

June 16, 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 14

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 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 John Price at [price@kairospower.com](mailto:price@kairospower.com) or (972) 754-8221, 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 June 16, 2022



Peter Hastings, PE  
Vice President, Regulatory Affairs and Quality

Enclosure 1: Changes to Hermes PSAR Chapter 14 (Non-Proprietary)

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