



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 18, 2019

Dr. Kary Stackelbeck
State Archaeologist
Oklahoma Archeological Survey
University of Oklahoma
111 East Chesapeake
Room 102
Norman, OK 73019

SUBJECT: NOTIFICATION AND REQUEST FOR CONSULTATION REGARDING ENVIRONMENTAL PROPERTIES MANAGEMENT'S PROPOSED DECOMMISSIONING ACTIVITIES FOR THE FORMER CIMARRON FUEL FABRICATION FACILITY (DOCKET NUMBER: 70-0925 AND OKLAHOMA STATE HISTORIC PRESERVATION OFFICE FILE NUMBER: 2295-18)

Dear Dr. Stackelbeck:

The U.S. Nuclear Regulatory Commission (NRC) received, by letter dated November 5, 2018, a request from Environmental Properties Management, LLC (EPM), the trustee for the Cimarron Environmental Response Trust (CERT or licensee), to amend Special Nuclear Materials License (SNM)-928 to approve a decommissioning plan (DP) for groundwater remediation on the site of the former Cimarron Fuel Fabrication Facility (Cimarron site) in Logan County, Oklahoma. The DP is available in the NRC's Agencywide Documents Access and Management System (Accession Number ML18323A197), or you can access the DP directly through this link: <https://www.nrc.gov/docs/ML1832/ML18323A197.html>. If the NRC approves the DP and issues the license amendment, CERT would be authorized to complete the decommissioning of the site by installing systems to pump and treat groundwater to reduce the concentrations of contaminants that exceed NRC and/or State limits. Groundwater remediation will allow for the eventual unrestricted release¹ of the site from the NRC license. The license will remain in effect until it is terminated by the NRC.

The Cimarron site is situated along the southern bank of the Cimarron River near the intersection of Highways 74 and 33, approximately seven miles south of Crescent, Oklahoma (see Figure A-1 of the enclosure, "Project Location"). The site currently consists of approximately 500 acres of rolling hills and floodplain. Several miles of gravel roads, a gravel parking area, and one office building remain on the property. The original site was approximately 800 acres but, as shown in Figure 5-2 of the DP, "Property Owned by the Trust," four parcels were sold between 2015 and 2017 after release from the NRC license.

Between 1965 and 1975, Kerr-McGee Nuclear Corporation (Kerr-McGee) manufactured nuclear fuel at the site under two NRC licenses: uranium fuel was produced under SNM-928, and

¹ Per NRC regulations, a site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a total effective dose equivalent to an average member of the critical group that does not exceed 25 mrem (0.25 mSv) per year, including that from groundwater sources of drinking water, and the residual radioactivity has been reduced to levels that are as low as reasonably achievable.

mixed oxide fuel was produced under SNM-1174.² During that period, waste was buried in three locations and wastewater containing licensed material was stored in impoundments in accordance with regulatory requirements. Wastewater from the impoundments was discharged to the Cimarron River, also in accordance with regulatory requirements. The site has been in a decommissioning status since production activities ceased in 1976, and most of the decommissioning activities are now complete. Previous decommissioning activities included decontamination of facilities, pipelines and grounds (including burials and impoundments), offsite disposal of contaminated solid waste, and onsite disposal of contaminated soils. Section 1.3 of the DP provides more detail about past decontamination, decommissioning, and dismantlement activities at the site. Figure 5-1 of the DP shows the areas of the site that remain under the NRC license. Figure 5-3 of the DP shows the land uses on the site during operating years.

The only decommissioning activities that need to be completed are associated with the removal of contaminants from groundwater in areas where concentrations exceed the NRC's unrestricted release criteria. The present undertaking is the NRC's review and approval of the DP, which proposes the installation in two onsite areas of groundwater treatment systems. These two areas are known as the Western Area and Burial Area #1. Figure 8-1 of the DP, "Western Area Groundwater Remediation Areas," and Figure 8-2 of the DP, "Burial Area #1 Groundwater Remediation Areas," show the layout of the treatment systems in the two proposed areas. The treatment systems to be installed include extraction and injection pipes and trenches and above-ground treatment systems housed in a building (Western Area) or modular enclosure (Burial Area #1). The extraction of affected groundwater would be followed by treatment using an ion exchange and/or bio denitrification process. Treated water would be reinjected into the ground to drive affected groundwater toward the extraction systems. Any treated water not used for reinjection would be discharged to the Cimarron River in accordance with a permit to be issued by the Oklahoma Department of Environmental Quality. This groundwater remediation system is described in detail in Section 8 of the DP.

