

August 19, 2022

Docket No. 50-7513

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Kairos Power LLC
Transmittal of Responses to NRC Requests for Confirmation of Information
Hermes Preliminary Safety Analysis Report, Section 9.1

- References:
1. Letter, Kairos Power LLC to Document Control Desk, "Submittal of the Preliminary Safety Analysis Report for the Kairos Power Fluoride Salt-Cooled, High Temperature Non-Power Reactor (Hermes)," September 29, 2021 (ML21272A376)
 2. Audit Plan, Nuclear Regulatory Commission, "Kairos Power, LLC – Plan for a General Audit of The Hermes Constructure Permit Application," February 10, 2022 (ML22039A336)
 3. Email, Nuclear Regulatory Commission, Ben Beasley to Darrell Gardner, "RCI on Salt Purity in the Chemistry Control System and the Inert Gas System," August 2, 2022 (ML22230D076)

In September 2021, Kairos Power submitted a Preliminary Safety Analysis Report (PSAR) (Reference 1) as part of the Construction Permit Application (CPA) for the Hermes non-power reactor. As part of the PSAR general audit conducted pursuant to Reference 2, the NRC staff issued requests for confirmation of information (RCI) in Reference 3. Kairos Power requests NRC review of the responses in support of continued review of the Hermes non-power test reactor construction permit application.

If you have any questions or need any additional information, please contact Austin Clark at clark@kairospower.com or at (704) 247-6310 Ext. 1337, or Darrell Gardner at gardner@kairospower.com or (704) 769-1226.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on August 19, 2022



Peter Hastings, PE
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Enclosures:

- 1) Response to PSAR 9.1 RCI

xc (w/enclosure):

William Kennedy, Acting Chief, NRR Advanced Reactor Licensing Branch
Benjamin Beasley, Project Manager, NRR Advanced Reactor Licensing Branch
Edward Helvenston, Project Manager, NRR Advanced Reactor Licensing Branch
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