

NUCLEAR REGULATORY COMMISSION

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

**Notice of Intent to Conduct Scoping Process and
Prepare Environmental Impact Statement**

Kairos Energy, LLC

Kairos Test Reactor

AGENCY: Nuclear Regulatory Commission.

ACTION: Intent to conduct scoping process and prepare environmental impact statement; public scoping meeting and request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) will conduct a scoping process to gather information necessary to prepare an environmental impact statement (EIS) to evaluate the environmental impacts for a construction permit (CP) requested by Kairos Power, LLC. The NRC is seeking public comment on this action and has scheduled a joint public outreach and public scoping meeting.

DATES: The NRC will hold a joint public outreach and public scoping meeting on March 23, 2022. Meeting details will be available by March 11, 2022 at

<https://www.nrc.gov/reactors/non-power/kairos-hermes.html> or at the NRC's Public

Meeting Schedule website at <https://www.nrc.gov/pmns/mtg>. Members of the public are invited to submit comments on the scope of the EIS by **[INSERT DATE 60 DAYS**

AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. 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**:

- **Email:** Comments may be submitted to the NRC electronically using the email address KairosHermes-CPEIS@nrc.gov.
- **Federal Rulemaking Website:** Go to <https://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.
- **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: Tamsen Dozier, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-2272, email: Tamsen.Dozier@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

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 <https://regulations.gov> and search for Docket ID **NRC-2021-0193**.

- **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, 301-415-4737, or by email to PDR.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if it is available in ADAMS) is provided the first time that it is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. 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 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays

- **Public Library:** A copy of the CP application, including the environmental report (ER), is available for public review at the Oak Ridge Public Library, 1401 Oak Ridge Turnpike, Oak Ridge, Tennessee.

B. Submitting Comments

The NRC encourages electronic comment submission through the **Federal rulemaking website** (<https://www.regulations.gov>). Please include Docket ID **NRC-2021-0193** in the subject line of your comment submission in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

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. Discussion

By letter dated September 29, 2021 (ADAMS Package Accession No. ML21272A375), Kairos Power, LLC (Kairos) submitted to the NRC pursuant to Section 104 of the Atomic Energy Act 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 for the Hermes test reactor (aka a “testing facility” as defined in 10 CFR 50.2), which would be located in Oak Ridge, Tennessee. The Hermes test reactor is a high-temperature thermal reactor using solid tri-structural isotropic fuel in pebble form and a molten fluoride salt coolant. This submission initiated the NRC’s proposed action of determining whether to grant the CP. A notice of receipt and availability of the portion of the application submitted on September 29, 2021 was published in the *Federal Register* on October 29, 2021 (86 FR 60077).

On October 31, 2021, Kairos filed the second part of its application (ADAMS Package Accession No. ML21306A131) for a CP, which consisted of the ER required by

10 CFR 50.30(f) and Subpart A of part 51. Submission of the ER completed the application for a CP.

The NRC staff determined that Kairos submitted a two-part application in accordance with 10 CFR 2.101(a)(5) and 10 CFR part 50, and that the application is acceptable for docketing under Docket No. 50-7513. The NRC sent a letter of acceptance and docketing to Kairos on November 29, 2021 (ADAMS Accession No. ML21319A354). 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). These notices are available on the Federal rulemaking website (<https://www.regulations.gov>) by searching for Docket ID **NRC-2021-0193** and **NRC-2022-0033**.

III. Request for Comment

This notice informs the public of the NRC's intent to conduct environmental scoping and prepare an EIS related to the CP application for Kairos Hermes test reactor. This notice also provides the public an opportunity to participate in the environmental scoping process, in accordance with 10 CFR 51.29 and 10 CFR 51.116.

The regulations in 36 CFR 800.8, "Coordination with the National Environmental Policy Act," allow agencies to use their National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.) (NEPA) process to fulfill the requirements of Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. 300101, et seq.) (NHPA). Therefore, pursuant to 36 CFR 800.8(c), the NRC intends to use its process and documentation required for the preparation of the EIS on the proposed action to comply with Section 106 of the NHPA in lieu of the procedures set forth at 36 CFR 800.3 through 800.6.

