Cameco

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HAND DELIVERED

Mr. Robin Jones
District 1 Supervisor
Land Quality Division
Wyoming Department of Environmental Quality
122 W. 25th Street
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Response to June 2013 Monthly Excursion Report Review and Review of 90 Day Excursion Control Plan for KMO-007, Cameco Resources, Smith Ranch-Highland Uranium Project

Dear Mr. Jones:

Power Resources, Inc. d/b/a/ Cameco Resources (Cameco) respectfully submits the attached response to LQD's review of the June 2013 Monthly Excursion Report and the 90 Day Excursion Compliance Schedule for the excursion at Monitor Well KMO-007, received in a letter dated August 20, 2013.

Please contact me at 307-358-6541, ext. 476 or Kenneth_Garoutte@cameco.com if you have questions.

Respectfully,

Ken Garoutte
Safety, Health, Environment, Quality (SHEQ) Manager

KG/vg

Attachments: Response to LQD Review of the June 2013 Monthly Excursion Summary and 90 day Excursion Compliance Schedule for KMO-007

cc: File HUP 4.3.3.1 File SR 4.3.3.1
Special Volume: Monthly Excursion Reports Summary Updates, Permit 603 and 633
Mr. Doug Mandeville, NRC - CERTIFIED MAIL # 7011 3500 0000 5274 1969
Document Control Desk, NRC - CERTIFIED MAIL # 7011 3500 0000 5274 1976

ec: Cameco-Cheyenne

RESPONSE TO REVIEW OF JUNE 2013 MONTHLY EXCURSION REPORT AND REVIEW OF THE 90 DAY EXCURSION COMPLIANCE SCHEDULE FOR KMO-007 CAMECO RESOURCES

INTRODUCTION

Cameco submitted the 90 day Compliance Plan and Schedule for well KMO-007 within the June Monthly Excursion Update dated July 1, 2013. In a letter dated August 20, 2013 Cameco received LQD's review of the Compliance Plan and Schedule. In this letter LQD recognized that Cameco wanted LQD staff to visit the Smith Ranch Highland Operation site and allow Cameco to present the investigation results for the excursion at KMO-007. The visit was scheduled for August 28, 2013 at which time Cameco presented the investigation findings and discussed with LQD a suitable path forward. The following provides LQD comment from the August 20, 2013 letter and Cameco responses.

COMMENTS

1. *LQD understands that a significant amount of investigative work is ongoing to identify the cause of the vertical excursion. We would appreciate an explanation for what seems to be an extended length of time to remediate the excursion following the investigations at KMO-007. Please provide an explanation for the time period required to remediate the excursion. As the regulation (Chapter 11, Section 12(d)(iii) requires a schedule for bringing the well off excursion, it is requested that the schedule provide interim requirements with the dates for their achievement in lieu of the proposed compliance date of March 2014. (PRC)*

Cameco Response:

The proposed compliance date of March 2014 was provided to LQD in the 90 day Compliance Plan and Schedule for the remediation of the excursion at KMO-007 because Cameco felt that a 1year time frame from the confirmed excursion date was an appropriate objective and because investigations were still being conducted at the time of the 90 day Compliance Plan and Schedule submittal.

On August 28, 2013 Cameco presented investigation findings and discussed with LQD a suitable path forward to address the excursion at KMO-007.

Finding Discussed:

- Cameco looked at historical analytical data for KMO-007 and compared it to the surrounding KMO wells. This comparison showed that KMO-007 began to deviate from the normal water quality of these wells starting in early 2012.
- Mechanical Integrity Test (MIT) was conducted on KMO-007 and the well passed.
- A pump test was conducted on the production aquifer and showed no communication between the production sand and the overlying aquifer.

- A cross section was made to inspect the confining layers. The cross section showed that the confining layer present between the production O sand and the overlying Q sand is of significant thickness (greater than 100 feet).
- A pump test was conducted on the overlying aquifer and showed no abnormalities with normal communication in the overlying monitor wells.
- MIT's were conducted on 18 injection wells and 5 production wells in the vicinity of KMO-007, all passed. In 2012, 5 year MIT's were conducted in Mine Unit K with no failures identified in the KMO-007 area at that time.
- Guideline 8 sample results are not indicative of lixiviate, and when compared to baseline data were very similar.

Conclusions:

- No casing leaks or annular spaces failures were identified.
- No hydrologic communication was observed between the production aquifer and overlying aquifer. A good confining layer exists.
- Water samples obtained from KMO-007 do not resemble production fluid in their chemical makeup.
- The excursion could be naturally occurring or potentially an inclusion.

Cameco and LQD acknowledged that the excursion at KMO-007 is atypical. It was agreed the continued monitoring of this well would be maintained without any corrective actions for the remainder of 2013. At that time the excursion will be reevaluated and one of the following could happen:

1. If parameters remain stable a UCL adjustment could be made.
2. If the well gradually trends down over time, weekly monitoring will continue, unless concentrations have dropped below UCL parameters, then regular compliance monitoring will resumed.
3. If the well trends up over time, further investigation actions will be needed with an updated Compliance Plan and Schedule provided to LQD.