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LOST CREEK ISR, LLC

August 25, 2017

40-9068

Nancy Williams
State of Wyoming
Department of Environmental Quality - Land Quality Division
510 Meadowview Drive
Lander, WY 82520

AND

ATTN: Document Control Desk
Nuclear Regulatory Commission
Washington, D.C. 20555-001

Re: Notification of Release – HH1-6 (Report 28)
Lost Creek ISR Project Permit #788

Dear Ms. Williams and To Whom It May Concern,

In accordance with Wyoming Department of Environmental Quality Land Quality Division (WDEQ-LQD) regulation, Lost Creek ISR, LLC ("LCI") hereby provides a written report detailing a release of injection fluid that was reportable to WDEQ. Using the spill report webpage, LCI notified WDEQ-Water Quality Division (WQD) of the unplanned release on August 19, 2017 (Incident ID 170819-0936). Additionally, LCI notified WDEQ-LQD (Nancy Williams) and NRC (John Saxton) of the release via email on the same day it was reported to the WQD. Following the analysis of operational flow data, a conservative release volume was estimated to be approximately 188,000 gallons adjusted for the volume of fluid contained within the HH basement (13,000 gal) and volume recovered from the ground by vacuum truck (3,200 gal). The release originated in Header House 1-6 (HH1-6) at T25N R92W Section 19 NENE qtr-qtr and covered approximately 0.55 acres and is shown on the attached figure.

The event began late in the evening of August 18, 2017. Following the observation of flow anomalies by the shift operators, the Mine Manager was notified, troubleshooting began, and a Wellfield Operator eventually discovered water flowing in the drainage near HH1-6 tracking it to injection fluid originating from a broken 6 inch injection line within the basement of HH1-6. A PVC flange connected to polyethylene pipeline at a 90 degree turn had broken and ruptured. The flow to the HH

NMSS01

was stopped by closing the injection trunk line valve in the HH1-6 valve vault and the HH was shut down via e-stop. Other management was then notified on the morning of August 19.

Analysis of the fluid contained in the HH basement was approximately 24 ppm (U3O8) of uranium. The elevated uranium values were likely due to operators engaging the Plant bypass by which wellfield flow is circulated back to the wellfield during upset conditions causing production fluid to be circulated back to the wellfield injection circuit which only occurred for a short time. Most of the flow was likely at the injection fluid concentration of 1.2 ppm of uranium. Soil samples were collected from the affected release area and submitted for analysis of uranium and Ra-226 for which results are pending.

The likely cause of the break was chronic stress on the PVC flange from lateral pipe forces that existed following pipe modifications.

Corrective actions include:

- Operations personnel will be retrained on evaluating remote monitoring data to troubleshoot and identify problems more quickly
- Plant personnel will be retrained on what conditions warrant the use of Plant bypass flow
- Discuss strategies with construction personnel so they can prevent the introduction of undue stress on components during construction.

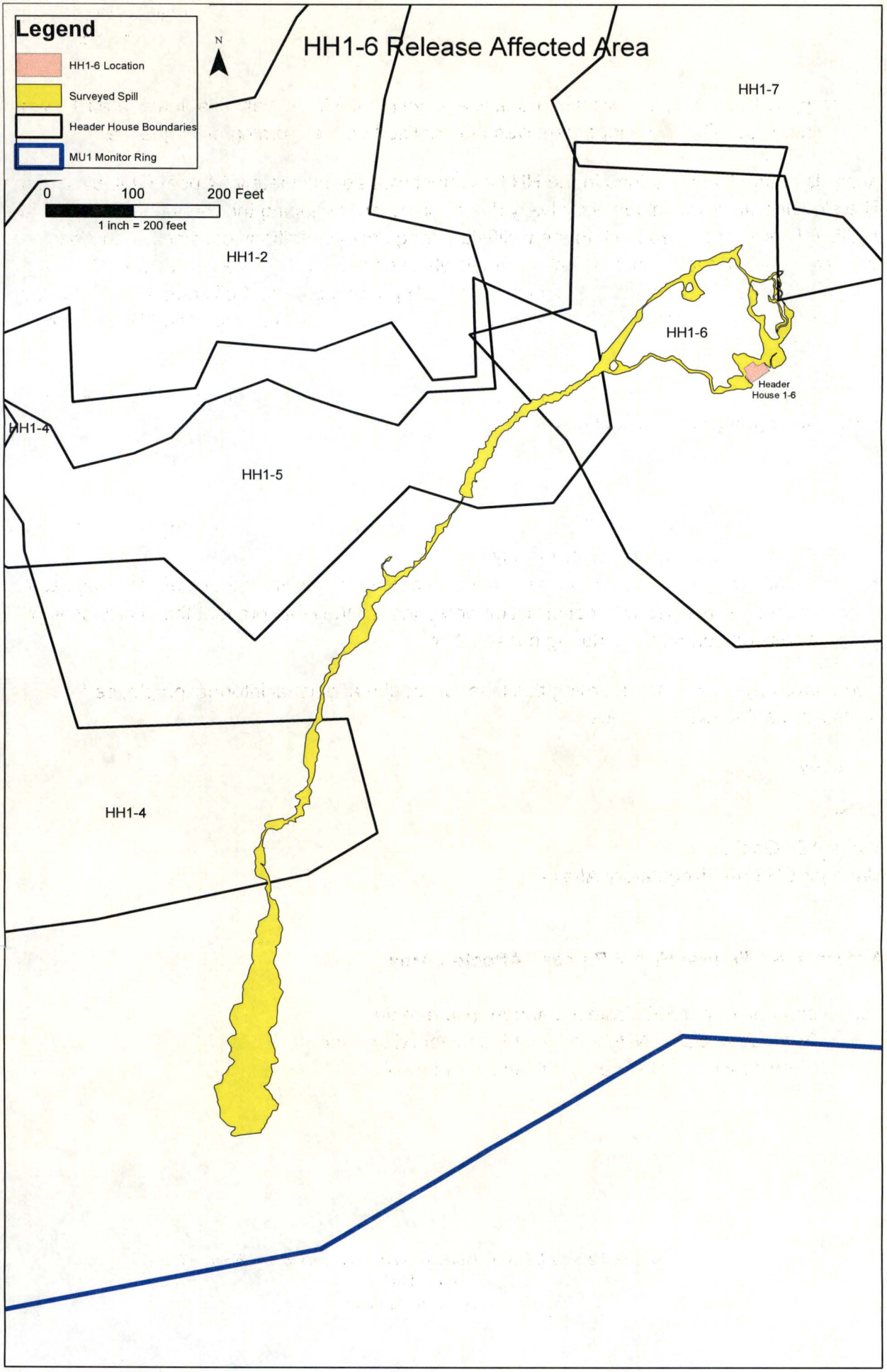
If you have any questions regarding this letter or require additional information please feel free to contact me at the Casper Office.

Sincerely,

Michael D. Gaither
Manager EHS and Regulatory Affairs
Ur-Energy USA, Inc.

Attachments: **Figure: HH1-6 Release Affected Area**

Cc: John Saxton, NRC Project Manager (via e-mail)
Bernadette Baca, NRC Region 4 Inspector (via e-mail)
Theresa Horne, Ur-Energy, Littleton (via e-mail)


Legend
HH1-6 Location
Surveyed Spill
Header House Boundaries
MU1 Monitor Ring
N
HH1-6 Release Affected Area
0
100
200 Feet
1 inch = 200 feet
HH1-7
HH1-2
HH1-6
Header House 1-6
HH1-4
HH1-5
HH1-4