Follow Up Report: #20-010 January 14, 2020 Hydraulic Oil Spill



The following information refers to spill 20-010 reported by Agnico Eagle Mines Ltd. on January 14, and is being provided in accordance with:

the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c

Description of Incident:

On January 14th at approximately 7 am, the 130 tonne Grove Crane was started up at the West Exhaust Raise and the crane operator began warming up the hydraulic components. The operator was notified that there was oil leaking from the crane enclosure. The operator shut the crane down immediately and went outside to investigate. It was noticed that a hydraulic line had ruptured.

The initial investigation completed by the Environment Department indicated that the contaminated surface area was approximately 4 m² with the spill located at 63°01′17″N, 92°13′58″W, approximately 220 m from the closest natural water body. Discussions with the maintenance department indicated that they placed 190 L of oil back into the machine and added an additional 10 L when the oil recirculated through the hoses. It is estimated that approximately 200 L of oil was spilled to the ground with the oil being contained on the crane pad.



 $\textbf{Figure 1:} \ \mathsf{Approximate} \ \mathsf{location} \ \mathsf{of} \ \mathsf{200L} \ \mathsf{hydraulic} \ \mathsf{oil} \ \mathsf{spill}.$

Spill Response & Cleanup:

The crane operator shut down the engine, placed absorbent spill pads and contacted the Maintenance Department to provide further assistance. Comprehensive cleanup was delayed until the crane could be removed. Once the crane was removed, the Energy and Infrastructure department completed the cleanup, using an excavator bucket to break the ice and collect the contaminated snow. Spill pads were disposed of as hazmat and contaminated snow was transported to the landfarm.



Figure 2: Spill and initial clean-up efforts at West Exhaust Raise.



Figure 3: Spill location following clean up, 30th January and 2nd February (left to right).

Corrective Measures

The hydraulic hose was inspected by the maintenance department and it was determined that there was some chaffing on the hose which may have caused a premature failure. Due to the location of the hose, a pre-start inspection would not have detected this issue. The maintenance department inspects hydraulic hoses during scheduled preventative maintenance, and replaces them as required. Operators inspect equipment for leaks during pre-start inspections. The maintenance department will continue to inspect and monitor this specific component and assess alternative options in the event of reoccurrence.



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