Michael Binder
President and Chief Executive Officer
Presentation to the Canadian Association of Nuclear Host Communities
February 21, 2018 – Ottawa, Ontario
nuclearsafety.gc.ca
The Canadian Nuclear Safety Commission (CNSC)

Our Mandate

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

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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

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Fiscal year 2017–18

Human resources: **857** 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

CNSC Staff Located Across Canada

Calgary

Saskatoon

Chalk River

HQ

Laval

Point Lepreau

Mississauga

Bruce

Darlington

Pickering

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Independent Commission

- 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
    - 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
Term expires May 8, 2018

Dr. Alexander McEwan
Term expires Mar. 6, 2018

Dr. Sandor Demeter
One-year term expired Feb 17, 2018

Dr. Soliman A. Soliman
One-year term expired Feb 17, 2018

Mr. Rob Seeley
One-year term expired Feb 17, 2018
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 Mine/Mill (AREVA)  
  - licence renewed until June 30, 2027

On 10-month suspension starting Feb 1, 2018

Increased interest in exports to China and India
Global price not supportive of production – Low demand and oversupply

Mining projects

Environmental assessment review complete:
- Midwest Mine (northern Saskatchewan) (AREVA)  
  - awaiting application

Projects under review
- Millennium (northern Saskatchewan)  
  - on hold for economic reasons  
  - tailings management inspections ongoing
Bruce Nuclear Generating Station

• Licence expires on May 31, 2020
• Letter of intent for refurbishment filed on June 30, 2017
  • Major Component Replacement of units 3 to 8 from 2020 to 2033
• Public Commission hearings for a 10-year licence renewal set
  • Part 1: March 14, 2018
  • Part 2: May 30–31, 2018
Darlington Nuclear Generating Station

- Licence expires on **November 30, 2025**
- The Darlington Refurbishment project began in October 2016 and is scheduled for completion by 2026
  - refurbishment of Unit 2 expected to be complete by February 2020 – On track
  - Ontario government has committed $12.8 billion to the project
  - the CNSC will closely monitor the project and will continue to conduct reviews and inspections
Pickering Nuclear Generating Station

- Licence expires on **August 31, 2018**
- Application for a 10-year licence renewal during which time Pickering will undergo permanent shutdown
  - Ontario Power Generation (OPG) has asked for 4-year extension of operations to 2024
- Public Commission hearings set
  - Part 1: April 4, 2018
  - Part 2: June 26–28, 2018
Point Lepreau Nuclear Generating Station

- Licence expires on **June 30, 2022**
- Refurbishment completed – Returned to service November 2012
Canadian Nuclear Laboratories

- Licence expires on **March 31, 2018**
- Commission hearing for renewal of Chalk River Laboratories’ operating licence took place in January 2018
- Three environmental assessments under way for decommissioning purposes
  - Near Surface Disposal Facility Project (Chalk River)
  - Decommissioning of the Whiteshell Reactor #1 (Pinawa)
  - Nuclear Power Demonstration Closure Project (Rolphton)
Waste Management

OPG waste management facilities
• Western – Licence renewed until May 31, 2027
• Pickering – Licence renewed until August 31, 2027
• Darlington – Licence valid until 2023

Port Hope Area Initiative (PHAI)
• Port Hope and Port Granby – Implementation phase (facility construction ongoing)
  – Port Hope waste nuclear substance licence – Valid until December 31, 2022
  – Port Granby waste nuclear substance licence – Valid until December 31, 2021
Waste Management (Cont’d)

OPG Deep Geologic Repository (DGR) for low- and intermediate-level waste

• Joint Review Panel environmental assessment report – May 2015
• in November 2015, new Minister of Environment and Climate Change requested additional information and further studies on environmental assessment
• on August 21, 2017, the Minister requested additional information from OPG on the potential cumulative effects of the DGR project on physical and cultural heritage of the Saugeen Ojibway Nation (SON) – The SON considers this as reconciliation in action
Waste Management (Cont’d)

Nuclear Waste Management Organization (NWMO) – Finding a site for high-level radioactive waste

There are 5 communities remaining in the NWMO’s learn more process (out of 22 original communities – 19 in Ontario, 3 in Saskatchewan)

- **2023** – A single preferred site is identified
- **2028** – Licence applications submitted
- **2040 to 2045** – Operations begin

NWMO

Learn more communities
1. South Bruce
2. Hornepayne
3. Huron-Kinloss
4. Ignace
5. Manitouwadge
Radioactive Waste Management Sites In Canada

A list of all waste management sites can be found in Canada’s sixth National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.
EXERCISE UNIFIED CONTROL DECEMBER 2017 – PICKERING
Third emergency exercise carried out at Pickering in accordance with the Fukushima Action Plan

EXERCISE SYNERGY OCTOBER 2018 – POINT LEPREAU
Fourth emergency exercise will focus on consequence management, evacuation, decontamination and recovery