In accordance with 10 CFR 51.50(a), Kairos submitted an ER as part of the CP application. The ER was prepared pursuant to 10 CFR part 51 and is publicly available at ADAMS Package Accession No. ML21306A131. The ER will also be available for viewing at <https://www.nrc.gov/reactors/non-power/kairos-hermes.html>. In addition, the ER is available for public review at the Oak Ridge Public Library, 1401 Oak Ridge Turnpike, Oak Ridge, Tennessee.

The NRC intends to gather the information necessary to prepare an EIS related to the CP application for the Kairos Hermes test reactor. The NRC is required by 10 CFR 51.20(b) to prepare an EIS in connection with the issuance of a CP for a test reactor. This notice is being published in accordance with NEPA and the NRC's regulations at 10 CFR part 51.

The EIS will evaluate the environmental impacts of construction, operation and decommissioning of the Kairos Hermes test reactor, and reasonable alternatives thereto. Possible alternatives to the proposed action include the no action alternative and alternative sites.

As part of its environmental review, the NRC will first conduct a scoping process and, as soon as practicable thereafter, will prepare a draft EIS for public comment. Participation in this scoping process by members of the public and local, State, Tribal, and Federal government agencies is encouraged. The scoping process for the draft EIS will be used to accomplish the following:

- a. Define the proposed action that is to be the subject of the EIS;
- b. Determine the scope of the EIS and identify the significant issues to be analyzed in depth;
- c. Identify and eliminate from detailed study those issues that are peripheral or are not significant or that have been covered by prior environmental review;

d. Identify any environmental assessments and other EISs that are being or will be prepared that are related to, but are not part of, the scope of the EIS under consideration;

e. Identify other environmental review and consultation requirements related to the proposed action;

f. Indicate the relationship between the timing of the preparation of the environmental analyses and the NRC's tentative planning and decision-making schedule;

g. Identify any cooperating agencies and, as appropriate, allocate assignments for preparation and schedules for completing the EIS to the NRC and any cooperating agencies; and

h. Describe how the EIS will be prepared, including any contractor assistance to be used.

The NRC invites the following entities to participate in scoping:

a. The applicant, Kairos Power, LLC.;

b. Any Federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved or that is authorized to develop and enforce relevant environmental standards;

c. Affected State and local government agencies, including those authorized to develop and enforce relevant environmental standards;

d. Any affected Indian Tribe;

e. Any person who requests or has requested an opportunity to participate in the scoping process; and

f. Any person who has petitioned or intends to petition for leave to intervene under 10 CFR 2.309.

IV. Public Scoping Meeting

In accordance with 10 CFR 51.26(b), the scoping process for an EIS may include a public scoping meeting, which may help identify significant issues related to the proposed action and to determine the scope of issues to be addressed in the EIS.

The NRC is planning to conduct a public outreach and scoping meeting for the Kairos Hermes EIS. The meeting is currently expected to be held on March 23, 2022. Meeting details will be available by March 11, 2022 at <https://www.nrc.gov/reactors/non-power/kairos-hermes.html> or at the NRC's Public Meeting Schedule website at <https://www.nrc.gov/pmns/mtg>. A court reporter will transcribe all comments received during the public meeting. To be considered, comments must be provided either at the transcribed public meeting or in writing, as discussed in the "Addresses" section of this document. Please contact Ms. Tamsen Dozier no later than March 14, 2022, if accommodations or special equipment is needed to participate or to provide comments, so that the NRC staff can determine whether the request can be accommodated.

The public outreach and scoping meeting will include: (1) an overview by the NRC staff of the safety and environmental review processes, the proposed scope of the EIS, and the proposed review schedule; and (2) the opportunity for interested government agencies, organizations, and individuals to submit comments or suggestions on environmental issues or the proposed scope of the Kairos Hermes EIS.

Participation in the scoping process for the Kairos Hermes EIS does not entitle participants to become parties to the proceeding to which the EIS relates. Matters

related to participation in any hearing are outside the scope of matters to be discussed at this public meeting.

Dated: February 15, 2022.

For the Nuclear Regulatory Commission.

/RA/

Kenneth T. Erwin, Chief,
Environmental Review New Reactor
Branch,
Division of Rulemaking, Environment,
and Financial Support,
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