



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada

Cameco Corporation

Application to Renew Class IB Fuel Facility Licence for the Port Hope Conversion Facility



CMD 26-H3.A

CNSC Staff Presentation

Commission Hearing

November 3, 2026

DOC ID: 3KEUWM3NAEAP-1467035006-567 (PPTX)

DOC ID: 3KEUWM3NAEAP-1467035006-792 (PDF)



Purpose of Hearing

2

Cameco PHCF Licence Renewal: CMD 26-H3.A

Cameco Corporation (Cameco) has applied to the Commission to:

Renew its operating licence for the Port Hope Conversion Facility (PHCF) for a period of 20 years effective March 1, 2027, to February 28, 2047

Cameco requested no changes to the currently authorized licensed activities



Current Licence

3

Cameco PHCF Licence Renewal: CMD 26-H3.A

The current Operating Licence authorizes Cameco to:

- **Operate** the Cameco Port Hope Conversion Facility
- **Possess, transfer, use, import, process, package, transport, manage, store and dispose** nuclear substances, other than enriched uranium compounds, that are required for, associated with, or arise from the operation of the PHCF
- **Possess and use** prescribed equipment and prescribed information that are required for, associated with, or arise from the operation of the PHCF
- **Possess, use, process, store and dispose** enriched uranium compounds for experimental and developmental purposes
- **Store and dispose** enriched uranium compounds contained in legacy waste material and in historically contaminated buildings

Renewed March 1, 2017 - valid until February 28, 2027 (10 Years)



BACKGROUND

Cameco PHCF: CMD 26-H3.A



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



Facility Location

5

Cameco PHCF Licence Renewal: CMD 26-H3.A



Figure 2: Aerial view of the location of PHCF
(Source: Google Earth).



Figure 3: PHCF main site (Source: Cameco).



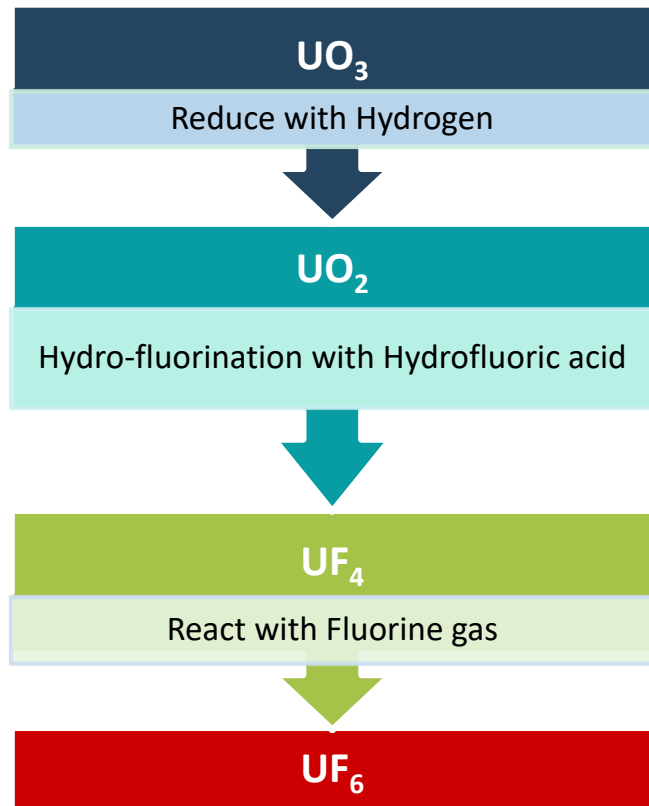
Figure 4: 158 Dorset Street (Source: Cameco).



