UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

KAIROS POWER LLC

Docket No. 50-611-CP 50-612-CP

(Hermes 2 Test Reactor Facility)

NRC STAFF EXHIBIT LIST

The U.S. Nuclear Regulatory Commission (NRC) staff (Staff) hereby files its exhibit list

for the mandatory hearing on the construction permit application for the Kairos Power LLC

Hermes 2 test reactor facility. The exhibit list attached to this filing includes the documents

described in Section V of the Commission's Notice of Hearing, issued on September 12, 2024.¹

Respectfully submitted,

/Signed (electronically) by/

Anita Ghosh Naber Counsel for NRC Staff Mail Stop: O-14-A44 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 Telephone: (301) 415-0764 E-mail: anita.ghoshnaber@nrc.gov

Executed in accord with 10 CFR 2.304(d)

Megan Wright Counsel for NRC Staff Mail Stop: O-14-A44 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 Telephone: (516) 765-6523 E-mail: megan.wright@nrc.gov

¹ Kairos Power LLC; Notice of Hearing, 89 Fed. Reg. 74,303, 74,304 (Sept. 12, 2024).

Dated at Rockville, Maryland this 10th day of October, 2024

NRC Staff Exhibits for the Kairos Hermes 2 Mandatory Hearing

Exhibit Number	Exhibit Title	ADAMS Accession
		<u>No.</u>
NRC-001	SECY-24-0075: Staff's	ML24152A258
	Statement in Support of the	
	Uncontested Hearing for	
	Issuance of Construction	
	Permits for the Kairos	
	Hermes 2 Test Reactor	
	Facility (September 5, 2024)	
NRC-002A	Kairos Power LLC,	ML23195A122
	Construction Permit	
	Application –	
	Cover Letter and Affidavit	
	(July 14, 2023)	
NRC-002B	Kairos Power LLC,	ML23195A123
	Construction Permit	
	Application – General	
	Information (July 14, 2023)	
NRC-002C	Kairos Power LLC,	ML24144A092
	Construction Permit	
	Application – Hermes 2	
	Preliminary Safety Analysis	
	Report, Rev. 1 (May 23,	
	2024)	
NRC-002D	Kairos Power LLC,	ML23195A125
	Construction Permit	
	Application – Environmental	
	Report, Rev. 0 (July 14,	
	2023)	
NRC-002E-P	NON-PUBLIC - Kairos	ML24103A246
	Power LLC, Construction	
	Permit Application –	
	Financial Information (April	
	12, 2024)	
NRC-002F	Kairos Power LLC,	ML23195A127
	Construction Permit	
	Application – Exemptions	
	(July 14, 2023)	
NRC-002G	Kairos Power LLC,	ML23195A130
	Construction Permit	
	Application – KP-TR-017-NP,	
	"KP-FHR Core Design and	
	Analysis Methodology," Rev.	
	1 (July 14, 2023)	
NRC-002G-P	NON-PUBLIC - Kairos	ML23195A128
	Power LLC, Construction	
	Permit Application – KP-	
	TR-017-P, Rev. 1, "KP-FHR	
	Core Design and Analysis	
	Sole Design and Analysis	

	Methodology" (July 14, 2023)	
NRC-002H	Kairos Power LLC, Construction Permit Application – KP-TR-022-NP "Hermes 2 Postulated Event Methodology" Rev. 1 (May 23, 2024)	ML24144A094
NRC-002H-P	NON-PUBLIC - Kairos Power LLC, Construction Permit Application – KP- TR-022-P "Hermes 2 Postulated Event Methodology" Rev. 1 (May 23, 2024)	ML24144A093
NRC-002I	Kairos Power LLC, Construction Permit Application – Summary of PSAR Deletions (July 14, 2023)	ML23195A132
NRC-002J	Kairos Power LLC, Construction Permit Application – Cover Letter and Affidavit, Transmittal of Changes to Construction Permit Application - Financial Information (April 12, 2024)	ML24103A245
NRC-002K	Kairos Power LLC, Construction Permit Application – Cover Letter and Affidavit, Submittal of the Hermes 2 Preliminary Safety Analysis Report for the Kairos Power Fluoride Salt- Cooled, High Temperature Non-Power Reactor, Rev. 1, and the Postulated Event Analysis Methodology Technical Report, Rev. 1 (May 23, 2024)	ML24144A091
NRC-003A	Kairos Power LLC, Hermes 2 Test Reactor Facility, Unit 1, Draft Construction Permit (September 6, 2024)	ML24233A071
NRC-003B	Kairos Power LLC, Hermes 2 Test Reactor Facility, Unit 2, Draft Construction Permit (September 6, 2024)	ML24233A072
NRC-004	Safety Evaluation for the Kairos Power LLC	ML24200A115

NRC-005	Construction Permit Application for the Hermes 2 Non-power Test Reactor Facility (July 2024) Environmental Assessment and Finding of No Significant Impact for the Construction Permits and Environmental Review Exemptions for the Kairos Hermes 2 Test Reactors, Final Report (August 2024)	ML24240A034
NRC-006A	ACRS Letter (July 17, 2024)	ML24197A152
NRC-006B	NRC Staff Response to ACRS Letter (September 19, 2024)	ML24207A083

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CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I hereby certify that copies of the foregoing "NRC STAFF EXHIBIT LIST," dated October 10, 2024, and NRC Staff Exhibits NRC-001, NRC-002A – NRC-002D, NRC-002F, NRC-002G, NRC-002H, NRC-002I – NRC-002K, NRC-003A, NRC-003B, NRC-004, NRC-005, NRC-006A, and NRC-006B have been served in a public filing, and NRC Staff Exhibits NRC-002E-P, NRC-002G-P, and NRC-002H-P, have been served in a non-public filing, upon the Electronic Information Exchange, the NRC's E-Filing System, in the above-captioned proceeding, this 10th day of October, 2024.

/Signed (electronically) by/

Anita Ghosh Naber Counsel for NRC Staff Mail Stop: O-14-A44 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 Telephone: (301) 415-0764 E-mail: anita.ghoshnaber@nrc.gov

Dated at Rockville, Maryland this 10th day of October, 2024