



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

## Record of Decision

In the Matter of

Applicant Cameco Corporation

Subject Financial Guarantee for the Future  
Decommissioning of Cameco Corporation's  
Blind River Refinery

Date of  
Decision November 16, 2017

## **RECORD OF DECISION**

Applicant: Cameco Corporation

Address/Location: Blind River Fuel Services, P.O. Box 1539, Blind River,  
Ontario, P0R 1B0

Purpose: Financial Guarantee for the Future Decommissioning of  
Cameco Corporation's Blind River Refinery

Application received: August 31, 2016

Date of decision: November 16, 2017

Location: Canadian Nuclear Safety Commission (CNSC)  
280 Slater St., Ottawa, Ontario

Members present: M. Binder, President

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## 1.0 INTRODUCTION

1. Cameco Corporation (Cameco) has submitted an application to the Canadian Nuclear Safety Commission<sup>1</sup> (CNSC) for the acceptance of the revised financial guarantee for the future decommissioning of the Blind River Refinery (BRR) located near Blind River, Ontario. Cameco operates BRR in accordance with its Fuel Facility Operating Licence (FFOL) FFOL-3632.00/2022 which is valid until February 28, 2022.
2. The BRR is located approximately five kilometres west of the town of Blind River, Ontario. This facility refines uranium concentrates received from uranium mines worldwide in order to produce uranium trioxide (UO<sub>3</sub>), which is an intermediate product in the nuclear fuel cycle. Cameco currently maintains a financial guarantee of \$38.6 million to cover the costs of the decommissioning of the BRR.
3. Under subsection 24(5) of the *Nuclear Safety and Control Act*<sup>2</sup> (NSCA), the Commission may require that the operators of nuclear facilities establish and maintain acceptable financial guarantees for the ultimate decommissioning of their facilities. CNSC Regulatory Guide G-206<sup>3</sup> provides guidance on the attributes of an acceptable financial guarantee in terms of liquidity, certainty and adequacy of value, and continuity.
4. This financial guarantee acceptance request was submitted pursuant to licence conditions 12.2 and 16.1 of Cameco's FFOL for the BRR, which require Cameco to maintain a Preliminary Decommissioning Plan (PDP) and a financial guarantee acceptable to the Commission.

### Issue

5. In considering the application, the Commission was required to decide:
  - a) whether the form and amount of financial guarantee is acceptable for the decommissioning of the BRR; and
  - b) whether Cameco has satisfied the requirements of conditions 12.2 and 16.1 of licence FFOL-3632.00/2022.

### Hearing

6. Pursuant to section 22 of the NSCA, I established myself to preside as a Panel of one Commission Member to hear the application. The Commission, in conducting a public hearing based on written materials, considered written submissions from Cameco (CMD 17-H111.1) and CNSC staff (CMD 17-H111). The Commission provided the opportunity for members of the public to submit written interventions, but none were received.

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<sup>1</sup> The *Canadian Nuclear Safety Commission* is referred to as the "CNSC" when referring to the organization and its staff in general, and as the "Commission" when referring to the tribunal component.

<sup>2</sup> Statutes of Canada (S.C.) 1997, chapter (c.) 9.

<sup>3</sup> CNSC Regulatory Guide G-206, *Financial Guarantees for the Decommissioning of Licensed Activities*, June 2000.

## 2.0 DECISION

7. Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Decision*, the Commission concludes that Cameco satisfies conditions 12.2 and 16.1 of its licence. Therefore,

the Commission accepts Cameco Corporation's updated Preliminary Decommissioning Plan with cost estimates, the proposed financial guarantee amount and its financial guarantee instrument for its Blind River Refinery in Blind River, Ontario.

## 3.0 ISSUES AND COMMISSION FINDINGS

8. In coming to its decision, the Commission considered issues related to the acceptability of Cameco's proposed PDP, cost estimate, and financial guarantee instrument for the BRR.

