

Follow Up Report: #19-021

January 20, 2019 Boiler Recirculation Loop Leak

Description of Incident:

Due to failure of an expansion joint on the boiler recirculation system, approximately 200L of water with corrosion inhibitor (Drewgard 4109) spilled to ground. Most recently the of water was analyzed with a concentration of 0.195ppm of Drewgard. The water froze and 12m³ of snow and ice was transferred to P3, a containment pond within the site's managed water system. No water body was impacted. The nearest body of water is >300m away. The coordinates of the spill were, 63° 2'19.52"N, 92°13'39.97"W.



Spill Response & Cleanup:

Site personnel shut off valves preventing further release of water from the boiler recirculation system. Water followed through the floor of the Arctic corridor to ground and froze. Frozen water from the system was cleaned up with heavy equipment. Material was transported and contained in P3, part of the site's water management system.

Spill Cause and Corrective Measures

The release occurred due to the failure of an expansion joint in the boiler recirculation system. The cause of the failed component is unknown and is currently under investigation by the external system provider (BBA). The expansion joint was replaced and the system inspected for leaks.



Figure 1: Water from boiler recirculation system being removed from ground.



Figure 2: Frozen material prior to being transported to P3.