

August 17, 2011

Mr. Wayne W. Heili
President
Lost Creek ISR, LLC
5880 Enterprise Drive, Suite 200
Casper, WY 82609

SUBJECT: MATERIALS LICENSE SUA-1598, LOST CREEK ISR, LLC, LOST CREEK
PROJECT IN SWEETWATER COUNTY, WYOMING (TAC J00559)

Dear Mr. Heili:

By letter dated October 30, 2007, Lost Creek ISR, LLC (LCI) submitted a license application to the U.S. Nuclear Regulatory Commission (NRC) for a Source and Byproduct Materials License for the in-situ extraction and recovery of uranium at its Lost Creek Project in Sweetwater County, Wyoming. The applicant withdrew the application and resubmitted it with supporting documentation on March 31, 2008. The NRC accepted the application for review on June 10, 2008. NRC staff held public meetings with LCI on April 28, 2008, November 18, 2008, April 16, 2009, September 25, 2009, December 7, 2009, January 27, 2011, and May 31, 2011, to discuss various aspects of the staff's review.

LCI requested an exemption from the "commencement of construction" provisions of 10 CFR 40.32(e) on July 9, 2009. The staff completed a review of this exemption request and prepared a technical evaluation report, approving the exemption request on April 6, 2010 (ML093350365). For this exemption request, the staff also prepared an environmental assessment with a finding of no significant impact (FONSI), which was published in the *Federal Register* on April 5, 2010 (75 FR 17167). The NRC authorized the exemption to 10 CFR 40.32(e) with the understanding that the exemption did not indicate that a license would later be issued to the applicant.

The staff completed its environmental review of the proposed facility and documented its findings in NUREG-1910, Supplement 3, "Environmental Impact Statement for the Lost Creek ISR Project in Sweetwater County, Wyoming," (FSEIS) dated June 2011 (ML11125A006). A notice of availability of this document was published in the *Federal Register* on June 24, 2011 (76 FR 37160) [ML111780442]. The NRC staff's analysis considers and weighs the

environmental impacts resulting from the construction, operation, aquifer restoration, and decommissioning of an in-situ recovery (ISR) facility at the Lost Creek 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 the Lost Creek Project on January 11, 2011, and revised draft licenses on March 7, 2011, July 11, 2011, and August 11, 2011. By email dated August 12, 2011, LCI accepted the conditions in the final draft license.

The NRC has found that the application for the Lost Creek Project materials license complies with 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 LCI is qualified by reason of training and experience to use source material for the purpose that it requested, and that LCI's proposed equipment and procedures for use at its Lost Creek Project 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 LCI 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 appropriate action is to issue Materials License SUA-1598 (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 Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC's website at <http://www.nrc.gov/reading-rm/adams.html>.

W. Heili

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If you have any questions concerning the above, please contact Dr. Tanya Palmateer Oxenberg at (301) 415-6142 or via email at tanya.oxenberg@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. 40-9068
License No. SUA-1598

Enclosures:

1. Safety Evaluation Report
2. Source Materials License

cc:

J. Corra, WDEQ
M. Bautz, WDEQ
M. Newman, BLM

W. Heili

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