



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

May 21, 2024

Mr. George Wilson  
Vice President, Regulatory Affairs  
TerraPower, LLC.  
15800 Northup Way  
Bellevue, WA 98008

SUBJECT: ACCEPTANCE FOR DOCKETING OF KEMMERER POWER STATION UNIT 1  
CONSTRUCTION PERMIT APPLICATION BY US SFR OWNER, LLC

Dear Mr. Wilson:

By letter dated March 28, 2024 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML24088A059), US SFR Owner, LLC (USO), a wholly-owned subsidiary of TerraPower, LLC (TerraPower), submitted a construction permit (CP) application for a reactor facility pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, "Domestic Licensing of Production and Utilization Facilities," and Section 103 of the Atomic Energy Act of 1954, as amended, to the U.S. Nuclear Regulatory Commission (NRC). The facility, referred to as Kemmerer Power Station Unit 1, would be built in Lincoln County, Wyoming. Supplements to the application were submitted on May 2, 2024, (ML24123A242 and ML24123A243) and May 9, 2024, (ML24130A181). The purpose of this letter is to inform you of the results of the NRC staff's acceptance review of this application.

The NRC staff performed an acceptance review and determined that USO submitted sufficient information in accordance with 10 CFR 2.101, "Filing of application," 10 CFR 50.33, "Contents of applications; general information," 10 CFR 50.34, "Contents of application; technical information," and 10 CFR 51.50, "Environmental report—construction permit, early site permit, or combined license stage." The acceptance review was conducted to confirm that the NRC staff has sufficient information to initiate its detailed safety and environmental technical reviews and to complete these reviews on a predictable schedule.

The NRC staff performed the acceptance review of the CP application in accordance with 10 CFR Part 2, "Agency Rules of Practice and Procedure," 10 CFR Part 50, and the NRC's procedures. The review assessed the various criteria and considerations specified in the NRC agency's procedures associated with accepting an application. The NRC staff concluded that the application is complete and acceptable for docketing. However, the NRC staff's determination does not preclude audits or requests for additional information as the review proceeds. The docket number established for the Kemmerer Power Station Unit 1 reactor is 50-613.

G. Wilson

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During the acceptance review, the NRC staff identified several technical topics that were previously identified in the March 2024, Preapplication Readiness Assessment Report for Kemmerer Power Station Unit 1 Preliminary Construction Permit Application (ML24060A227). Several topics continue to require additional clarity or information and will likely require an increased focus by USO and the NRC staff to ensure a timely completion of the review. The NRC staff will also take these issues into consideration when developing the review schedule. The NRC staff will provide a schedule for the completion of the safety and environmental reviews of the application in separate correspondence, to include key milestones and resource estimates.

A notice of acceptance for docketing will be published by the Office of the Federal Register.

If you have any questions regarding this matter, please contact me at (301) 415-0673 or via email at [Mallecia.Sutton@nrc.gov](mailto:Mallecia.Sutton@nrc.gov).

Sincerely,

*/RA/*

Mallecia Sutton, Senior Project Manager  
Advanced Reactor Licensing Branch 1  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

Project No.: 99902100

Docket No.: 50-613

cc: TerraPower Natrium  
via Gov Delivery

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 DATED: MAY 21, 2024.

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**NRR-106**

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