

This news release is issued on behalf of the Department of Energy's Idaho Operations Office.

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## **DOE issues Finding of No Significant Impact for the Environmental Assessment on Resumption of Transient Testing of Nuclear Fuels and Materials at Idaho National Laboratory**

The U.S. Department of Energy (DOE) has determined that resuming transient testing of nuclear fuels and materials at Idaho National Laboratory (INL) will not have a significant impact on the environment and is an important tool for advancing safe, economical, low carbon nuclear energy.

In accordance with the National Environmental Policy Act, DOE today issued its final Environmental Assessment for the Resumption of Transient Testing of Nuclear Fuels and Materials (EA). Based on the analysis in the environmental assessment and after consideration of public comments received on the draft environmental assessment, DOE has determined that resuming transient testing of nuclear fuels and materials at the Transient Reactor Test Facility (TREAT) reactor at INL will not result in significant impacts to the environment. Accordingly, DOE also released a Finding of No Significant Impact for the preferred alternative outlined in the EA. DOE published the draft EA for public comment in November 2013. The public comment period ran through January 10, 2014. The final EA and finding is posted at the following link: [http://www.id.energy.gov/insideNEID/PDF/Final\\_EA\\_DOE\\_EA-1954\\_2014-2-27.pdf](http://www.id.energy.gov/insideNEID/PDF/Final_EA_DOE_EA-1954_2014-2-27.pdf)

Transient testing involves placing fuel or material, either previously irradiated or un-irradiated, contained in a test assembly into the core of a nuclear test reactor and subjecting it to short bursts of intense, high-power radiation. Transient testing has been a core component of all nuclear fuels science, development and qualification efforts since the 1950s. Transient testing data obtained from testing in reactors including TREAT is still used today for the current generation of fuels used in commercial power reactors. The information supports the design and operations of commercial power reactors and is also used to regulate the industry. Introduction of new fuel designs with improved performance, economics, and enhanced safety features requires the resumption of this type of testing.

"Re-establishing a U.S. transient testing research and development capability at Idaho National Laboratory will help our nation develop new, advanced, safer and more efficient fuels that will generate additional quantities of clean, reliable, economical electricity using nuclear power reactors," said DOE Assistant Secretary for Nuclear Energy Pete Lyons. "This is part of the Energy Department's commitment to strengthening nuclear energy's continuing important role in America's low carbon future."

TREAT is an existing reactor at the INL that was specifically designed to test nuclear fuel and materials under transient high-power conditions. It began operating in 1959 and was a principal reactor safety testing facility in the U.S. for 35 years, safely performing over 2,800 transient tests on thermal and fast reactor fuels. Since 1994, the reactor has been maintained in a safe standby status.

Following this Finding of No Significant Impact, DOE will begin the next step in the process to resume transient testing. Initial activities at TREAT will be focused on detailed evaluation of major TREAT Reactor systems and components. Following these evaluations, DOE will commence refurbishment and replacement of these systems and components, as needed.

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