UF₆ Production

6

Cameco PHCF Licence Renewal: CMD 26-H3.A



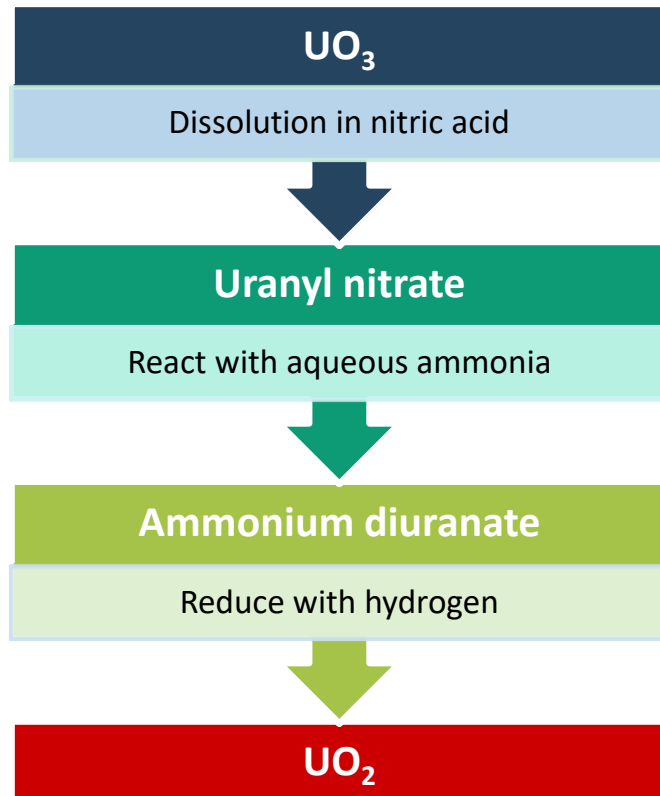
- **Uranium trioxide (UO₃)** powder is transported from Cameco's Blind River Refinery facility
- UO₃ is converted into uranium **hexafluoride (UF₆)** at PHCF's UF₆ plant
- UF₆ product is exported for further processing into fuel for light water reactors
- Licence limit for UF₆ production is 12,500 tonnes per year or 45 tonnes per day



UO₂ Production

7

Cameco PHCF Licence Renewal: CMD 26-H3.A



- **UO₃ powder** is transported from Cameco's Blind River Refinery Facility
- UO₃ is converted into **uranium dioxide (UO₂)** at PHCF's UO₂ plant
- UO₂ product is transported from PHCF for further processing into fuel for CANDU reactors
- Licence limit for UO₂ production is 2,800 tonnes per year



Regulatory Oversight

8

Cameco PHCF Licence Renewal: CMD 26-H3.A

- **A risk-informed compliance plan is implemented for PHCF:**
 - inspection frequency is based on the risk level associated with the facility and its activities
 - reviewed annually to ensure compliance activities remain valid
- **Compliance verification activities** include reviews and assessments of licensee submissions and event reports, and inspections
- **CNSC staff oversee compliance through graduated enforcement methods:**
 - Notices of non-compliance, warning letters, administrative monetary penalties, etc.
 - CMD 26-H3 contains information on enforcement actions during the current licence term

CNSC's regulatory oversight is mature, proportionate and effective in assessing licensee performance on a continuous basis



Compliance Inspections

9

Cameco PHCF Licence Renewal: CMD 26-H3.A

Inspections:

- 42 inspections conducted over 9 years, covered all 14 SCAs (CMD 26-H3, Appendix D: Inspections)
- Non-compliances tracked by CNSC staff using the CNSC Regulatory Information Bank
- Closure may include the implementation of a corrective action plan deemed acceptable by the CNSC

Year	Inspections
2017	5
2018	6
2019	4
2020	3
2021	4
2022	4
2023	6
2024	5
2025	5

All non-compliances from 2017 – 2025 have been addressed or are in progress with an acceptable corrective action plan



PERFORMANCE ASSESSMENT

Cameco PHCF: CMD 26-H3.A



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



CNSC's Review of the Licence Application

11

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff:

