

May 31, 2023

Docket No. 50-7513

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

Subject: Kairos Power LLC
Submittal of the Preliminary Safety Analysis Report for the Kairos Power Fluoride Salt-Cooled, High Temperature Non-Power Reactor (Hermes), Revision 3

References: 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 2," February 24, 2023 (ML23055A673)

In February 2023, Kairos Power submitted Revision 2 of the Preliminary Safety Analysis Report (PSAR) as part of the Construction Permit Application (CPA) for the Hermes non-power reactor (referenced above).

Kairos Power has submitted discrete changes to the PSAR to address NRC and ACRS feedback received as part of the Hermes CPA review since the submittal of PSAR, Revision 2. This letter transmits a new revision of the PSAR to reflect the integration of previously submitted changes and incorporation of additional clarifications based on NRC feedback.

Revision 3 of the PSAR is provided as Enclosure 1.

If you have questions or need additional information, please contact me at hastings@kairospower.com or (704) 336-9596, 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 May 31, 2023



Peter Hastings, PE
Vice President, Regulatory Affairs and Quality

KP-NRC-2305-002

Page 2

Enclosure:

- 1) Preliminary Safety Analysis Report (Non-proprietary)

xc (w/enclosure):

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