

# CMD 25-M26 - CNSC Staff Submission

## Workplace Injury at Cameco Corporation's McArthur River Operation

<b>Classification</b>	UNCLASSIFIED
<b>Type of CMD</b>	Original
<b>CMD Number</b>	CMD 25-M26
<b>Reference CMD(s)</b>	N/A
<b>Type of report</b>	Event Initial Report (EIR)
<b>Public meeting date</b>	June 3, 2025
<b>Word e-Doc #</b>	7502013 – EN 7515157 – FR
<b>PDF e-Doc #</b>	7509530 – EN 7515169 – FR
<b>Summary</b>	This EIR CMD is being presented as a follow-up to the verbal report to the Commission presented at the public meeting on January 29, 2025; agenda item 5.2. This event resulted in a significant injury to an individual and is therefore required to be reported to the Commission through the EIR process.
<b>Actions required</b>	There are no actions requested of the Commission. This CMD is for information only.



## **CMD -M26**

# **Workplace Injury at Cameco Corporation's McArthur River Operation**


**Signed by:**

X

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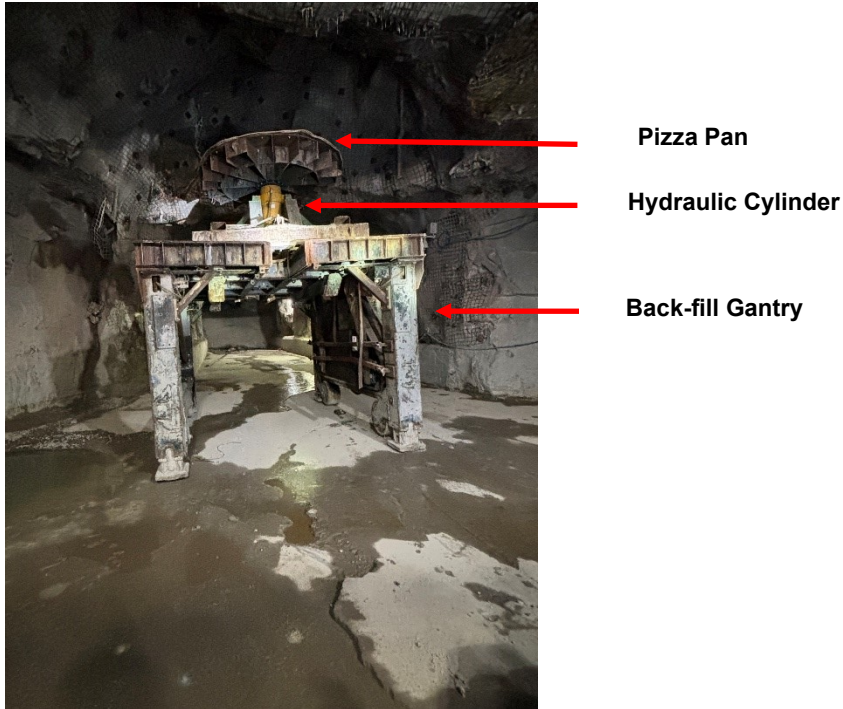
Luc Sigouin  
Director General, DNCFR

