FOSTERING TALENT AND CAREER DEVELOPMENT AT THE CANADIAN NUCLEAR SAFETY COMMISSION

Presentation to the "Nuke Kids on the Block" Technical Session, 36th Annual Regulatory Information Conference

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Outline

- Canadian Nuclear Safety Commission: An Overview
- Student Programs
- Training Opportunities
- Networks & Partnerships

THE CANADIAN NUCLEAR SAFETY COMMISSION

The Canadian Nuclear Safety Commission:

Our Mandate

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

Safety is our number one priority

The Canadian Nuclear Safety Commission:

What We Regulate

THE CNSC REGULATES

Uranium Mines and Mills	Nuclear Processing	Nuclear Power Plants	Research and Educational Activities	Medical Applications
Industrial Applications	Waste Management	Nuclear Security and Safeguards	Transportation of Nuclear Substances	International Commitments

CNSC STUDENT PROGRAMS

CNSC Student Programs:

Overview

Students

Summer Students

- Broad range of educational backgrounds
- Based on organizational needs
- 4 months

Co-op

- University and College students in co-op programs
- 4-8 months

Technical Co-op

- Targeted towards engineering and science students
- 12-16 months with up to 3 rotations

Federal Student Work Experience Program

- Full- and part-time opportunities in a wide variety of fields
- Selected from the broad candidate pool
- Various lengths

Graduates

NEW Grads

- Recent graduates from a recognized post-secondary institution
- Based on organizational needs
- Strong culture of learning

The CNSC offers student bridging into the workforce based on qualifications, performance and hiring needs

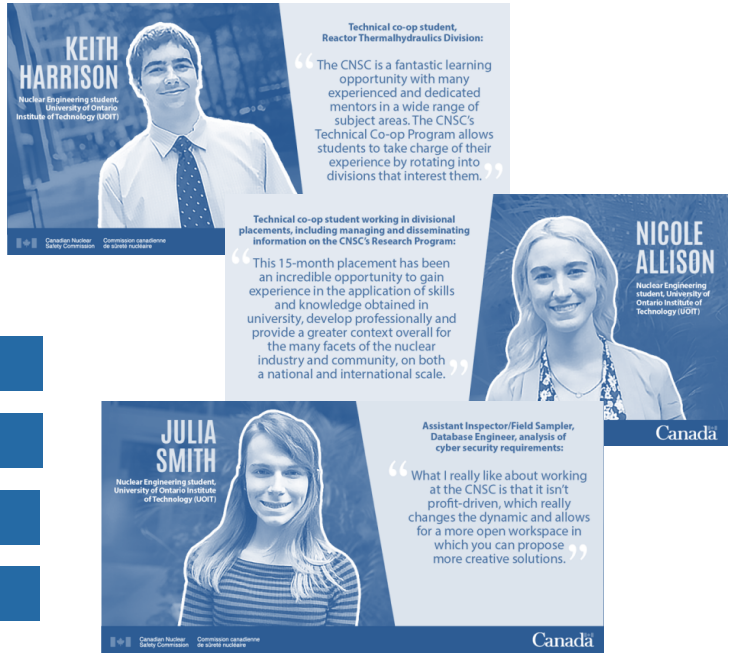
CNSC Student Programs:

Technical Co-op Program

Purpose: Provide post-secondary students the opportunity to put their university training into practice in an environment that is diversified, challenging, interesting, and meaningfully contributes to the fulfillment of the CNSC mandate.

Target Audience:

Undergraduate and graduate students studying **Engineering** (with a focus in Nuclear, Chemical, Physics or Energy Systems), **Health Physics**, or **Radiation Sciences**



Learning Experience Opportunities:

- Participate in inspections
- Review licensee submissions
- Assist in developing CNSC documents/REGDOCs/reports
- Participate in committee meetings
- Conduct research
- Develop working-level tools
- Assist in desktop reviews

TRAINING OPPORTUNITIES

Training Opportunities:

