



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

Canada

# BWXT Nuclear Energy Canada

## Peterborough & Toronto

## Mid-Term Update (2021 – 2025)

### Commission Meeting

May 2026

CMD 26-M13

CNSC Staff Presentation

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# Presentation Outline

- About BWXT Nuclear Energy Canada Inc.
- 2020 Licence renewal & Commission Decision
- CNSC Regulatory Oversight
- CNSC Engagement
- Interventions
- Conclusions



# BWXT Nuclear Energy Canada Inc.

## BWXT NEC – Toronto (FFL-3621.00/2030):

- Licensed to produce uranium pellets using natural and depleted uranium dioxide powder

## BWXT NEC – Peterborough (FFL-3620.00/2030):

- Licensed to manufacture CANDU fuel bundles using pellets from Toronto and zircaloy tubes
- Licensed to service contaminated equipment from nuclear facilities

**Facilities are located in industrial zones surrounded by residential areas**



**Both facilities have operated safely with no impact to the public or the environment.**

# 2020 Licence Renewal

## In March 2020, Commission conducted licence renewal hearings:

- Staff assessment and recommendations were captured in [CMD 20-H2](#) and [CMD 20-H2.A](#)
- 248 Interventions received covering several themes
- Staff's disposition of intervenors were captured in [CMD 20-H2.B](#)
- Undertakings related to topics reviewed during hearing were captured in [CMD 20-H2.C](#)



## In April 2020, Commission issued a [Continuation of Hearing](#), directed additional sampling of beryllium in soil.

- Supplementary CMD submissions ([CMD 20-H2.D](#) and [CMD 20-H2.E](#))

# 2020 Commission Decision

## In December 2020, the Commission:

- Renewed the BWXT NEC's licence for a 10-year period
- Authorized conduct of pelleting operations in Peterborough
- Issued separate 10-year licences for Toronto and Peterborough facilities
- In its [Record of Decision 20-H2](#), the Commission also directed:
  - BWXT NEC to provide a mid-term update for the licence period
  - Review regulatory performance of BWXT NEC annually as part of regulatory oversight reporting



# CNSC

# Regulatory Oversight

# Activities

# CNSC Regulatory Oversight

CNSC staff conduct risk-informed regulatory oversight activities throughout the licensing period of a facility to verify compliance.

## CNSC staff's Compliance Verification Activities for BWXT NEC includes:

- Inspections
- Desktop reviews and technical assessments
- Verify implementation of, and compliance with, revised REGDOCs & CSA Standards
- Event reporting review

**BWXT NEC's performance has been consistently rated as satisfactory in all 14 SCAs throughout the first half of the licence period.**

Safety and Control Area	Overall Rating
Management System	Satisfactory
Human Performance	Satisfactory
Operating Performance	Satisfactory
Safety Analysis	Satisfactory
Physical Design	Satisfactory
Fitness for Service	Satisfactory
Radiation Protection	Satisfactory
Conventional Health and Safety	Satisfactory
Environmental Protection	Satisfactory
Emergency Management and Fire Protection	Satisfactory
Waste Management	Satisfactory
Security	Satisfactory
Safeguards and Non-Proliferation	Satisfactory
Packaging and Transport	Satisfactory

# Overview of Inspections

- Inspections are based on a **10-year compliance verification plan** developed by a Facility Assessment and Compliance Team
- All SCAs have been inspected in the first 5 years of the licence period
- In 2025, there was 1 reactive CNSC-led Safeguards inspection at the Toronto facility

Activity	2021	2022	2023	2024	2025
CNSC Inspections	1*	4*	8	4	5
Notices of Non-Compliance	1	8	14	7	5
IAEA Safeguards Inspections	8	9	9	9	8

\*Each CNSC inspection in 2021 and 2022 covered both facilities.

