



CMD 26-H3.75

Date: 2026-10-14

**Written Submission from
Arnab Barerjee**

**Mémoire d'
Arnab Banerjee**

In the matter of

À l'égard de

Cameco Corporation

Application to renew the Class IB nuclear fuel facility operating licence for the Port Hope Conversion Facility for a period of 20 years

Cameco Corporation

Demande visant à renouveler, pour une période de 20 ans, le permis d'exploitation d'une installation de combustible nucléaire de catégorie IB pour l'installation de conversion de Port Hope

Commission Public Hearing

Audience publique de la Commission

November 2026

Novembre 2026

PART 1 — REQUEST INFORMATION

Request to Intervene: Written Submission

CNSC Public Hearing — Cameco Port Hope Conversion Facility

To: Commission Registry, Canadian Nuclear Safety Commission, 280 Slater Street, PO Box 1046 Stn B, Ottawa ON K1P 5S9 · interventions@cnsccsn.gc.ca

Hearing details

Matter	Application by Cameco Corporation to renew the Class IB Nuclear Fuel Facility Operating Licence FFOL-3631.00/2027 for the Port Hope Conversion Facility (PHCF) for a period of 20 years, until February 28, 2047
Notice and hearing	Ref. 2026-H-03, Revision 1 (August 6, 2026). Hearing the week of November 2, 2026, at Town Park Recreation Centre, 62 McCaul Street, Port Hope, Ontario, and virtually [1]
Position	In support of the licence renewal
Form of intervention	Written submission

Requester information

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Personal contact information is provided on this separate page, as the Notice permits [1].

Basis for intervening

I am making this submission in a personal capacity as a student of nuclear engineering in Ontario. I have an interest in the fuel supply and the nuclear workforce that the PHCF (Port Hope Conversion Facility) supports, and I offer information on those matters that may be useful to the Commission in reaching its decision.

PART 2 — WRITTEN SUBMISSION

Written Submission in Support of the Licence Renewal for the Cameco Port Hope Conversion Facility

Submitted by Arnab Banerjee · Ref. 2026-H-03

1. Position

I support Cameco Corporation's application to renew the operating licence for the Port Hope Conversion Facility (PHCF) for 20 years, to February 28, 2047, with no change to the licensed activities or production rates [1]. I make four points.

- The PHCF produces the uranium dioxide used to make CANDU fuel in Canada, and Ontario's CANDU fleet is planned to operate well beyond the proposed licence term.
- The PHCF's uranium hexafluoride is the first step in the fuel supply chain Ontario Power Generation (OPG) has arranged for the BWRX-300 small modular reactors (SMRs) being built at Darlington.
- A 20-year licence gives Ontario's fuel-cycle workforce, and the students preparing to join it, a stable footing for long careers.
- The record before the Commission reports safe operation during the current licence period, and the Commission's oversight continues throughout any licence term.

2. The PHCF's place in Ontario's fuel supply chain

The PHCF converts uranium trioxide (UO₃) from the Blind River Refinery into uranium dioxide (UO₂) and uranium hexafluoride (UF₆). The UO₂ is used to make fuel for CANDU heavy water reactors in Canada. The UF₆ is exported for enrichment and fabrication into fuel for light water reactors [1][3]. According to Cameco's application, the PHCF is the sole commercial supplier of natural UO₂ conversion services for CANDU fuel production, it satisfies all the UO₂ needs of Canada's domestic CANDU fleet, and the uranium it processes is responsible for about 50% of the power generated in Ontario [3, §1.1–1.2].

The Government of Ontario describes Canada as home to one of the world's only fully integrated nuclear fuel supply chains, shared between Saskatchewan's uranium mining sector and Ontario's processing, conversion and manufacturing expertise [7]. The PHCF is an essential link in that chain.

3. Continuity of CANDU fuel supply across the licence term

The proposed licence would run to February 28, 2047 [1]. The reactors it supplies are planned to operate beyond that date. Refurbishment of all four Darlington units has been completed, extending the station's operating life to at least 2055, and the CNSC has granted Darlington a 20-year operating licence to November 30, 2045 [8]. Ontario has approved the refurbishment of Pickering units 5 to 8, which would provide roughly 38 more years of power [9], and Bruce Power's life-extension program is under way [10].

