

NSUF/GAIN Nuclear Thermal-Hydraulics Workshop – Agenda

Objective: Develop priority list of thermal-hydraulics needs in each reactor technology area.

Thursday, July 13 – INL Energy Innovation Laboratory (EIL) Meeting Center:

- 7:00 Badging at Willow Creek Building Office (if needed)
- 7:30 Pastries, Coffee, and IT Setup
- 8:00 WelcomeTom Miller, DOE-NE
- 8:05 WelcomeAlan Gunn, DOE-ID
- 8:10 Introductions.....Rory Kennedy, NSUF Director
- 8:20 Background and Meeting Objective Brenden Heidrich, INL
- 8:30 Thermal-Hydraulic Experimental Facilities for Advanced Reactor Development at INL..... Piyush Sabharwall, INL
- 8:45 NEAMS – Code Verification/Validation Needs for RELAP-7Rich Martineau, INL
- 9:00 Validation needs for Computational Fluid Dynamics Elia Merzari, ANL
- 9:10 Technology Working Groups’ Needs Lori Braase, INL
- 9:25 *Break*
- 9:40 Results and Discussion of the ThinkTank Survey Brenden Heidrich/Jodi Grgich, INL
- LWR Technology – Facility Owner Presentations**
- 10:10 Perspectives on Instrumentation for Thermal Hydraulics..... Philippe Bardet, TGWU
- 10:20 UW-Madison Thermal Hydraulic Laboratory Test Facilities Mark Anderson
- 10:30 AREVA Technical Center: Scientific Thermal Hydraulic Testing Capabilities.....Darryl Gordon
- 10:40 Light Water Reactor Test Facilities – Integral and Separate Effects Wade Marcom, OSU
- 10:50 TAMU Thermal-Hydraulic Laboratory: Overview and CapabilitiesRodolfo Vaghetto

Thursday, July 13: (continued)

- 11:00 High-resolution Gamma Tomography at the University of MichiganRobert Adams, UM
- 11:10 Westinghouse’s Main Thermal-Hydraulic Facilities and Testing Paolo Ferroni, Westinghouse
- 11:20 Purdue University Thermal Hydraulic Experiment Capability LWR & SMR Group..... Seungjin Kim
- 11:30 Liquid Metal Thermal Test Facility for Fast Reactor Applications and Boiling Thermosyphon Facility for LWR/SMR Applications.... David Pointer, ORNL
- 11:40 Argonne Nuclear Engineering: Thermal-Hydraulic Testing CapabilitiesDarius Lisowski, ANL
- 11:50 Thermal-hydraulics Experimental Facilities at MIT NSE Bren Phillips, MIT
- 12:00 Integrated System Test facilityJoe Miller/Bob Martin, BWXT
- 12:10 *Working Lunch*
- 12:15 52-Reactors Experience at INL..... Joseph Campbell, INL
- 12:30 INL Mission..... Phil Sharpe, INL
- 1:00 Terrestrial Energy USA..... John Kutsch, Terrestrial Energy
- 1:10 Process for Prioritizing Thermal-Hydraulic Needs.....Alison Conner/Jodi, INL
- 1:45 Identification and Prioritization of **LWR** Thermal-Hydraulic NeedsAlison/Jodi
- 3:00 *Break*
- Advanced Nuclear Reactors Technology – Facility Owner Presentations**
- 3:15 UM Thermal Hydraulics Laboratory: Overview and CapabilitiesXiaodong Sun
- 3:25 Oregon State University High Temperature Test Facility Brian Woods, OSU
- 3:35 Introduction to SMART-ITL (SMART Integral-effect Test Loop)Sung Uk Ryu, KAERI
- 3:45 RoBuT (Rotatable Buoyancy Tunnel) (*remote presentation*)..... Barton Smith, USU
- 3:55 Liquid Salt Experimentation to Support FHR and MSR Development..... Graydon Yoder, ORNL

Thursday, July 13: (continued)

- 4:05 Molten Fluoride Salts for Thermal and Fast-Spectrum Reactors:
Heat and Mass Transport in FHRs, MSRS,
and Fusion Systems (**remote presentation**) Raluca Scarlat, UW
- 4:15 Identification and Prioritization of Thermal-Hydraulic Needs for
Advanced Nuclear Reactor Technologies Alison/Jodi
- 5:05 Identify Path Forward Brenden
- 5:30 Tour/Demonstration of Salt Preparation and Purification Facility James O'Brien, INL
- 7:00 *Adjourn*