Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

CMD 19-M9

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Event Initial Report

Rapport initial d'événement

Canadian Nuclear Laboratories (CNL)

Worker injured on January 9, 2019 at CNL Port Granby Project

Les Laboratoires Nucléaires Canadiens (LCN)

Travailleur blessé le 9 janvier 2019 au projet de Port Granby des LNC

Commission Meeting

Réunion de la Commission

February 20, 2019

Le 20 février 2019

Canada

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EVENT INITIAL REPORT (EIR)

e-Doc 5773082

EIR: January 9, 2019 Worker Injury at Canadian Nuclear Laboratories Ltd. Port Granby Project	
Prepared by: DNCFR, CNLRPD	
Licensee: Canadian Nuclear Laboratories Ltd.	**Location:** Port Granby Project
Date Event was Discovered: 2019-01-09 CNSC Duty Officer Report, e-Doc 5756487 CNL Preliminary report, e-Doc 5760801 CNL Detailed Report, e-Doc 5785757	**Have Regulatory Reporting Requirements been met?** Yes ☒ No ☐ **Proactive Disclosure:** Licensee: Yes ☒ No ☐ CNSC: Yes ☒ No ☐

Overview

Reporting Criteria:

2) Death, serious illness or serious injury of any person at a nuclear facility.

Description:

A worker employed by a contractor for Canadian Nuclear Laboratories Ltd. (CNL) at the Port Granby Project site was injured on January 9, 2019, around 11:00 am, while preparing to unload a roll-off bin from a truck. The roll-off bin was being used to transfer solid waste from the waste water treatment plant to the long-term waste management mound. Figure 1 is an example of a truck with a roll-off bin.

Figure 1: Example of a truck with a roll-off bin.

While preparing to unload the roll-off bin from the truck, the roller bin unexpectedly began unloading, and pinned the worker's lower leg to the ground, resulting in serious injury to the individual. Consequently, the worker was airlifted to a hospital in Toronto. A CNL employee, who witnessed the accident, was transported to a local hospital by ambulance. The CNL employee was treated for shock and released from the hospital on the same day.

The location of the waste water treatment plant is in close proximity to the long-term waste management mound to which the waste was being transferred by the worker. The area where the incident occurred was a non-radiological area with dose rates consistent with background. Figure 2 shows the proximity of the waste water treatment plant to the mound and the approximate location where the incident occurred.

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Figure 2: Layout of the site showing the location of the incident

Cause(s):

As reported in CNL's final report, the remote control that activates the hydraulic cylinders ("Stinger") that extends to the ground for bin unloading was in the injured worker's pocket when the worker got out of the vehicle to unhook the bin. The remote was inadvertently activated in the worker's pocket, engaging the bin-handling mechanism that subsequently pinned the worker's leg to the ground.

CNL determined that while the inadvertent activation of the remote was the primary cause, the contractor's procedures specific to the bin movement were also identified as requiring improvement.

Impact of the Event

On People:

How many workers have been (or may be) affected? 2

How many members of the public have been (or may be) affected by the event? 0

How were they affected?

This event did not result in a dose to the workers or public. The injured worker was airlifted to a hospital in Toronto where medical treatment was required. A second worker exhibited distress from witnessing the incident and was transported to a local hospital for examination. The second worker was released from the hospital on the same day.

On the Environment: There were no impacts to the environment as a result of this incident

Other Implications:

Part II of the *Canada Labour Code* prescribes the occupational health and safety requirements that apply to workplaces under federal jurisdiction, including employees of crown corporations and Federally regulated corporations, such as CNL. However, contractors performing activities at the Port Granby Project, located in Ontario, fall under the jurisdiction of the *Occupational Health and Safety Act* of Ontario.

As such, CNL was required to contact Employment and Social Development Canada who administers the *Canada Labour Code* and the Ontario Ministry of Labour who administers and enforces the *Occupational Health and Safety Act.* CNL has indicated that the Ontario Ministry of Labour is investigating the incident with the focus of the investigation on the contractor organization.

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Licensee Actions
Taken or in Progress: At the time of the incident, CNL activated its emergency response plans including a call to 9-1-1 to engage emergency services. All work activities on the site were stopped with the exception of the waste water treatment plant. CNL contacted the Provincial and Federal labour authorities to report the incident. The Ontario Ministry of Labour is investigating the incident and the contractors' organization with CNL's cooperation. Following the event, CNL suspended the use of trucks with roll-off bins at all of its operations in Canada while it conducted an investigation. CNL's Executive Management issued a companywide directive on the safe operation of roll-off bins and equipment operable with remote controls. The purpose of the directive was to provide executive direction on the safe use and operations of roll-off bins or similar type equipment used at CNL sites, (e-Doc 5763285). CNL required all contractors for the Port Hope Area Initiative who provide a similar service to provide training records confirming that the directive on the safe operation of roll-off bins and equipment operable with remote controls was communicated to all relevant workers. CNL confirmed the action has been completed. CNL also required that the contractor whose worker was involved in the incident revise and submit an amendment to their operations and maintenance manual to CNL. CNL also stated that, as a result of the amended manual, the contractor also updated their equipment training program. As a result of the incident, the contractor has modified the remote activation device such the buttons cannot be inadvertently pressed without first accessing the enclosure. The changes mentioned above were assessed by CNL during the first bin movement since the time of the incident to ensure changes were adequate and effective. CNL disclosed information on the incident on its Port Hope Area Initiative website Facebook page and Twitter account. Due to the emergency vehicle activity on the Port Granby site, CNL also contacted residents who live adjacent to the site on the day of the event. CNL verbally reported the incident to the CNSC duty officer and lead CNSC project officer. CNL also filed an initial report as required under paragraph 29(1)(h) of the *General Nuclear Safety and Control Regulations*, "a serious illness or injury incurred or possibly incurred as a result of the licensed activity". As required by subsection 29(2) of the *General Nuclear Safety and Control Regulations*, CNL filed a full report to the Commission on February 6, 2019 which CNSC staff are currently reviewing.
CNSC Actions
Taken or in Progress: CNSC staff have reviewed the information provided by the CNSC duty officer report and CNL's preliminary report. Based on the information provided by CNL, CNSC staff are satisfied that CNL has responded appropriately to the incident. CNL notified the appropriate Federal and Provincial labour authorities of the incident. The CNSC posted information regarding this incident on its webpage including a link to CNL's website.

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Planned: CNSC staff are conducting a review of CNL's full report. Any corrective actions resulting from the final report will be tracked in the CNSC Regulatory Information Bank (RIB) to ensure that any corrective actions resulting from the incident are completed. If necessary, CNSC staff can conduct reactive inspections to ensure effectiveness of CNLs corrective actions. **Additional reporting to the Commission Members anticipated:** ☒ Yes ☐ No If Yes, provide method of reporting: CNSC staff will be providing a Regulatory Oversight Report to the Commission in the fall of 2019; the Regulatory Oversight Report will summarize the performance of all CNL activities in Canada, and it will include information on reportable events. CNSC staff will ensure that any new information not provided in this EIR is communicated to the Commission at the time of the Regulatory Oversight Report.	
Name and Title	Signature
Haidy Tadros DNCFR	Director General 15 Feb. 2019 Date