



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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40-8857

MEMORANDUM TO: David L. Meyer, Chief
Rules Review and Directives Branch
Division of Freedom of Information
and Publication Services
Office of Administration, T 6-D-39

FROM: Joseph J. Holonich, Chief *Joseph J. Holonich*
High-Level Waste and Uranium
Recovery Projects Branch
Division of Waste Management
Office of Nuclear Material
Safety and Safeguards

SUBJECT: PUBLISHING FONSI FOR RENEWAL OF SOURCE MATERIAL LICENSE SUA-1511 IN
THE FEDERAL REGISTER

One signed original of the Federal Register Notice identified below is enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (4) of the Notice are enclosed for your use.

- Notice of Finding of No Significant Impact on proposed renewal of Source Material License No. SUA-1511, continued operation of Power Resources, Inc. In-Situ Leach Uranium Facility
- Notice of Availability of Environmental Report
- Notice of Opportunity for Hearing on proposed renewal of Source Material License SUA-1511
- Notice of Availability of License Amendment Application for:
- Notice of Availability of Draft EIS for:
- Notice of Availability of Final EIS for:
- Notice of Issuance of Facility Operating License or Amendment
- Notice of Preparation of Environmental Assessment
- Environmental Assessment

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Division of Waste Management
Office of Nuclear Material
Safety and Safeguards

Docket No. 40-8857

Enclosures: As stated (5)

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NUCLEAR REGULATORY COMMISSION

DOCKET NO. 40-8857

POWER RESOURCES, INC.

AGENCY: Nuclear Regulatory Commission

ACTION: Final Finding of No Significant Impact
Notice of Opportunity for Hearing

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) proposes to renew Source Materials License No. SUA-1511. This license authorizes Power Resources, Inc. (PRI) to receive, acquire, possess, and transfer uranium at its Highland Uranium Project approximately 24 miles northeast of the town of Glenrock, in Converse County, Wyoming. PRI's Highland Uranium Project is an In-Situ Leach (ISL) uranium mine and processing facility. An Environmental Assessment (EA) was performed by NRC staff in support of PRI's license renewal request. The conclusion of the Environmental Assessment is a Finding of No Significant Impact (FONSI) for the proposed license renewal.

FOR FURTHER INFORMATION CONTACT: Mr. Michael C. Layton, High-Level Waste and Uranium Recovery Projects Branch, Mail Stop TWFN 7-J9, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Telephone 301/415-6676.

SUPPLEMENTARY INFORMATION:

Background

The ISL mining method involves: (1) injecting a leaching solution (lixiviant), comprised of native groundwater fortified with gaseous carbon dioxide and oxygen, into a uranium-bearing ore body through injection wells; (2) chemically mobilizing the uranium through oxidation and complexing it with a carbonate ion in solution; and (3) extracting the uranium-bearing solution through a pattern of pumping wells. Uranium is then separated from the leach solution by conventional ion exchange methods in a processing facility. The depleted solution is recharged with carbon dioxide and oxygen and is then returned to the mining zone for additional uranium recovery. This cycle continues until the ore zone is depleted or the uranium is no longer economically feasible to recover.

The recovered uranium solution is further processed by using ammonia or hydrogen peroxide to precipitate the uranium into a slurry. The resulting slurry is further thickened by gravity settling, then washed and dewatered in a filter press to about 50 percent solids. The filter press solids (cake) are then dried in a natural gas dryer, which operates at about 1200 degrees Fahrenheit, producing uranium oxide commonly called "yellowcake". The dried yellowcake is packaged in 55-gallon steel drums for storage and shipment to a fuel processing facility.

In the injection and extraction process, well patterns typically include four injection wells at the corners of a 50- to 100-foot square with one pumping (production) well centrally located. There are currently six wellfields installed at the PRI Highland site, designated as wellfields A through F. The A and B wellfields were constructed in 1987 and are now under restoration. The C wellfield was installed in 1989 and is still in

production. The D wellfield was installed during 1990-1991 and started production in 1991. The E wellfield was built during 1991-1992 and started production in 1992. The F wellfield was approved by the NRC staff in 1994.

Environmental Assessment

The EA discusses the environmental aspects of the PRI renewal request. Safety aspects for the continued operation of the Highland Uranium Project are discussed in a Safety Evaluation Report (SER). The license renewal would authorize PRI to continue operating the facility, such that the annual throughput will not exceed an average flow rate of 7500 gallons per minute (gpm), exclusive of the flow involved in restoring the depleted wellfields. Yellowcake production will not exceed 1.897 million pounds annually. To assure that the process emissions associated with this project are accurate, the licensee will be prohibited by license condition from exceeding the 7500 gpm process rate. All license conditions and commitments presented in the licensee's Operations and Reclamation Plan are subject to NRC inspection. Violation of the license may result in enforcement action.

