

June 20, 2022

Docket No. 50-7513

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

Subject: Kairos Power LLC
Transmittal of Changes to Construction Permit Application – PSAR Chapters 6 and 8

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, "Plan for a General Audit of the Hermes Construction Permit Application," February 10, 2022 (ML22039A336)

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. This letter transmits changes to the pages of the PSAR to address NRC feedback received on PSAR Chapter 8 in the General Audit (Reference 2). Changes to the pages of the PSAR (including conforming changes to Chapter 6) are provided in Enclosure 1. Kairos Power requests NRC review of these changes as part of the continued review of the Hermes CPA.

If you have any questions or need any additional information, please contact Delaney Simmons at simmons@kairospower.com or at (605) 838-5132, 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 June 20, 2022



Peter Hastings, PE
Vice President, Regulatory Affairs and Quality

Enclosures:

1) Changes to PSAR Chapters 6 and 8

Kairos Power LLC

www.kairospower.com

707 W Tower Ave, Suite A
Alameda, CA 94501

5201 Hawking Dr SE, Unit A
Albuquerque, NM 87106

2115 Rexford Rd, Suite 325
Charlotte, NC 28211

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

Enclosure 1
Changes to PSAR Chapters 6 and 8
(Non-Proprietary)