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NRIC April Highlights

May 2022

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Changing the World's Energy Future

INL is a U.S. Department of Energy National Laboratory operated by Battelle Energy Alliance, LLC

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To: NRIC Stakeholders
From: Ashley Finan
CC: Bradley Tomer and Emily Gallegos
Subject: NRIC Monthly Highlights

NRIC April Highlights

US NIC Week

9th annual Advance Reactor Summit featuring NRIC

The U.S. Nuclear Industry Council's (USNIC) ninth annual Advanced Reactor Summit was held April 3–5 in Sun Valley, Idaho. Offsite from the primary event venue, on Tuesday, April 5, NRIC hosted a panel presentation at The Community Library in Ketchum, Idaho. The meeting goals were:

- To share NRIC's goals of supporting the demonstration of two Advanced Reactors by the end of 2025 with members of the community at large
- To engage at the heart of one of our key stakeholder groups by meeting them where they are (as determined in our extensive Stakeholder Mapping exercise)
- To mitigate the National Environmental Policy Act risk
- To understand community concerns to learn how to better address them, craft language, design polling, and listen
- To give our model a "test run" and apply lessons learned as we embark upon a regional tour with a similar model
- To demonstrate NRIC's commitment to changing the way our industry talks about nuclear energy, waste, fuels, technology, and policy.

A recording of the event is found here: https://vimeo.com/690622400

Resource Team

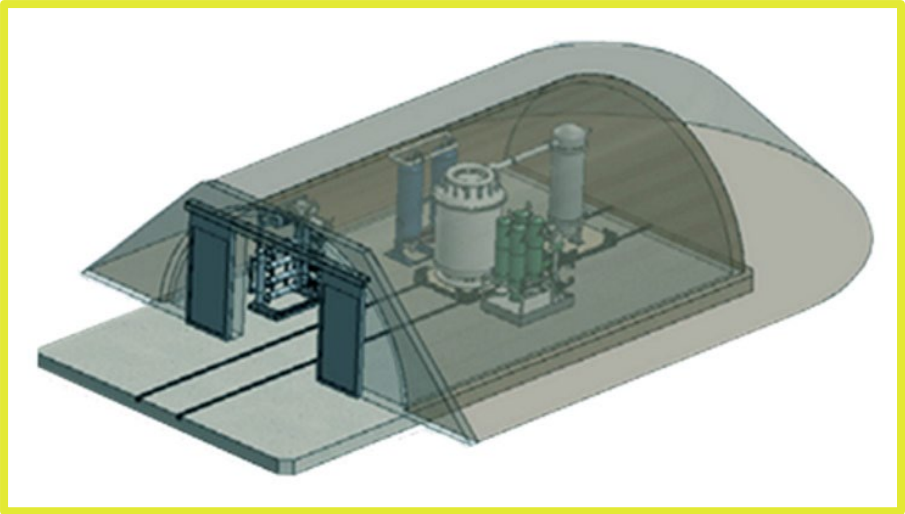
Another 200 hours of support approved

The NRIC resource team program approved Terrestrial Energy for 200 laboratory subject matter expert support hours in support of the development of a unified viscoplastic, constitutive model for the alloy's mechanical response at the thermal and irradiated operating conditions of the Core-unit. This brings the program to a total of eight teams afforded 1,600 hours of national laboratory subject matter expert support.

BWXT CRADA Executed

Cooperative Research and Development Agreement (CRADA) executed between INL and BWXT for Advanced Reactor Demonstration Proposal scope

The CRADA for 7 years of scope including fuel irradiation at the Advanced Test Reactor and post-irradiation examination of the fuel has been executed under NRIC leadership. The Fiscal Year 2022 budget for the INL scope is ~$2.5 million, which will be used to complete a conceptual design for the test train that will hold the fuel in Advanced Test Reactor for irradiation. NRIC will continue to lead and coordinate work between the test train design, advanced sensors, and modeling support with BWXT.



NRIC demonstration test beds

Safeguards

The Safeguards Category 1 Advanced Reactor Demonstration Test Bed Capability project continues finalizing CD-1/3A submittal documentation, including the preliminary project execution plan, safety design strategy, conceptual safety design report, project data sheet, and acquisition strategy.

DOME test bed

The Demonstration and Operation of Microreactor Experiments (DOME) project commenced the final design and is projected to be on schedule to meet the notable outcome for preliminary document safety analysis submittal. The DOME project funding determination was revised to allow a more streamlined approach to meet schedule objectives.

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