



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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Ref: EPR-N

Kristin Yannone
Bureau of Land Management
Lander Field Office
P.O. Box 589
Lander, WY 82520

Re: Scoping Comments [BLM letter WYW140590]
Gas Hills In-Situ Recovery (ISR) Uranium EIS WY



Dear Ms. Yannone:

The U.S. Environmental Protection Agency (EPA) has reviewed the Bureau of Land Management's (BLM) notice of intent to conduct an Environmental Impact Statement (EIS) for the Gas Hills In-Situ Recovery (ISR) Project. The notice describes BLM's consideration of the environmental impacts that would be connected with a plan of operations submitted by Power Resources Inc. (PRI dba Cameco Resources) for a uranium development project. Our scoping comments are provided pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(c) and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609. BLM's notice to initiate a NEPA process supports its requirements in 43 CFR Subpart 3809, "Surface Management," to review and approve a Plan of Operations submitted by PRI to conduct ISR of uranium on public lands managed by BLM. The Plan of Operations includes a description of the proposed ISR uranium recovery operations, a reclamation plan, and a monitoring plan to generally demonstrate that the proposed activities will not result in unnecessary or undue degradation of public lands.

The U.S. Nuclear Regulatory Commission (NRC) completed an evaluation of the safety and environmental aspects of PRI's source material license application in May 2001. NRC prepared an EA pursuant to the requirements of 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions", which implements NRC's environmental protection program under NEPA. NRC's EA presented information and analysis and determined that a Finding of No Significant Impact (FONSI) regarding the proposed action was not unreasonable. As a result, NRC issued a source material license (SUA-1548) on May 8, 2001. During development of the NRC EA, BLM was a cooperating agency and contributed to the preparation of the EA. EPA understands that BLM originally intended for the EA to satisfy its NEPA requirements for proposed actions under its jurisdiction. In the notice of intent to conduct an EIS it is not clear why BLM has decided to conduct additional NEPA review now but EPA is pleased to provide technical assistance as a cooperating agency as accepted in BLM's letter (WYW140590) dated December 27, 2010.

The proposed Gas Hills Project is located in Fremont and Natrona Counties, Wyoming, approximately 65 miles due west of Casper. The planned Gas Hills Project covers approximately 8500 acres in an area of Wyoming (the Gas Hills Uranium District) where extensive conventional uranium mining and milling activities were previously conducted. PRI has mapped out five distinct areas (mine units) within the Gas Hills Project for well-field development and uranium recovery. As a satellite facility, only wellfield, ion exchange, and water treatment facilities will be constructed and operated at the Gas Hills Project. Uranium-laden ion exchange resin will be transported by truck from the Gas Hills Project to the Smith Ranch Project (approximately 140 miles) for final processing into "yellowcake" (U₃O₈). Water treatment facilities, including evaporation ponds, will be provided at Gas Hills for treatment and storage of wastes from process operations and subsequent well-field groundwater restoration activities.

One of EPA's primary concerns with uranium development by ISR technology is the need for thorough examination of the range of reasonable wastewater disposal alternatives for these projects. The NRC EA was generally limited to the proposed action and the no action alternative. NEPA and its implementing regulations require federal decision-making agencies to use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon human health and the environment. See 42 U.S.C. § 102(2)(E), 40 C.F.R. §§ 1500.2(e), 1502.14, 1502.16. EPA considers that additional site-specific discussion of the impacts from alternative wastewater disposal options is necessary to meet the intent of NEPA to fully disclose any adverse effects and to consider mitigation for any such effects that cannot be avoided or minimized during the project design phase.

EPA recommends that BLM's EIS acknowledge the potential limitations of the available by-product waste disposal capacity in the local area and address the potential limitations related to obtaining necessary injection well authorizations. EPA has statutory authority to regulate activities that may affect the environment under different environmental laws, such as the Clean Water Act, the Safe Drinking Water Act, and the Clean Air Act. Underground injection requires a permit from an Underground Injection Control (UIC) program authorized under federal statute. Under federal UIC regulations, waste disposal injection wells may receive hazardous, radioactive, industrial, and municipal wastes and inject fluids containing these wastes beneath the lowermost formation containing an Underground Source of Drinking Water (USDW) within one quarter mile of the well bore. The WDEQ has been authorized to administer the UIC program in Wyoming and would be responsible for issuing permits for deep well disposal at the proposed Gas Hills Project.

