



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION IV  
1600 E. LAMAR BLVD.  
ARLINGTON, TX 76011-4511

August 30, 2016

EA-16-156

Mr. Brent Berg, President  
Cameco Resources  
Power Resources, Inc.  
550 N Poplar St.  
Casper, WY 82601

**SUBJECT: CONFIRMATORY ACTION LETTER – POWER RESOURCES, INC.**

Dear Mr. Berg:

On March 29, 2016, Energy Fuels Resources, Inc.'s (EFRI) White Mesa Mill in Blanding, Utah, received a leaking intermodal container of barium sulfate sludge, bearing low levels of radioactive material, shipped as exclusive use from Power Resources, Inc.'s (licensee) Smith Ranch-Highland Uranium Project (Smith Ranch) on March 28, 2016. Upon receipt, EFRI White Mesa Mill informed the State of Utah about the incident. In addition, this incident was reported to the U.S. Department of Transportation (DOT) National Response Center on March 29, 2016, by the transportation carrier after it arrived at EFRI White Mesa Mill.

On March 31, 2016, and over the following days, the licensee provided additional details about the incident to the U.S. Nuclear Regulatory Commission (NRC) staff through telephone calls and emails. The State of Utah also provided details about the incident to the NRC by letter dated April 26, 2016. The State of Utah's letter is available electronically from the NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML16242A080. This incident was identified by the State of Utah to be the second leaking intermodal container shipped by the licensee to the EFRI White Mesa Mill. The first incident occurred on August 19-20, 2015.

The NRC performed an inspection at the Smith Ranch facility on June 20-23, 2016, which included a review of the two transportation incidents. Based on the inspection of these two incidents, the NRC identified several issues involving the licensee's shipments of barium sulfate sludge. These issues included the licensee's apparent failure to:

- Accurately determine the radioactive material content in the barium sulfate sludge as either Low Specific Activity (LSA) LSA-I or LSA-II material;
- Effectively describe the material as barium sulfate sludge on shipping papers, and account for substantial quantities of liquid in the shipments;
- Effectively package and transport barium sulfate sludge in a manner that would ensure the radioactive contents would not leak from the container while under routine transport conditions; and

- Effectively package and transport barium sulfate sludge in such a manner that one container did not exceed the DOT external contamination limits for alpha emitting radionuclides.

While the licensee took several corrective actions after the August 19-20, 2015, incident, the corrective actions were not effective and a similar transportation incident involving a contaminated container occurred on March 28-29, 2016. The second transportation incident resulted in the exclusive use shipment exceeding the applicable alpha emitting radionuclide external contamination limits provided in DOT regulations.

Based on the (1) repetitive nature of licensed material leaking from intermodal containers during transit; (2) deficiencies in the licensee's transportation program as identified by the NRC inspectors; and (3) the licensee's failure to determine the quantity and accurately describe the physical and chemical forms of the material on the shipping papers, the NRC is issuing this Confirmatory Action Letter.

Pursuant to a follow-up telephone conversation between Doug Pavlick, General Manager US Operations, Mike Thomas, Director of the Safety, Health, and Environment Quality, and other members of your staff and Linda Howell, Deputy Director of the Division of Nuclear Materials Safety and Bernadette Baca, Health Physicist, on August 23, 2016, it is our understanding that Power Resources, Inc. will take the following actions:

1. As confirmed during the above noted telephone conversation on August 23, 2016, Power Resources, Inc. will cease shipments of barium sulfate sludge material until the following actions have been completed and approval to resume shipping operations for barium sulfate sludge has been obtained from the NRC in writing:
  - a. Conduct a root cause analysis to identify specific causes for the inadequate packaging and transportation of barium sulfate sludge that resulted in two instances of a contaminated container arriving at the EFRI White Mesa Mill in Blanding Utah.
  - b. Conduct an assessment of the radioactive material present in the barium sulfate sludge shipped to the EFRI White Mesa Mill over the past three years. Assess the barium sulfate sludge for radioactivity concentrations and identify any shipments that exceeded the EFRI White Mesa Mill's acceptance criteria for LSA material.
  - c. Develop a corrective action plan and corresponding schedule to restore compliance and prevent recurrence of the transportation incidents.
2. Provide the NRC a copy of the independent expert's review of your transportation program, which you voluntarily initiated.
3. Provide the NRC the results of the analysis and assessments identified in 1.a. and 1.b. above, as well as copies of the corrective action plan and independent expert's review to the Director, Division of Nuclear Materials Safety, U.S. Nuclear Regulatory Commission, Region IV, 1600 E. Lamar Blvd., Arlington, TX 76011, within 45 days of the date of this letter.

Pursuant to Section 182 of the Atomic Energy Act, 42 U.S.C. 2232, you are required to:

1. Notify me immediately, in writing, if your understanding differs from that set forth above;
2. Notify me, in writing, if for any reason you cannot complete the actions within the specified schedule and advise me, in writing, of your modified schedule in advance of the change;
3. Notify me, in writing, if for any reason you intend to change, deviate from or not complete any of the commitments set forth above, and advise me, in writing, of the changes or deviations; and
4. Notify me, in writing, when you have completed the actions addressed in this Confirmatory Action Letter.

Issuance of this Confirmatory Action Letter does not modify or amend Power Resources, Inc.'s license, and does not preclude issuance of an Order by NRC making the above commitments legally binding requirements or requiring other actions on the part of the licensee. In addition, the NRC is not precluded from taking enforcement action for violations of NRC requirements that may have prompted the issuance of this Confirmatory Action Letter.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter and your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, security-related or safeguards information, so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information.

If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

B. Berg

- 4 -

If you have any questions concerning this matter please contact Mr. Jack E. Whitten, Chief, Fuel Cycle and Decommissioning Branch, Division of Nuclear Materials Safety. Mr. Whitten can be reached at 817-200-1197.

Sincerely,

*/RA/*

Kriss M. Kennedy  
Regional Administrator

Docket No. 040-08964  
License No. SUA-1548

B. Berg

- 4 -

If you have any questions concerning this matter please contact Mr. Jack Whitten, Chief, Fuel Cycle and Decommissioning Branch, Division of Nuclear Materials Safety. Mr. Whitten can be reached at 817-200-1197.

Sincerely,

*/RA/*

Kriss M. Kennedy  
Regional Administrator

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ADAMS ACCESSION NUMBER: ML16238A359

<input checked="" type="checkbox"/> SUNSI Review By: <b>RJE</b>	ADAMS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Sensitive <input checked="" type="checkbox"/> Non-Sensitive	<input type="checkbox"/> Non-Publicly Available <input checked="" type="checkbox"/> Publicly Available	Keyword	
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DATE	08/24/16	08/24/16	08/24/16	08/25/16	08/30/16

**OFFICIAL RECORD COPY**

Letter to Brent Berg from Kriss M. Kennedy, dated August 30, 2016.

SUBJECT: CONFIRMATORY ACTION LETTER – POWER RESOURCES, INC.

DISTRIBUTION:

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SERVICE LIST

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Scott T. Anderson, Director Division of Radiation Control Dept. of Environmental Quality PO Box 144880 Salt Lake City, UT 84114- 4880	Mike Thomas Safety, Health, Environment, and Quality Director Cameco Resources Smith Ranch-Highland Operation P.O. Box 1210 Glenrock, WY 82637	Brent_Berg@cameco.com  Mike_Thomas@cameco.com  Doug_Pavlick@cameco.com