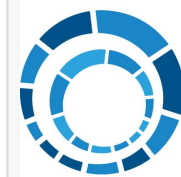


# Nuclear Regulatory Commission Approves Construction Permit for Hermes Demonstration Reactor

OAK RIDGE, TENNESSEE, UNITED STATES OF AMERICA, December 12, 2023 /EINPresswire.com/ -- The U.S. Nuclear Regulatory Commission (NRC) has voted to issue a [construction permit](#) to Kairos Power for the Hermes demonstration reactor to be built at the Heritage Center Industrial Park in Oak Ridge, Tennessee. A critical step on Kairos Power's iterative pathway to commercializing its advanced reactor technology, the Hermes reactor will demonstrate the company's ability to deliver clean, safe, and affordable nuclear heat.



Kairos Power

Kairos Power logo

The Commission's vote to issue the Hermes construction permit follows the NRC staff's thorough review of the application, which was completed well ahead of an already aggressive projected schedule. This efficient review was possible due to Kairos Power's extensive pre-application engagement with the NRC, which began in 2018 and established open lines of communication between the two organizations.

During the NRC's mandatory hearing in October 2023, Commissioner Wright commended the engagement between Kairos Power, the NRC staff, and the local Oak Ridge community throughout the application review process.

"Kairos Power is thrilled to have achieved this major regulatory milestone as we make final preparations to start construction at the Hermes site next year. We are excited for this next phase in the deployment of the Hermes reactor, and we remain committed to being a good community partner to our neighbors in Oak Ridge as we bring value to the region and build on its nuclear legacy. With the Hermes construction permit now approved, Kairos Power is demonstrating our leadership in developing advanced nuclear reactors and we have made a big step forward on our path to deploying clean, safe, reliable, and affordable energy in East Tennessee and beyond," said Mike Laufer, Kairos Power co-founder and CEO.

“Hermes is the first non-water-cooled reactor to be approved for construction in the U.S. in over 50 years. This historic achievement is a testament to the concerted effort by the entire Kairos Power team aligned with our iterative approach to licensing KP-FHR technology. Our successful pre-application engagement and application review have established a solid foundation on which to build. We thank the NRC staff and Commissioners for their careful consideration and look forward to working with them on subsequent applications,” said Peter Hastings, Vice President of Regulatory Affairs & Quality.

A separate application for an operating license and subsequent NRC approval will be required before Kairos Power can operate the Hermes demonstration reactor in accordance with the two-step, 10 CFR Part 50 licensing process.

In parallel, the NRC is currently reviewing Kairos Power’s construction permit application for Hermes 2, a proposed two-unit demonstration plant that would build on the learnings from Hermes, demonstrating the complete architecture of Kairos Power’s future commercial plants at a reduced scale and supplying electricity to the grid.

The Hermes series will help mitigate technology, licensing, supply chain, and construction risk to achieve cost certainty for Kairos Power’s fluoride salt-cooled, high-temperature reactor (KP-FHR) technology. Lessons learned will be integrated into the company’s future commercial deployments targeted in the early 2030s.

Kairos Power is the recipient of a Department of Energy Advanced Reactor Demonstration Program (ARDP) award for risk reduction funding to support the development, construction, and commissioning of Hermes in collaboration with its partners: Oak Ridge National Laboratory, Idaho National Laboratory, Materion Corporation, and the Electric Power Research Institute.

Kairos Power has also established a cooperative development agreement with the Tennessee Valley Authority to provide defined engineering, operations, and licensing services for Hermes. Kairos Power is pleased to have the support and collaboration of industry leaders as it builds on a long history of nuclear innovation in Oak Ridge.

For more information about Hermes, visit Kairos Power’s virtual open house at [kairospower.consultation.ai](https://kairospower.consultation.ai)

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