

Appendix A – Decision Implementation Plan

Table of Contents

1.0	Overview:	2
2.0	Implementation of the Decision	2
3.0	Annual Development Planning and Reporting.....	2
3.1	Site-Specific Reclamation Plans.....	3
3.1.1	Topsoil Handling and Management Plans	4
3.1.2	Reclamation Success Criteria	5
4.0	Construction Timing Constraints.....	5

1.0 Overview:

The modified BLM Preferred Alternative is the alternative which the BLM believes will fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors, in accordance with Section 101 of the NEPA. The BLM selects the modified BLM Preferred Alternative as its Decision for this project. The implementation of the Decision will require the proponent and agencies to periodically evaluate and manage surface disturbing activities. In addition, the BLM's required mitigation measures will require data collection, monitoring, and review by the proponent and BLM. This document describes how the Decision and mitigation measures will be implemented in order to ensure that the mitigation measures and 43 CFR 3809.420 performance standards are adhered to and followed in order to prevent unnecessary or undue degradation of public lands.

2.0 Implementation of the Decision

The Decision would utilize the same processes and take place over the same period of time as the Proposed Action (Plan of Operations) with several additional measures. The following additions to the Proposed Action would be implemented under this alternative to reduce the adverse impacts from surface disturbance, increase the potential for reclamation success, and protect wildlife, soils, and vegetation while preventing unnecessary or undue degradation of public lands: **Annual Development Planning and Reporting (Section 3.0)** and **Construction Timing Constraints (Section 4.0)**.

Additional on-site processing was selected as part of the Decision; however, it was selected in order to provide Cameco the opportunity to process uranium bearing solution into slurry if they so choose. The description of additional on-site processing has not changed since the FEIS was published and does not require additional discussion in this document.

3.0 Annual Development Planning and Reporting

Annual development planning and reporting would be the mechanism for Cameco to describe the past year's operation and reclamation activities as required by the WDEQ-LQD through Annual Reporting, and describe and plan for the upcoming year's activities. The BLM would require submittal of an Annual Development Plan (ADP) by Cameco, and the approval of the ADP by BLM prior to initiating surface disturbing activities for each calendar year or as appropriate. The ADP does not have to consist of yearly planning, in-fact it could consist of several year's worth of planning or planning based on a mine-unit-by-mine-unit basis depending on the schedule of proposed development. This plan would detail all areas of proposed surface disturbance and indicate how all areas would be accessed by mechanized equipment for construction, restoration, decommissioning, or reclamation activities. The goal of this annual reporting requirement would be to provide the BLM additional information to help manage surface-disturbing activities, enhance the potential for reclamation success, and ensure compliance with the mitigation measures/stipulations defined in the ROD.

The ADP would be submitted as part of the Annual Report as required by WDEQ-LQD. In addition to the information specified for annual reports by WDEQ (see Appendix E of FEIS), the BLM would require the following:

- A detailed site-specific reclamation plan as described below in **Section 3.1**, including:
 - Topsoil handling and management procedures described below in **Section 3.1.1**,
 - Measurements of previous reclamation success relative to the criteria agreed upon during the ADP process described below in **Section 3.1.2**.
- A description of the proposed methods for managing avoidance of designated areas or areas with Timing Limit Stipulations determined during surveying of the site in compliance with applicable Mitigation Measures,
- Prior to any surface disturbing activities, Cameco will submit a plan for that phase's development to the BLM for approval in accordance with mitigation measure **CR-3**. At Cameco's choosing, this can be included in the ADP, and
- Geographic Information System (GIS) shape files or other digital data illustrating the upcoming year's proposed disturbance areas.

The ADP would be submitted as part of the WDEQ-LQD Annual Report at whatever time the LQD would require. Reports detailing information that may require timely review and approval by BLM could be submitted outside of the ADP process but would need to be submitted early enough to allow BLM time to adequately review this information.

3.1 Site-Specific Reclamation Plans

Cameco would be required to provide the BLM with a site-specific reclamation plan for a similarly affected area that would incorporate individual site information gathered within each planned disturbance area. Cameco has committed to identifying site-specific topsoil depths during delineation drilling and submit that information to the WDEQ as part of its hydrologic test proposal or annual report. BLM also would require Cameco to describe existing vegetation at the well field level (or mine unit level depending on vegetation similarities) and to determine the proposed reclamation potential of each well field based on the existing soil and vegetation characteristics. Cameco would then utilize that information to develop a mine unit site-specific reclamation plan in accordance with the Wyoming BLM Reclamation Policy (Appendix F of FEIS) and Appendix D of the Lander Proposed RMP and Final EIS (BLM 2013) (Appendix D of FEIS). Information could vary between well fields within a mine unit based on site-specific characteristics. The BLM would review this information as part of the ADP and determine if the proposed reclamation plan is adequate for each site, taking into consideration all factors including wildlife and cultural resources.

In addition to reclamation activities generally addressed in Cameco's current reclamation plan (PRI 2009, as amended), summarized in the Proposed Action and Plan of Operations, the following requirements of the Wyoming BLM Reclamation Policy (Appendix F) would need to be addressed in the site-specific reclamation plans:

- Strategy to minimize and monitor sheet and rill erosion on or adjacent to the reclaimed area (Section B.3.d);
- Strategy to reconstruct and stabilize stream channels, drainages and impoundments (B.4.b);
- Methods to reduce compaction prior to topsoil redistribution (B.6.b);

- Methods to enhance critical resource (e.g., wildlife, range, biodiversity) values through augmenting or accelerating restoration of the plant community (B.7.b);
- Strategy for management of invasive plants (B.9); and
- Strategy for monitoring reclamation success (B.10).

