



Press Release

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U.S. Department of Energy Releases Final Environmental Impact Statement for Versatile Test Reactor

Test Reactor Will Help United States Regain Nuclear Energy Leadership

WASHINGTON, D.C. – The U.S. Department of Energy (DOE) today released the Final Environmental Impact Statement (EIS) for the construction of the Versatile Test Reactor (VTR). The proposed VTR will be a sodium-cooled fast-neutron-spectrum test reactor that will enhance and accelerate research, development, and demonstration of innovative nuclear technologies that will play a crucial role in helping the United States reach net-zero emissions by 2050.

The U.S. has not had a fast-reactor-based neutron source and testing capability for nearly three decades, effectively yielding leadership to Russia, China, and India who have this critical capability

"VTR will provide U.S. researchers from industry, academia, and our national laboratories with a critical tool for developing transformational technologies that will expand nuclear energy's contribution to abundant, carbon-free energy," said Dr. Kathryn Huff, Assistant Secretary for Nuclear Energy. "VTR's contribution to the fight against climate change begins with our commitment to designing, constructing, and operating the VTR in a way that protects the environment and nearby communities."

The Final VTR EIS, prepared in accordance with the National Environmental Policy Act (NEPA), analyzes potential impacts of alternatives for the VTR and options for reactor fuel production on various environmental and community resources. The EIS evaluates:

- Construction and operation of the VTR at the Idaho National Laboratory (INL) and the Oak Ridge National Laboratory. This includes operating and performing experiments in the VTR, post-irradiation examination of irradiated test specimens in hot cell facilities and spent fuel conditioning and storage pending shipment for interim storage or permanent disposal.
- Production of fuel for the VTR at the Idaho National Laboratory and/or the Savannah River Site including preparing feedstock for the fuel, fabricating fuel pins, and assembling the fuel pins into reactor fuel.
- A no-action alternative under which DOE will not pursue the construction and operation of a VTR.

The Final VTR EIS identifies the construction and operation of the VTR at the INL Site as DOE's Preferred Alternative. To the extent possible, existing facilities will be used for VTR support facilities. DOE has not identified a preferred option for performing reactor fuel production activities.

The Final VTR EIS follows the December 2020 release of the Draft VTR EIS. During the review and comment period on the Draft VTR EIS, DOE held two web-based public hearings, and received comments from Federal and state agencies, American Indian tribes, and the public. A copy of the Final VTR EIS can be downloaded from the DOE website [here](#) and [here](#).

The U.S. Environmental Protection Agency will publish a Notice of Availability of the Final VTR EIS in the *Federal Register* on May 20, 2022. DOE will then issue a Record of Decision no sooner than 30 days after the publication.

DOE will continue its technical evaluations that will lead to identification of a preferred option for performing reactor fuel production activities. Once a preferred reactor fuel production option has been identified, DOE will announce the preferred option in the *Federal Register*. A Record of Decision for reactor fuel production will be published no sooner than 30 days after DOE announces its preferred option in the *Federal Register*.

DOE's Office of Nuclear Energy established the VTR program in 2018 in response to the Nuclear Energy Innovation Capabilities Act (NEICA). NEICA and subsequently the Consolidated Appropriations Act, 2021 directs DOE to establish a versatile reactor-based fast-neutron source with high neutron flux, irradiation flexibility, multiple experimental environment capabilities, and volume for many concurrent users.

DOE approved the mission need for VTR in February 2019 and approved Critical Decision 1 in September 2020. Critical Decision 1 is the second step in the formal process DOE uses to review and manage the design and construction of research infrastructure projects. The Department will make a final decision regarding VTR and issue a Record of Decision, which is expected later in 2022.

Find more information on the Office of Nuclear Energy and its programs [here](#).