



**Written submission from
Northwatch**

**Mémoire de
Northwatch**

In the Matter of the

À l'égard de

Cameco Fuel Manufacturing Inc.

Cameco Fuel Manufacturing Inc.

Application to Renew the Class IB Nuclear Fuel Facility Licence for Cameco Fuel Manufacturing Inc. in Port Hope, Ontario

Demande de renouvellement du permis d'exploitation de l'installation de combustible nucléaire de catégorie IB pour Cameco Fuel Manufacturing Inc. à Port Hope (Ontario)

Commission Public Hearing

Audience publique de la Commission

November 23-24, 2022

23 et 24 novembre 2022

NORTHWATCH

October 7, 2022

Canadian Nuclear Safety Commission
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Ref. 2022-H-12

Dear Members of the Commission:

Re. Cameco's Licence Renewal Application for the Cameco Fuel Manufacturing Facility

On March 7, 2022 the Canadian Nuclear Safety Commission (CNSC) issued a notice that it would hold a public hearing in November 2022 to consider a licence renewal application from Cameco Corporation (Cameco) on behalf of Cameco Fuel Manufacturing Inc. (CFM) for the CFM facility. CFM is a wholly owned subsidiary of Cameco. The CFM facility is located approximately 100 km east of Toronto, in the Municipality of Port Hope, Ontario, and on the traditional territory of the Mississauga Anishnaabeg and the Wendat, and the territory covered by the Williams Treaties.

On October 4, 2021, Cameco submitted an application to renew the CFM facility licence for a period of 20 years. As part of the application, Cameco is requesting an increase to its production limit for the CFM facility. Cameco is requesting an annual production limit of 1,650 tonnes of uranium as uranium dioxide pellets; the current licence limit is 125 megagrams of uranium dioxide as pellets during any calendar month (equivalent to 1,500 tonnes per year). The request equates to an approximate 24% increase and reflects the maximum production capacity of the facility.

In their August 2022 Commission Member Document, CNSC staff recommended that the Commission accept Cameco's request for a 20 year license term and an increase in production, and approve the license application. Northwatch disagrees with staff recommendations for reasons set out below.

Northwatch's Interest

Northwatch is a public interest organization concerned with environmental protection and social development in northeastern Ontario. Founded in 1988 to provide a representative regional voice in environmental decision-making and to address regional concerns with respect to energy, waste, mining and forestry related activities and initiatives, we have a long term and consistent interest in the nuclear chain, and its serial effects and potential effects with respect to northeastern Ontario, including issues related to uranium mineral exploration and mining, uranium refining and nuclear power generation, and various nuclear waste management initiatives and proposals.



Northwatch's core objectives are the incorporation of environmental considerations into economic and social decision-making, and the realization of a future for northern Ontario which is environmentally and socially sustainable

Northwatch's interest in Cameco's Fuel Manufacturing facility in hope resides in the operational relationship between Cameco's fuel facility in Port Hope and their uranium refinery in Blind River. The fuel facilities' waste stream and decommissioning plans have direct bearing on the Blind River operations, and so too on the north shore of Lake Huron and Algoma district more generally.

The operational relationship includes the shipment of combustible uranium contaminated materials from Port Hope to Blind River for incineration, and a stated intention by Cameco to ship the decommissioning wastes from their facilities in Port Hope to the properties currently occupied by Cameco's uranium refinery, which is on the shore of Lake Huron a short distance east of Blind River and adjacent to Mississauga First Nation's community.

Cameco is applying to extend their current licence to operate the Port Hope fuel facility for an additional twenty years and to increase production by approximately 24%. This license extension and increase in production are of direct concern to Northwatch, given the potential for extended and increased impacts on the lands and waters surrounding and impacted on by Cameco's operations in Blind River.

Northwatch Key Issues

Northwatch's key area of concern in this license renewal application review are with respect to the wastes that will be generated during the period of operations and in particular that portion of wastes which will be sent to the refinery in Blind River for incineration, and Cameco's preliminary decommissioning plans for the Port Hope facilities as those plans pertain or may pertain to the area on the North Shore of Lake Huron in the vicinity of the Blind River uranium refinery, adjacent to the community of Mississauga First Nation and a small distance west of the Town of Blind River.

With these two key areas of concern uppermost, Northwatch reviewed the license application, the Commission Member Document (CMD) prepared by CNSC staff, and the CMD submitted by Cameco. Our findings are outlined below. In addition to reviewing the documents in their entirety, Northwatch also conducted word searches of each document using the following terms: waste, Blind River, and incineration.

Cameco Fuel Manufacturing Facilities' Waste Stream

The Cameco application for license renewal included a two page overview of waste management at the facility.¹

This overview contains two very brief and very general statements related to Cameco's shipment of uranium contaminated materials to Blind River, including

“CFM sends natural uranium scrap material to the BRR for recovery of the uranium. This prevents these materials from becoming waste”, and

“Contaminated combustible waste materials are sent to BRR for incineration.”

The document provides no information about the volume of combustible wastes being sent to Blind River or the level of contamination, the treatment or management of the “natural uranium scrap material” at the Blind River facility or the nature of the materials.

In the waste-related section of their 2012-2020 Operational Performance Report,² included in the license application documents, Cameco acknowledges that in 2014, CFM began routine shipments of contaminated combustible material to the Blind River Refinery for incineration, but provides no volumes or descriptions of these wastes. In the same paragraph, the document indicates that approximately 900 m³ of contaminated non-combustible materials to an appropriately permitted facility in the United States; it is of interest to Northwatch that volume estimates are provided for some waste shipment categories but not for others. The document also states that ‘between 2019 and the end of September 2021, approximately 127,000 kg of legacy waste has been safely disposed of’ but there is no information provided as to the disposal method or destination of those wastes or what portion – if any – was dispatched to the Blind River refinery.

Northwatch takes exception to the summary provided in the Cameco CMD³, including in Table 3, and the claim that “CFM's total uranium loadings to the environment have remained low” and the description that uranium loadings are from the process stacks and process area ventilation exhaust systems.

The shipment of uranium contaminated materials to Blind River for incineration are unaccounted for. Those releases and the loading into the air shed of the North Shore of Lake Huron are a direct result of operations at the Cameco Fuel Manufacturing Facility, and should be calculated and accounted for, including in this license application.

The discussion of waste is even briefer and even less informative in the CMD than in the license application and fails to describe the dispositioning of the wastes generated at the facility, including those wastes which are dispatched to the Blind River uranium refinery⁴ although these

¹ Licence Renewal Application For 20 Year Term Cameco Fuel Manufacturing Inc. October 4, 2021, p 46-47

² 2012-2020 Operational Performance Report and Forward Outlook in Support of the Renewal of Cameco Fuel Manufacturing Operating Licence FFOL-3641.00/2022 Revision 3, page 27

³ CMD 22-H12.1, 3.9.2 Past Performance, Uranium Loadings

⁴ CMD 22-H12.1, 3.11 Waste Management

are briefly acknowledged as a past practice in a later section on “Past Performance” with Blind River identified only by the acronym “BRR”.

The CNSC staff CMD provides no description or inventory of the wastes generated at the fuel manufacturing facility, and no acknowledgement that wastes generated at the Cameco fuel manufacturing facility are dispatched to the Blind River refinery in the discussion of waste, although it does acknowledge the shipment of wastes to Blind River after-the-fact in the discussion of decommissioning where it states:

*Materials with recoverable levels of uranium (i.e., that can be recovered and processed for fuel manufacturing) and contaminated combustible materials will also be sent to the Blind River Refinery for processing, which is consistent with CFM’s current waste management practice.*⁵

REQUEST: that the Commission direct CNSC staff to require that licensees provide a detailed description of wastes generated by a facility, including a characterization of those wastes, and a disposition path for those wastes; applications not including this information should be returned to applicants for additional work

Preliminary Decommissioning Plan for Cameco Fuel Manufacturing Facilities

The Cameco application for license renewal included a single paragraph with respect preliminary decommissioning plans.⁶ That single paragraph provides no actual information about the preliminary decommissioning plan and does not include any indication that Cameco’s intentions are to send decommissioning wastes from Port Hope to the Blind River area. A similarly un-informative paragraph is included in the 2012-2020 Operational Performance Report⁷ and in the Cameco CMD.⁸

The CNSC staff CMD describes Cameco’s intent to ship decommissioning wastes from Port Hope to the North Shore of Lake Huron, as follows:

The desired end-state is the unrestricted release of the facility for an industrial use following decommissioning, should CFM achieve its decommissioning targets. CFM’s proposed strategy for managing decommissioning waste involves dispositioning the waste to a licensed waste management facility that would be constructed at Cameco’s Blind River Refinery site. The construction of a waste management facility for decommissioning wastes is described in Cameco’s PDP for the Blind River Refinery. Materials with recoverable levels of uranium (i.e., that can be recovered and processed for fuel manufacturing) and contaminated combustible materials will also be sent to the Blind River Refinery for processing, which is consistent with CFM’s current waste

⁵ CMD: 22-H12, 3.11 Waste Management. Pages 69-71

⁶ Licence Renewal Application For 20 Year Term Cameco Fuel Manufacturing Inc. October 4, 2021, p 48

⁷ 2012-2020 Operational Performance Report and Forward Outlook in Support of the Renewal of Cameco Fuel Manufacturing Operating Licence FFOL-3641.00/2022 Revision 3, page 27

⁸ CMD 22-H12.1, 3.11 Waste Management

*management practice. At this time, CFM does not have a proposed timeframe for permanently shutting down its facility.*⁹

In our review of the preliminary decommissioning plan for the Fuel Manufacturing Facility in Port Hope we noted the cookie-cutter approach taken in preparation of the preliminary decommissioning plans across Cameco's Fuel Division, with many sections and statements being repeated across the plans.

In the decommissioning plan for the Blind River reviewing, while the opening paragraph describes removing the structures from the site and remediating it to a natural state, quite incongruously the document then goes on to describe Cameco's strategy for dealing with what will no doubt be at least in large part radioactive waste is to "construct a long-term waste management facility to contain the remaining contaminated soil and building rubble in a properly designed and secure facility occupying a small area on the site."¹⁰

In both the Blind River refinery and the Port Hope fuel manufacturing facility decommissioning plans, Cameco describes their "common assumption that waste from the Port Hope Conversion Facility (PHCF), Cameco Fuel Manufacturing (CFM) and Blind River Refinery (BRR) would be consolidated at a low level radioactive waste management cell at the Blind River site."

The rationale provided is that "this location is proposed because the licensed facility in Blind River has available land, an excellent operating record and strong community support."¹¹

The Port Hope FCM preliminary decommissioning plan states that "the planning for the decommissioning of CFM is an ongoing and complicated process that involves consultation with" a number of parties local to the FCM.¹²

Notable in their absence from Cameco's "consultation": the public, public interest groups, local stakeholders, the municipalities of the North Shore and North Channel of Lake Huron, and Mississauga First Nation and others in the Robinson Huron treaty area.

How can CNSC have accepted a preliminary decommissioning plan that is premised on the establishment of a large volume waste disposal site when there is no plan for such a site, no consultation has been undertaken with respect to such a site, the use of such a site would involve long distance transportation of large volumes of radioactive materials, where the environmental

⁹ CMD: 22-H12, 3.11 Waste Management. Pages 69-71

¹⁰ 2021-H-09, page 66

¹¹ Blind River Refinery Preliminary Decommissioning Plan, Cameco Fuel Services Division Technical Reports | Public Summary, page 2

¹² Preliminary Decommissioning Plan, Cameco Fuel Manufacturing Facility, undated, as found at <https://www.camecofuel.com/library/media-library/documents/cameco-fuel-manufacturing-public-summary-preliminary-decommissioning-plan-1>

consequences of such a facility have not been investigated and are wholly unknown, and where there can be no realistic expectation of social acceptance of such a site?

As set out earlier this year in our submissions on the Blind River uranium refinery application for license renewal, Northwatch objects in the strongest of terms to Cameco's "strategy" of creating a massive radioactive waste facility on the shore of Lake Huron and transferring the decommissioning wastes from the Port Hope conversion facility and the Cameco Fuel Manufacturing facility in Port Hope to northeastern Ontario.

REQUEST: That the Commission immediately direct Cameco to investigate alternative strategies for the management of decommissioning wastes from their Ontario fuel division facilities and this direction be incorporated into a revised Condition 11.2, which requires CFM to maintain a decommissioning plan

Other Matters

Participant Funding

As noted in the CNSC staff CMD, Northwatch was awarded participant funding to retain experts to support Northwatch's review and to attend and present at the Commission hearings in late November.

Unfortunately, for a variety of reasons including an unanticipated but unavoidable scheduling conflict which interferes with Northwatch's ability to be represented at the hearings in November, Northwatch has had to terminate the contribution agreement and is not receiving participant funding for this review.

Northwatch values the Participant Funding Program and the opportunity it provides public interest organizations to retain experts and participate in Commission hearings and wishes to express appreciation to the PFP staff for their accommodating response to this changed circumstance.

Production levels

As set out in the CNSC staff CMD, Cameco is requesting what CNSC staff equates to an approximate increase of 24% relative to the current production limit but in its application, CFM stated that there are no immediate plans to increase production, and the production limit increase is being requested to provide CFM "with the ability to respond to future business opportunities, should they develop."

Northwatch disagrees with this request and CNSC staff's recommendation for the following reasons:

- Without clear information and analysis of the waste stream and the relationship between product levels and waste generation, we must make the conservative assumption that an increase in production will result in an increase in waste generation which will include

increased shipments of wastes from FCM to the Blind River refinery; that increase is unacceptable to Northwatch and others concerned about the impacts of radioactive waste incineration on the North Shore region

- Cameco does not make their production rates public; as discussed during the 2022 CNSC hearing on the Blind River refinery license renewal, in the absence of sufficient information about production rates there can be no examination of how release to the environment increase (or do not increase) relative to production levels; this information is of interest to the public
- Providing licensees “with the ability to respond to future business opportunities, should they develop” is not the business of the Commission; taken to its next step, such a rationale could be used to argue for the lessening of license conditions or protective measures which a licensee argues is interfering with a potential “business opportunity”

REQUEST: that the Commission make a condition of the license that production levels be posted quarterly, either on the CNSC web site or on the web site of the licensee

License term

Cameco has applied for a 20 year license term for the fuel manufacturing facility, and CNSC staff is recommending a 20-year licence period, purporting that it is “reasonable” based on criteria set out in CMD 02-M12 which was presented to the Commission in March, 2002 and other “considerations”, such as “the international approach to fuel cycle facility licensing, CNSC’s regulatory oversight framework, ongoing communication and engagement during the licence term, and ongoing Commission engagement opportunities”. The CNSC staff CMD also notes that it has recently recommended a 20-year licence be granted for the Point Lepreau Generating Station (CMD 22-H2.B) and a 15 year license for SRBT; the CMD also reports that the Commission did not accept those recommendations and a 12-year licence was granted for SRBT, and a 10-year licence was granted for the Point Lepreau Nuclear Generating Station.

Particularly in light of the deficiencies in the supporting information, as noted by Northwatch in this submission, Northwatch strongly disagrees with the Cameco request and CNSC recommendation of a 20 year license.

Northwatch commends to the Commission the arguments on license term put forward by the Coalition for Responsible Energy Development – New Brunswick and the Canadian Environmental Law Association during the Point Lepreau license review earlier this year, which summarizes the reasons for rejecting a 20-year license term as follows:

- It shields licensee activities from the public oversight and participation mechanism provided in section 40(1) of the NSCA for a full generation
- It would mean relying on more discretionary forms of public engagement like CNSC meetings which are not subject to the licensing framework of the NSCA
 - o RORs are not an appropriate alternative to more regular, site-specific licensing hearings

- SCA framework does not ensure comprehensive and consistent oversight of licensed activities
- Other regulatory control measures do not justify the use of longer licencing terms
- It would be contrary to international guidance and precedents¹³

REQUEST: that the Commission limit license term to not more than ten years, with a hold point in the license mid-term by which point the licensee must have satisfied all directions from the Commission to address information deficits of the current application

REQUEST: that the Commission limit license term to not more than ten years, with a mid-term performance report being the subject of a public meeting of the Commission with the opportunity for the public and Indigenous peoples to make written and oral submissions

Conclusion

Having reviewed Cameco's Application and CMD and the CNSC staff CMD, we draw the following conclusions:

- The application and supporting documents provide insufficient information on waste volumes, characterization and disposition
- The preliminary decommissioning plan is overly general and unsupported; Northwatch also found the financial estimates to be unrealistic
- The recommendations set out in earlier sections of this submission should be adopted by the Commission

Thank you for your consideration.

Sincerely,



Brennain Lloyd
Northwatch

¹³ <https://www.nuclearsafety.gc.ca/eng/the-commission/hearings/cmd/pdf/CMD22/CMD22-H2-194A.pdf>