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Event Initial Report

Rapport initial d'événement

Provincial Health Services Authority

Exposure above regulatory limit of a
non-Nuclear Energy Worker

Provincial Health Services Authority

Exposition au-dessus de la limite
réglementaire pour un travailleur non
désigné comme travailleur de secteur
nucléaire

Commission Meeting

Réunion de la Commission

November 7, 2019

Le 7 novembre 2019

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EVENT INITIAL REPORT (EIR)

E-DOCS-# 5916778

EIR: Exposure above regulatory limit of a non-Nuclear Energy Worker at Provincial Health Services Authority	
Prepared by: Accelerators and Class II Facilities Division, Directorate of Nuclear Substance Regulation	
Licensee: Provincial Health Services Authority	Location: 600 West 10 Avenue, Vancouver BC
Date Event was Discovered: 2019-05-13	Have Regulatory Reporting Requirements been met? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Proactive Disclosure: Licensee: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> CNSC: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Overview	
Reporting Criteria: Exposure of a person, organ or tissue to radiation in excess of the applicable radiation dose limits prescribed in the <i>Radiation Protection Regulations</i> .	
<p>Description: The Radiation Safety Officer reported to the CNSC that the radiation dose report from the licensee's licensed dosimetry service provider (Landauer) indicated that one of its employees had received a dose of 1.85 mSv during the period 2019/01/01 to 2019/03/31. The employee in question is a radiation therapist at the Vancouver Cancer Centre (VCC). Radiation therapists are not designed as Nuclear Energy Workers at VCC. Consequently, the dose reported was above the applicable regulatory dose limit of 1 mSv per year for a member of the public.</p> <p>This was the first time the staff member has received a recordable dose. Workers in radiation therapy have at least one other therapist as partner during patient treatments, but no unusual doses were received by any other individuals. The therapist reported taking the dosimeter home and that it may have passed through an airport security x-ray screening device on at least one occasion. The dosimeter was periodically stored on a coat rack located near the treatment unit door, a location with slightly higher dose rates. The coat rack has since been removed from this area. The licensee and the individual reported that there had not been any specific unusual event that could explain the dose of 1.85 mSv.</p> <p>In response to this incident, the licensee took all the actions required by section 16 of the <i>Radiation Protection Regulations</i>; removed the employee from work that could have added to the dose received, notified the CNSC, and carried out an investigation to determine the cause of the exposure.</p> <p>Cause(s): The licensee's investigation was unable to identify with certainty any specific incident or event that could have resulted in the dose reading of 1.85 mSv</p>	
Impact of the Event	
On People:	
How many workers have been (or may be) affected? <u>1</u>	
How many members of the public have been (or may be) affected by the event? <u>0</u>	
How were they affected?	
The individual involved may have received a dose in excess of the public dose limit. At this level of exposure, there is no risk of radiation-related health effects.	
On the Environment: none	
Other Implications: none	
Licensee Actions	
Taken or in Progress: Licensee investigated the event, but was not able to identify an underlying cause.	
The licensee requested that the dosimetry provider (Landauer) investigate the dosimeter reading however their investigation concluded that after rereading the dosimeter, there did not seem to be any irregularities and imaging results were inconclusive as to whether the exposure was static or dynamic. The licensee has also reminded the individual that the dosimeter must remain at the site and should not be taken home.	
The licensee requested return to work authorization from the CNSC on May 15, 2019.	
Planned: Licensee made a commitment to monitor the individual with a direct reading dosimeter in addition to the normal dosimeter for the next 6 month. The DRD will be checked monthly by the RSO. The first check of the DRD indicates no additional dose to the individual.	
CNSC Actions	
Taken or in Progress: CNSC staff have reviewed the investigation report and the actions already taken and proposed by	

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EIR: Exposure above regulatory limit of a non-Nuclear Energy Worker at Provincial Health Services Authority

the licensee and has deemed them to be appropriate and sufficient. The dose reported is not unequivocally associated with the dose to the person. When taking into account the dose history of this individual and the doses received by other workers conducting the same type of work, it is likely that the dose of 1.85 mSv was non-personal.

Given the results of the licensee's investigation and the commitments made by the licensee to monitor the individual's dose, CNSC staff approved the licensee's return to work authorization request on May 17th, 2019.

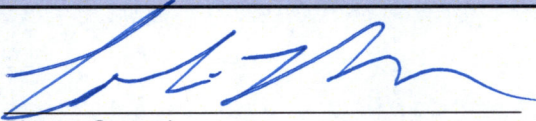
Planned: none

Additional reporting to the Commission Members anticipated:

Yes

No

If Yes, provide method of reporting: n/a

Name and Title	Signature
Colin Moses Directorate of Nuclear Substance Regulation	 Director General 2019/06/26 Date