E-DOCS-# 7502013

<b>EIR: Workplace Injury at Cameco Corporation's McArthur River Operation</b>	
<b>Prepared by:</b> Brenda Duhaime UMMD, DNCFR	
<b>Licensee:</b> Cameco Corporation	<b>Location:</b> McArthur River Operation
<b>Date Event was Discovered:</b> 2025-01-19	<b>Have Regulatory Reporting Requirements been met?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  <b>Proactive Disclosure:</b> Licensee: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> CNSC: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Overview</b>	
<b>Reporting Criteria:</b> <i>General Nuclear Safety and Control Regulations (SOR/2000-202)</i>  29 (1) Every licensee who becomes aware of any of the following situations shall immediately make a preliminary report to the Commission of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it:  h) A serious illness or injury incurred or possibly incurred as a result of the licensed activity	
<b>Description:</b> The event occurred on January 18, 2025, at approximately 10:45 pm.  On January 19, 2025, Cameco McArthur River Operation personnel contacted the CNSC duty officer to report a serious hand injury to a worker involved in the removal of a back-fill plug assembly.  McArthur River is an underground mine where the raise bore mining method results in the creation of cylindrical cavities in the orebody. These cavities are open at the bottom to a horizontal tunnel which is used to retrieve the ore. These cylindrical cavities must be backfilled with concrete to stabilize the ground, to allow further mining. This is achieved by plugging the cavity from the bottom with a back-fill plug assembly. The back-fill plug assembly is placed on top of a back-fill gantry, which consists of a hydraulic cylinder attached to a large circular metal plate (commonly referred to as the "pizza pan"). Once the back-fill plug assembly is raised into place, concrete can then be pumped into the cavity. Following curing of the concrete plug, the back-fill plug tool and back-fill gantry are removed for future use.  On January 18, 2025, workers at McArthur River were attempting to remove a back-fill plug assembly. During this operation, the back-fill plug assembly was found to be stuck to the freshly-cured concrete – effectively the "pizza pan" was stuck to the ceiling of the tunnel. Several unsuccessful attempts to remove the "pizza pan" were carried out. Eventually it was decided to remove the bolts on the flange of the backfill plug tool, which would disconnect the "pizza pan" from the hydraulic cylinder. As the worker loosened and removed the bolts, the flange on the hydraulic cylinder assembly suddenly and unexpectedly retracted from the "pizza pan", which remained in place. The workers' hands were struck and injured (but not pinned) by the flange during the unexpected and sudden retraction of the hydraulic cylinder.	
<b>Figure 1: Image of the back-fill plug assembly on-top of back-fill gantry following the event. The "pizza pan" is stuck in place by the freshly cured concrete (Source: Cameco)</b>	
 <div style="display: flex; justify-content: flex-end; margin-top: 10px;"> <div style="text-align: right; margin-right: 10px;"> <b>Pizza Pan</b>   <b>Flange (Black)</b>  <b>Hydraulic Cylinder (Blue)</b>   <b>Back-fill Gantry</b> </div> </div>	

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**Figure 2: Mock setup of a back-fill plug assembly placed on top of a back-fill gantry (Source: SK LRWS)**



**Figure 3: Close-up view of the bolts located on the flange of the 'pizza pan' above the hydraulic cylinder (Source SK LRWS)**



# EVENT INITIAL REPORT (EIR)

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## EIR: Workplace Injury at Cameco Corporation's McArthur River Operation

The injured worker was accompanied to surface, assessed and treated at the on-site health centre, and then evacuated by air-ambulance to an off-site hospital in the early morning of January 19, 2025. The worker received further treatment, had surgery and was discharged from the hospital that same day.

In addition to the CNSC, Cameco notified the Saskatchewan Ministry of Labour Relations and Workplace Safety (SK LRWS). The regulation of non-radiological health and safety at uranium mines and mills is governed by the Canada Labour Code Part II, which is administered by Employment and Social Development Canada (ESDC). However, the Saskatchewan *Uranium Mines and Mills Exclusion Regulations* (SOR/2001-115) defer the regulation of occupational health and safety in Saskatchewan uranium mines and mills to the province of Saskatchewan in accordance with the requirements of Saskatchewan's *The Mines Regulations, 2018*. The CNSC also has regulatory responsibilities for the oversight of the protection of the health and safety of workers. The CNSC harmonizes its oversight of conventional health and safety with the SK LRWS.

SK LRWS conducted an onsite follow-up inspection at the McArthur River Operation on February 10 to 12, 2025 and provided CNSC staff with an update on the information gathered.

As required by the *General Nuclear Safety and Control Regulations*, Cameco submitted a 21-day follow-up event report on February 6, 2025. In addition, due to the severity of the event, Cameco conducted a root cause investigation and provided CNSC staff with a summary of the causes and corrective actions on March 20, 2025.

