Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

WM 2013 Symposia
Phoenix, Arizona

Canadian Waste Regulation

February 25, 2013

Peter Elder, Director General

Directorate of Nuclear Cycle and Facilities Regulation

Canadian Nuclear Safety Commission

Established May 2000, under the *Nuclear Safety and Control Act*

Replaced the AECB, established in 1946, under the *Atomic Energy Control Act*

Canada's independent nuclear regulator

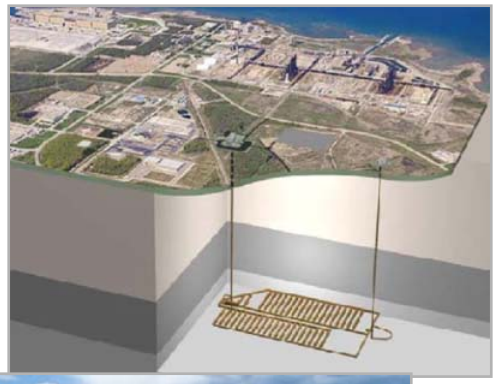
66 years of experience

Canadian Nuclear Safety Commission

Regulates the use of nuclear energy and materials to protect the **health**, **safety** and **security** of Canadians and the **environment**, and to **implement** Canada's **international commitments** on the peaceful use of nuclear energy

The CNSC Regulates All Nuclear-Related Facilities

- Uranium mines and mills
- Uranium fuel fabricators and processing
- Nuclear power plants
- Waste management facilities
- Nuclear substance processing
- Industrial and medical applications
- Nuclear research and educational
- Export/import control



... from cradle to grave

The CNSC is Located Across Canada to Regulate the Full Nuclear Cycle

Fiscal year 2012–13

Human resources: 840 FTEs
Fin. resources: $161.5 million
• Revenue: $113.3 million
• Parliament: $48.2 million
Licensees: 2,500
Licences: 3,300

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

Waste Classification

- High – Spent Fuel
- Intermediate – Reactor Components
- Low – Various
- Uranium Mine and Mill Waste – Mill Tailings and Mine Waste Rock

Waste Management Facilities

- In operation (examples):
  - Nuclear Fuel Dry Storage Facilities
  - Mine Tailing Management Areas
  - Low Level Waste Processing
- Under construction:
  - Port Hope Area Initiative (PHAI)
- Under regulatory review:
  - Deep Geological Repository (DGR) for Low and Intermediate Waste
  - Pre-licensing review of Spent Fuel Repository safety cases for crystalline and sedimentary rock

CNSC Regulatory Approach

- CNSC regulatory approach stems from the *Nuclear Safety and Control Act* (NSCA) and its associated regulations
- CNSC regulatory waste policy document: ***P-290, Managing Radioactive Waste***
- Approach based on three principles:
  - Planning for the complete life of the facility
  - Multi-barriers between radioactive material and people/the environment
  - Defence in depth – never rely on a single system or process for protection
- Regulatory approach allows incorporation of Best Practices on Waste Minimization (Reduce, Reuse, Recycle)

Modernizing the Regulatory Framework

#	CNSC Regulatory Initiatives
1	Licensing of Geological Repositories
2	Siting of a Geological Repository
3	Post-Closure of a Geological Repository
4	Radioactive Waste Management Programs
5	Revision of Assessing the Long-Term Safety of Radioactive Waste (2006)
6	Overall Approach to Radioactive Waste and Decommissioning

5 year plan

Focus on Risk Reduction

- Financial Guarantees for Decommissioning in place for all major nuclear facilities
- Use of administrative protocols with applicants so that important waste management projects move forward
- Consider long-term impacts (positive and negative) in review of projects
- All nuclear facilities licensees (NPPs, mines, etc.) need to have a waste management program including a long-term strategy

For More Information on the CNSC

Web: nuclearsafety.gc.ca

Facebook:www.facebook.com/CanadianNuclearSafetyCommission

You Tube:http://www.youtube.com/user/cnscccsn


CNSC
Canadian Nuclear Safety Commission
Canada
nuclearsafety.gc.ca