

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-7513; NRC-2021-0193]

Kairos Power, LLC;

Hermes Test Reactor

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental impact statement; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing a final Environmental Impact Statement (EIS), NUREG-2263, “Environmental Impact Statement for the Construction Permit for the Kairos Hermes Test Reactor: Final Report.” The NRC staff is issuing a final EIS as part of the review of the application submitted by Kairos Power, LLC (Kairos) for a construction permit (CP). The Hermes test reactor is proposed to be built in the City of Oak Ridge, Tennessee.

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

ADDRESSES: Please refer to Docket ID **NRC-2021-0193** 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 <http://www.regulations.gov> and search for Docket ID **NRC-2021-0193**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@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, at 301-415-4737, or by email to PDR.Resource@nrc.gov. The final EIS is available in ADAMS under Accession No. ML23214A269. The ADAMS accession number for additional documents referenced in this document (if it is available in ADAMS) is provided the first time that it is mentioned as follows.

- **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 (ET), Monday through Friday, except Federal holidays.

- **Project website:** The final EIS can be accessed online at the Hermes – Kairos project specific web page at <https://www.nrc.gov/reactors/non-power/hermes-kairos.html>.

- **FOR FURTHER INFORMATION CONTACT:** Tamsen Dozier, Office of Nuclear Materials Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-2272, email: Tamsen.Dozier@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

By letter to the NRC dated September 29, 2021 (ADAMS Package Accession Number No. ML21272A375), Kairos Power LLC (Kairos) submitted an application for a construction permit for the Hermes non-power test reactor, pursuant to part 50 of title 10 of the *Code of Federal Regulations* (10 CFR), “Domestic Licensing of Production and

Utilization Facilities,” and Section 104c of the Atomic Energy Act of 1954, as amended. Additionally, by letter dated October 31, 2021 (ADAMS Package Accession No. ML21306A131), Kairos submitted an Environmental Report (ER) in support of its Hermes construction permit application. The test reactor is proposed to be built in Oak Ridge, Tennessee.

By letter dated November 29, 2021 (ADAMS Accession No. ML21319A354), the NRC staff informed Kairos of its determination that the Kairos application for a construction permit for the Hermes test reactor was acceptable for docketing under Docket No. 50-7513.

A notice of acceptance for docketing of the application was published in the *Federal Register* on December 1, 2021 (86 FR 68290) and a notice of opportunity for hearing was published on February 9, 2022 (87 FR 7503). A notice of intent to prepare an EIS and to conduct scoping process was published in the *Federal Register* on February 18, 2022 (87 FR 9394). A notice of availability of the draft EIS was published by the NRC in the *Federal Register* on September 29, 2022 (87 FR 59124). The public comment period for the draft EIS closed on December 6, 2022. Public comments are addressed in Appendix G in the final EIS (ADAMS Accession No. ML23214A269). This notice is being published in accordance with the National Environmental Policy Act of 1969, as amended and the NRC’s regulations in 10 CFR part 51.

In addition, as outlined in 36 CFR 800.8(c), “Coordination with the National Environmental Policy Act,” the NRC staff used the process and documentation for the preparation of the EIS to comply with Section 106 of the National Historic Preservation Act (NHPA) in lieu of the procedures set forth on 36 CFR 800.3 through 800.6.

II. Discussion

As discussed in the final EIS, the NRC staff’s recommendation related to the

environmental aspects of the proposed action is that the CP should be issued once the NHPA Section 106 process is complete. This recommendation is based on: 1) the ER submitted by Kairos, as revised; 2) consultation with Federal, State, Tribal and local agencies; 3) the NRC staff's consideration of comments received during the environmental review; and 4) the staff's independent review and assessment summarized in the final EIS, including the potential mitigation measures identified in the ER and in the final EIS.

In addition, in making its recommendation, the NRC staff has concluded that there are no environmentally preferable or obviously superior sites in the region of interest.

Dated: August 17, 2023.

For the Nuclear Regulatory Commission.

/RA/

Christopher M. Regan, Director,
Division of Rulemaking, Environmental, and
Financial Support,
Office of Nuclear Material Safety and
Safeguards.