July 24, 2009

Mr. John W. Cash
Manager EHS and Regulatory Affairs
Lost Creek ISR, LLC
5880 Enterprise Drive, Suite 200
Casper, WY 82609

SUBJECT: PRE-LICENSING WELL CONSTRUCTION, LOST CREEK ISR URANIUM RECOVERY PROJECT, LOST CREEK ISR, LLC, SWEETWATER COUNTY, WYOMING

Dear Mr. Cash:

On May 15, 2009, Thompson and Simmons, PLLC, attorneys for Lost Creek ISR, LLC, (LCI) informed U.S. Nuclear Regulatory Commission staff, by phone, that LCI inadvertently exceeded the limits on construction as defined at 10 CFR 40.32(e). LCI followed up this conversation in a letter dated May 22, 2009, (ML091740295) that described the nature of pre-licensing work in question. According to the aforementioned letter, LCI installed 67 wells including the monitoring well ring, overlying and underlying aquifer monitoring wells, and production zone baseline wells. LCI stated that this work occurred between July and October 2008, and the Wyoming Department of Environmental Quality (WDEQ) approved this installation program, as well as the associated bond.

As background, the WDEQ stated in a letter dated February 17, 2009, that it was requiring applicants for in-situ recovery (ISR) facilities to install the entire monitoring well network associated with the first wellfield to be operated after license issuance. On February 25, 2009, the NRC staff informed the WDEQ of the staff's view that installation of the entire wellfield monitoring network is equivalent to wellfield development that would require an NRC license. The NRC staff's interpretation of 10 CFR 40.32(e) is that installation of a limited number of wells for pumping tests and baseline data collection for the site is permitted under 10 CFR 40.32(e). However, installation of the monitoring well network for a specific wellfield goes well beyond that needed for background data collection, and bears on how a licensee will ensure that public health and safety and the environment will be protected during operation. Accordingly, the NRC staff concludes that such activities are not permitted under 10 CFR 40.32(e) and can only be performed after a license is issued.

After this conversation, the WDEQ issued a letter dated March 10, 2009, to NRC staff stating that applicants would only be required to install "background monitoring wells and test wells" for baseline measurements and more detailed hydrogeologic characterization. The letter further

stated that the WDEQ did not intend to authorize the installation of production/injection wells or the entire network of monitoring wells prior to permit issuance. By letter dated April 9, 2009, the NRC staff confirmed that monitoring well installation for baseline analyses and aquifer testing is permitted under 10 CFR 40.32(e). However, installing the injection/production wells and the entire monitoring well network goes beyond what is allowed by this regulation.

The basis for the NRC staff not allowing the installation of the entire monitoring well network without review is because the monitoring ring is a key component of the safety infrastructure of an ISL. Although typical monitoring network spacings and locations are found in NRC guidance, the applicant must provide a site-specific justification for the well spacing and distance between the well ring and the wellfield for the monitoring networks in each wellfield. These specifications are reviewed by NRC staff and, if approved, become license conditions. Furthermore, monitoring well networks are the primary means of determining whether or not contamination of underground sources of drinking water occurs during excursions and after restoration. Although the staff acknowledges that some of the background data collection wells might eventually be included in the wellfield monitoring network, the acceptability of the spacings and pattern of the monitoring well network must be approved by the staff because these features have a clear nexus to radiological and chemical safety.

Nevertheless, given that the clause in 10 CFR 40.32(e), “preconstruction monitoring or testing to establish background information” is not explicit as to permissible pre-licensing construction activities at ISR facilities, and given that these activities occurred before the staff issued its letter noting acceptable drilling activities, and the fact that LCI voluntarily identified this issue, the NRC staff has concluded that, in this circumstance, no further action by NRC is warranted at this time. However, if the staff determines that the well spacing, or the monitor well ring’s distance from the wellfield will not provide operational data adequate to ensure the protection of underground sources of drinking water, LCI will be required to reinstall a monitoring network. In addition, the staff will, by license condition, require review of the well construction details during the first inspection prior to operations.

In accordance with 10 CFR 2.390 of the NRC’s “Rules of Practice for Domestic Licensing Proceedings and 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 Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

If you have any questions, please contact Mr. Ronald A. Burrows at 301-415-6443, or by email at ronald.burrows@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

cc: W. Heili, LCI
M. Newman, BLM
B. Boberg, LCI
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& Simmons, PLLC

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