

**NUCLEAR REGULATORY COMMISSION**

**[Docket No. 50-613; NRC-2024-0078]**

**US SFR Owner, LLC;**

**Kemmerer Power Station, Unit 1;**

**Draft Environmental Impact Statement**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Notice; request for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC), in cooperation with the U.S. Department of Energy (DOE), is issuing for public comment a draft Environmental Impact Statement (EIS). The draft EIS is in response to an application submitted by TerraPower, LLC (TerraPower) on behalf of US SFR Owner, LLC (USO), a wholly owned subsidiary of TerraPower, for a construction permit (CP) for a Natrium advanced reactor at a site in Lincoln County, Wyoming, designated as Kemmerer Power Station, Unit 1 (Kemmerer Unit 1). USO plans to build and operate Kemmerer Unit 1 to demonstrate the Natrium advanced reactor while ultimately replacing electricity generation capacity in the PacifiCorp service area following planned retirement of existing coal-fired facilities. The draft EIS evaluates the environmental impacts of the proposed action of issuing a CP that would allow the construction of Kemmerer Unit 1, as well as the environmental impacts of the following alternatives to the proposed action: (1) the no-action alternative (i.e., denying the CP application) and (2) building the proposed Natrium advanced reactor at a different location.

**DATES:** Submit comments on the draft EIS by **August 4, 2025**. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date.

**ADDRESSES:** You may submit comments by any of the following methods; however, the NRC encourages electronic comment submission through the **Federal rulemaking website**:

- **Federal rulemaking website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2024-0078**. Address questions about Docket IDs in Regulations.gov to Bridget Curran; telephone: 301-415-1003; email: [Bridget.Curran@nrc.gov](mailto:Bridget.Curran@nrc.gov). For technical questions, contact the individual listed in the “For Further Information Contact” section of this document.

- **Email:** Comments may be submitted to the NRC electronically using the email address [TerraPowerEnvironmental.Resource@nrc.gov](mailto:TerraPowerEnvironmental.Resource@nrc.gov).

- **Mail comments to:** Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Patricia Vokoun, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3470; email: [Patricia.Vokoun@nrc.gov](mailto:Patricia.Vokoun@nrc.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Obtaining Information and Submitting Comments**

#### **A. Obtaining Information**

Please refer to Docket ID **NRC-2024-0078** when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2024-0078**.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://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, at 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). The draft EIS is available in ADAMS under Accession No. ML25154A651.

- **NRC's PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

- **Public Library:** A copy of the draft EIS will be available for public review at the Lincoln County Library, 519 Emerald Street, Kemmerer, WY 83101.

#### **B. Submitting Comments**

The NRC encourages electronic comment submission through the Federal Rulemaking Website (<https://www.regulations.gov>). Please include Docket ID **NRC-**

**2024-0078** in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

## **II. Background**

By letter dated March 28, 2024 (ADAMS Package Accession No. ML24088A059), TerraPower on behalf of USO, a wholly owned subsidiary of TerraPower, submitted to the NRC pursuant to section 103 of the Atomic Energy Act of 1954, as amended, and part 50 of title 10 of the *Code of Federal Regulations* (10 CFR), “Domestic Licensing of Production and Utilization Facilities,” an application for a CP that would allow the construction of Kemmerer Unit 1 in Lincoln County, Wyoming, as part of participation in DOE's Advanced Reactor Demonstration Program. The proposed facilities would house one 840-megawatt thermal, pool-type, sodium-cooled fast reactor connected to a molten salt energy storage system that enables variable energy supply up to 500 megawatts electric net. This submission initiated the proposed Federal action of determining whether to issue the requested CP. The CP application was supplemented on May 2, 2024 (ADAMS Accession Nos. ML24123A242 and

ML24123A243) and on May 9, 2024 (ADAMS Accession No. ML24130A181). A notice of receipt and availability of the CP application was published in the *Federal Register* on May 14, 2024 (89 FR 42004). A notice of intent to prepare an EIS and to conduct a scoping process was published on June 12, 2024 (89 FR 49917).

As set forth in 10 CFR 51.20(b), issuance of a CP to construct a nuclear power reactor is an action that requires an EIS. This notice is being published in accordance with the National Environmental Policy Act of 1969, as amended (NEPA), and the NRC's regulations implementing NEPA at 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." In addition, pursuant to 36 CFR 800.8(c), the NRC is using the process and documentation for the preparation of the draft EIS to comply with section 106 of the National Historic Preservation Act of 1966, as amended, in lieu of the procedures set forth in 36 CFR 800.3 through 800.6.

### **III. Discussion**

The NRC is issuing the draft EIS for public comment. The draft EIS includes the evaluation of the environmental impacts of the proposed action of issuing a CP that would allow the construction of Kemmerer Unit 1, as well as the environmental impacts of the no-action alternative and the alternative of building the proposed Sodium advanced reactor at a different location. In the draft EIS, after weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, the preliminary recommendation is, unless safety issues mandate otherwise, that the NRC issue the requested CP to USO. This preliminary recommendation is based on the CP application, information gathered during the environmental audit, and responses to requests for clarifying information; consideration of public comments received during the scoping process; consultation with

Federal, State, Tribal, and local agencies; and the independent environmental review and assessment summarized in the draft EIS.

Dated: June 16, 2025.

For the Nuclear Regulatory Commission.

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Jacob Zimmerman, Acting Director,  
Division of Rulemaking, Environmental,  
and Financial Support,  
Office of Nuclear Material Safety,  
and Safeguards.