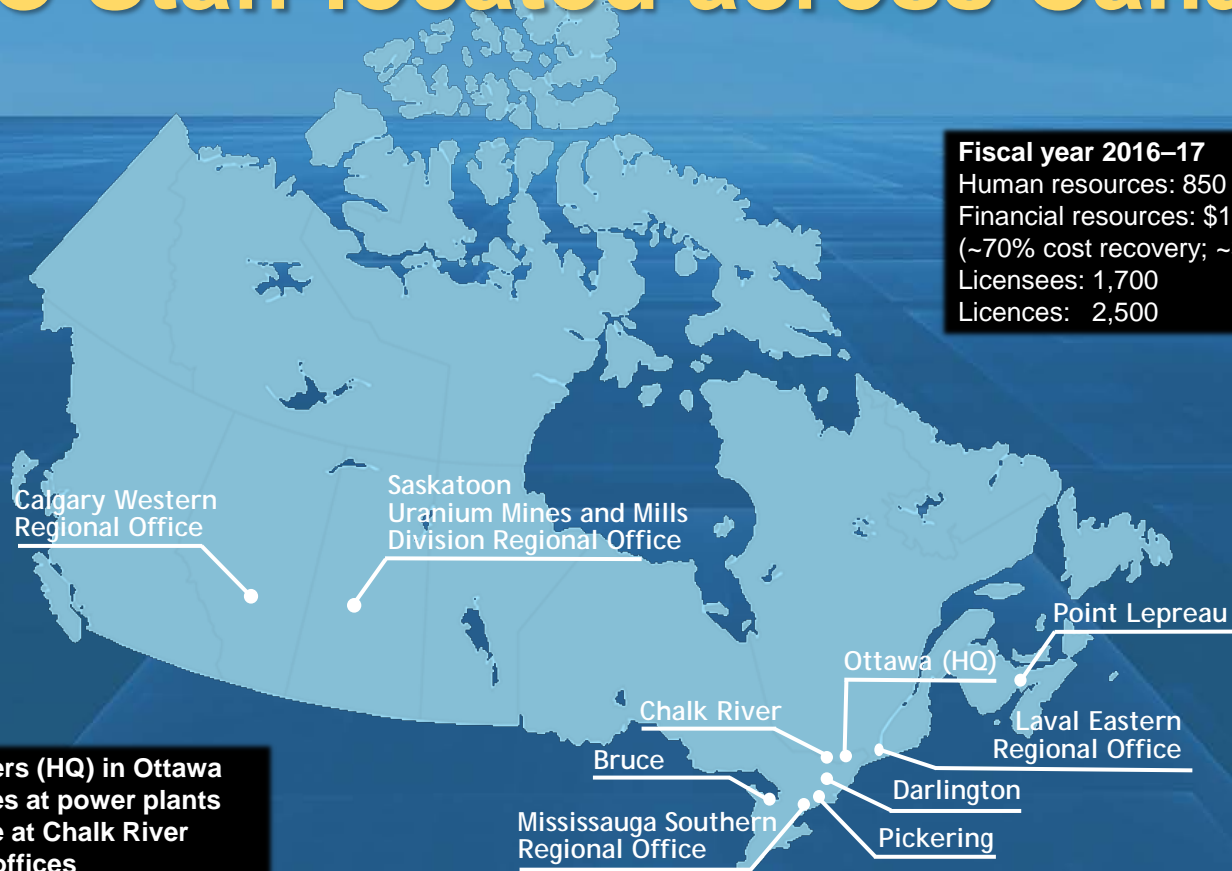
- Uranium mines and mills
- Uranium fuel fabrication and processing
- Nuclear power plants
- Nuclear substance processing
- Industrial and medical applications
- Nuclear research and educational activities
- Transportation of nuclear substances
- Nuclear security and safeguards
- Import and export controls
- Waste management facilities



...From cradle to grave



# CNSC Staff located across Canada



## Fiscal year 2016–17

Human resources: 850 full-time equivalents  
Financial resources: \$148 million  
(~70% cost recovery; ~30% appropriation)  
Licensees: 1,700  
Licences: 2,500

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



# 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 only 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)



Vacancy



Vacancy



Vacancy



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Vacancy

Commission members Tolgyesi and Velshi are authorized to complete files they were working on at the time their terms expired.

