



# Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.*



Matthew H. Mead, Governor

Todd Parfitt, Director

February 5, 2013

Mr. Ken Garoutte  
Manager-Health, Safety and Environmental Affairs  
Cameco Resources, Inc.  
PO Box 1210  
Glenrock, WY 82637

**RE: TFN 5 1/119, Approval of Minor Revision, Restoration Plan Revision, Cameco Resources, Permit 603, Change No. 84, Revision No. 4**

Dear Mr. Garoutte:

This letter serves as Land Quality Division's (LQD) approval for the above referenced Minor Revision. The submittal has been reviewed by LQD staff and found to be technically adequate. All technical issues were completed under the T-7 review which is enclosed. Please note a condition has been placed on the Form 11 requiring CR to provide a permit revision by **March 31, 2013** to address the operational limitations which appear to be delaying the acceleration of restoration of wellfields that have been idle for a long period of time.

Approval of this revision provides an updated water balance and restoration schedule to Permit 603 as well as text clarification to the restoration plan. In the event that revisions other than those listed on the Index of Changes inadvertently occurred within this package, those revisions are not automatically considered approved.

LQD will insert the approved pages into the permit document according to the Index of Changes. LQD will track this Minor Revision as **Change No. 84, Revision No. 4**.

There are no changes to the permitted acres, affected acres, or the surety as a result of this Minor Revision.

If you have any questions, please contact [pam.rothwell@wyo.gov](mailto:pam.rothwell@wyo.gov) or 307-777-7048.

Sincerely,

Nancy Nuttbrock  
Administrator  
Land Quality Division

Herschler Building • 122 West 25th Street • Cheyenne, WY 82002 • <http://deq.state.wy.us>

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TFN 5 1/119, Approval of Minor Revision  
Permit 603, Cameco Resources  
Page 2

/pcr

Enclosure: T7 Review & Form 11

cc: Cameco Resources, Cheyenne  
Ramona Christensen, LQD Records Manager  
Doug Mandeville, NRC

TFN 5 1/119, REVISED RESTORATION SCHEDULE, T7 REVIEW

PERMIT 603, CAMECO RESOURCES, HIGHLAND URANIUM PROJECT

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INTRODUCTION

The LQD received responses to the two remaining comments on December 17, 2013. The following is a review of the responses.

COMMENTS

- 1 Response Acceptable. The text was removed as requested. **(PCR)**
- 2 Response Acceptable. As requested by LQD, the Highland Water Balance has been revised to include the required pore volumes of groundwater sweep and reverse osmosis. **(PCR)**

ADDITIONAL REVIEW

During this seventh round of review, other content to the proposed changes were noted to be unacceptable. However, in effort to finalize the review for approval which will provide a more current restoration schedule, the reviewer would prefer to note the following concerns and request that they be addressed in the March 31, 2013 proposed revision. The following concerns should be addressed in the upcoming revision.

- 1 Similar text that was requested to be deleted through the T6 review of TFN 5 3/121, Comment No. 2 has been found on page RP-7. The sentence which states, "*The surety will be amended as needed in the Annual Report to account for the correct pore volume displacement*", must be removed.
- 2 Page RP-10 includes the following statement: *Cameco Resources will submit updates to the restoration schedule in the Annual Report for review of the production/restoration status.* Updates through the annual reports will require more in-depth discussion describing precisely the intent of the annual report updates. Past experience has demonstrated that CR has exceeded the intent of the allowance to update through annual reports. For example, new wellfields not included in the approved mine plan have been submitted as updates in the annual report. The reviewer would like to have a better understanding of CR's intent to update the restoration schedule through the annual report.
- 3 The Attachment 2, Water Balance for Permit 603 includes MU-K. MU-K has been approved under Permit 633. It is unknown whether the restoration flows listed for MU-K also include the restoration flows for MU-K-North. MU-K and a separate listing for MU-K-North will need to be included in the water balance (Attachment 2) for Permit 633 with the submittal of the new restoration plan revision expected by March 31, 2013.

## FORM 11 CONDITION

The LQD has had many discussions and rounds of comment/response concerning groundwater restoration since the issuance of the Notice of Violation Docket No. 4231-08 in 2008. The delay in groundwater restoration has continued to be an elevated concern with minimal progress made by CR to explain the delays. Numerous staff changes in the Safety/Health/Environment/Quality (SHEQ) Department as well as at the mine office throughout this period contributed to the restoration delays. Throughout the reviews of this TFN, the LQD listened to reasonable and unreasonable explanations to justify the delays to restore idle wellfields.

During the late rounds of review of this revision, it became evident that operational philosophies were changing at the mine in a positive manner. However, the explanations to crucial questions remain unaddressed. Therefore, a permit condition is required to insist on further explanation of restoration delays.

It is understood that restoring a backlog of mine units requires operational infrastructure, facilities, water resources and man power that are also required to maintain production activities. CR may need to consider separate infrastructure, facilities, etc. to better facilitate restoration. In November 2012, CR presented to LQD an update of the restoration progress at the mine site and a commitment to continue with these presentations on a quarterly schedule. This progress indicates that CR is beginning to understand operational limitations with concurrent mining and restoration and what is needed to expedite restoration. Therefore, the next revision addressing groundwater restoration as outlined in the permit condition below will be expected to better address many of the unanswered questions with regard to acceleration of groundwater restoration as well as concurrent restoration with mining.

The permit condition outlined during the T-6 review will be added to the Form 11 which was provided by CR with the responses to T-6 comments. The condition includes the following text:

*Cameco Resources is required to submit a permit revision by March 31, 2013 which will include text discussion addressing the following:*

- 1) operational limitations that are delaying the acceleration of restoration,*
- 2) proposed solutions to address these delays including commitments with timelines and proposed dates for implementing the solutions,*
- 3) provide explanation, methodology and commitment to accelerate restoration and the ability to mine and restore wellfields simultaneously,*
- 4) define an acceptable definition for the "end of mining in a wellfield",*
- 5) explain how restoration and mining are conducted in the same wellfield and the "progressive change-over method" of restoring a wellfield,*
- 6) explain how and when restoration monitoring will begin with the "progressive change-over method."*