

March 10, 2022

Docket No. 50-7513

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

- Subject: Kairos Power LLC Transmittal of Reponses to NRC Questions 3.2-1, 3.2-3, 3.2-4, and 3.5-1 on Hermes Preliminary Safety Analysis Report
- References: 1. Email, Nuclear Regulatory Commission, Benjamin Beasley to Darrell Gardner, "Additional NRC Questions for February 9 Public Meeting," February 9, 2022, ML22062B324

This letter transmits a response to NRC questions 3.2-1, 3.2-3, 3.2-4, and 3.5-1 provided in Reference 1 on the Kairos Power Hermes Test Reactor Preliminary Safety Analysis Report. Kairos Power requests NRC review of the response in support of continued review of the Hermes non-power test reactor construction permit application.

The response is provided in Enclosure 1.

If you have any questions or need any additional information, please contact Margaret Ellenson at ellenson@kairospower.com or at (510) 755-1861, 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 March 10, 2022.

Peter Hastings, PE Vice President, Regulatory Affairs and Quality

Enclosures:

1) Kairos Power Response to NRC Questions 3.2-1, 3.2-3, 3.2-4, and 3.5-1

Kairos Power LLC www.kairospower.com

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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, Non-Power Production and Utilization Facility Licensing Branch