Follow Up Report: #19-380
September 15th, 2019 – Cyclone Separator Process Water Spill

The following information relates to spill 2019-380 reported by Agnico Eagle Mines Ltd. September 15th 2019, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water Licence, part H, item 8c and;
- section 38(7) of the Fisheries Act.

Description of Incident

At 12:30pm, Saturday 14th September 2019, during start-up of the cyclone system in the process plant, a blockage occurred preventing slurry and process water from passing through the cyclone unit. The system backed up causing process water and slurry to overflow to the floor of the process plant. Approximately 8m^3 of process water and slurry flowed outside of the building, onto the industrial pad. The majority of the slurry remained on the plant floor. The spill volume was estimate based on the area and depth of the spilled material.

The nearest natural water body (G2), 600m to the north, was not impacted. The spill occurred at 63° 2'13.63"N, 92°13'33.84"W, within the Meliadine managed water catchment.

Figure 1: Location of process water spill within Meliadine's managed catchment area.

Figure 2: Slurry overflow on Process Plant floor facing south.

Spill Response & Cleanup

Slurry, which spilled to the process plant floor, was collected for reprocessing. Slurry and contaminated material unsuitable for reprocessing has been stockpiled for disposal. The affected area was cleared with heavy equipment. Environment staff investigated the affected area and interviewed the plant manager.

Figure 3: Affected area outside of Process Plant following clean up, facing North.

Cause of Incident and Corrective Measures

A blockage on cyclone separator #1 went unnoticed by the control room operator, causing the system to overflow before the operator could stop the inflow. Slurry overflowed into the trash screen sump, which did not have capacity to contain the volume of overflow. The sump then overflowed and slurry flowed out of the building.

To prevent recurrence, operators grinding ore input have been instructed to increase the frequency of their inspections of the cyclone separators. To prevent the trash screen sump from overflowing, a hole will be drilled through the concrete wall to allow flow to migrate to the grinding sump pump.

AGNICO EAGLE

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