



NUCLEAR REGULATORY COMMISSION

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

US SFR Owner, LLC;

Kemmerer Power Station, Unit 1;

Final Environmental Impact Statement

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC), in cooperation with the U.S. Department of Energy (DOE), is issuing a final environmental impact statement (EIS), NUREG-2268, "Environmental Impact Statement for the Construction Permit Application for Kemmerer Power Station, Unit 1: Final Report." The NRC is issuing this final EIS as part of its review of the 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 Sodium 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 Sodium advanced reactor while ultimately replacing electricity generation capacity in the PacifiCorp service area following planned retirement of existing coal-fired facilities. The final 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 alternatives to the proposed action.

DATES: The final EIS is available as of **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Please refer to Docket ID **NRC-2024-0078** 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 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. 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 <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin ADAMS Public 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. The final EIS is available in ADAMS under Accession No. ML25287A017. The ADAMS accession number for each other document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **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 or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time, Monday through Friday, except Federal holidays.

- **Project Website:** The final EIS will also be available online at the Kemmerer Unit 1 project website at <https://www.nrc.gov/reactors/new-reactors/advanced/who-were-working-with/applicant-projects/terrapower.html>.

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.

SUPPLEMENTARY INFORMATION:

I. 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* (FR) 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 section 800.8(c) of title 36 of the *Code of the Federal Regulations* (36 CFR), the NRC used the process and documentation for the preparation of the 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.

A notice of availability of and request for comment on the draft EIS was published

in the *Federal Register* on June 20, 2025 (90 FR 26333). The public comment period on the draft EIS ended on August 4, 2025, and the comments received on the draft EIS are addressed in the final EIS.

II. Discussion

As discussed in the final EIS, after weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, the recommendation is, unless safety issues mandate otherwise, that the NRC issue the requested CP to USO. This recommendation is based on the CP application, information gathered during the environmental audit, and responses to requests for clarifying information; consultation with Federal, State, Tribal, and local agencies; the independent environmental review and assessment summarized in the final EIS; and consideration of public comments received during the scoping process and on the draft EIS. In addition, no environmentally preferable alternatives that meet the purpose and need for the proposed action were identified; therefore, there is no obviously superior alternative to the proposed action from an environmental perspective.

Dated: October 20, 2025.

For the Nuclear Regulatory Commission.

Kimyata Savoy, Acting Deputy Director,
Division of Rulemaking, Environmental, and
Financial Support,
Office of Nuclear Material Safety and
Safeguards.