

**NUCLEAR REGULATORY COMMISSION**

**[Docket No. 40-8502; NRC-2012-0120]**

**Uranium One; Ludeman Satellite**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Environmental assessment and finding of no significant impact; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is considering an amendment of License SUA-1341, to expand operations to the Ludeman Satellite at Uranium One's Willow Creek In-situ recovery (ISR) facility (Docket No. 40-8502). The NRC has prepared an environmental assessment (EA) and finding of no significant impact (FONSI) for this licensing action.

**DATES:** The environmental assessment referenced in this document is available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** Please refer to Docket ID **NRC-2012-0120** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2012-0120**. Address questions about NRC dockets to Jennifer Borges; telephone: 301-287-9127; e-mail: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@nrc.gov). For

technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System**

**(ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Ashley Waldron, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-7317; e-mail: [Ashley.Waldron@nrc.gov](mailto:Ashley.Waldron@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Introduction**

The NRC is considering issuance of an amendment of License No. SUA-1341, issued to Uranium One, for operation of the Ludeman Satellite, located in Wyoming, Converse County. Therefore, as required by part 51 of title 10 of the *Code of Federal*

*Regulations* (10 CFR), the NRC performed an environmental assessment. Based on the results of the environmental assessment, the NRC has determined not to prepare an environmental impact statement for the amendment, and is issuing a finding of no significant impact.

## **II. Environmental Assessment**

### *Description of the Proposed Action*

The proposed action would allow Uranium One to construct, operate, perform aquifer restoration, and decommissioning activities at the Ludeman Satellite. The proposed action is in accordance with the licensee's application dated December 3, 2011 (ADAMS Accession No. ML120120182).

### *Need for the Proposed Action*

The proposed action allows Uranium One to recover uranium within the proposed Ludeman Satellite. The licensee would process the recovered uranium into yellowcake at the existing central processing plant (CPP) currently located on the Willow Creek Irigaray site. Yellowcake is the uranium oxide product of the ISR milling process that is used to produce various products, including fuel for commercially-operated nuclear power reactors.

### *Environmental Impacts of the Proposed Action*

The NRC staff has assessed the potential environmental impacts from the construction, operation, aquifer restoration, and decommissioning of the proposed Ludeman Satellite. The NRC staff assessed the impacts of the proposed action on land

use; historical and cultural resources; visual and scenic resources; climatology, meteorology and air quality; geology, minerals, and soils; water resources; ecological resources; socioeconomics; noise; traffic and transportation; public and occupational health and safety; and waste management. All impacts were determined to be SMALL. The NRC staff concluded that license amendment for the Willow Creek ISR project license authorizing the construction and operation of the Ludeman Satellite would not significantly affect the quality of the human environment. Approval of the proposed action would not result in an increased radiological risk to public health or the environment.

#### *Environmental Impacts of the Alternatives to the Proposed Action*

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). The no-action alternative would mean that the NRC would not approve the addition of the Ludeman Satellite to the existing Willow Creek ISR licensed permit area. In-situ uranium recovery would not occur within the Ludeman Satellite and the associated environmental impacts also would not occur.

#### *Agencies and Persons Consulted*

In accordance with its stated policy, on January 18, 2018, the NRC staff consulted with the U.S. Fish and Wildlife Service (FWS) regarding the proposed action. The FWS stated that no federally listed or proposed endangered or threatened species occur within the area affected by the proposed action. On February 27, 2018, the staff consulted with Wyoming Department of Environmental Quality (WDEQ), regarding the environmental impact of the proposed action. The WDEQ provided comments on the draft EA. Those comments were considered in preparation of the final EA and FONSI.

On July 17, 2018, the Wyoming State Historic Preservation Office notified NRC that it concurred with its determinations of no effect at the Ludeman project.

#### *Additional Information*

The NRC staff conducted an environmental review in accordance with 10 CFR part 51, which implements the requirements of the National Environmental Policy Act of 1969, as amended (NEPA). The results of the NRC's environmental review can be found in the final EA (ADAMS Accession No. ML18183A225). Based on the results of the environmental assessment, the NRC has determined not to prepare an environmental impact statement for the Ludeman Satellite amendment and is issuing a finding of no significant impact.

In May 2009, the NRC staff issued NUREG-1910, "Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities" (herein referred to as the GEIS). In the GEIS, the NRC assessed the potential environmental impacts from construction, operation, aquifer restoration, and decommissioning of an in-situ leach uranium milling facility (also known as an ISR facility) located in four specific geographic regions of the western United States. Where applicable, this EA incorporates by reference relevant portions from the GEIS, and uses site-specific information from Uranium One's license application and independent sources to fulfill the requirements in 10 CFR 51.20(b)(8).

The final EA was prepared by the NRC and its contractor, the Center for Nuclear Waste Regulatory Analyses, in compliance with NEPA (as amended, and the NRC's regulations for implementing NEPA (10 CFR part 51).

In the final EA, the NRC staff assessed the potential environmental impacts from the construction, operation, aquifer restoration, and decommissioning of the proposed

Ludeman Satellite. The NRC staff assessed the impacts of the proposed action on land use; historical and cultural resources; visual and scenic resources; climatology, meteorology and air quality; geology, minerals, and soils; water resources; ecological resources; socioeconomics; noise; traffic and transportation; public and occupational health and safety; and waste management.

After weighing the impacts of the proposed license amendment and comparing to the no-action alternative, the NRC staff, in accordance with 10 CFR 51.91(d), sets forth its NEPA recommendation regarding the proposed action (granting the request for an NRC license amendment for the proposed Ludeman Satellite). Unless safety issues mandate otherwise, the NRC staff recommendation related to the environmental aspects of the proposed action is that an NRC license amendment be issued.

### **III. Finding of No Significant Impact**

Based on its review of the proposed action, and in accordance with the requirements in 10 CFR part 51, the NRC staff has determined that license amendment for the Willow Creek ISR project license authorizing the construction and operation of the Ludeman Satellite would not significantly affect the quality of the human environment. In its license amendment request, Uranium One has proposed the addition of six wellfields at the Ludeman Satellite. No other significant changes in Uranium One's authorized operations for the Willow Creek ISR Project were requested. Approval of the proposed action would not result in an increased radiological risk to public health or the environment. The NRC staff has determined that pursuant to 10 CFR 51.31, preparation

of an environmental impact statement (EIS) is not required for the proposed action and, pursuant to 10 CFR 51.32, a finding of no significant impact (FONSI) is appropriate.

Dated at Rockville, Maryland, this 9<sup>th</sup> day of August, 2018.

For the Nuclear Regulatory Commission.

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