



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 10, 2021

MEMORANDUM TO: William Kennedy, Acting Chief
Advanced Reactor Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

FROM: Stewart Magruder *Stewart L. Magruder* Signed by Magruder, Stewart
Senior Project Manager on 06/10/21
Advanced Reactor Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MAY 10, 2021, PUBLIC MEETING TO DISCUSS
KAIROS POWER LLC'S REGULATORY ANALYSIS TOPICAL
REPORT (REVISION 2)

On May 10, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21106A289, rescheduled from April 29, 2021), the U.S. Nuclear Regulatory Commission (NRC) staff held a virtual Observation public meeting with Kairos Power LLC (Kairos) using the Microsoft Teams platform. The purpose of the meeting was to discuss with Kairos a set of NRC staff clarification questions regarding Kairos's Topical Report "Regulatory Analysis for the Kairos Power Fluoride Salt-Cooled High Temperature Reactor," Revision 2 (ADAMS Package Accession No. ML20328A233). The NRC's clarification questions can be found at ADAMS Package Accession No. ML21104A420. The list of attendees is provided as an enclosure to this document.

The presentation materials for the meeting can be found at ADAMS Package Accession No. ML21126A192. During the meeting Kairos and the NRC staff discussed the clarification questions identified in the presentation material.

- Slide 4 –The NRC staff agrees with Kairos that no updates are required in response to General Comment 1. In addition, the NRC staff noted that exemptions can't be approved before they are requested.
- Slide 5 – The NRC staff noted that they understand Kairos's position with regards to General Comment 7.

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- Slide 6 – The NRC staff noted that they understand Kairos’s actions with regards to General Comment 9 and confirmed that Title 10 of the *Code of Federal Regulations* (10 CFR) Part 72 doesn’t apply to non-power reactors.
- Slide 7 – The NRC staff noted that they understand Kairos’s actions with regards to emergency plans
- Slide 8 – The NRC staff noted that they understand and agree with Kairos’s position with regards to 10 CFR 50.54
- Slide 9 – With regards to the applicability of 10 CFR 50.109 to non-power reactors, the NRC staff explained that the Commission rulemaking record indicates that it only applies to power reactors. In addition, the NRC staff acknowledged that Section 104(c) of the Atomic Energy Act contains language directing the Commission “to impose only such minimum amount of regulation of the licensee as the Commission finds will permit the Commission to fulfill its obligations under this Act to promote the common defense and security and to protect the health and safety of the public and will permit the conduct of widespread and diverse research and development.”
- Slide 10 – With regards to 10 CFR 50 Appendix S, the NRC staff noted that it agrees that it doesn’t apply to a test reactor. Kairos confirmed that they will address external hazards for their test reactor.
- Slide 11 – With regards to 10 CFR 51.23, the NRC staff and Kairos agreed to discuss the issue further at another public meeting. Kairos noted that they perceive a gap between 10 CFR 51.23(b) and the Generic Environmental Impact Statement for continued storage.
- Slide 12 – With regards to 10 CFR 70.24, the NRC staff noted that the rule literally applies but Kairos could request a specific exemption.

At the end of the meeting Kairos stated that they planned to submit a revision of the topical report soon.

Project No. 99902069

Enclosure:
List of Attendees

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REPORT (REVISION 2) DATED: June 10, 2021

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NRC-001

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NAME	SMagruder	SLent	WKennedy	SMagruder
DATE	06/07/2021	06/07/2021	06/09/2021	06/10 /2021

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List of Attendees

NAME	ORGANIZATION
Drew Peebles	Kairos Power LLC (Kairos)
Delaney Simmons	Kairos
Nicole Schlichting	Kairos
Jim Tomkins	Kairos
Darrell Gardner	Kairos
Margaret Ellenson	Kairos
Marty Bryan	Kairos
John Price	Kairos
Austin Clark	Kairos
Peyton Doub	U.S. Nuclear Regulatory Commission (NRC)
Stu Magruder	NRC
Michael Spencer	NRC
Jeff Schmidt	NRC
Boyce Travis	NRC
Alan Jelalian	Engineering Planning and Management, Inc.
Steve Vaughn	X-Energy
Paul Loza	X-Energy