As established in Title 10 *Code of Federal Regulations* (10 CFR) Part 51, the NRC regulation that implements the National Environmental Policy Act of 1969, as amended (NEPA), the NRC is preparing an environmental assessment (EA) for the proposed action. The purpose of the EA is to assess potential environmental impacts that may significantly affect the human environment. In addition, the NRC must comply with Section 106 of the National Historic Preservation Act of 1966 (NHPA), which requires Federal agencies to determine whether historic resources, including those of religious and cultural significance to Native American Tribes, could be affected by an undertaking such as the NRC's approval of the licensee's DP. Section 106 also requires the NRC to consult with organizations or persons who have an interest in the preservation of these resources. In accordance with NHPA regulations in 36 CFR 800.8, "Coordination with the National Environmental Policy Act," the NRC will comply with Section 106 of the NHPA through the NEPA process, and the EA will include an analysis of potential impacts on historic resources. To support the analysis in the EA, the NRC staff will gather information to identify historic properties, including those of significance to Native American Tribes.

Through this letter, the NRC staff initiates consultation under Section 106 of the NHPA with the Oklahoma Archeological Survey regarding the amendment request. To support the environmental review and implementation of the Section 106 of the NHPA process through

² In 1983, when Kerr-McGee was divided into Sequoyah Fuels Corporation (SFC) and Quivera Mining Corporation, SFC became the owner of the Cimarron facility. Subsequently, in 1988, Cimarron, a subsidiary of Kerr-McGee, became responsible for the Cimarron facility. CERT now owns the site and is the licensee and EPM is the site trustee.

NEPA, the NRC requests that your office provide information you consider appropriate with regard to cultural, historic, or archaeological resources of interest that may be affected by this proposal. Any information you provide will be helpful in developing the scope and quality of our review in accordance with 10 CFR Part 51.

To assist in your review, we are enclosing correspondence dated August 6, 2018, that was sent to the Oklahoma State Historic Preservation Office (SHPO) on behalf of CERT by Burns & McDonnell. The enclosure also includes the SHPO's response, dated August 27, 2018. The August 6 letter to the SHPO provides information about the proposed groundwater remediation system and associated ground-disturbing activities. The letter also describes Burns & McDonnell's efforts to identify previously recorded archaeological or historic sites and surveys. Burns & McDonnell concluded in the letter that, given the site's proximity to a major waterway (the Cimarron River) and the large amounts of alluvial deposits, the site appears to have a high probability for buried cultural material. The letter states that there are no previously recorded archaeological resources at the site, but that no surveys are reported to have been conducted on the site.

In addition, as the SHPO suggested in the August 27, 2018, response letter to CERT, the NRC staff searched the Oklahoma's National Register of Historic Places (NRHP) database for properties listed in Logan County (<http://nr2.shpo.okstate.edu/QueryData.aspx>). The results of the search indicated that no NRHP properties are listed within or near this site.

If you have any questions about this project or need additional information regarding CERT's license amendment application, please contact the NRC Project Manager for the Cimarron site, Mr. Kenneth Kalman, by telephone at 301-415-6664 or via e-mail at Kenneth.Kalman@nrc.gov. For information about the environmental review or the Section 106 process for this project, please contact the environmental Project Manager, Ms. Christine Pineda, by telephone at 301-415-6789 or via e-mail at Christine.Pineda@nrc.gov.

Sincerely,

/RA/

Cinthya I. Román, Chief
Environmental Review Branch
Division of Fuel Cycle Safety, Safeguards,
and Environmental Review
Office of Nuclear Material Safety
and Safeguards

Docket No. 70-0925
License No. SNM-928

Enclosure:
Letter dated August 6, 2018, from Burns
& McDonnell to the Oklahoma SHPO

cc: B. Halliburton, CERT

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Dated: April 18, 2019

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