



Education and Training Working Group

Join us on December 14, 2022, 8:30 am EST (UTC-5)

# The Mechanisms Engineering Test Loop (METL) Facility at Argonne National Laboratory

The Mechanisms Engineering Test Loop (METL) facility, established in 2010, is an intermediate-scale liquid metal experimental facility that provides purified R-grade sodium to various experimental test vessels to evaluate components required to operate in a prototypical Sodium Fast Reactor (SFR) environment. The METL facility has the capability to test small to intermediate-scale components and systems in order to develop advanced liquid metal technologies. METL is a flexible facility as multiple configurations are available, enabling the hosting of experimental investigations from a range of disciplines with cross-cutting results. The presentation will provide an overview of METLs entire ecosystem; beginning with the flagship facility's design methodology, construction and virtual tour. Supporting equipment such as the qualifying stations, test article removal/insertion flexible-cask and alkali metal passivation techniques/hardware will be covered as well. METLs demonstrated capabilities and infrastructure available to facilitate various research initiatives are summarized and the webinar will conclude with a highlight reel of current experimental programs as well as, what future technologies/demonstrations to expect from the METL team.

### Free webcast!



December 14, 2022 8:30 am EST (UTC-5)

### **Register NOW at:**

https://attendee.gotowebinar.co m/register/64514244844840302 19

#### Who should attend:

policymakers, managers, regulators, students, general public



Derek Kultgen serves as the Group Leader for the Mechanisms Engineering Test Loop (METL) at Argonne National Laboratory, METL is an experimental facility dedicated to developing small-tointermediate scale components for Sodium Fast Reactors. The METL team conceptualizes, fabricates, and demonstrates equipment and instrumentation and assists scientists/engineers who conduct experiments in the METL. Previously, Derek was the Lead Test Development Engineer for a leading lubricant and additive manufacturer. In this role he created a mechanical testing laboratory for compressor lubricant evaluation, managed capital expenditure projects and served as a technical expert. Derek received his B.S. and M.S. degrees from Purdue University, is a licensed Professional Engineer and Certified LabVIEW Architect.

## **Upcoming Webinars**

25 January 2023, Molten Salt Reactors Taxonomy and Fuel Cycle Performance, Dr. Jiri Krepel, Paul Scherrer Institute, Switzerland

22 February 2023, Disposal Strategy of Nuclear Waste in Finland, Mr. Mika Pohjonen and Ms. Mari Lahti, Posiva Solution Oy, Finland

March 2023, TBD

5 April 2023, Overview of Nuclear Graphite R&D in Support of Advanced Reactors, Dr. Will Windes, ORNL, USA