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VIA EMAIL

Ms. Candace Salmon
Commission Registrar
Canadian Nuclear Safety Commission
P.O. Box 1046, Station B
280 Slater Street
Ottawa, ON K1P 5S9

Dear Ms. Salmon:

Port Hope Conversion Facility Renewal of Licence FFOL-3631.00/2027 for a 20-year term

On September 29, 2025, Cameco Corporation (Cameco) submitted a licence renewal request (Ref. 1) to the Canadian Nuclear Safety Commission (CNSC) for the renewal of the Port Hope Conversion Facility (PHCF) operating licence. This renewal request noted the mature management systems in place at this operation, and demonstrated strong health and safety measures, radiation protection and environmental performance. As well, the application discussed Cameco's strong record of engagement in southern Ontario and the opportunities provided for Indigenous communities to participate in the annual CNSC Regulatory Oversight Report (ROR) meetings of the Commission. As a result of these considerations, Cameco requested that the licence for the PHCF for a 20-year term.

A 20-year licence term would provide Cameco with an increased level of regulatory certainty and predictability for the PHCF while continuing to protect the health and safety of the public, workers and the environment. This would facilitate our ability to make longer term plans and budgeting decisions for investment at the operations.

This submission has been prepared to provide additional justification for the proposed 20-year licence term and should be considered as a supplementary document to the above noted September 29, 2025, licence renewal request. Specific aspects related to the request are discussed in greater detail below.

Requested Licence Renewal

No new activities and no changes with respect to the specific activities authorized by the current operating licence for the PHCF have been proposed by Cameco.

Cameco's safety and environmental performance have been excellent during the current licence period. This level of performance supersedes the previous licence period. Periodic studies such as the Environmental Risk Assessment (ERA) review and updated Safety Analysis Report support this conclusion. Safety and environmental performance for the current licence period are documented in Appendix 5 of the application.

Cameco does not expect the environmental effects baseline to change during the proposed 20-year licence term. Cameco's environmental data and the Independent Environmental Monitoring Programs (IEMP's) conducted by CNSC staff have confirmed no significant changes in this regard.

Cameco has an Irrevocable Letter of Credit (ILOC) in the amount of \$138.2 million on file with the CNSC. The Preliminary Decommissioning Plan (PDP) will be updated at the conclusion of the Vision in Motion (VIM) project in 2029. The Preliminary Decommissioning Cost Estimate (PDCE) is expected to decrease upon the conclusion of the VIM project which has removed and disposed of contaminated soil, accumulated waste and redundant buildings. Throughout the proposed 20-year term, the PDCE will be updated and the ILOC adjusted accordingly.

The PHCF Structures, Systems and Components (SSCs) are well maintained. The facility has a comprehensive reliability, preventative and predictive maintenance program which ensures the operating plants are fit for service. The UO₂ and UF₆ operating facilities, both remain in an excellent state of repair. Maintenance trades are on shift in the UF₆ plant 24/7 to ensure operation reliability. Ongoing assessment of the equipment utilized in both operating plants is conducted for both operational reliability and process chemical safety.

Cameco sites manage asset ageing through site-specific preventative and predictive maintenance (PM/PdM) programs that focus on maintaining all assets, be it process equipment, Safety Significant systems, or infrastructure; and for all failure patterns, including age related and non-age related. Moreover, preventive maintenance programs consist of inspection of condition (for both fitness for service and detection of trends), as well as activities to prevent or slow the effects of ageing. Ultimately, as determined through inspection and analysis of collected data, assets will be replaced if they are deemed to have reached the end of their useful life. Inspection occurs through regular scheduled technical inspections managed through Cameco enterprise asset management (EAM) system as well as general daily care rounds performed by operators.

Over the last 8 years of the current licence period there have been 38 CNSC inspections and 136 Notices of Non-Compliance (NNCs). At present there is only 1 open NNC (from 2024) from the last 8 years of operation.

Safety Analysis

Hazards associated with the authorized activities at the PHCF are well understood and mitigated. The demonstrated performance in the current licence period, and those that preceded it, ensured that the potential risks posed to workers, the public and the environment remained low.

The PHCF systematically assesses risk using risk analysis tools to ensure sustainable and safe operation. These tools include hazards and operability assessments (HAZOPs); job hazard analyses (JHAs); and field level risk assessments (FLRAs). These measures are used to assess new tasks, processes, or equipment. Further, Fire Hazard Assessments (FHA) have been completed at the PHCF, and the Canadian Standard Association (CSA) N393-22 standard has been implemented. An updated Safety Analysis Report was submitted in October 2025.

In accordance with the licensing basis, Cameco reviews and/or updates the ERA for the PHCF at a minimum of every five years. The most recent review of the ERA, conducted in accordance with the CSA N288.6 standard, was completed in 2023. A third-party review is in progress and will be made available to CNSC staff in December. The ERA continues to demonstrate that human health and the environment in the vicinity of the PHCF remain protected. Further, the ERA and routine monitoring results continue to demonstrate that the PHCF remains within the objective of the licensing basis and previous Environmental Assessment (EA) predictions. Cameco engages with target audiences on ERA results and have made summary documents publicly available on Cameco's website.

