CMD 26-M17 - CNSC Staff Submission

Event Initial Report – Workplace Injury at McMaster Nuclear Reactor

Classification	UNCLASSIFIED
Type of CMD	Original
CMD Number	26-M17
Reference CMD(s)	N/A
Type of report	Event Initial Report
Public meeting date	May 27, 2026
SharePoint ID Word	MXHI2OO77DJD-1434444692-848 – EN MXHI2OO77DJD-1434444692-878 – FR
SharePoint ID PDF	MXHI2OO77DJD-1434444692-898 – EN MXHI2OO77DJD-1434444692-897 – FR
Summary	This CMD is presented to share information related to a serious worker injury at the McMaster Nuclear Reactor
Actions required	There are no actions requested of the Commission. This CMD is for information only.

CMD 26-M17

Workplace Injury at McMaster Nuclear Reactor

Signed by:

X Campbell, Kimberley A

Digitally signed by Campbell, Kimberley A
DN: C=CA, O=GC, OU=CNSC-CCSN, CN="Campbell, Kimberley A"
Reason: I am the author of this document
Location:
Date: 2026.05.04 09:59:06-04'00'
Foxit PDF Editor Version: 13.2.1

Kimberley Campbell
Director General (Acting)
Directorate of Nuclear Cycle and Facilities Regulation

EVENT INITIAL REPORT (EIR)

EIR: Workplace Injury at the McMaster Nuclear Reactor	
Prepared by: Nuclear Processing Facilities Division, Directorate of Nuclear Cycle and Facilities Regulation	
Licensee: McMaster Nuclear Reactor	**Location:** McMaster University, Hamilton, Ontario
Date Event was Discovered: 2026-03-26	**Have Regulatory Reporting Requirements been met?** Yes ☒ No ☐ **Proactive Disclosure:** Licensee: Yes ☒ No ☐ CNSC: Yes ☐ No ☒

Overview

Reporting Criteria:

General Nuclear Safety and Control Regulations (SOR/2000-202)

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

Description:

In the evening of Thursday, March 26, 2026, CNSC staff were notified that a crane incident had occurred at the McMaster Nuclear Reactor (MNR), resulting in a worker (operator-in-training) sustaining a concussion and an injury to the face. The worker spent the evening in the hospital and was released at an early hour on March 27, but their injuries were serious enough to prevent their return to work. At the time of writing this EIR, the date of return is unknown.

Around 8 pm on March 26, the worker was raising the overhead crane (no load at the time) when one of the slings hanging from the crane hook got caught on a metal wheel attached to the reactor core bridge (see Appendix for photos). While the worker was trying to release the slings, with the crane still in operation, the shaft for the wheel bent upwards under the pull of the crane, and the wheel was sheared off in multiple pieces. At least one of these metal pieces hit the worker in the face.

Personnel in the building responded and administered first aid to the worker. Local Emergency Services and Campus Safety Services were notified, and the responding special constable escorted the worker to the lobby to meet with paramedics, who transported the worker to hospital for assessment. The worker was released from hospital early in the morning on March 27.

Cause(s): Due to the severity of the event, the licensee has launched a root cause investigation and will provide CNSC staff with a summary of the causes and corrective actions by May 29, 2026.

Impact of the Event

On People:

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

Was there any impact(s) to any of the Indigenous Nations? ☐ Yes ☒ No

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

On the Environment: None

Other Implications: In addition to the worker injury, the crane slightly lifted the reactor bridge, which triggered an automatic shutdown of the reactor. The safety systems worked as designed. In the days following the event, MNR staff inspected the reactor and its components and did not find any safety significant damage. On April 7, a restart review meeting was held to verify that the reactor was safe to restart. Following completion of all recommended actions and obtaining the required level of approval (MNR Director, Reactor Operations and Maintenance), the reactor was restarted on April 13 without issue.

Licensee Actions

Taken or in Progress:

- Personnel in the reactor hall administered first aid and notified emergency services. Paramedics met the worker in the lobby and transported them to the hospital where they were treated for their injuries and released in the early

EIR: Workplace Injury at the McMaster Nuclear Reactor

hours of March 27. From this point on, communication with the injured worker and WSIB (Worker Safety Insurance Board) was through McMaster University health services team.

- The licensee notified the CNSC in the evening of March 26 as per the reporting requirements.
- On Tuesday, March 31, the licensee sent a communication to all users of the MNR overhead crane warning them of the dangers of a system under tension and instructing them to halt all crane movement and remove hands from the controls in the event the crane becomes stuck.
- On April 10, the licensee held an operational experience review meeting with all operations staff to review historic safety occurrences and immediate lessons learned from the event.
- The licensee conducted an investigation into the status of reactor structures, systems and components (SSCs) in response to the reactor bridge being slightly lifted by the crane. Results of the investigation informed the reactor restart decision as per MNR procedures. All required approvals were received, and the reactor was restarted up to 3 MW thermal power on April 13, 2026 without issue.
- MNR submitted a 21-day report to the CNSC on April 16, which included a copy of the completed Reactor Investigation Report which informed the restart of the reactor, and a commitment to undertake a root cause investigation of the crane incident and worker injury.

