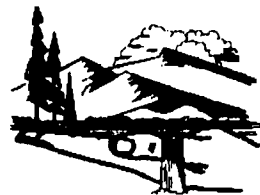




Department of Environmental Quality

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



Matthew H. Mead, Governor

John Corra, Director

August 20, 2012

Mr. Ken Garoutte
Manager, Safety Health, Environment and Quality
Cameco Resources
P.O. Box 1210
Glenrock, WY 82637

RE: 2010-2011 Annual Report (AR) Review, Permit 633, Cameco Resources (CR)

Dear Mr. Garoutte:

The Land Quality Division (LQD) has completed the referenced review which has been delayed due to other priority reviews requested by your operation. Please find review comments enclosed.

A total of twenty-five (25) comments are included in the review and will require corrections to the report and response to comments at your earliest convenience.

LQD is continuing to work on a compliance schedule for outstanding Annual Report comments. This effort is taking more time than expected and therefore, will be sent to CR upon completion.

If you have any questions, please contact me at 307-777-7048 or pam.rothwell@wyo.gov.

Sincerely,

Pam Rothwell
District 1 Assistant Supervisor
Land Quality Division

Enclosure: Review Comments

cc: Cameco Resources, Cheyenne, WY
Doug Mandeville, NRC



PERMIT 633, SMITH RANCH MINE, CAMECO RESOURCES (CR)

2010-2011 ANNUAL REPORT REVIEW

INTRODUCTION

The Land Quality Division (LQD) received the above referenced report on July 5, 2011 for report period June 1, 2010 through May 31, 2011. LQD had granted an extension to submit the report late at CR's request. LQD's review of the report was delayed due to multiple permitting and compliance priorities of the Cameco permits. LQD staff reviewers included Steve Ingle (SI), Julie Powell (JP) and Pam Rothwell (PCR). A total of twenty-five (25) comments are included in the review. CR will need to provide corrections to the report and respond to all of the comments requiring a response.

COMMENTS

1. Page 5, Reporting Period. CR indicates the reporting period is June 1, 2010 through April 30, 2011. The reporting period is June 1, 2010 through May 31, 2011, although a reporting cutoff date may be used for information provided in the report. Please state the correct reporting period in the report. CR may include a statement that describes the cutoff period for the information reported. **(PCR)**
2. Footers throughout the text reference "2011-2012 Annual Report". This is the incorrect reporting period and must be corrected to "2010-2011 Annual Report". **(JP)**
3. In the "Mining Activities" section on page 8, three (3) reportable releases were noted to be reported to LQD and NRC. It is our understanding that the NRC has not received proper documentation or follow-up regarding at least the release in MU-15. Please verify that all pertinent information regarding all reportable released for this reporting period have been provided to all appropriate agencies. **(JP)**
4. Page 8, Accidental water discharge, dam failure, etc. LQD has record of five reportable releases during the report period. Table 3-4 does not include the spill in wellfield K-North that occurred on March 10, 2011 or the spill at bellhole #1 that occurred on May 19, 2011. Please revise the text, Table and maps to show these spills. **(PCR)**
5. CR should include a discussion in the report of all mitigation actions taken during the report period to address wellfield releases. Please provide this discussion. **(PCR)**
6. Page 8. Evaporation Pond leaks. The East Evaporation Pond leak is not listed as a problem area. Please include a discussion in this section addressing the pond leak. **(SI)**
7. Page 8. Table 3-5 presents the total annual flows at the Central Processing Plant, and Satellites SR-1 and SR-2. As specified in Chapter 11, Section 15(c)(iii) injection and

production flows for each wellfield should be specified. The citation also requires a description of how these flows were determined. Please include the injection and production flows for each wellfield and a description of how the flows were determined. (SI)

8. Page 9, Wellfields. The Mine Unit discussions provide very limited information. CR should discuss mining activities in all of the pattern areas to support the information requested in comment No. 7. Please elaborate the discussion of wellfield activities for all header house (pattern areas) in future reports.

NOTE: Because of the lack of information that has been reported in the Annual Reports, LQD has been gradually increasing our awareness of the activities in the wellfields by inspection of header houses. Through site inspections, LQD is aware of the lack of operational control in wellfields 2 and 15 on Permit 633. Similar conditions have been identified on Permit 603 in wellfields, C, F, and H. It is suspected that other wellfields are in similar condition. A confirmed excursion that occurred on August 1, 2012 in MU-F without operational controls in place to retrieve the excursion is of great concern to LQD. Though CR was able to install pipeline to gain control, the fact is the controls are not in place in many areas of the mine. This is a violation of Chapter 11, Section 9 (a)(iv) and Section 11(d).

Since the NOV in 2008 which was intended to accelerate restoration in the wellfields, LQD has allowed CR to work on restoration planning. Since that time, the restoration results have not been impressive. A discussion with the mine staff last fall implored CR to explain the delays in restoration. The only explanation that was offered was the lack of disposal capacity. CR discussed a potential to return to use of PSR-1 and the irrigation circle to increase disposal capacity. LQD has received no proposals to address increasing the disposal capacity either through construction of additional permitted disposal wells or renovation of the pond and irrigator at PSR-1.