## 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



# Nuclear Power Plants – Status

## Bruce

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

## Point Lepreau

- Refurbishment completed — returned to service November 2012
- Licence expires June 2017; renewal hearings in January and May 2017

## Gentilly-2

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



# Nuclear Power Plants – Status (2)

## Darlington

- Licence expires November 30, 2025
- Darlington refurbishment
  - Refurbishment began October 15, 2016
  - \$12.8 billion project to refurbish all four units (2016 to 2026)
  - CNSC to closely monitor and support with reviews and inspections
- Ontario has put new build on hold





# Nuclear Power Plants – Status <sup>(3)</sup>

## Pickering

- Licence expires August 31, 2018
- Ontario approved plans for continued operation from 2020 to 2024
- Licence Application to be submitted — August 2017
- Public Commission hearing (Part 1) set for April 2018



# Canadian Uranium Projects Update

- **Active uranium mining projects (Saskatchewan):**

- Key Lake Mill (Cameco)
- McArthur River Mine (Cameco)
- Rabbit Lake Mine/Mill (Cameco)
  - Announced suspension – April 2016
- Cigar Lake Mine (Cameco)
- McClean Lake Mines/Mills (Areva)
  - Granted an 8-year licence – July 2009
  - Upcoming hearing in June 2017

Granted 10-year licences in 2013

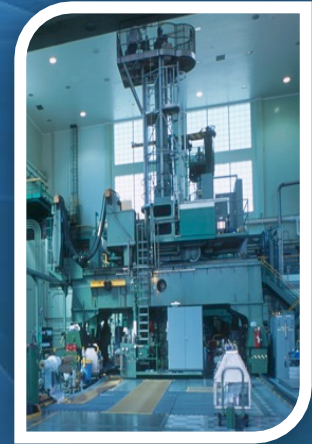


- **Increased interest in exports to China and India**

- **Global price not supportive of production — low demand and oversupply**

# Canadian Nuclear Laboratories

- Chalk River Laboratories licence renewed until March 31, 2018
- 3 EAs for decommissioning underway:
  - **Near Surface Disposal Facility project (Deep River)**
    - Public comment period on EIS (March 17 - May 17, 2017)
    - Commission hearing (January 2018)
  - **Decommissioning of the Whiteshell Reactor #1 (Pinawa)**
    - Public comment period on EIS (April 3, 2017 - July 3, 2017)
    - Commission hearing (October 2018)
  - **Nuclear Power Demonstration closure project (Rolphton)**
    - Public comment period on EIS (September 30, 2017 - December 30, 2017)
    - Commission hearing (December 2018)



# Waste Management

- **Port Hope Area Initiative and Gunnar Remediation Project — ongoing**
- **OPG's Western Waste Management Facility (at Bruce site)**
  - Relicensing hearing in April 2017
  - CNSC preparing EA for proposed site expansion
- **NWMO — Finding a high-level radioactive waste site**
  - Site selection studies continue in 9 of 22 communities
  - CNSC involved early to explain regulatory role and meet communities/Aboriginal groups
- **OPG Deep Geological Repository (DGR) for low- and intermediate-level waste**
  - OPG submitted additional studies in 2016 to the Minister of Environment and Climate Change
  - Minister's decision pending the outcome of public comments





# Legal and Court Challenges

- **Judicial review of Darlington refurbishment EA by NGOs**
  - Federal Court of Appeals (FCA) dismissed NGOs' appeal — April 2016
- **Judicial Review of Darlington New Build EA and NSCA licensing by NGOs**
  - Supreme Court of Canada dismissed the NGOs' application for leave to appeal — April 2016
- **DGR - Two judicial review applications have been filed on the conclusions and recommendations of the JRP Report**
  - Both have been placed in abeyance until the Minister's decision on DGR
- **Repatriation of highly enriched uranium (HEU) from Chalk River to U.S. delayed**
  - Lawsuit for an injunction in the U.S. in August 2016 — dismissed in February 2017



# Domestic and International Activities

## Domestic

- *Nuclear Liability and Compensation Act* – January 1, 2017
- Fukushima regulatory amendments (published in *Canada Gazette, Part I*)
- Continuing to clarify regulatory requirements

## International

- CNSC Presidency of Convention on Nuclear Safety 7<sup>th</sup> Review Meeting
- Continued participation in IAEA missions and other fora



# Emergency Preparedness

## Exercise Unified Response — May 2014 (Darlington)

- First full-scale national emergency exercise in 15 years

## Huron Resolve — October 2016 (Bruce)

- Exercise in accordance with Fukushima Action Plan

## Next exercise at Pickering — 2017

## Wireless communications during an emergency

- Radio-interoperability with municipalities/operators key to emergency response
- OPG to adopt system interoperable with Durham Region

## IAEA Emergency Preparedness Review in Canada — 2019



# Government Priorities

## Government reviews:

- Review of federal Environmental Assessment processes
- National Energy Board modernization
- Review of *Fisheries Act*
- Review of *Navigation Protection Act*

## Indigenous Relations:

- Truth and Reconciliation Commission



**Consultation is at the core of all reviews**





# CNSC and Public Outreach

- **Reinforcing the CNSC's role and independence**
  - 177 events
  - CNSC 101; host communities; educational institutions; conferences; partner organizations; licensee, PFP and waste related (DGR/NWMO) outreach
- **2017 focus**
  - Leveraging social media
  - Reaching medical audiences
  - Online engagement strategy
- **Priority audiences**
  - Indigenous groups, youth, host and potential host communities

**...reaching out to Canadians where they live**



**Thank You!**  
**Questions?**





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