**Cause(s):** The direct cause of the injury was the contact between the injured workers hands and the flange on a hydraulic cylinder assembly during an unexpected and sudden retraction of the hydraulic cylinder during the removal and loosening of bolts.

Cameco's root cause investigation identified three (3) causal factors, seven (7) root causes and seven (7) contributing factors which lead to the event.

As a result of the investigation, Cameco has identified seven (7) corrective actions and two (2) activities to address the deficiencies. In addition, Cameco engaged in leadership changes with respect to the personnel involved in this incident and terminated the employment of three (3) individuals in supervisory positions.

## Impact of the Event

### On People:

How many workers have been (or may be) affected? One (1)

How many members of the public have been (or may be) affected by the event? None (0)

How were they affected?

The worker suffered a serious injury to their hands that resulted in lost-time from work.

**On the Environment:** None

**Other Implications:** None

## Licensee Actions

### Taken or in Progress:

Cameco took the following actions:

- The worker was accompanied to surface, assessed and treated at the on-site health centre, and then evacuated by air-ambulance to an off-site hospital.
- Cameco notified the CNSC and SK LRWS on January 19, 2025.
- Cameco provided the CNSC and SK LRWS an initial agency notification report on January 19, 2025.
- The site stood down all high-risk activities for the day after the event and a safety briefing was completed with all mining personnel.
- A third-party counsellor was brought to the McArthur River site for 3 days to offer in-person counselling services.
- Following the release of the scene, a job hazard analysis was completed for the task of removing the stuck back-fill assembly and the tool was safely removed.
- A corporate Cameco employee trained in root cause investigations was flown to site on January 20, 2025, to lead the investigation.

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- A summary of the event was posted to Cameco's [website](#).
- A 21-day follow-up report was submitted to the CNSC and SK LRWS on February 6, 2025.
- A summary report of Cameco's root cause investigation was provided to the CNSC and SK LRWS on March 20, 2025, detailing corrective actions and target completion dates.
- Cameco engaged in leadership changes with respect to the personnel involved in this incident and terminated the employment of three (3) individuals in supervisory positions.

Via document reviews and a May 5 to 7, 2025, inspection focused on conventional health and safety matters, CNSC staff have verified that Cameco has made progress on most of the corrective actions identified within the root cause investigation.

### Planned:

- Cameco is scheduled to complete the corrective actions in a phased manner, with all being completed by December 31, 2025. CNSC staff will continue to verify this work until all corrective actions are completed.

## CNSC Actions

### Taken or in Progress:

The following actions were taken by CNSC staff as a response to the event:

- CNSC staff collaborated with SK LRWS in seeking further information from Cameco and sent follow-up questions on January 20 and 21, 2025. CNSC staff received responses from Cameco on January 20 and 23, 2025.
- A summary of the event was posted to the CNSC [website](#).
- A verbal report to the Commission was conducted at the public meeting on January 29, 2025.
- CNSC staff reviewed the 21-day event report submitted by Cameco on February 6, 2025, and found Cameco's corrective actions to be acceptable.
- A virtual meeting was held with SK LRWS on February 21, 2025, to provide an update on the information gathered from the onsite follow-up inspection conducted by SKLRWS from February 10 to 12, 2025.
- CNSC staff reviewed a summary report of the root cause investigation submitted by Cameco on March 20, 2025.
- CNSC staff performed an onsite inspection at the McArthur River Operation from May 5 to 7, 2025. As part of this conventional health and safety focused inspection, CNSC staff verified the status of the implementation of all corrective actions associated with this event. Cameco is scheduled to complete the corrective actions in a phased manner with all being completed by the end of 2025.

### Planned:

- CNSC staff to follow-up on the implementation of the remaining corrective actions as part of upcoming planned CNSC inspections.

### Additional reporting to the Commission Members anticipated:

☐ Yes

☒ No

If Yes, provide method of reporting: