

CMD 25-M28 - CNSC Staff Submission

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

Classification	UNCLASSIFIED		
Type of CMD	Original		
CMD Number	25-M28		
Reference CMD(s)	N/A		
Type of report	Event Initial Report		
Public meeting date	June 3, 2025		
Word e-Doc#	7518889 – EN		
	7521250– FR		
PDF e-Doc #	7521257 – EN		
	7521255– FR		
Summary	An event at a new nuclear plant construction site, which resulted in a serious injury to a worker.		
Actions required	There are no actions requested of the Commission. This CMD is for information only.		





CMD 25-M28

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

X			

Mark Broeders (Acting)
Director General, Directorate of Advanced Reactor Technologies



Ross Richard on behalf of Alexandre Viktorov Director General, Directorate of Power Reactor Regulation





E-DOCS-# 7518889

EIR: Workplace injury at Ontario Power Generation's Darlington New Nuclear Project Site					
Prepared by: Advanced Reactor Licensing Division and Darlington Regulatory Program Division					
Licensee: Ontario Power Generation	Location: Darlington New Nuclear Project (DNNP) Site				
Date Event was Discovered: 2025-04-09	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:

On April 9, 2025, Ontario Power Generation personnel contacted the CNSC duty officer to report a serious injury to a contracted worker involved in construction activities at the Darlington New Nuclear Project (DNNP) site.

The event occurred inside the DNNP construction island, at the excavation site for the BWRX-300 Tunnel Boring Machine (TBM) launch shaft (Figure 1). The work underway at the time was being conducted by the contractor, Aecon Group Inc. (Aecon). This work involved a tower crane lifting a large metal bin into the excavation, where an excavator would fill the bin with excavated material. The tower crane would then lift the bin out of the excavation and land it inside an enclosure made of concrete blocks. Once the bin was landed, a worker would enter the enclosure to release safety latches on the bin and then exit the enclosure. The crane operator would then dump the excavated material into the enclosure and return the bin to the excavation, while a second excavator transferred the dumped material from the enclosure into a dump truck. This operation had been performed approximately 70 times prior to the event.

At approximately 11:20 AM, the tower crane had landed a bin full of excavated material inside the enclosure. With the bin resting on the ground, a worker entered the enclosure to release the safety latches on the bin, as per the established process. As the worker was walking around the bin to access the second safety latch, the bin shifted, pinning the worker against the wall of the enclosure (Figure 2).



Figure 1: The DNNP construction site. The Tunnel Boring Machine launch shaft excavation is in the lower left corner. The worker injury occurred in the circled location.

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Figure 2: The inside of the enclosure; the large red bin shifted and pinned the worker against the concrete block wall.

The onsite Aecon Tunnel Rescue Crew and Aecon nursing staff provided first aid until external emergency services arrived. Aecon notified OPG and the Ministry of Labour, Immigration, Training and Skills Development (MLITSD) of the event.

The worker was transported by ambulance to a hospital in Toronto, where they remained in intensive care for several days. The worker has been released from the hospital and is recovering in a rehabilitation facility.

MLITSD inspectors visited the site the same afternoon and initiated their investigation.

Cause(s): The information provided above is derived from OPG's Preliminary Event Report, as well as CNSC on-site inspectors' discussions with OPG and Aecon. The cause of the event is still under investigation. Aecon corrective actions are being implemented and will be reassessed once the root cause is determined. OPG will submit the Detailed Event Report, with details of the cause assessment, to CNSC once completed.

As there is an ongoing investigation by MLITSD, this information should not be construed to reflect the observations, conclusions, opinions of MLITSD.

Impact of the Event

On People:

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

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

How were they affected?

Other Implications:

One worker received critical injuries.

On the Environment: None

None

EVENT INITIAL REPORT (EIR)

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

Licensee Actions

Taken or in Progress:

Initial Actions taken:

- The contractor, Aecon, contacted 911.
- The Aecon tunnel rescue crew and nursing staff provided first aid to the worker.
- Aecon notified OPG and the Ontario Ministry of Labour, Immigration, Training and Skills Development.
- OPG provided a verbal notification to CNSC site staff, as well as a duty officer notification the same day of the
 event.
- Aecon halted work across the DNNP site.
- MLITSD inspectors visited the jobsite the afternoon of the event and issued a 'Do Not Disturb' order to preserve this scene. This order applied to the jobsite where the injury took place, but not to the rest of the DNNP site.
- A summary of the event is posted to OPG's website.
- OPG submitted the Preliminary Event Report (PER) to CNSC staff on April 16, 2025.

Follow up Actions:

- Aecon stopped all work on site until April 14, 2025.
- Prior to work gradually resuming across the site, work packages deemed to involve high risk activities were identified; for these work packages, challenge meetings were held with OPG and Aecon staff to review work plans and job hazard analyses, and to discuss any safety enhancements.

Planned:

- OPG to submit a Detailed Event Report in accordance with REGDOC 3.1.1, Reporting Requirements for Nuclear Power Plants, v2.
- Aecon will identify and implement corrective actions through their corrective action program prior to resuming
 work at the incident site.

CNSC Actions

Taken or in Progress:

- CNSC staff visited the incident site on the afternoon of April 9th along with inspectors from MLITSD. CNSC staff
 participated in subsequent visits by the MLITSD on April 10th and April 14th.
- CNSC staff attended a sample of the challenge meetings that were held prior to resuming work on different areas
 of the site.

Planned:

- CNSC staff will review the Detailed Event Report when submitted by OPG.
- CNSC staff will conduct a Conventional Health and Safety field inspection, focused on verifying the implementation of corrective measures to prevent reoccurrence. This inspection will take place once work has resumed on the TBM launch shaft excavation.

Additional reporting to the Commission Members anticipated:

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□ No
If Yes, provide method of reporting: Update will be provided through a future Nuclear Power Plant Status Report.