



Date: 2020-09-03

File / dossier : 6.02.04

Edocs pdf : 6373150

Event Initial Report

Rapport initial d'événement

Suncor Energy Inc.

Fire at Suncor Tar Island location,
near Fort McMurray

Suncor Energy Inc.

Incendie au site de Suncor Tar Island,
près de Fort McMurray

Commission Meeting

Réunion de la Commission

September 16, 2020

Le 16 septembre 2020

EVENT INITIAL REPORT (EIR)

E-DOCS-# 6367940

EIR: Fire at Suncor Tar Island location	
Prepared by: NSRDLD/ DNSR	
Licensee: Suncor Energy Inc.	Location: Hwy 63, Fort McMurray, AB
Date Event was Discovered: 2020-08-14	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

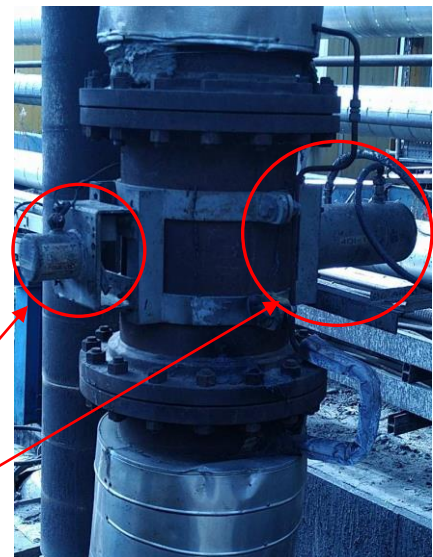
Reporting Criteria: An occurrence or incident that receives substantial media coverage or that has a high public visibility.

Description: A fire broke out in Plant 4 at the Suncor Tar Island location, located off highway 63 near Fort McMurray, AB on the evening of Friday, August 14th, 2020. The radiation safety officer (RSO) contacted the CNSC Duty Officer to report the situation on Saturday, August 15th, 2020 at approximately 12:00 pm (EST). There are 17 fixed nuclear gauges installed in Plant 4 and in the adjacent Plant 16. These gauges are installed outside of pipes and consist of a source holder on one side and a detector on the opposite side, as seen in the picture below. The RSO provided updates on August 17th, 24th, 27th, 28th and 31st and indicated that there were three gauges from Plant 4 and two from Plant 16 that were potentially impacted by the fire.

The licensee was able to get within 10 feet of the two gauges located in Plant 16 to obtain a dose-rate measurement, as scaffolding is required to get any closer. The RSO reported that the readings were approximately 0.5 µSv/hr at the 10 foot perimeter. He also indicated that the gauges appeared to be in good condition, with no obvious signs of damage to the areas around them. The radiation warning sign was still intact and had not melted. For the three gauges located in Plant 4 that are potentially affected, the licensee has not yet been able to safely access two of the gauges at that location to perform the initial assessments since they are in an area where there is high benzene concentration in the air. The RSO indicated that the fire did not reach that area and therefore they do not expect any heat damage but still want to confirm their condition. As for the remaining gauge, the RSO provided pictures of the gauge from Plant 4 that was closest to the fire (this is the photograph below). The RSO reported that measurements taken at approximately 1 foot using a long hand held survey meter, showed a dose rate of approximately 15 µSv/hr around the source holder and 2 µSv/hr on the detector side and that the plastic labels do not appear to have melted and insulation around it is still intact. The RSO also indicated that they will ask a qualified third party to come to the site to assess the conditions of all five potentially affected gauges once the plant is in a safe state.

As of August 28, 2020, safe barriers are still in place to ensure the areas are isolated, with no access to the gauges until the licensee can safely assess their condition. The full report for this event is to be submitted to the CNSC by September 5th (21 days following the event).

Note that this licensee also reported a fire at a different location within the Fort McMurray area in December 2019, for which an EIR was verbally presented to the Commission in that same month. CNSC staff provided an update on this EIR to the Commission in September 2020, noting the removal of the devices involved in that fire, which have been sent for storage until disposal.



Gauge

Detector

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EIR: Fire at Suncor Tar Island location	
Cause(s): The cause of the fire is currently unknown and is under investigation	
Impact of the Event	
On People:	
How many workers have been (or may be) affected? <u>0</u>	
How many members of the public have been (or may be) affected by the event? <u>0</u>	
How were they affected?	
No injuries or exposures to persons reported, there was no one in the building at the time that the fire broke out and survey meter readings taken near the five potentially affected gauges were at background	
On the Environment: N/A (from the nuclear substances)	
Other Implications: None	
Licensee Actions	
Taken or in Progress: The licensee is waiting for safe access to the potentially damaged gauges in order to have a full assessment completed by a third party expert.	
Planned: A full event report is due to the CNSC by September 5th, 2020.	
CNSC Actions	
Taken or in Progress: CNSC staff (Duty Officer) was informed and received the initial report on Saturday, August 15 th , 2020. Updated information was also provided to CNSC staff on August 17 th , 24 th and 27 th . The CNSC posted the information on this event on its website on August 26 th . CNSC staff will continue to review the information as it is being provided by the licensee.	
At this time there are no concerns with respect to safety of persons or the environment as the measured dose rates are within background levels.	
Planned: None	
Additional reporting to the Commission Members anticipated:	
<input type="checkbox"/> Yes	
<input checked="" type="checkbox"/> No	
If Yes, provide method of reporting:	
Name and Title	Signature
Karen Owen-Whitred	<i>K Owen-Whitred</i>
DNSR	Sept. 3, 2020
	Date