

CMD 25-M36 - CNSC Staff Submission

Workplace injuries at Ontario Power Generation's Darlington New Nuclear Project Site

Classification	UNCLASSIFIED
Type of CMD	Original
CMD Number	25-M36
Reference CMD(s)	N/A
Type of report	Event Initial Report
Public meeting date	October 7, 2025
Word e-Doc #	7550181 – EN 7564583 – FR
PDF e-Doc #	7564591 – EN 7564596 – FR
Summary	Two separate incidents at the Darlington New Nuclear Project construction site resulted in injuries to workers.
Actions required	There are no actions requested of the Commission. This CMD is for information only.



CMD 25-M36

Workplace injuries at Ontario Power Generation's Darlington New Nuclear Project Site

Signed by:

2025-08-25

X

Signed by: Viktorov, Alexandre

Alexandre Viktorov, Ph.D.

Director General, Directorate of Power Reactor Regulation



EVENT INITIAL REPORT (EIR)

E-DOCS-# 7550181

EIR: Workplace injury at Ontario Power Generation's Darlington New Nuclear Project Site

Prepared by: Darlington Regulatory Program Division

Licensee: Ontario Power Generation (OPG)

Location: Darlington New Nuclear Project (DNNP) Site

Date Event was Discovered:

2025-07-15 and 2025-07-24

Have Regulatory Reporting Requirements been met?

Yes ☒ No ☐

Proactive Disclosure:

Licensee: Yes ☒ No ☐ CNSC: Yes ☒ No ☐

Overview

Reporting Criteria:

REGDOC-3.1.1 *Reporting Requirements for Nuclear Power Plants*, version 2

Provision D.18 of Table A1:

"Applicable section(s) of the NSCA or regulations made under the NSCA:

NSCA:

24. (5) A licence may contain any term or condition that the Commission considers necessary for the purposes of this Act, including a condition that the applicant provide a financial guarantee in a form that is acceptable to the Commission.

Specific reporting provisions:

The licensee shall report on all other situations or events that are not otherwise specified in this document but can be reasonably assumed to be of regulatory interest, including notifications and situation or event reports to other regulatory agencies within the scope covered by the objects of the Commission (see section 9 of the NSCA)"

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:

July 14, 2025 event (Injury to heels):

On July 14, 2025, at approximately 10:15 pm, an AECON Group Inc. (AECON) sub-contracted worker sustained injuries to both heels, requiring hospitalization. The incident occurred near the excavation site for the DNNP Tunnel Boring Machine (TBM) launch shaft (see Figure 1).

At the time of the incident, work was underway to construct a stairway tower for access to the bottom of the excavation shaft. This large tower structure, built with I-beams, is cantilevered over the TBM. Construction of this structure involved the placement of concrete counterweights near the end of the I-beam deck, opposite to the portion of the platform hanging over the TBM launch shaft. The concrete blocks were being lifted by a tower crane and guided into position by the worker on the south edge of the deck using a long reach tool. While positioning one of the concrete blocks, the receiving worker lost his balance and jumped off the I-beam to the surface 4.5 feet (1.38 metres) below (see Figure 2), resulting in fracture to both heels.

The worker was provided first aid, then subsequently taken to the hospital for further medical attention. The worker was released the next morning.

EVENT INITIAL REPORT (EIR)

E-DOCS-# 7550181

EIR: Workplace injury at Ontario Power Generation's Darlington New Nuclear Project Site



Figure 1: I-beams cantilevered over the Tunnel Boring Machine launch shaft

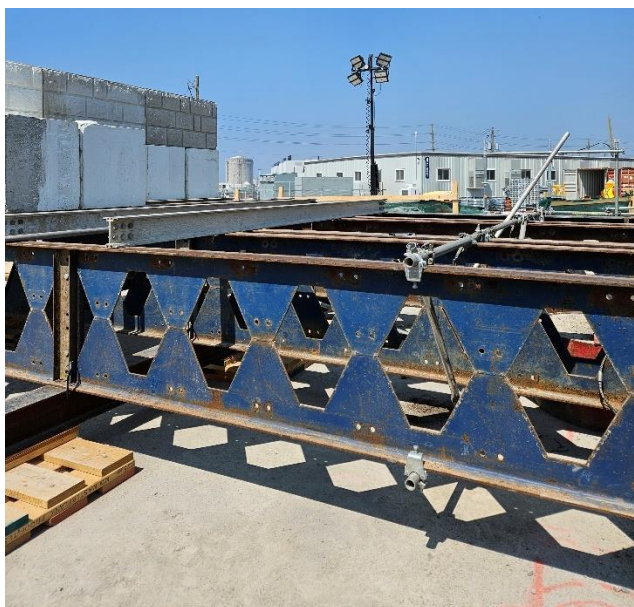


Figure 2: Location where the worker jumped down from the I-beams and sustained injuries while directing counterbalance concrete blocks

CNSC staff were made aware of the event through surveillance and monitoring activities, while attending a morning project update meeting on July 15, 2025. Upon discovering the incident, CNSC staff made arrangements with AECON and OPG staff to walkdown the incident area and gather information. CNSC staff also accompanied inspectors from the Ministry of Labour, Immigration, Training and Skills Development (MLITSD) during their walkdown of the worksite later that afternoon.