CNSC Training Programs

- **Independent Learning Plans (ILPs)**: Each employee creates an annual, written strategy for developing and maintaining competencies (knowledge, skills, behaviours and abilities)
- **CNSC Training:** Wide range of technical and non-technical, in-house training courses and programs, e.g.:

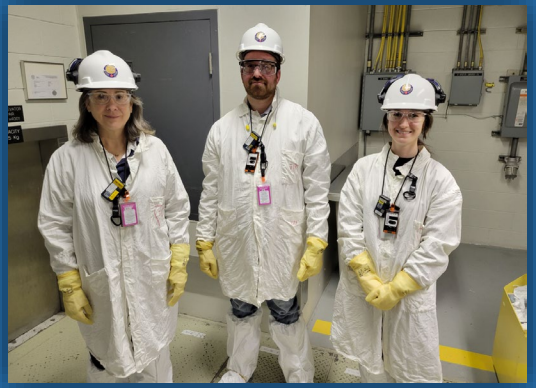
Inspector Training and Qualification Program (ITQP)

The CANDU Training Series

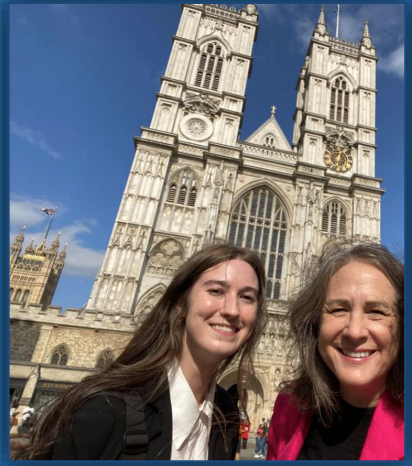
Effective Knowledge Transfer

Training Opportunities:

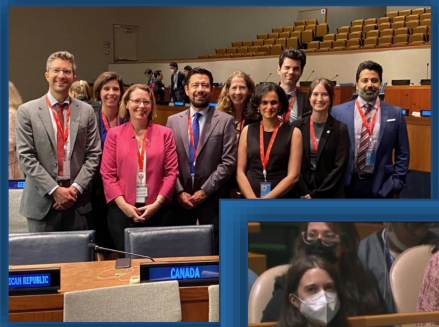
On-the-Job Training Experiences

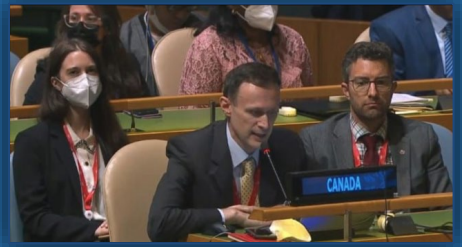


Non-proliferation and Export Controls Division (NPECD) staff visit to the Darlington Tritium Removal Facility (May, 2023).



Traveling to London, UK to hold bilateral discussions on Canada's Nuclear Cooperation Agreements (June, 2023).





Participating on the Canadian delegation to the 10th Non-Proliferation Treaty Review Conference (NPT RevCon), located at the UN Headquarters in New York City (August, 2022).

Training Opportunities:

External Training Opportunities

Domestic

Universities and academic networks provide technical training in a variety of areas, such as the Small Modular Reactor course offered by Ontario Tech U.

International

Employee interchange and training opportunities are provided by international organizations. For example, the CNSC sponsors employee participation in the annual **WNU Summer Institute**.

Training and technical seminars offered by international regulatory counterparts and stakeholders, leveraging foreign expertise on various reactor technologies.

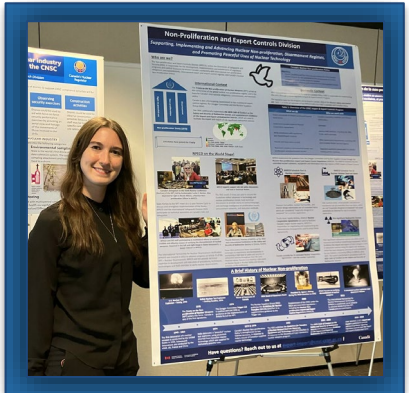
The CNSC also provides staff with access to externally delivered training opportunities by leveraging relationships with academia, the broader public service, and international partners.

