

June 8, 2022 Project No. 99902069

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

Subject: Kairos Power LLC

Approved Version of Regulatory Analysis for the Kairos Power Fluoride Salt-Cooled High

Temperature Reactor Topical Report

References:

1. Letter, Kairos Power LLC to Document Control Desk, "Regulatory Analysis for the Kairos Power Fluoride Salt-Cooled High Temperature Reactor Topical Report, Revision 4," January 18, 2022 (ML22018A160)

2. Letter, Nuclear Regulatory Commission, William B. Kennedy to Peter Hastings, "Safety Evaluation for, "Regulatory Analysis for the Kairos Power Fluoride Salt-Cooled High Temperature Reactor," Revision 4," June 2, 2022 (ML22136A089)

This letter submits the approved version of the Kairos Power topical report titled, "Regulatory Analysis for the Kairos Power Fluoride Salt-Cooled High Temperature Reactor." On January 18, 2022, Kairos Power submitted Revision 4 (Reference 1) of the topical report. On June 2, 2022, the NRC provided the final safety evaluation (SE) of this topical report (Reference 2). (Note the cover letter for the SE is dated May 26, but was approved on June 2.)

Enclosure 1 provides the non-proprietary report.

If you have any questions or need any additional information, please contact James Tomkins at tomkins@kairospower.com or (510) 808-5265, or Darrell Gardner at gardner@kairospower.com or (704) 769-1226.

Sincerely,

Peter Hastings, PE

Vice President, Regulatory Affairs and Quality

Enclosures:

1) Regulatory Analysis for the Kairos Power Fluoride Salt-Cooled High Temperature Reactor (Non-Proprietary)

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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

Enclosure 1

Regulatory Analysis for the Kairos Power Fluoride Salt-Cooled High Temperature Reactor (Non-Proprietary)