**Inspection findings were of low safety significance and CNSC staff did not identify any risk to the environment or to the health or safety of persons.**

# Desktop Reviews / Regulatory Updates

## Periodic Review of Safety Documents and Updates:

- Safety Analysis Report (SAR) – **In Progress**
- Environmental Risk Assessment (ERA) – **Completed in 2025**
- Preliminary Decommissioning Plan (PDP) – **Completed in 2024**
- Financial Guarantee (FG) - **Completed in 2024**

## Standards and REGDOC updates that have been implemented, or are in the process of implementation:

- CSA N393, NBCC 2020 and NFCC 2020 – **Completed in 2021**
- REGDOC 2.4.4 – **Completed in 2024**
- REGDOC 2.9.2 – **In Progress**
- REGDOC 2.11.1 – **Completed in 2024**
- CSA N288 series – **In Progress**

## Licence Conditions Handbook (LCH) Update:

- **Update will be completed in 2026**

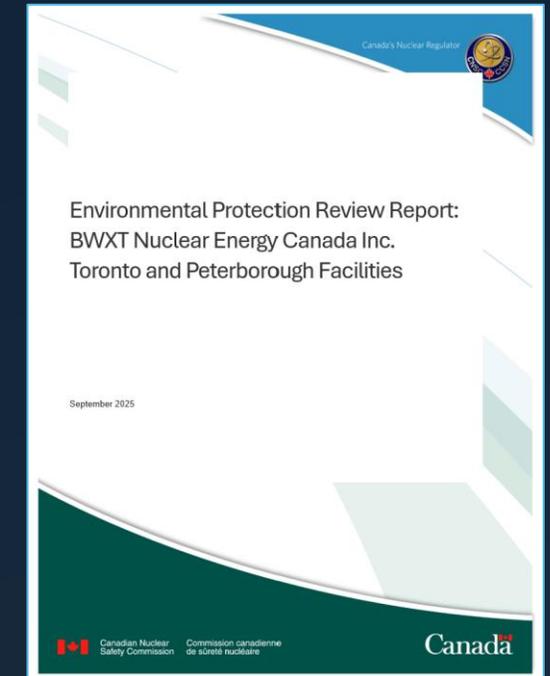
# Environmental Protection Review Report (EPRR)

**Assesses whether the licensee will make adequate provisions to protect the environment and health and safety of persons.**

- Updated in 2025
- Focuses on environmental performance, including environmental releases and potential risk posed to environment and human health from radiological or hazardous substances

## **Review is based on:**

- Compliance and technical assessments (e.g., Environmental Risk Assessment, Preliminary Decommissioning Plan)
- Licensee's own environmental monitoring results
- Independent verification activities (e.g., IEMP, regional health studies)
- Engagement with Indigenous Nations and communities, and the public



**BWXT NEC's EPRR is available on the CNSC [Environmental Protection Review](#) webpage**

**CNSC's review concludes that BWXT NEC has made adequate provisions to protect people and the environment.**

# Reportable Events

- [REGDOC-3.1.2](#) and associated regulations require the licensee to report certain events to the CNSC.
- During the first half of the licence period, **BWXT NEC Peterborough reported 15 events** and **BWXT NEC Toronto reported 3 events**.
- Events included Lost Time Injuries (LTIs), sprinkler activation, contained spills, transport and off-site incidents, power outages, security-related events.

Year	Number of Events	
	Peterborough	Toronto
2021	2	1
2022	4	1
2023	3	0
2024	3	0
2025	3	1
<b>Total</b>	<b>15</b>	<b>3</b>

**CNSC staff are satisfied with BWXT NEC's corrective actions in response to these events.**

# Public Information and Disclosure (PIDP)

## In 2020, BWXT NEC committed to improving its PIDPs.

- Submitted an improvement plan including hiring dedicated resources towards public information and outreach
- Established a new functional Community Liaison Committee at Peterborough

## CNSC staff conducted a PIDP-focused inspection in 2024 to verify effectiveness of the improvements to the licensee's PIDPs.

- The licensee's PIDPs meet requirements of REGDOC-3.2.1, *Public Information and Disclosure*
- CNSC staff noted improvements in social media outreach, targeted advertising, and incorporating public opinion feedback

**BWXT NEC's PIDPs are rated as satisfactory by CNSC staff and are commensurate with risk of facility operations.**

# CNSC Engagement

# CNSC Indigenous Engagement

- CNSC Staff attended regular meetings and provided updates on the facilities to interested Indigenous Nations and communities
- Ongoing monitoring of BWXT NEC's engagement and communication activities with interested Indigenous Nations and communities
- Collaborated with interested Indigenous Nations and communities on IEMP sampling and reporting activities, as well as the drafting of EPRR
- Invited interested Indigenous Nations and communities to participate in:
  - Information sessions on CNSC staff's annual Regulatory Oversight Report (ROR)
  - Providing comment on the content on the ROR
  - Information sessions on beryllium sampling campaign results
- Notified Indigenous Nations and communities of the opportunity to participate in the mid-term meeting