- **Verified** that the information submitted in support of the application is complete and satisfies CNSC regulatory requirements, including the *Nuclear Safety and Control Act* (NSCA), and associated Regulations, for all 14 safety and control areas (SCAs)
- **Reviewed** Cameco PHCF's past performance
- **Assessed** all aspects of Cameco's application and supporting documentation, including the acceptability of the requested licence period



Assessment of Safety and Control Areas

12

Cameco PHCF Licence Renewal: CMD 26-H3.A

- CNSC staff assessed all **14 safety and control areas** for Cameco's licence application for PHCF in CMD 26-H3
- Information submitted in support of the application satisfies CNSC requirements under the NSCA and its Regulations
- Assessment criteria and results are summarized in CMD 26-H3
- The bolded SCAs are discussed further in this presentation to provide additional detail on selected aspects of CNSC staff's assessment

All SCAs currently have a satisfactory rating

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



SCA – Management Systems (1/2)

13

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff's assessment:

- Management system is compliant with CSA N286-12, *Management System Requirements for Nuclear Facilities*
- Management review of performance and internal audits meet requirements
- Change management and records management processes are robust
- Cameco implemented REGDOC-2.1.2, *Safety Culture*, requirements

Performance Rating Change from BE to SA:

- CNSC staff rated the Management System SCA as below expectations in 2017 based on issues identified after an interior hydrogen fluoride release event at the UF₆ plant

Since 2018, CNSC staff have rated the Management System SCA at PHCF as satisfactory



SCA – Management Systems (2/2)

14

Cameco PHCF Licence Renewal: CMD 26-H3.A

Performance Rating Change from BE to SA:

- Cameco's investigation determined that an employee did not have the necessary work clearances and permits, however, they were allowed to perform the work
- This was identified as continual practice for a small maintenance team since 2014
- CNSC staff issued an Administrative Monetary Penalty (AMP) in September 2017 for failure to comply with PHCF's Management System licence condition 2.1 (2017-AMP-06)
- The AMP was reviewed by the Commission in March 2018 ([18-H100](#))
- Cameco implemented several corrective actions in response to the incident, and the management system issues
- CNSC staff verified during a 2018 inspection that Cameco implemented acceptable corrective actions and changed the SCA rating to satisfactory in 2018

CNSC staff are satisfied with Cameco's performance at PHCF in the Management System SCA



SCA – Safety Analysis

15

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff's assessment:

- Cameco submitted the required Safety Analysis Report (SAR) for PHCF in 2025 in support of the licence renewal application
- Cameco subsequently submitted an updated SAR in 2026 which completed implementation of REGDOC-2.4.4, *Safety Analysis for Class IB Facilities* at PHCF
 - CNSC staff confirmed that REGDOC-2.4.4, *Safety Analysis for Class IB Facilities* is now implemented at PHCF
- The SAR identifies facility hazards, analyzes consequences and documents mitigation measures for PHCF and demonstrates adequate safety through defence-in-depth

CNSC staff are satisfied with Cameco's performance at PHCF in the Safety Analysis SCA



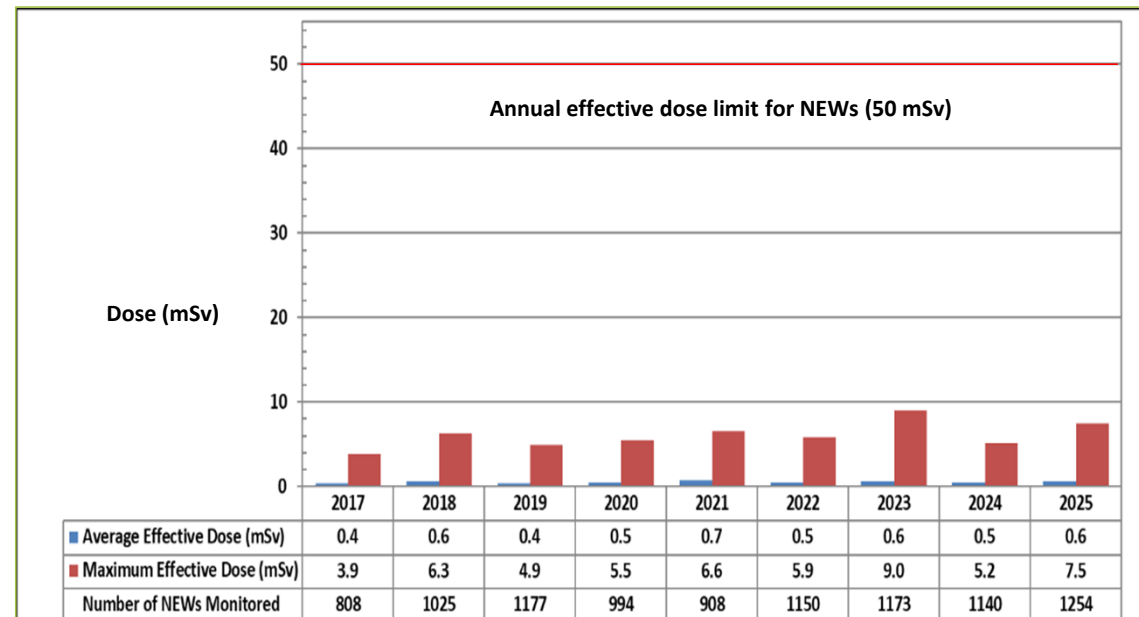
SCA – Radiation Protection

16

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff's assessment:

- Cameco's radiation protection program for PHCF meets the *Radiation Protection Regulations*
- Radiation doses received by Nuclear Energy Workers (NEWs) are monitored, controlled and maintained as low as reasonably achievable (ALARA)
- Radiation doses to NEWs are well below regulatory limits



CNSC staff are satisfied with Cameco's performance at PHCF in the Radiation Protection SCA



Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff's assessment:

- Employees are trained to identify hazards and the means for minimizing risk
- Safety is maintained through proper use of personal protective equipment, use of barriers and signage, and housekeeping
- There have been 6 lost time injuries (LTI) during the current licence period
- 5 LTIs were for minor injuries and 1 LTI was for a significant injury:
 - An April 2024 fall injury at Site 2 (Dorset Street), was reported to the Commission on May 22, 2024 in an Event Initial Report ([CMD 24-M25](#))
 - CNSC staff are satisfied with the corrective actions taken by Cameco

CNSC staff are satisfied with Cameco's performance at PHCF in the Conventional Health and Safety SCA



SCA – Environmental Protection (1/4)

18

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff's assessment:

- Cameco's environmental protection program for PHCF is implemented effectively and meets regulatory expectations
- The 2016 Environmental Risk Assessment and 2023 and 2025 reviews concluded the risk to human health and the environment attributed to PHCF operations is negligible
- Air emissions and liquid releases are well below release limits
- Environmental monitoring program results confirm that the environment and human health are protected

Cameco's environmental protection program for PHCF meets regulatory requirements



SCA – Environmental Protection (2/4)

19

Cameco PHCF Licence Renewal: CMD 26-H3.A

New Airborne and Waterborne Release Limits:

- CNSC staff requested Cameco to update their release limits to be in compliance with REGDOC 2.9.2, *Environmental Protection, Controlling Releases to the Environment*
- Release limits were calculated to protect the most sensitive species, a non-human biota receptor
- Airborne release limits are harmonized with provincial air quality standards and are based on meeting applicable air quality standards at the point-of-impingement
- Sanitary sewer release limits are unchanged and are based on meeting the federal water quality guideline for the protection of aquatic life at the discharge point

New Release limits in alignment with REGDOC 2.9.2



SCA – Environmental Protection (3/4)

20

Cameco PHCF Licence Renewal: CMD 26-H3.A

Estimated Dose to Public

Maximum Annual Effective Dose to a Member of the Public (mSv)									
Year	2017	2018	2019	2020	2021	2022	2023	2024	2025
Dose at Site 1 (mSv)	0.110	0.142	0.080	0.129	0.072	0.088	0.097	0.053	0.066
Dose at Site 2 (mSv)	0.153	0.173	0.127	0.117	0.086	0.118	0.128	0.072	0.071

Radiation dose for a member of public is well below the regulatory limit of 1 millisievert/year (1mSv/yr)



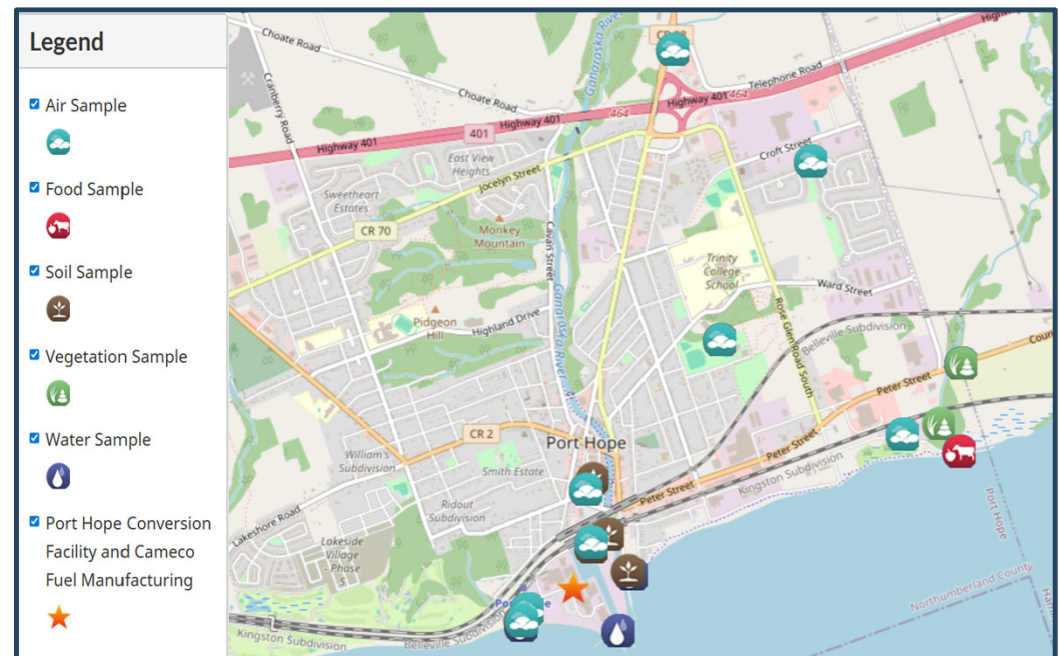
SCA – Environmental Protection (4/4)

21

Cameco PHCF Licence Renewal: CMD 26-H3.A

Independent Environmental Monitoring Program

- The IEMP complements CNSC's ongoing environmental protection compliance verification activities
- CNSC staff conducted monitoring around the PHCF site in 2017, 2020, 2024, and 2026
- Samples included air, soil, vegetation, and water
- All samples analyzed for uranium
- Water samples were also analyzed for fluoride, nitrate and ammonia
- The IEMP results for PHCF, except for 2026, are published on the [CNSC's website](#)



CNSC staff are satisfied with Cameco's performance at PHCF in the Environmental Protection SCA



SCA – Waste Management

22

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff's assessment:

- Cameco has an effective waste management program covering the characterization, segregation, and minimization of radioactive, hazardous, and conventional wastes generated on site
- The PHCF waste management program meets the requirements of REGDOC-2.11.1, *Waste Management, Volume I: Management of Radioactive Waste*, CSA Group Standards N292.0-19, and N292.3-14
- During the current licence period, Cameco significantly advanced Vision in Motion (VIM), a clean-up, remediation, and renewal work project at PHCF

