US DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
CASPER FIELD OFFICE

FINDING OF NO SIGNIFICANT IMPACT

Cameco Resources/Power Resources Incorporated
Reynolds Ranch In-situ Uranium Recovery Project

DOI-BLM- WY-060-EA10-111

Case File Number: WYW-168915

BACKGROUND

The Bureau of Land Management (BLM) Casper Field Office (CFO) has completed an environmental assessment (EA) DOI-BLM-WY-060-EA10-111 examining the potential environmental impacts of conducting in-situ recovery (ISR) of uranium at the Reynolds Ranch project. The project is located along Ross Road approximately 30 miles northwest of Douglas, Wyoming and northeast of Glenrock. More specifically, the project is located in portions of sections 26 and 35, T. 37 N., R. 74 W., section 31, T. 37 N., R. 73 W., and section 6, T. 36 N., R. 73 W., 6th P.M., Converse County, Wyoming. The proponent/applicant is Power Resources, Inc. (PRI) d/b/a Cameco Resources.

The Reynolds Ranch project area encompasses approximately 8,280 acres, of which approximately 4,320 acres are split estate (private surface overlaying federal minerals), 720 acres are BLM surface and minerals, 2,600 acres are fee lands and minerals, and 640 acres are owned by the State of Wyoming. The BLM manages approximately 8.8% of the surface estate in the project area; 83.5% are privately owned, and 7.7% state, while the mineral estate is 61.2% federal, 31% private, and 7.7% state. The Reynolds Ranch mining area is located adjacent to and north of the existing Smith Ranch-Highland Uranium Project. This operation would be an expansion of that project with portions of the area covered under a separate permit issued by BLM.

Two alternatives were analyzed in detail: Alternative I, the Proposed Action and Alternative II, No Action.

The EA analyzed proposed activities on BLM-managed surface that include development of three wellfields through delineation drilling; injection, recovery and monitoring well installation and operations; construction of primary and secondary access roadways,

wellfield header houses, pipeline/utility trenches, power lines; and reclamation. Disturbance associated with wellfields on BLM surface would be approximately 34.6 acres and would be short-term disturbance. Life-of-project disturbance (power lines, roads, header houses and well pads, etc.) would affect approximately 11 acres of the BLM surface. The total surface disturbance resulting from the implementation of the proposed action would be approximately 45.6 acres over the projected 15-year operational life of the project as proposed and permitted by the Nuclear Regulatory Commission's (NRC) and currently being considered by the Wyoming Department of Environmental Quality, Land Quality Division (WDEQ/LQD).

The Proposed Action would meet the underlying need for PRI to mine a valuable deposit of uranium from unpatented mining claims under the authority of the mining laws of the United States, while ensuring that operations are conducted in a manner that prevents unnecessary or undue degradation of public lands and conforms to the management prescriptions in the BLM land use plan.

The BLM CFO released a project scoping statement on June 30, 2008, and the public was given the opportunity to comment on PRI's proposal to conduct in-situ recovery of uranium at Reynolds Ranch until July 31, 2008. These public scoping comments have been considered and are summarized in the EA. The proposed project was logged into the BLM Wyoming NEPA register and posted in the CFO public room. The BLM also gave the public a 30-day opportunity, beginning September 9, 2010, to review the EA online and comment on PRI's plan of operations at:

http://www.blm.gov/wy/st/en/info/NEPA/cfodocs/reynolds_ranch.html

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the information contained in the EA, and all other information available to me, it is my determination that: (1) the implementation of the proposed action will not have significant environmental impacts beyond those already addressed in the EA; (2) the proposed action is in conformance with the resource management plan; and (3) the proposed action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR '1508.27), both with regard to the context and to the intensity of the impacts described in the EA or as articulated in the letters of comment.