**CNSC staff are committed to building relationships and trust with Indigenous Nations and communities.**

# CNSC Public Engagement

## CNSC staff have engaged members of the public concerning BWXT NEC's activities:

- Meetings with local organizations (e.g., Peterborough Board of Health, BWXT NEC Community Liaison Committee)
- Consultation on a community-specific environmental monitoring plan for beryllium in air in 2021
- Information sessions about various activities around BWXT NEC facilities (e.g., on extended beryllium air sampling results and annual Regulatory Oversight Reports)
- Responding to inquiries via CNSC's Info Line



CNSC staff engaging the public at an information booth.

# Independent Environmental Monitoring Program (IEMP)

IEMP sampling has been carried out at:

## BWXT NEC Peterborough:

In 2021 and 2024  
(sampling planned summer 2026).

## BWXT NEC Toronto:

In 2022 and 2025.



Analysis showed that the public and the environment are protected.



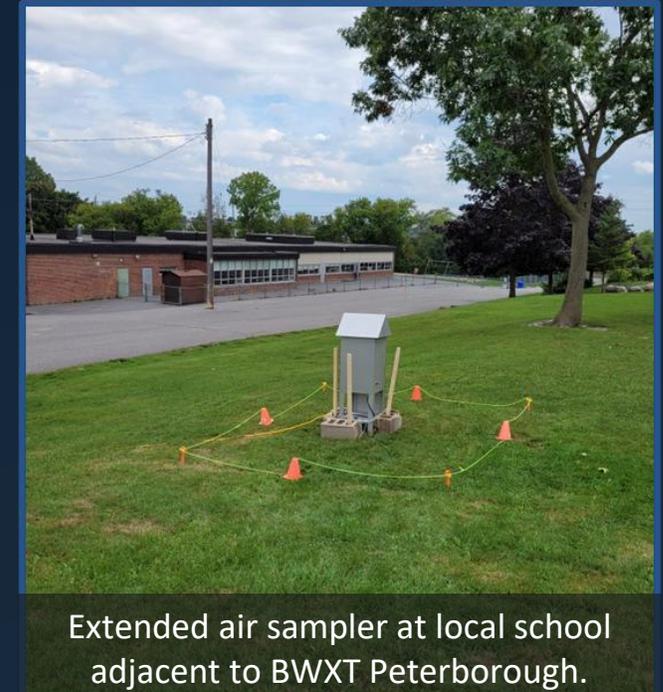
CNSC IEMP staff collecting water and soil samples near BWXT Peterborough in 2019.

# Environmental Monitoring – Extended Beryllium Sampling (Peterborough)

## CNSC staff conducted extended air sampling in 2022.

- Developed sampling plan/approach in consultation with Dr. Aherne (Associate Professor, Trent University)
- Extended beryllium in air results were well below available guidelines (1800x below air quality standard)
- Disseminated [results](#) to the public and presented to the Peterborough Board of Health and BWXT Peterborough Community Liaison Committee

Beryllium continues to be monitored as part of regular IEMP sampling campaigns.



Extended air sampler at local school adjacent to BWXT Peterborough.

Levels of beryllium observed in air samples have been consistently below available guidelines that are protective of human health and the environment.

# Interventions

# Interventions

A total of [NUMBER] interventions were submitted for this mid-term update.

CNSC staff identified the following key themes in the interventions submitted:

- [LIST KEY THEMES]

CNSC staff are prepared to answer any questions the Commission may have related to these topics.

# Conclusions

**Throughout the first half of the licensing period, BWXT NEC has demonstrated that:**

- The Peterborough and Toronto facilities have been operating safely and in compliance with regulatory requirements
- Engagement and communication efforts with Indigenous Nations and communities, as well as the public, have met CNSC's expectations

CNSC staff continue to provide regulatory oversight of the BWXT NEC facilities to ensure the safe operation of the facilities, and that people and the environment are protected.

**CNSC staff are satisfied with BWXT NEC's safety performance throughout the first half of the licensing period.**

# Thank you

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