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## Event Initial Report

## Rapport initial d'événement

### CancerCare Manitoba

Exposure above regulatory limit of a non-Nuclear Energy Worker

### CancerCare Manitoba

Dépassement de la limite autorisée pour un non-travailleur du secteur nucléaire

Commission Meeting

Réunion de la Commission

September 16, 2020

Le 16 septembre 2020

# EVENT INITIAL REPORT (EIR)

E-DOCS-# 6319692

EIR: Exposure above regulatory limit of a non-Nuclear Energy Worker at CancerCare Manitoba	
<b>Prepared by:</b> Accelerators and Class II Facilities Division, Directorate of Nuclear Substance Regulation	
<b>Licensee:</b> CancerCare Manitoba	<b>Location:</b> 675 McDermot Avenue, Winnipeg, MB
<b>Date Event was Discovered:</b> 2020-03-10	<b>Have Regulatory Reporting Requirements been met?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  <b>Proactive Disclosure:</b> Licensee: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> CNSC: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Overview	
<b>Reporting Criteria:</b> Exposure of a person, organ or tissue to radiation in excess or potential for excess of the applicable radiation dose limits prescribed by the <i>Radiation Protection Regulations</i> .	
<p><b>Description:</b> On March 10, 2020, the Radiation Safety Officer for CancerCare Manitoba (CCMB) reported to the CNSC that the radiation dose report from the licensee's licensed dosimetry service provider (National Dosimetry Services) indicated that one of its employees had received a dose of 3.54 mSv during the period 2019/10/01 to 2019/12/31. The employee is a radiation oncologist at CCMB. Employees of CCMB are not designated as Nuclear Energy Workers. Consequently, the dose reported was above the applicable regulatory dose limit of 1 mSv per year for a member of the public.</p> <p>The licensee investigation found that this was the first time that the staff member has received a dose above 0.1 mSv on his personal dosimeter. The oncologist reported taking care of his mother who had received a nuclear medicine pharmacological stress test performed over two days in November 2019. Based on information provided by the individual and common practices used in the Nuclear Medicine department, the estimated dose due to accompanying his mother was 1.39 mSv. While the licensee and the individual concluded that the dose was unlikely an occupational dose, they could not account for the dose of 3.54 mSv received by the dosimeter. 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><b>Cause(s):</b> The licensee's investigation was unable to identify with certainty any specific incident or event that could have resulted in a total dose reading of 3.54 mSv.</p>	
Impact of the Event	
<b>On People:</b>	
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.	
<b>On the Environment:</b> none	
<b>Other Implications:</b> none	
Licensee Actions	
<p><b>Taken or in Progress:</b> Licensee investigated the event, but was not able to identify an underlying cause for the total dose.</p> <p>The licensee requested that the dosimetry provider (National Dosimetry Services) investigate the dosimeter reading. The investigation concluded the dose readings across the dosimeter elements were consistent and did not indicate the presence of anomalies.</p> <p>The licensee requested return to work authorization from the CNSC on May 20, 2020.</p> <p><b>Planned:</b> none</p>	
CNSC Actions	
<p><b>Taken or in Progress:</b> CNSC staff have reviewed the investigation report and the actions already taken by the licensee and have deemed them to be appropriate and sufficient. The dose reported is not likely to be occupational.</p> <p>Given the results of the licensee's investigation, CNSC staff approved the licensee's return to work authorization request on June 1, 2020.</p>	

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EIR: Exposure above regulatory limit of a non-Nuclear Energy Worker at CancerCare Manitoba

NOTE: Both the licensee and CNSC staff had reason to believe that the 3.54 mSv was a non-personal dose until the licensee investigation was completed, which is why CNSC staff did not submit an EIR upon receiving the licensee's original event report. In addition, the impact of the COVID-19 pandemic introduced some further minor delays in preparing and submitting this EIR to the Commission.

**Planned:** none

**Additional reporting to the Commission Members anticipated:**

Yes

No

If Yes, provide method of reporting: n/a

Name and Title

Signature

**Karen Owen-Whitred**

Directorate of Nuclear Substance  
Regulation



Director General

Sept. 3, 2020

Date