

Linton, Ron

From: Scott Schierman (USA - Casper) <Scott.Schierman@uranium1.com>
Sent: Friday, August 10, 2018 6:45 PM
To: Linton, Ron
Subject: [External_Sender] Spill report for Pump Station 8 at Willow Creek
Attachments: Pump Station 8 Spill Report NRC Final 8.10.18.pdf

Ron

Please find the attached spill report for Pump Station 8 spill that occurred on August 6, 2018.

If you have any question please contact at (307) 233-6330 or email at scott.schierman@uranium1.com .

Regards,

Scott Schierman | HSE Manager
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August 10, 2018

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
Mr. Ron Linton, Project Manager
Decommissioning & Uranium Recovery Licensing Directorate
Division of Waste Management & Environmental Protection
Office of Federal and State Materials &
Environmental Management Programs
11545 Rockville Pike
Rockville, MD 20852-2738

Subject: License SUA-1341, Docket No. 40-8502 (Electronic Submittal Only)
Willow Creek Project
August 6, 2018
Pump Station 8 Release
Christensen Ranch

Dear Mr. Linton:

In accordance with License Conditions 12.2 and 9.2 of the referenced license, this correspondence serves as the written notification for a release of approximately 4,130 gallons of recovery fluids from Pump Station 8 (no Oxygen, Carbon Dioxide, or Bi-Carb was being added to the water at the time of this spill) to maintain an inward hydraulic gradient for Mine Units 8 and 10. The spill was discovered on August 6, 2018 at 1400 hours and reported to the NRC on August 7, 2018 at approximately 1100 hours. The spill area is within the permit area for Mine Permit 478 in Section 35 of Township 45N, Range 76W. The release was reported via voice message to you as the NRC Project Manager, and also to WDEQ on August 7, 2018.

The details of the spill are included on the attached Spill Report Summary along with a map of the surface spill location. Note that there were no significant impacts to the public, environment, wildlife or livestock as a result of this incident.

Please contact me should you have any questions regarding this report.

Sincerely,



Scott Schierman
HSE Manager

**Uranium One USA, Inc. - Willow Creek Project
Spill Report Summary
Pump Station 8 (Recovery) Fluid Releases**

Date and Estimated Time (beginning & end)

From: August 6, 2018, (unknown time)

To: August 6, 2018, 2:00 p.m.

Location

Christensen Ranch Pump Station 8
Section 31, Township 45N, Range 76W
Johnson County, Wyoming
(See attached map for detailed location)

Spill Type

ISR recovery fluid (No Oxygen, Carbon Dioxide, or Bi-Carb addition to the water) from Mine Units 8 and 10 wellfields. Wells were running in Mine Units 8 and 10 to maintain a cone of depression for these wellfields.

Estimated Volume Released and Probable Cause

Spilled: Approximately 4,130 gallons of recovery fluid was released from Pump Station 8. Corrosion to the recovery bypass valve resulted in a pencil diameter hole that allowed recovery fluid to release in the Pump Station 8 building. Recovery fluid flowed to the building sump, which transferred the solutions into a 1000-gallon storage tank located adjacent to the Pump Station 8 building. The hose utilized to transfer solutions from the building sump to the 1000-gallon tank dislodged from the tank and pumped the recovery solutions onto the ground. The building sump was discharging into the 1000-gallon tank because the current sump pump would not overcome line pressure to allow recovery solutions to be pumped back into the recovery line. With solutions being transferred from the building sump the leak detection alarm did not notify the operations at the Christensen satellite control room. Follow-up investigation indicated the leak detection system for the sump was operational.

Estimated Volume Recovered

Approximately 1,000 gallons of recovery solutions were recovered from the storage tank adjacent to the Mine Unit manhole.

Spill Analysis Results

A sample of the 4,130 gallons of recovery fluid released was obtained on August 6, 2018. The results were as follows:

U₃O₈ 9.6 ppm

Impacts

The release followed the existing grade, approximately 100 foot to the south of an ephemeral draw located near Pump Station 8. The approximate surface area of the impacted was 2,803 square feet and flowed . No wildlife or livestock were impacted, nor did the spill reach surface water or the subsidiary to any waterways. No significant erosion resulted from the release.

Soil Surveys & Analysis Results

No soil samples were collected at the time this report was issued.

Remediation Actions

Uranium One has replaced the failed recovery bypass valve and the system has been placed back into service without further incident.

Explanation of the Root Cause

The root cause for this spill was determined to be the corrosion of the recovery by-pass valve that resulted in a pencil-sized hole that allowed recovery water spill into the building. A contributing factor for the spill was the transfer line from the sump to the 1,000-gallon storage tank. Because the sump pump was transferring solutions to the storage tank the sump leak detect never reached a level that sent an alarm to the satellite control room.

Corrective Actions

Uranium One has ordered a sump pump that will allow water to be pumped into the recovery line that is capable of overtaking the line pressure. Programing will be added that will alarm to the satellite control room the sump pump is operating so personnel can respond to a potential leak. The water storage tank will be removed from Pump Station 8. Leak detection systems will continue to be checked periodically as a preventative actions measure.

Agency Reporting

WDEQ: Luke McMahan - Permit Coordinator; August 7, 2018 (phone call, message)
Written Report to follow

NRC: Ron Linton - Project Manager; August 7, 2018 (phone call, message)
Written Report to follow

Attachement: Google Earth Photo of Pump Station 8 spill area.