EVENT INITIAL REPORT (EIR)

E-DOCS-# 7550181

EIR: Workplace injury at Ontario Power Generation's Darlington New Nuclear Project Site

July 24, 2025 event (Injury to upper arm/humerus bone):

On July 24, 2025, at approximately 9:00 am, an AECON worker sustained an injury to their humerus bone, which required hospitalization. The event occurred at a work area located to the southeast of the TBM launch shaft.

Workers were in the process of lifting a pipe onto an elevated installation area with a telehandler (see Figure 3). As the pipe was placed into position, a worker started to unhook the straps off the piping. During this time, the lift device (known as a jib) connected to the forks of the telehandler fell and struck the worker in the shoulder. The worker was transported to the hospital by ambulance.

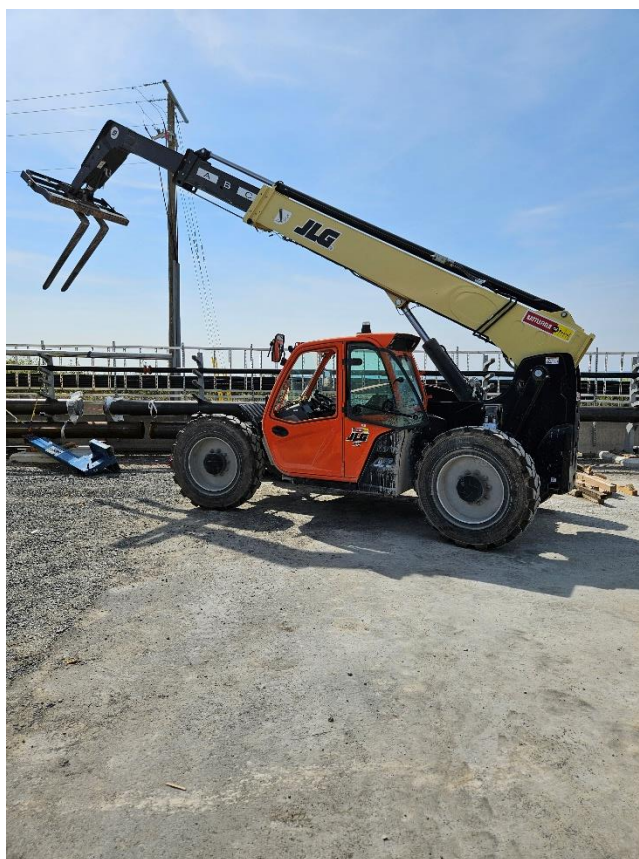


Figure 3: Telehandler and lifting attachment

CNSC staff were made aware of this incident when arriving at the DNNP site for the routine surveillance and monitoring field walkdown. Shortly after, CNSC site staff completed a walk down of the incident area. CNSC staff later accompanied MLITSD inspectors during their walkdowns of the incident area on the afternoons of July 24th and 25th, 2025.

Cause(s): The summary provided above is derived from CNSC on-site inspectors' discussions with AECON staff, information shared by OPG, including OPG's Preliminary Event Reports. The causes of both events are still under investigation as of August 18, 2025. AECON is conducting an internal investigation of both events in accordance with their corrective action program.

As there are ongoing investigations by MLITSD, this report should not be construed to reflect the observations, conclusions, or opinions of MLITSD.

EVENT INITIAL REPORT (EIR)