Management Systems

The PHCF has a mature Management Systems program that meets the requirements of the CSA N286-12 standard and maintain well established programs in all of the CNSC's Safety and Control Areas (SCAs). The effectiveness of this program is demonstrated by the strong safety performance observed at the PHCF throughout the current licence period. These programs have consistently received satisfactory ratings from CNSC staff while meeting all regulatory obligations.

Implementation of programs and their supporting procedures and processes at the PHCF are regularly monitored, audited, and reported on to both site and corporate management to ensure they are suitable, adequate and effective. Program documents are reviewed and updated by Cameco on a set frequency and submitted to CNSC staff for acceptance, in accordance with the change notification requirements set out in the Licence Conditions Handbook (LCH).

Facility change control and design control are utilized at the PHCF to ensure that any physical changes to the facilities are reviewed and approved by appropriate personnel prior to implementation. An electronic system is utilized which ensures site management is aware of proposed changes and associated risks and controls. This system also ensures those responsible are made aware of the changes so that required approvals, including regulatory approvals, are in place prior to the change being implemented. Prior notification is provided to CNSC staff regarding any changes to the facilities or their operation that have the potential to be outside of the licensing basis. Any proposed changes determined to be outside of the licensing basis are subject to Commission approval.

Engagement Practices

Cameco has over 35 years of operational experience in Northumberland County and has developed long-standing relationships with local communities. A comprehensive Public Information and Disclosure Program (PIDP) is in place with the objective of ensuring target audiences in the vicinity and with an interest in the PHCF are informed on a timely basis about operations, planned activities, health and safety, and potential effects on the environment.

Through a commitment to open communication and an established process for ongoing and timely communication, the PHCF aims to build trust and foster support among primary and secondary audiences as defined in the PIDP.

In that regard, 2024 public opinion survey results indicate that 91% of respondents support the continuation of Cameco's operations in Port Hope. Long-term tracking consistently shows that the large majority of survey respondents are supportive of Cameco continuing its operations in Port Hope.

The PIDP identifies target audiences across two categories: primary and secondary reflecting proximity to the FSD facilities. The identified target audiences are selected due to the potential effects on the environment, health, safety and security from Cameco's operations being localized to the vicinity surrounding its facilities. Additionally, Cameco has been operating in Port Hope for over 35 years, and these decades of experience has demonstrated that the interest in Cameco's licensed facilities is predominantly localized to the surrounding community.

FSD is committed to providing opportunities to engage with First Nation and Métis communities regarding its operations in Ontario and our engagement efforts are in compliance with CNSC's REGDOC-3.2.2.

PHCF's primary target audience includes Alderville First Nation, Curve Lake First Nation (CLFN), Hiawatha First Nation and the Mississaugas of Scugog Island First Nation (MSIFN).

The Chippewas of Rama First Nation, Chippewas of Beausoleil First Nation, Chippewas of Georgina Island First Nation, Mohawks of the Bay of Quinte and the Métis Nation of Ontario – Region 6, are identified as a secondary audience.

Cameco has formalized its relationships with CLFN and MSIFN. These agreements foster reciprocal learning and allow all parties to explore areas of interest and to build meaningful relationships. The relationships focus on long-term success through five key pillars: education and workforce development, business development, community investment, community engagement and environmental stewardship

Cameco shares information with Alderville, Curve Lake, Hiawatha, Mississaugas of Scugog Island, Chippewas of Rama First Nations and the Mohawks of the Bay of Quinte. Communication includes quarterly and annual compliance reports, the Energize newsletter and other updates as jointly agreed upon to foster greater trust and ensure transparency.

Additionally, Cameco maintains a Public Disclosure Protocol that was developed in accordance with REGDOC 3.2.1. The Public Disclosure Protocol describes the types of routine and non-routine information that Cameco is committed to providing to target audiences and is publicly available on Cameco's Fuel Services Division website.

Details regarding reportable events at the PHCF are posted on the Cameco website when they occur. Further, the disclosures of reportable events are emailed to First Nations as jointly agreed-upon and discussed during engagement meetings.

Lastly, Cameco will be providing an Indigenous Engagement Report to CNSC staff detailing our engagement efforts with respect to the licence renewal of the PHCF. The report will follow the guidance provided in REGDOC-3.2.2, Indigenous Engagement.

Strong Regulatory Framework

The CNSC has developed a strong regulatory framework through its legislation, regulations, and regulatory documents that is capable of supporting longer licence terms. The adoption of the LCH, establishment of the licensing basis and the incorporation of regulatory documents and CSA standards as compliance verification criteria and/or guidance provides systematic and clear regulatory expectations.