CNSC NETWORKS & PARTNERSHIPS

CNSC Networks & Partnerships:

Women in Science, Technology, Engineering and Mathematics (WISTEM) Initiative

- **WISTEM Purpose:** Promote the balanced participation of women in STEM careers at the CNSC and in broader nuclear and scientific communities by:
  1. Empowering girls and women in establishing and developing their careers in STEM; and
  2. Promoting the visibility of women working in STEM fields, within the CNSC and externally



Showcasing the work of NPECD at the first annual CNSC WISTEM Day (September, 2023).

NEA-CNSC International Mentoring Workshop for Indigenous Girls Hosted at Trent University in Peterborough, Ontario (May 2023).

Mentoring Program Milestones:

2019 — Former President Rumina Velshi launches the WISTEM initiative

2020-21 — WISTEM Strategic Plan includes "Develop a CNSC WISTEM Mentorship Program"

Goal: 10 pairs

2022 — WISTEM Mentoring Taskforce hires an external contractor to help build a successful mentoring program and develop resources

2023 — WISTEM Mentoring Program launches

30 pairs are matched

2024 — WISTEM Mentoring Program opens to all staff!

CNSC Networks & Partnerships:

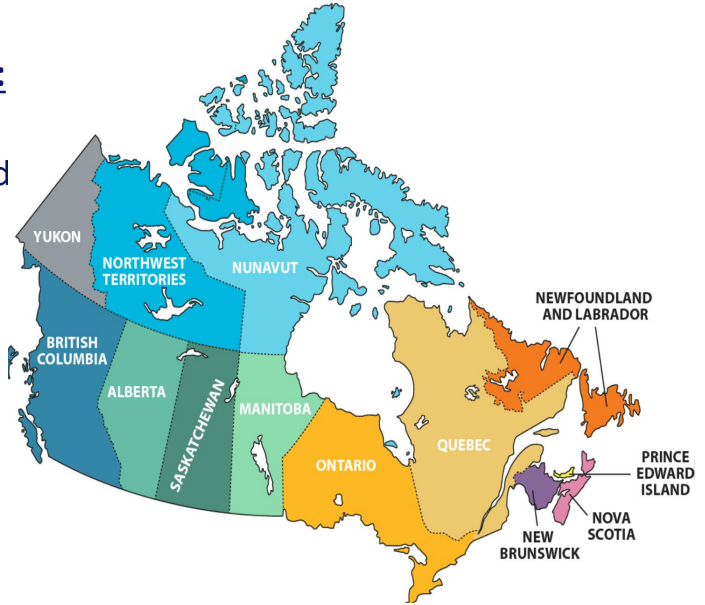
Research and Education at Canadian Universities

University Network of Excellence in Nuclear Engineering (UNENE):

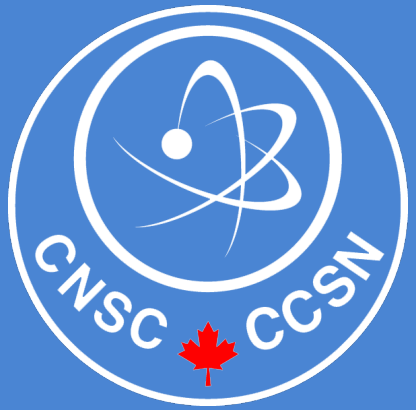
- A Canadian-led collaborative partnership between academia, industry, and government offering nuclear engineering, science and technology research, and education programming

NSERC-CNSC SMR Research Grant Initiative:

- A $15M research grants initiative, to support activities that will:
  1. Increase the scientific information available to support regulatory decision-making and oversight;
  2. Increase capacity to regulate SMRs;
  3. Enhance the capability of Canadian universities to undertake research related to SMRs; and
  4. Increase training and help produce a new generation of nuclear scientists, engineers, and policy makers.



Preparing for Canada's changing nuclear landscape by supporting Canadian universities to advance nuclear knowledge, build capacity, and heighten visibility on Canada's strengths in a clean energy future through nuclear science and technology.



Thank You! Questions?

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