E-DOCS-# 7550181

EIR: Workplace injury at Ontario Power Generation's Darlington New Nuclear Project Site
Impact of the Event
<p>On People:</p> <p>How many workers have been (or may be) affected? 2 workers (1 worker for each incident).</p> <p>How many members of the public have been (or may be) affected by the event? None</p> <p>How were they affected?</p> <p>Physical injuries to both workers.</p>
On the Environment: None
Other Implications: None
Licensee and Constructor Actions
<p>Taken or in Progress:</p> <p><u>Initial Actions taken:</u></p> <p>For the July 14, 2025 event (Injury to heels):</p> <ul style="list-style-type: none"> • The worker was provided with first aid treatment and subsequently taken to the hospital by ambulance. • AECON notified OPG and the MLITSD. • AECON halted all work involving the sub-contractor. • MLITSD inspectors visited the jobsite the afternoon of the event. No orders were issued to AECON. • A Preliminary Event Report was submitted by OPG on July 21, 2025. As this was not a Loss Time Accident, OPG reported the event under Provision D.18 of Table A1 in accordance with REGDOC-3.1.1. Version 2. <p>For the July 24, 2025 event (Injury to humerus bone):</p> <ul style="list-style-type: none"> • The worker was taken to the hospital. • AECON notified OPG and the MLITSD. • As a result of the latest incident, AECON halted all construction work activities at the DNNP site. In response to the incidents, AECON implemented a series of corrective actions for each work group prior to being cleared for return to work. These actions included: <ul style="list-style-type: none"> ○ The rollout of Operational Safety Leadership to provide safety-focused oversight of work activities. ○ Implementation of an Activity Readiness Checklist for each work area, which requires management sign-off for a number of safety-related reviews prior to resuming work. ○ Ensuring that supervisors complete a series of 7 safety training courses. • MLITSD inspectors visited the jobsite the afternoon of the event. An order was placed to freeze the incident area for further investigation; the order was lifted after a subsequent visit by the MLITSD on July 25, 2025. • OPG submitted a Duty Officer Notification and a courtesy notification to CNSC staff on July 24, 2025. A Preliminary Event Report was submitted by OPG on July 30, 2025. <p><u>Follow up Actions:</u></p> <p>For the July 14, 2025 event (Injury to heels):</p> <ul style="list-style-type: none"> • During discussions with AECON staff on July 15, 2025, CNSC staff were informed AECON would conduct the following actions: <ul style="list-style-type: none"> ○ Prior to allowing the sub-contractors to resume work across the site, all work packages from the sub-contractor were reviewed for adequacy. ○ All platforms and structures constructed by the sub-contractor were reviewed by the DNNP technical team. ○ A safety stand-down meeting was to be held with supervisory staff (foreman and up) to communicate expectations and review the incident.

EVENT INITIAL REPORT (EIR)

E-DOCS-# 7550181

EIR: Workplace injury at Ontario Power Generation's Darlington New Nuclear Project Site

For the July 24, 2025 event (Injury to humerus bone):

- Work activities only resumed onsite over the course of several weeks once OPG has deemed the work site to be safe, and that identified corrective actions have been taken.

Planned:

- OPG to submit a Detailed Event Report for both events in accordance with REGDOC 3.1.1, *Reporting Requirements for Nuclear Power Plants*, version 2.
- AECON is conducting an internal investigation of both events, in accordance with their corrective action program.
- As part of their response to the GNSCR 12(2) request, OPG has committed to increase contractor oversight. This includes:
 - Adding OPG resources for construction oversight
 - Acquiring safety professionals to augment construction oversight
 - Enhanced monitoring of OPG contractors and their subcontractors' safety commitments/actions

CNSC Actions

Taken or in Progress:

- CNSC staff visited the incident sites on the mornings of July 15, 2025, and July 24, 2025. In addition, CNSC staff also accompanied the MLITSD inspectors during their walkdowns of the worksites on July 15th, 24th and 25th, 2025.
- CNSC staff attended the stand down meetings after both events, to observe the corrective actions proposed by the project team.
- A reactive conventional health and safety field inspection was conducted on July 29, 2025, to verify that the return to work corrective actions resulting from the second incident were implemented prior to the start of work on the project. CNSC staff were satisfied with the plans AECON established to allow work to resume.
- Given there have been three (3) worker injuries (including the events described in this report) since the issuance of the Power Reactor Construction Licence PRCL 32.00/2035 in April 2025, CNSC staff issued a *General Nuclear Safety and Control Regulations* (GNSCR) subsection 12(2) request (i.e., request for information) to OPG related to the incidents:
 - A description of actions taken by OPG and contractors working on the DNNP site.
 - Measures OPG will implement to enhance its oversight of its contractors.
 - A confirmation by OPG whether it maintains adequate confidence in its contractors to conduct the activities under the Integrated Project Delivery Model.
- CNSC publicly disclosed the event information on our website on the Events Reporting Page - [Events Reporting: Nuclear Power Plants](#)

Planned:

- Review the Detailed Event Reports when submitted by OPG.
- Review the responses provided by OPG with respect to the GNSCR 12(2) request, including OPG and AECON's corrective actions.
- Increased surveillance and monitoring activities such as:
 - Attending monthly meetings with OPG's CHS oversight manager to discuss trends, as well as key project meetings.
 - Reviewing OPG and AECON's dashboards/metric for safety performance.
 - Request OPG to provide quarterly updates on DNNP onsite safety management and improvements.
- Conduct a reactive contractor management field inspection, focused on verifying the implementation of corrective measures to prevent reoccurrence.

EVENT INITIAL REPORT (EIR)

E-DOCS-# 7550181

EIR: Workplace injury at Ontario Power Generation's Darlington New Nuclear Project Site

Additional reporting to the Commission Members anticipated:

☒ Yes

☐ No

If Yes, provide method of reporting:

A future NPP status update on adequacy of corrective actions implemented.