The Preliminary decommissioning plan (PDP):

- PDP is updated every 5 years (or when required by the Commission)
- Most recent PDP was submitted in 2022 and meets the applicable regulatory requirements
- The PDP provides a credible basis for a decommissioning cost estimate

CNSC staff are satisfied with Cameco's performance at PHCF in the Waste Management SCA



OTHER MATTERS OF REGULATORY INTEREST

Cameco PHCF: CMD 26-H3.A



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



Environmental Protection Review Report

24

Cameco PHCF Licence Renewal: CMD 26-H3.A

- CNSC staff conduct **environmental protection reviews (EPR)** for all licence applications with potential environmental interactions
- For many facilities, including PHCF, staff summarize information such as annual compliance reports, IEMP results, ERAs and health studies from the region in an **EPR report for consideration by the Commission**
- The PHCF EPR report was posted on Open Government in July 2026
- CNSC staff found all risks to the environment observed over the last 5 years are low; and significant effects to people and the environment are unlikely
 - CNSC staff reviewed health studies and found that health risks are similar to those existing in and around communities without nuclear facilities



Environmental Protection Review

Cameco environmental protection measures adequately protect the environment, and the health and safety of persons



Financial Guarantee

25

Cameco PHCF Licence Renewal: CMD 26-H3.A

- Cameco maintains a financial guarantee for PHCF in accordance with the licence
- The Commission accepted Cameco's financial guarantee for PHCF in 2024
 - The current financial guarantee is in the form of an irrevocable letter of credit in the amount of \$138.2 million CAD
- CNSC staff are satisfied that PHCF's current financial guarantee will remain adequate for the activities included in the proposed licence renewal
- Cameco's next review of the PHCF preliminary decommissioning plan and financial guarantee is expected in 2027

The financial guarantee is valid and sufficient to fund Cameco's decommissioning strategy for PHCF



LICENCE PERIOD

Cameco PHCF: CMD 26-H3.A



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



Proposed Licence Period (1/2)

27

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff recommend issuance of a 20-year licence for PHCF

- CNSC staff assessed Cameco's request using risk-informed criteria established for evaluating and recommending licence terms
 - all criteria were met

Other areas considered in CNSC staff's assessment:

- periodic safety review elements in applicable IAEA standards are addressed within PHCF's current compliance processes and practices
- ongoing regulatory oversight through the baseline compliance program, ensuring compliance with regulatory framework updates, and requiring periodic updates on key licensing basis documents

CNSC staff regulatory oversight activities are not dependent on licence term



Proposed Licence Period (2/2)

28

Cameco PHCF Licence Renewal: CMD 26-H3.A

- Fuel cycle facility licences of 20 years or longer are common internationally
- Cameco's approach to ageing management at PHCF is appropriate
- CNSC staff's public engagement employs a broad range of communication strategies and trust-building initiatives
- CNSC staff remain committed to collaborating with interested Indigenous Nations and communities, to address any concerns and will continue to provide updates on the PHCF
- Continued Commission engagement through:
 - scheduled (e.g., mid term review) and unscheduled (e.g., event initial reports) reporting to the Commission
 - Commission review/approval of financial guarantee updates

CNSC staff recommend a comprehensive performance update at the mid point of the licence term



INDIGENOUS ENGAGEMENT

Cameco PHCF: CMD 26-H3.A



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



Indigenous Engagement (1/2)

30

Cameco PHCF Licence Renewal: CMD 26-H3.A

- CNSC staff attended regular monthly meetings, and met with Nations as requested, to determine satisfaction of engagement with Cameco and to determine any issues or concerns from Indigenous Nations and communities
- Issues and concerns raised during these meetings included requests for Cameco to:
 - provide more detailed information on PHCF activities
 - maintain ongoing communication and information sharing with Indigenous Nations and communities throughout the lifecycle of the PHCF
 - provide additional information regarding its environmental reporting
- CNSC staff raised issues and concerns from Indigenous Nations and communities with Cameco

