



January 16, 2006

Smith Ranch - Highland
Uranium Project
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Mr. Lowell Spackman, District 1 Supervisor
Land Quality Division
Wyoming Department of Environmental Quality
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

RE: Permit to Mine No. 633
In Situ Uranium Wellfield Release Report

Dear Mr. Spackman:

As reported to Mr. Steve Ingle of the Land Quality Division and Mr. Paul Michalak, NRC Project Manager, via e-mail on January 9, 2006, Power Resources, Inc. (PRI) had a release of Injection Fluid at the Smith Ranch Uranium Project in Converse County, Wyoming. It is estimated that approximately 6,240 gallons was released to the ground. The release was detected on January 9, 2006 in Mine Unit-3 at Headerhouse 3-3. The releases occurred when a rubber gasket failed on the main IC line due to high pressures in the IC line, and failure of the high/low pressure automatic shutdown device to function.. The concentrations of uranium, selenium and radium in Injection Fluid are above background levels, however the fluid is not considered hazardous material under RCRA, and is not reportable under SARA.

In accordance with Chapter IV, Section 4(a)(iv) of the Water Quality Division Rules and Regulations, attached is a report describing the release and the steps taken to prevent a recurrence of this nature.

Please call if you have any questions.

Sincerely,

Ken Milmine
Manager-Health, Safety
& Environmental Affairs

KLM

Cc:	Paul Michalak – NRC Project Manager	C. Foldenauer	M.D. Bryson
	S. Hatten	File SR 4.3.3.1	File SR 4.6.4.2
	B. Johnson		File SR 4.6.4.4



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Attachment

Power Resources, Inc Smith Ranch-Highland Uranium Project URANIUM IN SITU WELLFIELD FLUID RELEASE REPORT

Headerhouse 3-3 Main 6-inch IC Line Gasket Failure

A. DESCRIPTION OF THE EVENT AND MITIGATIVE ACTIONS TAKEN

On January 9, 2006 at approximately 12:30 a.m., personnel discovered an Injection Fluid leak and Headerhouse 3-3 at the Smith Ranch Uranium Project. The release occurred when a full-faced rubber gasket failed at the "T" for the main 6-inch IC line. Upon discovery, the well was immediately placed out of service until repairs can be made. The failure was caused from high pressures in the IC line and failure of the high/low pressure automatic shutdown device to function. The high pressure exceeded the rating for the full face rubber gasket and the gasket failed. The high pressure occurred as a result of startup of the new IC booster pumps for Satellite SR-1, despite careful measures that were taken during startup to reduce the pressure on other wellfields.

An estimated 6,240 gallons of Injection Fluid flowed from the headerhouse. The released fluid flowed approximately 1000 feet and absorbed into the ground. Soil samples will be taken to determine potential effects in the spill area. The released fluid did not enter waters of the state.

The approximate uranium concentration of the Injection Fluid was 1.7 mg/l. The entire area will be reevaluated during the decommissioning of the wellfield to ensure that applicable decommissioning standards for soils are met. Although no adverse impacts are expected due to the small quantity of fluid involved, the small extent of the spill, and the low concentrations of uranium, soil samples will be obtained at two locations within the wetted area and at an adjacent background site. The samples will be analyzed for uranium, radium-226 and selenium.

The release occurred in the SW ¼, Section 26, T36N, R74W and affected approximately 0.75 acres. The exact location and extent of the spill is shown on the attached map.

B. CAUSE OF THE RELEASE AND THE STEPS TAKEN TO PREVENT RECCURANCE

Cause

The release occurred when a full-faced rubber gasket failed at the "T" for the main 6-inch IC line. The failure was caused from high pressure in the IC line and failure of the high/low pressure automatic shutdown device to function. The high pressure exceeded the rating for the full face rubber gasket and the gasket failed. The high pressure occurred as a result of startup of the new IC booster pumps for Satellite SR-1, despite careful measures that were taken during startup to reduce the pressure on other wellfields.

The high pressure shutoff switch did not function in this case. The switch was tested after the incident using a static pressure method and it functioned properly. PRI can find no reason why it did not function correctly in this instance.

Recurrence Prevention

PRI plans to implement the following corrective actions as a result of this spill:

- Install pressure-reducing valves (PRV) in operating Headerhouses in Mine Unit-3. Installation of the PRVs will provide additional controls to prevent high pressure situations at the headerhouses.
- Remove orifice plates in Mine Unit-3. By removing these plates, the number of gaskets that could fail will be reduced. The orifice plates can be removed since oxygen is no longer being added to the system.
- Install wet alarms and alarm lights at each operational headerhouse in Mine Unit-3. The alarm lights will be installed to activate from signals from the wet alarms installed on the headerhouse floor and also when the automatic high/low pressure switch is triggered.
- Retest and reset high/low pressure switches currently installed in Mine Unit-3 to ensure all are functioning properly.
- Flow from Mine Unit-3 will be sent to the Central Processing Plant instead of Satellite SR-1 until the corrective actions described above are completed. This will eliminate the potential for high pressure due to the booster pumps until the additional fail-safe controls are in place. PRI will continue to exercise diligence in operating this wellfield to ensure high pressure situations do not occur.

