

September 29, 2009

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. 603, Release of Treated Water Report

Dear Mr. Spackman:

As reported to Ms. Pam Rothwell of Wyoming Department of Environmental Quality, Land Quality Division (WDEQ/LQD), Mr. Doug Mandeville, Nuclear Regulatory Commission (NRC), and Laura Asbury, WDEQ, Water Quality Division (WDEQ/WQD), on September 24, 2009 Power Resources, Inc. d/b/a Cameco Resources (CR) had a release of treated process water at the Smith Ranch-Highland Uranium Project in Converse County, Wyoming. This written report is provided within the seven day requirement for documenting spills greater than 420 gallons.

Approximately 90,600 gallons were released with 22,000 gallons recovered from Bellhole No. 21E near Header House 1 in Mine Unit E. A water sample was collected upon discovery of the release and analysis indicated that uranium was 0.01 mg/L and selenium was 34 ppb. Soil samples (0-6 inches) were collected on September 24, 2009 and a gamma survey of the release area was conducted using a MicroR meter. The soil samples have been sent to an outside laboratory for analysis of uranium, radium-226, arsenic, and selenium; results should be available within 30 days. These results will be provided to the DEQ along with CR recommendations for further action based upon the results. The gamma survey indicated background levels of radiation. Initial sampling and known characteristics of this treated water indicate the affects to human health and the environment are negligible. The release is located in the SW ½ of the SW ½ of Section 14, T36N, R73W, Converse County, Wyoming. A field map is attached reflecting the GPS measurements taken during spill response.

The leak was detected at approximately 2:30 PM on September 23, 2009. The release had resulted from an open, unused three-inch clean-out line connected to the Selenium Treatment Plant. The water from the Selenium Treatment Plant had undergone ion exchange for uranium removal, barium chloride treatment for radium removal, and had gone through the ion exchange sand filters for selenium removal. The source of the release was immediately turned off and two vacuum trucks were mobilized to the scene – picking up 22,000 gallons of the released water.

CAMECO RESOURCES
Smith Ranch-Highland
Operation
Mail:
P.O. Box 1210
Glenrock, WY
82637 USA

Tel: (307) 358-6541 Fax: (307) 358-4533 www.cameco.com The released water is not considered hazardous material under RCRA and is not reportable under SARA.

The DEQ visited the site of the release on September 28, 2009 and provided some comments on proposed corrective actions. A separate letter will be issued addressing these concerns.

An Apparent Cause Investigation will be completed and results maintained on file for review during future inspections. CR's Spill Committee will also meet to address this release and make recommendations to mitigate re-occurrences.

Please call me at (307) 358-6541 ext. 429 if you have questions.

Sincerely,

Wayne Anderson

angelo Kellen for

Interim Manager, Environment, Health and Safety

Attachment: Map

cc: T. Cannon

M. Bryson

S. Bakken

D. Kolkman

S. Miller

J. Jarrell

B. Kluchewski

File SR 4.3.3.1

File SR 4.6.4.4

Doug Mandeville – NRC Project Manager (2 copies)

A. Kallas

Joe Hunter - Water Quality Division

