

Follow Up Report: #2022221

May 29th, 2022, Ammonium Nitrate Spill



The following information refers to spill 2022221 reported by Agnico Eagle Mines Limited May 29th, 2022, and is being provided in accordance with:

- the Nunavut Water Board License 2AM-MEL1631 Water License, part H, item 8c.
- Canadian Environmental Protection Act, 1999, Section 201, E2 regulations Facility ID number 1524.

Description of Incident:

On May 29, 2022 at approximately 8:30AM, the plant operator was loading the process belt with 1000 kg bags of Ammonium Nitrate (pellets). During this task the Ammonium Nitrate bag hit the doorway causing the bag to split open, spilling 100 kg of Ammonium Nitrate to the ground.

No water bodies were impacted by this spill. The closest natural water body (G8) is 335 m from the spill location. The coordinates of the spill are 63° 2' 38.96"N, 92° 15' 22.11"W (Figure 1)



Figure 1: Location of 100 kg Ammonium Nitrate spill

Spill Response & Cleanup:

The loading process was stopped, and cleanup was started immediately. The emulsion was contained to the local area as identified in Figure 2. It was determined that there was no risk of ignition during spill cleanup activities as emulsion requires high pressure and a heat source for detonation and none of these conditions were present or susceptible of being present during the spill cleanup.



Figure 2: 100 kg Ammonium Nitrate spill

The recuperated Ammonium Nitrate material will be used at the open pit inside bore holes as part of the blast pattern during future events as initially intended.



Figures 3-4: Spill area final cleanup and contaminated material packeted and ready to be disposed

Cause of the Incident and Corrective Measures

The cause of the spill was determined to be human error. The worker moving the Ammonium Nitrate bag caught the side of the bag on the door frame causing the bag to split, spilling the solid pellets to the ground.

Dyno Nobel supervisors reviewed the Operations Procedure with the Dyno Nobel employees to ensure proper work practices are used to prevent future spills that could occur around the loading area. A toolbox meeting with Dyno Nobel team was also conducted by Dyno Nobel supervisors to reiterate the importance of having clear concentration when conducting work - if any employee feels fatigued, this must be reported to the acting supervisor. The operator working when the spill occurred was also met with individually on these topics to ensure understanding and conformance.

A field observation of operator loading practices was conducted to ensure all operators are competent with the equipment. Due to the tight confine of the area, it has been determined that the use of a spotter is not possible due to a safety risk of a spotter during loading operations. This is the first ammonium nitrate spill that occurred in this area since the construction of the plant.