In light of the failed efforts with biorestitution and the proposed restoration research project, LQD is critically concerned that the technical ability may not be available to restore the multiple and complex wellfield conditions at the SHRUP mines. CR offers very limited discussion to provide confidence that restoration of multiple wellfields can happen in a timely manner.

Following the excursion in wellfield F on August 1, 2012, the LQD suggested through email correspondence that CR meet with LQD to discuss the lack of operational controls. CR has not responded to the request. Without explanation to address our concerns, LQD is considering enforcement action. CR should be aware that a NOV is under consideration for the lack of operational controls on the mine sites. (PCR)

9. In the “Mining Activities” section under proposed MU-8 text, Cameco states that “locations of drill holes have been provided in TFN 5 1/175.” Cameco stated in the T2 review that delineation drill hole locations will be provided in annual reports and did not provide the locations in the TFN submittal. This Annual Report and the TFN contradict one another. As these delineation drill holes were drilled during this reporting period without approval, Cameco must provide a map and table in the Annual Report indicating their locations and note that these delineation drill holes were completed without LQD approval. **(JP)**
10. Page 10, Deep Disposal Wells. CR should be providing information relevant to the demands for the mine in the LQD Annual Report. CR should provide the average monthly flow rates for optimum relevance to disposal capacity. **(PCR)**
11. Page 13, Groundwater Restoration Activities. CR must provide details which explain the volume of groundwater sweep used in the wellfield, i.e., volume of groundwater sweep with respect to the pore volume for the wellfield. The information should substantiate the permit requirement to use one pore volume of groundwater sweep in restoration. **(PCR)**
12. Page 14, Mining Plans. CR emphasizes that the Restoration Schedule is not update in the Annual Report due to LQD’s request. CR needs to take responsibility for the lack of an approved restoration schedule. LQD’s reviews of at least four versions of the schedule including unsolicited changes in response to comments necessitated new reviews on behalf of the LQD. CR has an approved schedule and should be in compliance with it as it appears in the permit. No response required. **(PCR)**
13. Page 16. The text states that an approximately 5.5 mile long pipeline network will be installed between the Central Processing Plant and Satellite No. 2. Plate 1 does not show the proposed disturbance associated with the pipeline network. Please show the proposed disturbance area. **(SI)**
14. Overall, the reporting periods need corrected throughout the report. For example, Table 10-1 is dated “April 1, 2010 through April 30, 2011” while the Annual Report is titled “June 1, 2010 through April 30, 2011”, delineation drilling is titled “2009-2010”, the footers are titled “2011-2012” as noted in comment #1 and the Plates are dated “June 1, 2010 through April 30, 2011. Please clarify and maintain a consistent one-year reporting period throughout the Annual Report. **(JP)**
15. The “2009-2010 Delineation Drilling” text indicates that eighty-three (83) have been surface reclaimed and are in the plugged and abandoned report with bond release requests in Table 10-2. The Annual Report is not the appropriate avenue for requesting bond releases. Cameco was informed during the June 16, 2011 inspection that bond requests must be formally requested through a separate letter and not in annual reports. Cameco is advised to

- submit separate formal plug and abandonment bond release requests as any requests in the annual reports will not be acted upon. **(JP)**
16. Similar to comment #15, vegetation bond release requests within the annual reports are not appropriate. Cameco provided a large binder of vegetation bond release requests on June 16, 2011 during the on-site inspection. There must be one process only for submitting bond release requests rather than scattered throughout numerous different processes. Cameco is advised to submit separate formal vegetation bond release requests as any requests in the annual reports will not be acted upon. **(JP)**
 17. The “2011-2012 Proposed Delineation Drilling” text section references TFN 5 1/175 for 2011-2012 delineation proposals. However, the TFN submittal was for 2010-2011 delineation drilling. Please clarify and maintain consistent years between submittals. **(JP)**
 18. Page 22. CR references Table 10-3 for Vegetation Bond Release for abandoned drill holes. There are two Table 10-3’s in the Annual Report, one is the Vegetation Bond Release request and the other is the Meteorological Data. Please renumber the Meteorological Data Table as Table 10-4 and correct the text on Page 18. **(SI)**
 19. Table 3-4 lists three wellfield releases; all in 2010. Please verify that there were no reportable wellfield releases in 2011. **(JP)**
 20. Table 10-2 lists seven hundred seventy-one (771) delineation drill holes while the text on page 22 indicates that there are eighty-three (83) delineation drill holes on Table 10-2. Please correct the references between text and tables. **(JP)**
 21. The surety estimate needs to be revised to reflect the agreed upon cost for drill hole abandonment costs from the August 17, 2011 meeting with LQD Administrator, Nancy Nuttbrock. Please update the surety using Guideline 12 costs for drill hole abandonment. **(JP)**
 22. Plate 1. The proposed Mine Unit 17 development overlaps Mine Unit 4, which is in restoration. Please explain the overlap or correct Plate 1. **(SI)**
 23. Plate 1. The proposed Mine Unit 11 development includes Archaeological Site 4BC01289, which is considered eligible for the National Register. Please discuss measures that will be taken to protect this site. **(SI)**
 24. Plate 1. The proposed Mine Unit 11 development borders Archaeological Site 4BC01288, which is considered eligible for the National Register. Please discuss measures that will be taken to protect or evaluate this site. **(SI)**
 25. Please tabulate the area to be disturbed during the next period. **(SI)**