An impact appraisal for the license renewal was performed by the NRC, Division of Waste Management, and documented in the EA. The NRC staff performed the appraisal of environmental considerations associated with continuation of the ISL operation in accordance with Title 10, Code of Federal Regulations (10 CFR) Part 51, Licensing and Regulatory Policy Procedures for Environmental Protection.

In conducting this appraisal, the NRC staff considered the following:
(1) environmental, operational, and restoration information submitted by PRI

for previous and ongoing work at the Highland Uranium Project, (2) additional information submitted in the licensee's application, and (3) information derived from professional papers, journals and text books, NRC Regulations and Regulatory Guides, as well as other Federal, State and local agencies.

Conclusions

The NRC staff has reexamined actual and potential environmental impacts associated with the operations at PRI's Highland Uranium Project and has determined that renewal of Source Materials License No. SUA-1511 will: (1) be consistent with the licensing requirements of 10 CFR 40, (2) not endanger the public health and safety, and (3) not have long-term detrimental impacts on the environment. Specific reasons for drawing these conclusions are:

1. The proposed control and monitoring program for groundwater is sufficient for detecting any excursion, either vertical or horizontal.
2. The radium settling basins and purge storage reservoirs are clay lined to minimize seepage of waste solutions; monitoring systems as designed should detect any leakage which may occur.
3. Radiological releases from the uranium extraction operations will be very small (exposures which are small fractions of the radiological exposure standards) and will be closely monitored to detect any problems.
4. All radioactive wastes will be disposed of at an existing NRC licensed tailings disposal site.
5. The proposed restoration plan, as demonstrated by the R&D ISL test project, should be sufficient to return the groundwater to its premining

use (or potential use). On a parameter-by-parameter basis, groundwater quality will be returned as close to baseline conditions as reasonably achievable.

6. The remote location of the Highland Uranium Project facility and sparse population in this portion of Converse County, Wyoming has mitigated any potential adverse impacts to minority and low-income populations. Further evaluation of 'Environmental Justice' concerns, as outlined in Executive Order 12898 and NRC's Office of Nuclear Material Safety and Safeguard Policy and Procedures Letter 1-50 Rev. 1, is not warranted.

Finding of No Significant Impact

Based on these conclusions, the NRC finds that the impacts associated with the proposed renewal of Source Materials License No. SUA-1151 are within the scope of impacts anticipated in the November, 1978 Final Environmental Statement (FES) and the July, 1987 EA; which supported the initial licensing. Recognizing these impacts, the NRC has available two alternatives with respect to the requested license renewal: (1) renew the license with such conditions as are considered necessary or appropriate to protect public health, safety, and the environment; or (2) deny renewal of the license.

The environmental impacts of the renewal described in the EA do not warrant denial of the application. For this reason, the NRC has made a finding of no significant impact associated with this action and will issue a renewed license for the PRI Highland Uranium Project.

Notice of Opportunity for Hearing

The Commission hereby provides notice that this proceeding on an application for a licensing action falls within the scope of Subpart L, "Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings, of the Commission's Rules of Practice for Domestic Licensing Proceedings in 10 CFR Part 2" (54 FR 8269). Pursuant to §2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing. In accordance with §2.1205(c), a request for a hearing must be filed within thirty (30) days from the date of publication of this FEDERAL REGISTER notice. The request for a hearing must be filed with the Office of the Secretary either:

(1) By delivery to the Docketing and Service Branch of the Office of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852; or

(2) By mail or telegram addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch.

In addition to meeting other applicable requirements of 10 CFR Part 2 of the Commission's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

(1) The interest of the requestor in the proceeding;

(2) How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in §2.1205(g);

(3) The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and

(4) The circumstances establishing that the request for a hearing is timely in accordance with §2.1205(c).

Each request for a hearing must also be served, by delivering it personally or by mail to:

(1) The licensee, Power Resources Inc., 800 Werner Court, Suite 230, Casper, WY 82601;

(2) The NRC staff, by delivery to the Executive Director of Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or by mail addressed to the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Any hearing that is requested and granted will be held in accordance with the Commission's Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings in 10 CFR Part 2, Subpart L.

Dated at Rockville, Maryland, this 17th day of August 1995.

FOR THE NUCLEAR REGULATORY COMMISSION



Joseph J. Holonich, Chief
High-Level Waste and Uranium
Recovery Projects Branch
Division of Waste Management
Office of Nuclear Material
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