IAEA EMERGENCY PREPAREDNESS MISSION (EPREV) – SPRING 2019
Will look at operators’ and all levels of governments’ nuclear emergency preparedness plans and procedures for Canadian nuclear facilities

WIRELESS COMMUNICATIONS DURING AN EMERGENCY – OPG
Radio-interoperability with municipalities and other operators will be key to emergency response. OPG to commission P25 NextGen radio system at nuclear sites in Q4 of 2017

Provincial Nuclear Emergency Response Plan approved by Ontario Cabinet in December 2017
Office of the Fire Marshal and Emergency Management working to update site-specific plans
Modernizing Regulatory Framework

Fukushima Action Plan — Regulations
Regulations governing Class I facilities, uranium mines and mills, radiation protection
Cabinet approved – published in the Canada Gazette, Part II on October 4, 2017

Regulatory modernization — Regulatory documents
Discussion paper DIS-16-04, Small Modular Reactors
– What We Heard Report published September 2017

Discussion paper DIS-16-03, Radioactive Waste Management and Decommissioning
– What We Heard Report published December 2017

Discussion paper DIS-17-01, Framework for Recovery in the Event of a Nuclear or Radiological Emergency
– Public comment period closed in January 2018

REGDOC-2.2.4, Fitness for Duty, Volume II: Managing Drug and Alcohol Use
– Published December 2017

REGDOC-2.1.2, Safety Culture – Presentation to the Commission expected March 2018
The CNSC and International Engagement

Convention on Nuclear Safety
CNSC EVP Ramzi Jammal served as the elected president of the Seventh Review Meeting in March 2017
The Summary Report available on the International Atomic Energy Agency website details new measures to improve the effectiveness of the CNS and its reporting process, as well as measures to strengthen nuclear safety globally

International Atomic Energy Agency 61st General Conference – September 2017
Parliamentary Secretary Kim Rudd led Canadian delegation

Canadian national report published in October 2017
Review meeting to be held in 2018

International Symposium on Communicating Nuclear and Radiological Emergencies to the Public, October 1–5, 2018 in Vienna
Chaired by CNSC VP Jason Cameron
Government Reviews

New legislation tabled, covering

**Bill C-68**: To amend the *Fisheries Act*

**Bill C-69**: To enact the *Impact Assessment Act and the Canadian Energy Regulator Act*,

to amend the *Navigation Protection Act*

important component yet to come: Project list

Generation Energy led by Minister of Natural Resources – Nuclear is part of the mix

14-member Generation Energy Council created in December 2017 to prepare report
to inform the development of Canada’s energy policy and energy future
Indigenous Reconciliation

The CNSC will continue to strengthen its consultation and engagement process.

**Cabinet Committee on Diversity and Inclusion** looks at initiatives to strengthen relationships with Indigenous Canadians.

**Working group of six ministers** to ensure that 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. Prime Minister’s speech on Feb 14, 2018 and commitment to support Bill C-262.

**Indigenous engagement forums** – more formal, and structures approach.
Fake news has a negative impact on public perception of scientific inquiry and discovery. False information presented as fact affects their knowledge of the world, and reported selectively to support news media objectives.

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**Question: To what extent do you agree or disagree that scientific findings...**

- are a matter of opinion: 43%
- are objective facts: 81%

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**Question: Thinking about media coverage you have seen about scientific issues, to what extent do you agree that it is:**

- too shallow to be useful: 46%
- reported selectively to support news media objectives: 68%

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**Question: To what extent are you concerned about each of the following:**

- False information presented as fact affects their knowledge of science: 66%
- False information presented as fact affects their knowledge of the world: 68%
- Fake news has a negative impact on public perception of scientific inquiry and discovery: 79%

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Source: Leger. LegerWeb online survey of 1,514 Canadians, August 15-16, 2017

**Scary view of science**

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Léger Study: Who Canadians Trust To Provide Reliable Scientific Information

How best to engage in this climate?

Source: Leger. LegerWeb online survey of 1,514 Canadians, August 15-16, 2017
Annual survey carried out by Edelman Canada to measure trust and credibility of Canadians – 2018 report findings assess trust in four institutions: NGOs, business, government and media

From 2017 to 2018, trust in NGOs and business have decreased, while trust in government and media have increased

Trust in government officials / regulators increased by **11% to 37%** in 2018

Since 2014, trust in industry sectors is generally declining, except for energy

**65%** in Canada worry about false information or fake news being used as a weapon

Canadians are returning to figures of authority and experts for truth

While trust in journalism from general news and information sources has rebounded since last year, trust in social media and search engines has continued to decline

**Trust in institutions has remained steady in the past year**
CNSC Public Outreach

- Extensive Outreach and Engagement Program
- Aboriginal and Public Consultations
- Participant Funding Program (PFP)
- Requirement for Licensees to Communicate

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