

July 19, 2011

Mr. Mike Thomas  
Environmental, Safety, and Health Manager  
Uranerz Energy Corporation  
1701 East "E" Street  
P.O. Box 50850  
Casper, WY 82605-0850

SUBJECT: MATERIALS LICENSE SUA-1597, URANERZ ENERGY CORPORATION,  
NICHOLS RANCH PROJECT IN SITU RECOVERY FACILITY, CAMPBELL AND  
JOHNSON COUNTIES, WYOMING (TAC J00553)

Dear Mr. Thomas:

By letter dated November 30, 2007, Uranerz Energy Corporation (Uranerz) submitted a license application to the U.S. Nuclear Regulatory Commission (NRC) for a Source and Byproduct Materials License for the extraction and recovery of uranium source material at its Nichols Ranch In Situ Recovery (ISR) Project in Campbell and Johnson Counties, Wyoming. The application was accepted for NRC review on April 14, 2008. During the review process, the NRC staff's review was aided by Uranerz's responses to requests for additional information for the safety and environmental reports. Additionally, public meetings were held on January 17, 2008, April 28, 2008, May 27, 2008, October 22, 2008, August 27, 2009, May 17, 2010, and December 20, 2010, to discuss various aspects of the staff's review.

The staff completed its environmental review of the proposed facility and documented its findings in NUREG-1910, Supplement 2, "Environmental Impact Statement for the Nichols Ranch ISR Project in Campbell and Johnson Counties, Wyoming," (FSEIS) dated January 2011. A notice of availability of this document was published in the *Federal Register* on January 28, 2011 (76 FR 5216) [ML103440120]. The NRC staff's analysis considers and weighs the environmental impacts resulting from the construction, operation, aquifer restoration, and decommissioning of an ISR facility at the Nichols Ranch project site and alternatives. The FSEIS also contained the NRC staff recommendation to the Commission, related to the environmental aspects of the proposed action that the source material license should be issued as requested, unless safety issues mandate otherwise.

During the safety review, the staff developed proposed license conditions and issued a draft license for Nichols Ranch on November 16, 2010, and revised draft licenses on March 10, 2011, June 14, 2011, June 23, 2011, and July 13, 2011. Uranerz agreed to the license conditions in the revised draft license by email dated July 13, 2011.

The NRC has found that the application for the Nichols Ranch materials license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. Based on its review, the staff concludes that the application meets the applicable requirements in 10 CFR Parts 20 and 40. More specifically, in accordance with 10 CFR 40.32(b-c), the staff finds that Uranerz is qualified by reason of training and experience to use source material for the purpose it requested; and that Uranerz's proposed

equipment and procedures for use at its Nichols Ranch facility are adequate to protect public health and minimize danger to life or property. The NRC staff's review supporting these findings is documented in the enclosed Safety Evaluation Report (Enclosure 1).

Therefore, in accordance with 10 CFR 40.32(d), the staff finds that issuance of a license to Uranerz will not be inimical to the common defense and security or to the health and safety of the public. The staff also finds in accordance with 10 CFR 40.32(e), after weighing the environmental, economic, technical and other benefits against environmental costs and considering available alternatives, that the action called for is the issuance of License Amendment No. 1 to Materials License SUA-1597 (Enclosure 2).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions concerning the above, please contact Mr. Ron Linton at (301) 415-7777 or via email at [Ron.Linton@nrc.gov](mailto:Ron.Linton@nrc.gov).

Sincerely,

**/RA/**

Keith I. McConnell, Deputy Director  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

Docket No. 040-09067  
License No. SUA-1597

Enclosures:

1. Source Materials License
2. Safety Evaluation Report

cc: G. Mooney, WDEQ  
A. Edwards, WDEQ

equipment and procedures for use at its Nichols Ranch facility are adequate to protect public health and minimize danger to life or property. The NRC staff's review supporting these findings is documented in the enclosed Safety Evaluation Report (Enclosure 1).

Therefore, in accordance with 10 CFR 40.32(d), the staff finds that issuance of a license to Uranerz will not be inimical to the common defense and security or to the health and safety of the public. The staff also finds in accordance with 10 CFR 40.32(e), after weighing the environmental, economic, technical and other benefits against environmental costs and considering available alternatives, that the action called for is the issuance of License Amendment No. 1 to Materials License SUA-1597 (Enclosure 2).

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Sincerely,

**/RA/**

Keith I. McConnell, Deputy Director  
 Decommissioning and Uranium Recovery  
 Licensing Directorate  
 Division of Waste Management  
 and Environmental Protection  
 Office of Federal and State Materials  
 and Environmental Management Programs

Docket No. 040-09067  
 License No. SUA-1597

Enclosures:

1. Source Materials License
2. Safety Evaluation Report

**(CLOSES TAC J00553)**

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