EPA is aware of the intensity and duration of conventional mining and milling in the Gas Hills uranium district. The Gas Hills Uranium District has been exploited for its uranium reserves by a number of companies, and has produced more than 50,000 tons of ore over the last forty years. Most of the uranium mines and associated processing facilities have been, or are being, decommissioned and reclaimed. It is estimated that more than 20 per cent of the land that would be used by the proposed facility has been disturbed by previous uranium mining activities. One of the proposed mining units (Unit 3) is located in the western portion of the Gas Hills Project site. The uranium production zones in this unit are roll fronts within multiple sands (30,



40, and 50 Sand) that are part of the Coyote Creek Fan System. This ore body is a southern extension of the existing Lucky Mac open pit mine. Pit dewatering over the years has lowered the potentiometric surface within the northern portion of Mine Unit 3 (i.e., water levels have been reduced because water has drained from the sand unit). Because of insufficient water pressure, the upper geologic section of this unit may be excluded from the proposed ISR development. This mining unit has two traceable faults as well as the abandoned Atlas underground mine. In order to better understand the potential environmental impacts from uranium recovery in this mining unit, BLM should require that additional information on mapping and hydrological testing is provided in the DEIS.

The reclaimed Buss open-pit mine located to the northeast of proposed mining unit #4 has lowered the groundwater level surface within portions of this mining unit. The Buss mine was reclaimed in 1995. The mine extracted ore from the 60, 70, 80, and 90 Sands. Reclamation of this mine has affected the overall water quality in the vicinity of Mining Unit 4. Uranium recovery in the higher part of the section near this reclaimed open-pit mine may be excluded from the proposed development because of insufficient water pressure. In addition, upper ore zones (80 and 90 Sands) were mined in the Two States and Blackstone Pits. An underground drift was developed south of the Two States Pit. Other open-pit mines in the area include the Cap, Bengal, and Mars Pits, which have been backfilled above the water table. EPA recommends that the cumulative effects on overall water quality from all this historic mining be discussed in the BLM's NEPA document.

The reclaimed Veca open-pit mine, located west of the proposed ISR project, has been backfilled above the water table. Historic mining in this open-pit mine has affected water quality in the vicinity of Mining Unit 5. The Thunderbird/Rox Mine is located within the northern portion of Mining Unit 5 and is likely to affect operations in the area. Additional information from mapping and hydrological testing should be provided for a better understanding of the potential for environmental impacts from conventional uranium mining near this historic mining area. EPA also recommends that hydrological testing programs address the potential impacts of the downgradient movement of high total dissolved solids (TDS) from groundwater affected by the ongoing mine reclamation activities of several closed open-pit mines.

The NRC EA provided a detailed air emissions inventory for the construction, operation, reclamation, and decommissioning activities at the Gas Hills Project from fuel combustion and fugitive dust emissions. The NRC analysis was straightforward and made use of generally accepted values for source emission factors from reliable published sources. EPA recommends that BLM review and update this information with any changes to the air emission inventories from the PRI Plan of Operations. If the proposed ISR facilities present a substantial increase in emissions or are located closer to more sensitive areas, such as population centers, nonattainment areas, or sensitive Class II or Class I air regions, then a more quantitative approach to modeling direct impacts should be considered in consultation with the relevant stakeholders.

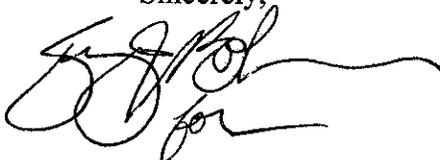


We understand that the effort to identify and protect known archaeological resources has been started but not yet completed. Half of the project area has been surveyed for archaeological sites. Additional portions of the project area had been surveyed in 1980 and only reexamination of the previously recorded sites was necessary. Two sites are considered eligible for listing on the National Register, and seven sites have not yet been tested sufficiently to determine their eligibility status and must therefore be treated as if they were eligible. A portion of Mine Unit #5 may require a Class III inventory prior to any proposed activities there.

Finally, BLM should conduct a thorough cumulative effects analysis for this project. The NRC EA identified past and present actions around the Gas Hills Project from prior conventional uranium mining and milling and the subsequent reclamation of the affected sites. BLM should identify reasonably foreseeable future actions around the Gas Hills Project site that would likely involve not only additional ISR uranium activities, but also the disclosure of known wind energy projects from Black Mountain Wind Project, Wasatch Wind Development LLC, and AES Wind Generation Inc. as depicted on the BLM project scoping map.

We appreciate the opportunity to become involved at this early scoping stage of the project. Please continue to contact James Hanley (303) 312-6725 of my staff for any clarification of these scoping comments. We look forward to participating with BLM on this project.

Sincerely,



Larry Svoboda
Director
NEPA Compliance and Review Program