Indigenous Nations and Communities:

- Alderville First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation
- Chippewas of Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation



Indigenous Engagement (2/2)

31

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff engagement activities on PHCF licence renewal included:

Date	Activities
December 2025	Early notification emails sent to Indigenous Nations and communities to inform them of Cameco's submission to renew the PHCF licence.
February 2026	Letters of notification sent to identified Indigenous Nations and communities via email.
March 2026	Reminder of the Participant Funding application deadline sent to Indigenous Nations and communities.
July 2026	Notified Indigenous Nations and communities of upcoming webinar on PHCF Licence Renewal and shared meeting invitation.
August 2026	Notified Indigenous Nations and communities that the CNSC staff CMD is available and shared the weblinks.
August 2026	Webinar on PHCF Licence Renewal with Indigenous Nations and Communities.

CNSC staff are committed to continue to engage and inform Indigenous Nations and communities on PHCF over the lifecycle of the PHCF



PUBLIC ENGAGEMENT

Cameco PHCF: CMD 26-H3.A



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



Public Engagement

33

Cameco PHCF Licence Renewal: CMD 26-H3.A

Event	Date
Announcement for Notice of Hearing and PFP	January 2026
CNSC Webinar (English)	August 2026
Community Outreach	April & September 2026

29 people registered for the webinar



17 participants attended

According to a meeting survey, the majority of CNSC Webinar participants were satisfied with the information provided



Participant Funding and Interventions

34

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC awarded funding to the following recipients:

- Alderville First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation
- Mississauga First Nation
- Port Hope Community Health Concerns Committee

Interventions were received from all recipients

The interventions covered the themes of:

- Indigenous engagement and consultation
- PHCF's Preliminary Decommissioning Plan and its confidentiality
- environmental impacts from PHCF activities
- enriched uranium on site and concern regarding future enriched uranium production at PHCF
- health effects from uranium processing and during transport
- transportation of nuclear substances
- waste management
- licence term length



Interventions

35

Cameco PHCF Licence Renewal: CMD 26-H3.A

The CNSC received 74 interventions provided by members of the public and Indigenous Nations and communities

Additional key themes from interventions:

- worker training, conventional health and safety, and safety culture
- historic waste and clean-up, waste storage, and impact on the community
- location of facility and impacts of ageing infrastructure
- Vision in Motion activities
- chemical hazards, potential accidental releases, and exclusion zone recommendation
- emergency response
- level of CNSC oversight



CONCLUSIONS AND RECOMMENDATIONS

Cameco PHCF Licence Renewal: CMD 26-H3.A



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada



Conclusions

37

Cameco PHCF Licence Renewal: CMD 26-H3.A

Based on the technical assessment of Cameco's application for the PHCF licence renewal and supporting information, CNSC staff conclude that:

- The application complies with regulatory requirements
- The licensee's performance during the current licence period was satisfactory and met regulatory requirements



Recommendations

38

Cameco PHCF Licence Renewal: CMD 26-H3.A

CNSC staff recommend that the Commission:

Find, pursuant to paragraphs 24(4)(a) and (b) of the NSCA in that Cameco:

- a) Is qualified** to carry out the activities authorized by the licence
- b) Will make adequate provision** for the protection of the environment, the health and safety of persons and the maintenance of national security measures required to implement international obligations to which Canada has agreed

Renew the proposed 20-year Nuclear Fuel Facility Licence FFL-3631.00/2047 for operation of the PHCF facility, effective March 1, 2027, to February 28, 2047, with a requirement for PHCF to provide a comprehensive performance update to the Commission at the mid-point of the licence

Delegate authority to CNSC staff as set out in section 5.5 of CMD 26-H3



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Canada

Connect With Us

Join the conversation



nuclearsafety.gc.ca