Because the PHCF is the sole commercial supplier of natural UO₂ for these reactors [3], a licence term that matches the operating horizon of the fleet it supplies gives utilities, fuel manufacturers and workers the certainty they need to plan. A 20-year term is also not without precedent for the Commission, as the Darlington licence shows [8].

4. Fuel for the BWRX-300 SMRs at Darlington

In April 2025 the Commission issued construction licence PRCL 32.00/2035 to OPG for one BWRX-300 reactor at the Darlington New Nuclear Project site, which is planned for up to four units [6][5]. Ontario has approved OPG's plan to build four BWRX-300 units [10].

The BWRX-300 does not use CANDU fuel. It uses GNF2 boiling water reactor fuel assemblies made of uranium dioxide enriched to an average of 3.81% and a maximum of 4.95% [5, §2.0 Table 1, §2.2]. That fuel begins as natural UF₆, which must be enriched before the assemblies are fabricated. In November 2023 OPG announced its suppliers for the first unit's fuel: Cameco, which operates the PHCF, to supply natural UF₆; Urenco USA to provide enrichment services and Orano to provide additional enriched uranium product; and Global Nuclear Fuel–Americas to provide fuel fabrication and fuel assemblies [4].

The PHCF does not fabricate BWRX-300 fuel. Its contribution is the first step in the chain: converting uranium into the UF₆ that enrichment plants require. That is why continuity matters. An interruption at the first step would reach every later step. Renewing the licence for 20 years would support the availability of the conversion capacity OPG has already chosen, through the construction and operating life of the first SMR units. OPG's plan, as presented to the Commission in 2024, targeted commercial operation of the first unit in 2029 [5, §1.4].

5. Workforce and careers in Ontario

Ontario's nuclear sector supports roughly 75,000 to 80,000 jobs, according to the Government of Ontario and trade reporting [7][10]. The PHCF is part of that workforce. Between 2017 and 2024, roughly 800 to 1,200 individuals each year, employees and contractors, were designated nuclear energy workers and monitored for radiation dose at the facility [3, §3.3 Table 1, §4.7.2]. The facility operates a Systematic Approach to Training program [3, §4.2.1], and Cameco's relationship agreements with Curve Lake First Nation and Mississaugas of Scugog Island First Nation include education and workforce development among their five pillars [3, §2.4.5].

As a nuclear engineering student, I want graduates to be able to build and stay in careers in fuel conversion and fuel manufacturing in Ontario, and not only in reactor construction and operation. Ontario's nuclear program is expanding: the Darlington refurbishment is complete, the Pickering refurbishment is approved, SMR construction is under way and Bruce C is advancing [8][9][10]. The fuel cycle has to grow with it. A 20-year licence gives employers and training institutions a stable horizon for hiring and training, and gives students like me confidence that fuel-cycle careers in Ontario will be there to build on.

6. Safety, environmental performance and oversight

I am a student, not a technical reviewer, and I rely on the record before the Commission. Cameco's application reports that CNSC staff rated the PHCF's performance Satisfactory in every safety and control area in every year of the current licence period [3, §3.1], and the CNSC's hearing page states that CNSC staff are satisfied Cameco has operated safely in accordance with regulatory requirements [2].

The application reports average annual worker doses of 0.4 to 0.7 mSv between 2017 and 2024, and a highest individual annual dose of 9.0 mSv (in 2023) against a regulatory limit of 50 mSv per year [3, §3.3 Table 1]. It reports six lost-time injuries over the same period, a reduction of about 75% in the inventory of waste stored in drums, and continued progress on the Vision in Motion site cleanup and renewal project [3, §1.2, §3.4, §3.6]. The application also reports four environmental

action-level exceedances at the UF6 main stack and 38 sanitary sewer action-level exceedances. Cameco attributes the latter to groundwater infiltration through aging infrastructure, reports that rehabilitation work reduced uranium loadings, and reports no exceedances since the action level was revised to a monthly basis in 2023 [3, §3.5]. The Commission is best placed to judge these matters.