Planned:

- MNR will complete the root cause investigation and share the results, including the corrective actions, with CNSC by May 29, 2026.
- MNR staff will continue to communicate with the McMaster University employee health services team to track the worker's health status and return to work plans.

CNSC Actions

Taken or in Progress:

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

- CNSC staff called the licensee the morning after the accident (Friday, March 27) to discuss the event.
- On Monday, March 30, CNSC staff determined that an EIR was not warranted. This decision was based on what was known at the time about the worker's injuries and the fact that they were released from hospital in a short time and predicted to return to work early April.
- CNSC staff met with the licensee on March 31 and received an update on the status of the worker, and further details on the event and an update on the worker's training for operation of the crane.
- On April 9, CNSC requested an update on the worker's return. The licensee confirmed that the worker had not yet returned to work and noted that the McMaster University health services team remained as the single point of contact with the worker and WSIB.
- On April 15, CNSC staff learned that, due to their injuries, the worker would not return to work for at least another month. This new information prompted CNSC staff to re-assess the initial EIR determination.
- On April 20, CNSC staff requested that the licensee continue to provide weekly updates on the status of the worker.

Planned:

CNSC staff will:

- On May 5-7, 2026, perform a planned fitness for service inspection. As a result of the event, the inspection team has expanded the scope, including training, management systems, and operating performance.
- Review the summary of the causes and corrective actions once MNR's root cause investigation is completed (May 29, 2026).
- Continue to receive weekly updates on the status of the injured worker.

Additional reporting to the Commission Members anticipated:

☐ Yes

☒ No

If Yes, provide method of reporting:

APPENDIX A – IMAGES

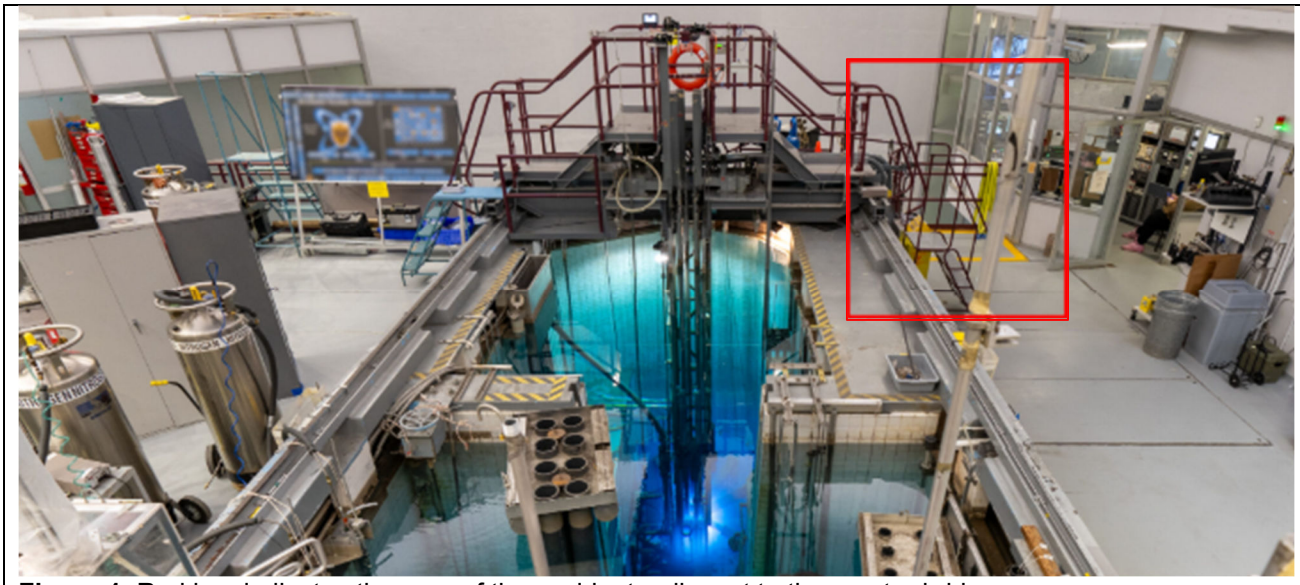

Figure 1. Red box indicates the area of the accident, adjacent to the reactor bridge.

Source: McMaster website

Figure 2. Photo of the crane, hook, and slings (yellow).

Source: Faculty of Science - Nuclear Reactor

Figure 3. Photo to show the wheel that is used to move the reactor bridge. The yellow crane slings got caught on the wheel while the crane was moving upwards.

Source: CNSC staff, 2024

Figure 1: damaged crank assembly

Figure 4. Crank assembly after the incident, curved upward and the wheel is sheared off.

Source: 21-day report