### 3.1 Review of the Preliminary Decommissioning Plan

9. The Commission notes that, as per licence condition 12.2 of the FFOL for the BRR, Cameco must maintain a PDP for the decommissioning of the BRR and must review that PDP every five years or when requested to by the Commission to ensure that it remains adequate. The Commission also recognizes that licence condition 16.1 requires Cameco to maintain in effect a financial guarantee for the decommissioning of the BRR that is acceptable to the Commission. Cameco submitted that, in accordance with its licence conditions, Cameco conducted a review of the financial guarantee for the BRR and submitted an updated PDP to CNSC staff in August 2016. CNSC staff submitted Cameco's proposed PDP was assessed against the specifications of G-219<sup>4</sup> and N294-09<sup>5</sup> and that, upon completion of that review, CNSC staff provided comments to Cameco requesting further clarity on how the proposed PDP would meet the specifications of those guidance documents. CNSC staff further reported to the Commission that Cameco submitted a revised PDP to CNSC staff in April 2017 and that CNSC staff was satisfied that the revised PDP met the specifications of G-219 and N294-09.
10. Cameco submitted that the preferred decommissioning strategy for the BRR did not change in the proposed PDP. Cameco submitted that the preferred decommissioning strategy was to remediate the BRR site so that it would be in a state similar to its natural state before the processing and storage of radioactive materials occurred. Cameco also submitted that the PDP provided for the construction and monitoring of a containment mound to address the long-term management of the waste from the decommissioning of the BRR.

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<sup>4</sup> CNSC Regulatory Guide – G-219, *Decommissioning Planning for Licensed Activities*, June, 2000.

<sup>5</sup> CSA Group – N294-09, *Decommissioning of facilities containing nuclear substances*, 2009.

11. The Commission assessed the decommissioning costs associated with the proposed decommissioning strategy for the BRR, as described in the revised PDP. Cameco submitted the estimated total decommissioning costs to be \$48M based on the “decommissioning tomorrow” scenario, which represented an increase of \$9.4M from the current financial guarantee. Cameco further submitted that the PDP was written with the assumption that Cameco would not be able to fulfill the decommissioning obligations and a third party would be contracted to develop the detailed decommissioning plans and manage the decommissioning project. CNSC staff confirmed this information and submitted that its review showed that the increase in the decommissioning cost estimate was due to revised cost estimates for direct and indirect decommissioning costs, including modifications to specific decommissioning tasks such as the construction and monitoring of the containment mound. CNSC staff further submitted that in its view, the proposed financial guarantee for the decommissioning of the BRR met the specifications of G-206, and that the revised PDP for the BRR complied with the criteria found in G-219 and N294-09.
12. After examining the submissions from Cameco and CNSC staff, the Commission is satisfied that the proposed PDP is in accordance with regulatory requirements, and provides a credible cost estimate for the future decommissioning of the BRR.

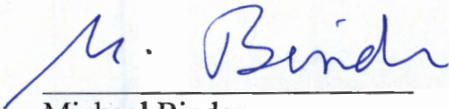
### **3.2 Financial Guarantee Proposal**

13. The Commission notes that Cameco currently maintains a financial guarantee of \$38.6M for the BRR through an irrevocable letter of credit. Cameco submitted to the Commission that, based on the revised PDP for the BRR, the revised financial guarantee required for the future decommissioning of this facility was now estimated at \$48M. Cameco submitted that it proposed to continue to use an irrevocable letter of credit as the instrument for its financial guarantee and to increase the amount of the new PDP and financial guarantee to \$48M. Cameco further submitted that, should the Commission accept the proposed financial guarantee amount, Cameco would amend the letter of credit to the full value of \$48M within several weeks of the Commission’s acceptance. CNSC staff reported to the Commission that its review of Cameco’s proposed financial guarantee and financial guarantee instrument showed the Cameco’s proposal met the specifications of Guide G-206.
14. After considering the submissions from Cameco and CNSC staff, the Commission is satisfied that the proposed financial guarantee amount and the financial guarantee instrument are adequate to provide for the future decommissioning of the BRR.

### **4.0 CONCLUSIONS**

15. The Commission has considered the information and submissions from Cameco and CNSC staff with respect to the proposed PDP, revised financial guarantee amount, and financial guarantee instrument for the BRR facility.

16. The Commission concludes that the revised PDP provides a credible cost estimate for the future decommissioning of the BRR, and that the proposed financial guarantee instrument, an irrevocable letter of credit with no substantive change but for the quantum, is adequate. The Commission is also satisfied that Cameco has satisfied the requirements of licence conditions 12.2 and 16.1 of FFOL-3632.00/2022
17. Therefore, the Commission accepts the proposed financial guarantee for the BRR in the amount of \$48M. The Commission remains satisfied that the irrevocable letter of credit remains an acceptable financial guarantee instrument.
18. With this decision, the Commission directs Cameco to amend the letter of credit for the financial guarantee to the amount of \$48M within 30 days of this decision. Once finalized, an original version of this letter is to be sent to the CNSC.



Michael Binder  
President  
Canadian Nuclear Safety Commission

NOV 16 2017

Date