Context

The Reynolds Ranch In-situ Uranium Recovery Project is a site-specific action directly involving approximately 45.6 acres of BLM-administered land. The No Action Alternative would involve development of seven wellfields on the remainder of the

Reynolds Ranch project without any operations on BLM-managed surface. This would result in approximately 343.1 acres of disturbance within the 8,280-acre project area, as proposed and permitted by NRC and currently being considered by WDEQ/LQD. These activities would affect private- and state-owned surface only, of which approximately 240.6 acres would be short-term disturbance and 102.52 acres would be life-of-project disturbance.

Intensity

I have considered the potential intensity/severity of the impacts anticipated from the Reynolds Ranch In-situ Uranium Recovery Project decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

1. ***Impacts that may be both beneficial and adverse.***

   The EA considers both beneficial and adverse impacts of the proposed action and alternatives. The analysis concludes that the proposal will have minimal impacts on the resources because of implementing the proposed action described in the EA. None of the environmental effects discussed in detail in the EA and associated appendices are considered significant. Implementation of the mitigation measures will also provide protection measures for the resources.

   Adverse effects include temporary impacts to air and groundwater water quality, vegetation, soils, visual resources, and recreation. Uranium produced from the project would be used to generate electricity by cleaner nuclear fuel technologies that may result indirectly in a small beneficial reduction in global carbon dioxide levels.

2. ***The degree to which the proposed action affects public health and safety.***

   The issue of human health and safety is analyzed in detail in the EA. Adverse effects considered include health risks for mineworkers from radiation hazards. These impacts are expected to be minimal based on the protective measures described in the proposed action. Groundwater will be restored to standards that are protective of public health and safety. No long-term adverse public health or safety affects are expected from use of the reclaimed area. Prior to commencing operations, BLM, NRC, and WDEQ regulations require PRI to have an approved bond for the cost of decommissioning ISR facilities, including the costs of restoration of groundwater affected by mining. PRI is required to update the reclamation cost estimates with these agencies annually to ensure that bonds are adequate.

3. ***Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.***

   The following critical elements of the human environment will not be affected because they are not present in the project area: areas of critical environmental

concern, prime or unique farmlands, wetlands or riparian zones, wild or scenic rivers, and designated wilderness or wilderness study areas. Cultural resource inventories were conducted for the area of potential effect (APE), and no impacts are anticipated from the proposed action.

4. ***The degree to which the effects on the quality of the human environment are likely to be highly controversial.***

Commercial uranium ISR production has been practiced since the mid 1960s in the United States and is currently the leading extraction technology for uranium production in this country. The effects of ISR operations on the quality of the human environment are well known. In general, local area residents favor development of ISR mining activities. Various environmental groups closely watch for negative environmental effects. However, based on the number and content of the comments received from the public, the effects on the quality of the human environment are not considered highly controversial.

Public input regarding the proposed sction has been solicited through a scoping and public review process initiated in June 2008. The BLM received seven comment letters. These public scoping comments are summarized in the EA have been considered in the analysis. BLM circulated a request for consultation or comments to four Native American tribal councils and cultural representatives in July 2010. No specific concerns were identified at that time. The plan of operations and EA were available for a 30-day public review and comment period, which ended on October 9, 2010, during which the BLM received one written comment letter from Wyoming Game and Fish. Their comments are addressed below.

Comment: Concern that native endemic species should be prioritized for use in the final reclamation plan, including sagebrush.

Response: In addition to the native species specified in the BLM recommended seed mix, a stipulation that sagebrush shall be included into the seed mix used for final reclamation shall be added to the mitigation measures.

Comment: Recommend that a weed control program be developed and implemented as part of the overall reclamation plan.

Response: The operator is responsible for noxious weed control, as designated by the state of Wyoming, on disturbed areas within the project boundaries. The control methods would be in accordance with guidelines established by the BLM, state, and local authorities. PRI currently contracts a local, certified pesticide applicator from Douglas, Wyoming. Treatment on other PRI properties includes an annual drive-through or walk-through survey of each well location during which designated and declared weeds are sprayed as well as the surrounding areas. The spray system used is computer controlled with global positioning system referencing that is used to generate maps that show locations sprayed, weeds present, and types and amounts of

chemicals used. BLM CFO requires that a pesticide use plan be approved prior to pesticide application work being initiated on BLM-administered lands.

