

NUCLEAR REGULATORY COMMISSION

Docket No. 04009068

[NRC-2008-0391]

**Notice of the Nuclear Regulatory Commission Issuance of Materials License SUA-1598
and Record of Decision for Lost Creek ISR, LLC Lost Creek In-Situ Recovery Project**

AGENCY: U.S. Nuclear Regulatory Commission

ACTION: Notice of issuance of materials license SUA-1598

SUPPLEMENTARY INFORMATION: The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued a license to Lost Creek ISR, LLC (LCI) for its Lost Creek uranium in-situ recovery (ISR) project in Sweetwater County, Wyoming. Materials License SUA-1598 authorizes LCI to operate its facilities as proposed in its license application, as amended, and to possess uranium source and byproduct material at the Lost Creek Project. Furthermore, LCI will be required to operate under the conditions listed in Materials License SUA-1598.

This notice also serves as the record of decision for the NRC decision to approve LCI's license application for the Lost Creek Project and to issue Materials License SUA-1598. This record of decision satisfies the regulatory requirement in Section 51.102(a) of Title 10 of the *Code of Federal Regulations* (10 CFR), which requires a Commission decision on any action for which a final environmental impact statement has been prepared to be accompanied by or to include a concise public record of decision.

The NRC considers the entire publicly available record for a license application to constitute the agency's record of decision. Documents related to this application carry Docket

Number 04009068. You can access the NRC's Agencywide Documents Access and Management System (ADAMS), which provides text and image files of the NRC's public documents in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. These documents for the Lost Creek Project include the license application (including the applicant's environmental report) [ADAMS Accession No. ML081060502], the Commission's Safety Evaluation Report (SER) published in August 2011 [ADAMS Accession No. ML112231724], and the Commission's Final Supplemental Environmental Impact Statement (FSEIS) (NUREG-1910, Supplement 3) published in June 2011 [ADAMS Accession No. ML11125A006]. The record of decision also includes the applicable portions of the Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities (NUREG-1910), as incorporated by reference in the FSEIS.

As discussed in the Lost Creek FSEIS, the Commission considered a range of alternatives. The reasonable alternatives discussed in detail were the applicant's proposal as described in its license application to conduct in-situ uranium recovery on the site, the no-action alternative, and the dry yellowcake alternative. Under the proposed action, yellowcake slurry would be produced, but not dried, onsite, whereas the dry yellowcake alternative considered the impacts of installing a dryer onsite to produce dry yellowcake from the yellowcake slurry produced onsite. Before a dryer could be installed on the Lost Creek Project site, the licensee would be required to submit a license amendment request, and the NRC would need to approve such a request. Other alternatives considered, but eliminated from detailed analysis, include conventional uranium mining and milling, conventional mining and heap leach processing, alternate lixiviants, and alternative wastewater disposal options. The Lost Creek FSEIS also discussed the factors considered when evaluating the alternatives, a comparison among the alternatives, and license conditions and monitoring programs. 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.

The NRC has found that the application for the source materials license complied with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. As required by the Act and the Commission's regulations in 10 CFR 40.32(b)-(c), the staff has found 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 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 SER. The NRC staff also concluded, in accordance with 10 CFR 40.32(d), that issuance of Materials License SUA-1598 to LCI will not be inimical to the common defense and security or to the health and safety of the public. The staff also found 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.

LCI's request for a materials license was previously noticed in the *Federal Register* on July 10, 2008 (73 FR 39728), with a notice of an opportunity to request a hearing. The NRC did not receive any requests for a hearing on the license application.

SUPPLEMENTARY INFORMATION: In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," the details with respect to this action, including the SER and accompanying documentation and license, are available electronically in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. The ADAMS accession numbers for the documents related to this notice are:

1	Applicant's Application, March 20, 2008	ML081060525
2	Response to Request for Additional Information, December 12, 2008	ML090080451
3	Response to Request for Additional Information, January 16, 2009	ML090360163
4	Response to Request for Additional Information, February 27, 2009	ML090840399
5	Generic Environmental Impact Statement for <i>In-Situ</i> Leach Uranium Milling Facilities, May 2009	ML091530075
6	Response to Request for Additional Information, August 5, 2009	ML092310728
7	Applicant's Notification of Monitoring Well Network, May 22, 2009	ML091740295
8	Lost Creek Project Exemption Request, July 2, 2009	ML091940438
9	Exemption to 10 CFR 40.42(e), April 6, 2010	ML093350365
10	Response to Open Issues in Safety Evaluation Report, April 22, 2010	ML102100241
11	Revisions to Application, April 22, 2010	ML102420249
12	Clarifications to Technical Report, May 14, 2010	ML101600528
13	Replacement Pages to Application, June 24, 2010	ML101820155
14	Supplemental Environmental Impact Statement for the Lost Creek ISR Project in Sweetwater County, Wyoming, June 2011	ML11125A006
15	NRC Safety Evaluation Report, August 2011	ML112231724
16	Source Materials License for Lost Creek, August 17, 2011	ML111940049

If you do not have access to ADAMS, or if there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209 or 301-415-4737, or via e-mail to PDR.Resource@nrc.gov.

These documents may also be viewed electronically on the public computers located at the NRC's PDR, O 1 F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852.

The PDR reproduction contractor will copy documents for a fee.

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Dated at Rockville, Maryland, this 17th day of August 2011.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Keith I. McConnell, Deputy Director
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