As part of the development of the site specific reclamation plans that would include the above described information, Cameco would need to conform to Mitigation Measure SOL-6. SOL-6 would require that Cameco's ADP address the monitoring of the following as part of the ADP in order to ensure the site specific reclamation plans are working or make adjustments as needed:

- Soil erosion/movement;
- Vegetation: density, diversity (species composition) and age class (e.g., seeding, mature plant, decadent plant);
- Weeds: density, species composition;
- Photo reference points;
- Compliance with reclamation plan;
- Documenting/monitoring protocols;
- Timing of monitoring during the year; and
- Identification of sites needing additional work or more reclamation activities outlining a site-specific prescription for actions to be implemented, including:
 - Re-seeding of areas not attaining reclamation success,
 - Soil stabilization,
 - Weed control, and
 - Mulching/fertilization or other cultural practices.

3.1.1 Topsoil Handling and Management Plans

Cameco would be required to include topsoil handling and management plans based on information gathered within well fields or each mine unit. Under the Proposed Action, Cameco plans to develop site-specific topsoil stripping depths during delineation drilling and submit that information to the WDEQ as part of their hydrologic test proposal or annual report. The BLM would require yearly submittal of this information and also would require a review of existing vegetation within these areas and a determination of the reclamation potential of the area based on the existing soil and vegetation characteristics. The BLM would review this information as part of annual development planning and reporting and use it to select a topsoil handling and management plan for the area specified. Ideally, the selected plan would be applicable to either the entire well field or the entire mine unit; however, because site characteristics differ across mine units and well fields, a plan meant to protect the most sensitive soils would be implemented. Topsoil handling and management plans might consist of: stripping the entire well-field of topsoil, stripping topsoil from areas where subsoil will be excavated (mud pits), stripping topsoil from the entire mine unit, or stripping topsoil from the roads, well pad and mud pit.

3.1.2 Reclamation Success Criteria

Interim and final reclamation success criteria would be developed based on pre-site investigations by Cameco and recommendations made as part of the ADP process. These criteria would be agreed to by Cameco, BLM, and WDEQ during the ADP process with the goal of establishing definable and achievable criteria.

Interim reclamation success would be based on the standards for Designated Development Areas (DDA's) included in the Lander Proposed RMP and Final EIS (BLM 2013) (Appendix F-Gas Hills ISR Uranium FEIS). Significant portions of the GHPA consist of Limited Reclamation Potential (LRP) soils. The principal goal of reclamation on LRP soils is soil stabilization and erosion control. Previously disturbed and subsequently reclaimed areas occur within portions of the GHPA on which past reclamation success has not been adequately analyzed. These areas may not be considered LRP soils but often lack any conventionally viable topsoil. As a result, previously reclaimed areas in the GHPA are typically composed of less diverse vegetation (mostly grass). Because reclamation success in these areas has not previously been documented, interim reclamation success of these areas would be determined during the ADP process, and the criteria provided in Table 2-4 would be utilized if an erosion indicator can be identified. If initial reclamation efforts did not meet the applicable criteria, the BLM might require Cameco to employ adaptive management strategies that might include soil amendments, water farming techniques, reseeding, or other approaches that would be identified within Cameco's annual development planning and reporting.

Final reclamation success would be determined based on the standards for Designated Development Areas included in the Lander Proposed RMP and Final EIS (BLM 2013) which generally would require different standards than those described for the Proposed Action, especially for woody plants and forbs. Reclamation success in areas with LRP soils would be quantified using either BLM success criteria as defined in the Lander Proposed RMP and Final EIS (BLM 2013) (Appendix F-Gas Hills ISR Uranium FEIS), or by the COMA method described in the Proposed Action, depending upon site characteristics. Final reclamation success of previously disturbed areas would utilize the criteria for Final Reclamation Standards for Designated Development Areas, if an erosion indicator can be identified. The annual development planning and reporting process would provide the platform for BLM and WDEQ to agree to the final standards associated with each mine unit, or for a more site-specific area. If reclamation does not appear to be approaching the applicable criteria, BLM would require Cameco to employ adaptive management strategies that might include soil amendments, water farming techniques, reseeding or other approaches identified by Cameco as part of their annual development planning and reporting.

4.0 Construction Timing Constraints

Construction timing constraints would be implemented to provide incentives for Cameco to complete beneficial reclamation activities at each mine unit before beginning activities at another mine unit. The BLM and Cameco would agree to definable and achievable criteria based on reclamation potential of the soils within the disturbance area as described in **Section 3.1.2**.

The timing constraints placed on construction are described below:

- BLM would not allow well field installation within the **third mine unit** to be constructed until interim reclamation on at least one well field in the **first mine unit** constructed (currently anticipated to be Mine Unit 1) is successful and other well fields show significant progress towards meeting interim reclamation success based on applicable criteria.
- Construction on the **fourth mine unit** to be developed could not begin well field installation until interim reclamation in at least one well field of the **second mine unit** constructed meets applicable criteria and other portions of the mine unit are trending towards success.
- Construction on the **fifth and final mine unit** to be developed could not begin well field installation until interim reclamation in at least one well field of the **third mine unit** constructed has met applicable criteria and other portions of the mine unit are trending towards success.
- In addition, construction on the **fifth mine unit** to be developed could not begin until a portion of disturbance within the Project Area has undergone and successfully achieved the applicable **final reclamation success criteria** for that area.

Cameco's proposed timeline assumes that Cameco would be able to achieve interim reclamation at least as quickly as groundwater restoration is achieved; therefore, this requirement would not limit Cameco's ability to meet the proposed schedule shown under the Proposed Action.