NEAMS

Agenda

NEAMS Annual Review
High Temperature Gas-Cooled and Fluoride Salt-Cooled Reactors

May 8, 2025

11:00 AM-4:00 PM (Eastern Time)

11:00   ***Opening remarks and meeting objectives***   *David Henderson, DOE/David Andersson, LANL*

11:05   ***NEAMS overview and Gas-Cooled and Fluoride Salt-Cooled***   *David Andersson, LANL*
       Reactors research plan

Research presentations on High Temperature Gas-Cooled and Fluoride Salt-Cooled by NEAMS Technical Areas on Fast Reactors by NEAMS Technical Areas

11:15   ***Multiphysics Applications***
       Introduction to Multiphysics Applications Technical Area   *Emily Shemon, ANL/Cody Permann, INL*
       (5 min)

       Multi-physics simulation of PB-HTGR transients using SAM and Griffin   *Zhiee Jhia Ooi, ANL*
       (15 min)

       Review of running-in simulation and verification in PBRs   *Josh Hanophy, INL*
       (15 min)

       Q & A
       (10 min)

12:00   ***Reactor Physics***
       Introduction to Reactor Physics Technical Area   *Matthew Jessee, ORNL*
       (5 min)

       Overview of Griffin and Shift R&D activities for GCR/FHR systems   *Javier Ortensi, INL*
       (15 min)

       Griffin cross section methodologies for GCR/FHR systems   *Hansol Park, ANL*
       (15 min)

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Q & A
(10 min)

12:45 ***Thermal Fluids***
Introduction to Thermal Fluids Technical Area *Elia Merzari, ANL/Rui Hu, ANL*
(5 min)

Enhancements in system-level T/H modeling for HTGRs and FHRs *Ling Zou, ANL*
(15 min)

Enhancements in engineering-level T/H modeling for HTGRs and FHRs, *David Reger, INL*
including overlapping domain coupling
(15 min)

Q & A
(10 min)

13:30 ***Break***

14:15 ***Fuel Performance***
Introduction to Fuel Performance Technical Area *Stephen Novascone, INL/Michael Cooper, LANL*
(5 min)

NEAMS fuels modeling for HTGRs and FHRs- *Jake Hirschhorn, INL*
FY24 accomplishments and outlook for FY25
(30 min)

Q & A
(10 min)

15:00 ***Structural Materials and Chemistry***
Introduction to Structural Materials and Chemistry Technical Area *Benjamin Spencer, INL/Ted Besmann, USC*
(5 min)

Graphite thermos/mechanical modeling capability development in Grizzly *Parikshit Bajpai, INL*
(10 min)

Incorporating irradiation effects in predictive models of Grade 91 alloy *Laurent Capolungo, LANL*
(10 min)

Release of NEML2 high-performance constitutive modeling library *Gary Hu, ANL*
(10 min)

Q & A
(10 min)

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15:45   ***Feedback and conclusion***

16:00   ***Adjourn***