Comment: Support BLM's application of appropriate sage grouse seasonal stipulations for sage grouse in non-core areas.

Response: The proposed wellfield development areas do not fall within a state-designated sage grouse core area or within 2 miles of a sage grouse lek. Winter habitats have not been identified in the project area. There are no public lands within the project area that are within 2 miles of a sage grouse lek. As proposed, the project would not have any BLM seasonal sage grouse stipulations applied. To reduce the opportunity for unnecessary and undue degradation of sage grouse habitat resources, PRI would be required to comply with any state requirements regarding sage grouse mitigation.

Comment: Recommend that accepted best management practices be implemented to ensure that all sediments and pollutants are contained within the boundaries of the work areas to minimize impacts to aquatic resources.

Response: Storm water runoff impacts would be mitigated through the implementation of the WDEQ, Water Quality Division (WQD) and BLM-required storm water pollution prevention plan. Associated best management practices (BMPs), such as straw waddles and silt fences, would contain and prevent any significant surface runoff or contamination from occurring at construction sites. Water discharges from hydrologic pump tests will be managed by using either frac tanks with disposal by approved methods (e.g., deep well injection), discharging directly into existing pipelines prior to treatment and disposal (in the case of wellfield areas located in close proximity to previously developed areas), or discharged directly to the land surface under approved permits through the state of Wyoming. In the event of direct discharge to the land surface, erosion control BMPs such as spray nozzles at the point of discharge to reduce concentrated flow and sediment control BMPs will be used to contain sediments within the boundaries of the wellfield area and minimize impacts to aquatic resources.

Comment: Concern that areas that are contributing sediment to surface waters as a result of project activities should be promptly re-vegetated to maintain water quality.

Response: Areas not needed for operations undergo interim soil stabilization and reclamation within the year of the disturbance or the first planting season following wellfield construction.

5. ***The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.***

The proposed action is not unique or unusual. ISR uranium mining has been carried out in the Powder River Basin of Wyoming since 1987. The environmental effects to

the human environment are fully analyzed in the EA. There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The proposed action does not establish a precedent for future BLM actions with significant effects and does not represent a decision in principle about a future consideration.

7. ***Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.***

The cumulative impacts have been addressed in the EA. Ongoing, planned or reasonably foreseeable activities that have been taken into account within the cumulative effects analysis area include the Reynolds Ranch and Smith Ranch-Highland uranium ISR projects, the Rolling Hills/Glenrock wind energy projects, the Black Hills lignite mine, various oil and gas developments, as well as livestock grazing and limited recreation.

A complete disclosure of the cumulative effects of the project is contained in chapter 4 of the EA. Through these analysis it is determined that no significant cumulative impacts would result from the proposed action.

8. ***The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.***

Intensive cultural resource inventories were conducted for the APE. No historic properties (National Register of Historic Places (NRHP)-eligible sites) were found in the project area. Consultations were conducted with four tribal entities to identify any concerns related to traditional cultural properties or sacred sites, and no specific sites or areas of concern were identified. The project will not adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will it cause loss or destruction of significant scientific, cultural, or historical resources. Mitigation measures are in place to protect resources that might be discovered during the course of operations.

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

Inventories indicate that no threatened or endangered species or habitat, are known to occur within the project area. Therefore, no affect is expected from the project.

10. ***Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.***

The project does not violate any known federal, state, local, or tribal law or requirement imposed for the protection of the environment. Federal, state, local, and tribal interests were given the opportunity to participate in the environmental analysis process. Although several comments were received, none of the respondents identified a violation of applicable environmental laws, regulations, or other requirements. In addition, the project is consistent with applicable land management plans, policies, and programs. The BLM would make regular inspections to ensure compliance with the approved plan of operations. Additionally the NRC and the WDEQ would make regular inspections pertaining their respective licenses and permits.

Assistant Field Manager, Minerals and Lands
Casper Field Office

01/07/2011
Date