

October 31, 2021

10 CFR 50  
Project No. 99902069

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

Subject: Kairos Power LLC  
Submittal of the Environmental Report for the Kairos Power Fluoride Salt-Cooled, High Temperature Non-Power Reactor (Hermes)

Reference: 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)

Kairos Power LLC (Kairos Power) submitted a Preliminary Safety Analysis Report (PSAR) in the referenced letter. Pursuant to 10 CFR 2.101(a)(5), that submittal constitutes the first part of a construction permit application for the Hermes non-power demonstration reactor employing the Kairos Power Fluoride Salt-Cooled, High Temperature Reactor (KP-FHR) technology.

Enclosure 1 of this letter submits the second part of the construction permit application for the Hermes reactor, specifically the Environmental Report required by 10 CFR 50.30(f). This letter completes the remaining submittals for the application for a construction permit under 10 CFR 50.

If you have questions or need additional information, please contact me at [hastings@kairospower.com](mailto:hastings@kairospower.com) or (704) 336-9596, 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 October 31, 2021.



Peter Hastings, PE  
Vice President, Regulatory Affairs and Quality

Enclosure: Environmental Report (Non-proprietary)

xc (w/enclosure):

William Kennedy, Acting Chief, NRR Advanced Reactor Licensing Branch  
Ben Beasley, Project Manager, NRR Advanced Reactor and Licensing Branch  
Stewart Magruder, Project Manager, NRR Advanced Reactor and Licensing Branch  
USNRC, Region II