Cameco has successfully implemented a number of new or revised regulatory documents and CSA standards during the current licence term. These include:

- REGDOC-2.13.1 *Safeguards and Nuclear Material Accountancy*
- REGDOC-2.1.2 *Safety Culture*

- REGDOC-3.1.2 *Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills*
- REGDOC-2.9.1 *Environmental Protection: Environmental Principles, Assessments and Protection Measures, v1.1*
- REGDOC-2.11.1 *Waste Management, Volume I: Management of Radioactive Waste*
- REGDOC-2.11.2 *Decommissioning*
- REGDOC-3.3.1 *Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities*
- N393-22 *Fire Protection for Facilities that Process, Handle or Store Nuclear Substances*

Safety, radiation protection and environmental performance is routinely monitored at the PHCF with results reported to CNSC staff and other regulatory agencies on a monthly, quarterly, and annual basis. The PHCF has established a strong reporting culture and Cameco has implemented the reporting requirements set out in REGDOC-3.1.2.

Vision In Motion Project

The Vision in Motion (VIM) project is a unique opportunity made possible due to the Port Hope Area Initiative (PHAI). The PHAI Port Hope project is being undertaken by Canadian Nuclear Laboratories (CNL) and includes the construction of a long-term waste management facility (LTWMF) in the Municipality of Port Hope (MPH). A framework for coordination of activities between PHAI and Cameco is in place to link the teams in each organization working on similar aspects of the project such as regulatory activities, public outreach and communication and environmental monitoring.

VIM entails an extensive remediation and redevelopment of much of the Port Hope Conversion Facility (PHCF) and includes:

- the clean-up and demolition of a number of old or underutilized buildings;
- the removal of contaminated soils, building materials and stored wastes; and
- the construction of new replacement buildings, additions, or modifications to existing buildings at the PHCF with associated landscaping and infrastructure.

Overall, the VIM project is facilitating environmental remediation, improved site operations, enhancement of site safety and security through site design, and improved aesthetics. Changes at the PHCF will result in modifications in the ongoing management of the site related to storage of uranium trioxide (UO_3), uranium dioxide (UO_2) and uranium hexafluoride (UF_6).

The following bullets outline the key milestones completed to date:

- Waste Acceptance Criteria developed by Cameco and PHAI.
- Supplementary environmental monitoring program developed for VIM.

- Protocol for handling safeguarded wastes developed.
- Magnesium fluoride and depleted uranium titanium oxide drums transferred from Centre Pier to Building 5 for dumping into lift bags and ultimately sent to the LTWMF
- Building 2, 3 and 27 lead-based paints and asbestos abatement.
- Buildings 40, 41 and 43 located on Centre Pier demolished.
- Cameco's licensed activities on Centre Pier terminated in 2019 and CNL assumes control of this property.
- Accumulated wastes from main site start transferring to Cameco's 158 Dorset Street East property for characterization, processing, and shipment to the LTWMF.
- Civil works initiated to relocate pipe racks, utilities, and upgrade the sanitary sewer system.
- Area 1 soil remediation (south of Building 24) completed and new civil infrastructure completed.
- A new liquid hydrogen system was installed in Area 1.
- Building 27 was completely disassembled to the ground floor concrete slab.
- Demolition of Buildings 14 and 15 was completed
- Building 2 redundant equipment removal
- Redundant equipment was removed from Building 5.
- A closed loop cooling water system was commissioned eliminating monitoring requirements related to the harbour water intake and associated once-through cooling water system discharges. The once through cooling water system was decommissioned. This represented a significant operational and environmental improvement for the site.
- A proof-of-concept trial was undertaken in an area west of the harbour and north of the warehouse.
- To date approximately 17,000 drums of accumulated waste have been disposed of at the LTWMF. The remaining 9,000 will be characterized, recycled or disposed of over the next three years.

Regulatory Oversight Report

The annual ROR for uranium processing facilities prepared by CNSC staff provides detailed information with respect to regulatory compliance and performance at the PHCF, in key SCAs such as health and safety, radiation protection and environmental management. Participant funding is provided by the CNSC for Indigenous communities and organizations to review the report and provide both written submissions and oral presentations directly to the Commission at the annual ROR meeting.

As detailed above, the mature management programs in place at the PHCF and the strong regulatory framework that is in place are robust and will ensure that the health and safety of workers, the public and the environment will remain protected throughout the proposed 20-year

licence period. The PHCF will conduct the authorized activities within the licensing basis and Cameco is cognizant that any proposed modifications that are outside of the licensing basis will be subject to approval by the Commission.

Cameco has developed positive relations with Indigenous communities and other stakeholders in southern Ontario through its approach to engagement detailed in the PIPS, which is reinforced in our CAs. Cameco's proactive approach to engagement would continue throughout the proposed indefinite licence term.

If you have any questions with respect to the above, please do not hesitate to contact Tom Smith at (289)251-9927 or tom_smith@cameco.com.

Sincerely,



Andy Thorne
Vice-President, Fuel Services Division & Operational Excellence

References:

[1] Andy Thorne (Cameco) to Candace Salmon (CNSC), “*Port Hope Conversion Facility Renewal of Licence FFOL-3631.00/2027 for a 20-year Term*,” September 29, 2025