

July 29, 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 Preliminary Safety Analysis Report Chapters 4 and 6

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)

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 pages in Chapters 4 and 6 of the PSAR to address NRC feedback received on Chapter 4 and Chapter 10 in the General Audit (Reference 2). Changes to the pages of the PSAR 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 Nicole Schlichting at schlichting@kairospower.com or (980) 215-9252, 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 July 29, 2022

Sincerely,



Peter Hastings, PE
Vice President, Regulatory Affairs and Quality

Enclosure: Changes to PSAR Chapter 4 and Chapter 6

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

Samuel Cuadrado de Jesus, NRR Advanced Reactor Licensing Branch