

August 18, 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 Chapter 4.2

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 4 in the General Audit (Reference 2).

If you have any questions or need any additional information, please contact Jim Tomkins at tomkins@kairospower.com or (805) 215-6129, 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 18, 2022

Sincerely,



Peter Hastings, PE  
Vice President, Regulatory Affairs and Quality

Enclosure: Changes to PSAR Chapter 4

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

**Kairos Power LLC**

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