

December 8, 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 Question on Hermes Preliminary Safety Analysis Report

- 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. 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), Revision 1," September 29, 2022 (ML22272A594)
  3. Audit Plan, Nuclear Regulatory Commission, "Plan for a General Audit of the Hermes Construction Permit Application," February 10, 2022 (ML22039A336)

In September 2021, Kairos Power submitted the Construction Permit Application (CPA) for the Hermes non-power reactor. In September 2022, Kairos Power submitted Revision 1 of the Preliminary Safety Analysis Report (PSAR) (Reference 2) as part of the CPA for the Hermes non-power reactor. This letter transmits supplemental information to Chapter 1 of the PSAR to address NRC feedback received in the General Audit (Reference 2).

During the General Audit, NRC staff asked about the schedule for completing the research and development activities listed in Section 1.3.9 of the PSAR. These activities will be completed prior to the completion of construction. The latest projected date for completion provided in Enclosure 1 to Reference 1 is December 2026.

If you have any questions or need any additional information, please contact Drew Peebles at [peebles@kairospower.com](mailto:peebles@kairospower.com) or at (704) 275-5388, or Darrell Gardner at [gardner@kairospower.com](mailto:gardner@kairospower.com) or (704) 769-1226.

I declare under penalty of perjury that the foregoing is true and correct.  
Executed on December 8, 2022



Peter Hastings, PE  
Vice President, Regulatory Affairs and Quality

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