



April 17, 2019

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Subject: W2016D0003: Spill 2019127 Report

Pursuant to Part C, Condition 18(c) of Land Use Permit W2016D0003, Dominion Diamond Mines ULC (Dominion) is providing a detailed report on Spill 2019127 which occurred on March 20, 2019 at the Sable Fuel Tank Farm.

Summary

- At approximately 18:30 on March 20th a Generator Day Tank (9,000 L capacity) within the Sable Fuel Tank containment berm called for fuel from one of the four bulk tanks (467,000 L each) through the programmable logic controller (PLC) system.
- The pump continued to drain diesel from the bulk fuel tank and overflow the Generator Day Tank for approximately 8.5 hours until the bulk tank drained to a level that caused a loss of suction. The loss of suction caused the pump to shut off and stop the overflow.
- The event overflowed approximately 111,000 L of diesel into the contained berm.
- The fuel was effectively contained within the lined berm with no release to the environment.

Root Cause

The failure was caused by the High Level and High High Level switches freezing due to condensation from the temperature changes at the Ekati mine. The level floats were not able to move up and down because they were frozen.

Immediate Action Taken

The Hydrocarbons Department discovered the overflow and immediately closed off the bulk tank and shut off power to the pumps. Access to the Fuel Tank Farm was closed to both light



vehicles and heavy equipment. A full inspection of the containment berm was conducted to ensure that all diesel was being contained within the lined berm. The Environment Department was contacted to help assess the spill. The Environment Department contacted the Inspector and reported the spill to the ENR Online Spill Reporting Database.

Figure 1. Location of Spill 2019127 at Sable Development



Figure 2. Pooled Diesel near Generator Day Tank (March 21, 2019)



Figure 3. Pooled Diesel within Sable Fuel Tank Farm Containment Berm (March 21, 2019)





Follow Up Action Taken

- The Hydrocarbons Department have recovered 51,000 L of the spill from the containment berm and pumped it directly back into the bulk tank it drained from. Currently, more pooled diesel is under a layer of snow within the berm, and Dominion will attempt to recover more once the snow begins melting. Once all recoverable diesel has been pumped back into the tank, that bulk tank will be closed off until summer, at which time a contractor group will come to site, drain the water off the bottom, and filter any remaining fuel so that the product can still be used in the future.
- The Instrumentation Department has programmed timers into the PLC that will limit how much fuel can be pumped from the bulk tanks to each day tank. The PLC has been programmed to only allow filling of each day tank for the amount of time it takes to fill it. With this addition, even if the High and High High Level sensors fail the pump will only feed fuel to the day tanks for the set amount of time before kicking out.

We trust this report is clear and informative. If you have any questions or comments please contact the undersigned at dustin.chaffee@ddcorp.ca or (867) 669-6164 or Lynn Boettger at lynn.boettger@ddcorp.ca or (867) 766-6914.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Dustin Chaffee'.

Dustin Chaffee
Environment Advisor - Permitting
Dominion Diamond Mines ULC