I acknowledge that the PHCF lies within the traditional lands and waters of the Michi Saagiig Anishinaabeg, the Gunshot Treaty (1787–88), the Williams Treaties (1923) and the Williams Treaties Settlement Agreement (2018) [1]. My support for renewal is offered alongside, and not in place of, the views of Indigenous Nations and communities and of the people of Port Hope, and I respect the Commission's responsibility to consult and, where appropriate, accommodate them [1]. A longer licence term does not remove the Commission's authority or end CNSC staff's compliance verification, which continue throughout the term [2].

7. Request to the Commission

I respectfully ask the Commission to renew Operating Licence FFOL-3631.00/2027 for the Port Hope Conversion Facility for a period of 20 years, to February 28, 2047, with the licence conditions the Commission considers appropriate.

Respectfully submitted,

Arnab Banerjee

Date: October 14, 2026

APPENDIX A

Documents Referenced in the Written Submission

Each document mentioned as a reference in Part 2 is listed below. Copies of these documents follow this page, as the Notice [1] requires.

No.	Document	Publisher and date	Where to obtain
[1]	Revised Notice of Public Hearing, Ref. 2026-H-03, Revision 1: Cameco Corporation application to renew the Class IB nuclear fuel facility operating licence for the Port Hope Conversion Facility for a period of 20 years	Canadian Nuclear Safety Commission, August 6, 2026	https://api.cnscc-ccsn.gc.ca/dms/digital-medias/CMD26-H3-NTC-ENG.pdf/object
[2]	Commission public hearing information: Licence renewal application for Cameco Port Hope Conversion Facility (web page)	Canadian Nuclear Safety Commission, page modified August 7, 2026	https://www.cnscc-ccsn.gc.ca/eng/the-commission/hearings-meetings/hearings/port-hope-conversion-facility/
[3]	2025 Application for Renewal of Licence for the Port Hope Conversion Facility, FFOL-3631.00/2027	Cameco Corporation, Fuel Services Division, September 29, 2025	https://api.cnscc-ccsn.gc.ca/dms/digital-medias/CMD26-H3-CMC-APP-REN-ENG.pdf/object
[4]	OPG selects suppliers for first fuel contracts for its small modular reactors (news release)	Ontario Power Generation, November 29, 2023	https://www.opg.com/releases/opg-selects-suppliers-for-first-fuel-contracts-for-its-small-modular-reactors/
[5]	CMD 24-H3.1, Written submission from Ontario Power Generation Inc.: Application for a licence to construct one BWRX-300 reactor at the Darlington New Nuclear Project site	Ontario Power Generation, June 28, 2024	https://api.cnscc-ccsn.gc.ca/dms/digital-medias/CMD24-H3-1.pdf/object
[6]	Decision by the Commission to authorize Ontario Power Generation Inc. to construct 1 BWRX-300 reactor at the Darlington New Nuclear Project site	Canadian Nuclear Safety Commission, April 2025	https://www.canada.ca/en/nuclear-safety-commission/news/2025/04/decision-by-the-commission-to-authorize-ontario-power-generation-inc-to-construct-1-bwrx-300-reactor-at-the-darlington-new-nuclear-project-site.html
[7]	Securing Ontario's future as an energy superpower (web page)	Government of Ontario, viewed October 14, 2026	https://www.ontario.ca/page/powering-ontario
[8]	Darlington refurbishment complete (article)	Nuclear Engineering International, February 2026	https://www.neimagazine.com/news/darlington-refurbishment-complete/
[9]	Ontario approves Pickering refurb (article)	Nuclear Engineering International, 2025	https://www.neimagazine.com/news/ontario-approves-pickering-refurb/
[10]	Ontario Advances Bruce C Nuclear Project with \$300M Pre-Development Agreement (article)	POWER Magazine, 2026	https://www.powermag.com/ontario-advances-bruce-c-nuclear-project-with-300m-pre-development-agreement/