

DOE NE-5 National Reactor Innovation Center Program Review Agenda

Purpose: To facilitate program integration, provide context and high-level objectives, review the accomplishments over the past year, engage with stakeholders, solicit feedback, and to discuss FY24 work scope and priorities.

April 23, 2024 (All Day) – Location EIL A102		
Time	Topic	Presenters
8:00 – 8:10	Welcome and Logistics	Brad Tomer / AnnMarie Marshall
8:10 – 8:20	Opening Remarks from NE-5	Alice Caponiti / Brian Smith
8:20 – 9:15	1. NRIC Program Update	Brad Tomer
NRIC Test Beds		
LOTUS Panel (Scott Smith, Jacob Rymer, Aaron Balsmeier, Scott Reynolds, James King)		
9:15 – 9:50	2. LOTUS Design	Jacob Rymer
9:50 – 10:20	3. Molten Chloride Reactor Experiment (MCRE)	James King
10:20 – 10:30	BREAK	
DOME Panel (Troy Burnett, Chance Price, Marvin Fielding, Scott Smith, Todd Sherman, Kyle Reno)		
10:30 – 10:50	4. DOME Ecosystem	Troy Burnett
10:50 – 11:20	5. DOME Construction Project	Scott Smith / Brandon Hill
11:20 – 11:35	6. Shielding Design for Test Reactors	Chance Price / Kyle Reno (Enercon)
11:35 – 11:45	7. Polar Crane	Chance Price
11:45 – 12:00	8. Fuel Storage Requirements	Todd Sherman
12:00 – 1:00	LUNCH	
12:15 – 12:45	9. Lunch Presentation – Sodium	Jocelyn Scheintaub (TP)
1:00 – 1:20	10. DOME Reactor Testing User Guide	Marvin Fielding
1:20 – 1:40	11. Front-End Engineering and Experiment Design (FEEED) for Testing in DOME	Troy Burnett
1:40 – 2:00	12. Westinghouse	Erin Orga (WEC)



April 23, 2024 (All Day) – Location EIL A102		
Time	Topic	Presenters
2:00 – 2:20	13. USNC	Wes Deason (USNC)
2:20 – 2:40	14. Radiant	Elliott Korb (Radiant)
2:40 – 2:55	BREAK	
Preparations for Reactor Testing		
2:55 – 3:10	15. DOE Authorization Process	Jason Andrus
3:10 – 3:25	16. NEPA for Testing Plant Parameters for DOME	Jenifer Nordstrom
3:25 – 3:50	17. Startup Physics Assessment for Advanced Nuclear Reactor Designs	Sam Bays
Experimental Infrastructure		
3:50 – 4:20	18. Molten Salt Thermal Examination Capability (MSTEC)	Toni Karlsson
4:20 – 4:40	19. METL Operations, Testing, Maintenance	Chris Grandy (ANL)
4:40 – 4:50	20. HFEF-15 Cask	Greg Core
4:50 – 5:00	Wrap Up Discussion	Brad Tomer



April 24, 2024 (All Day) – Location EIL A111		
Time	Topic	Presenters
8:00 – 8:05	Welcome / Prior Day Review / Preview	Brad Tomer
8:05 – 8:10	Welcome to the INL	Jess Gehin
Advanced Construction Technology Initiative (ACTI)		
8:10 – 8:25	1. ACTI Overview	Luke Voss
8:25– 9:05	2. ACTI Accomplishments and Status a. Project Status b. DPSC Testing c. ACTI Digital Twin Updates	Kyle Sena (GE Vernova) Dr. Amit Varma (Purdue) Bruce Greer (EPRI)
9:05 – 9:15	3. NRIC/NRC Collaboration	Allen Fetter (NRC)
Maritime		
9:15 – 10:15	4. Maritime Program	Sanjay Mukhi
	5. Gap Assessment: National Laboratory and University Reactor Testing Capabilities for Maritime Application	Sanjay Mukhi
	6. Regulatory Landscape	Sanjay Mukhi
10:15 – 10:30	BREAK	
10:30 – 11:00	7. DOE IFOA Award to ABS	Meg Dowling (ABS)
11:00 – 11:20	8. Load Following Development	Jie Zhang (UT Dallas)
11:20 – 11:40	9. IES NEUP with MIT	John Parsons (MIT)
11:40 – 12:00	10. A Risk Assessment Approach to Transportation Package Approval of a Transportable Package Approval of a Transportable Nuclear Power Plant for Maritime Shipment	Harold Adkins (PNNL)
12:00 – 1:00	LUNCH	
12:15 – 12:45	11. Lunch Presentation – Oklo	Ryan Webster (Oklo)
Small Business Innovation Research (SBIR)		
1:00 – 1:05	SBIR Introduction	Brad Tomer
1:05 – 1:25	12. FeaturePrint: Irrefutable Nuclear Supply Chain Security	Roei Ganzarski, Alitheaton
1:25 – 1:45	13. Automated 3D Data Fusion Surveys on Spot Robot for Next Generation Plant Monitoring	Andrew Haefner, Gamma Reality, Inc.
1:45 – 2:05	14. Modular Radiation Shielding for Transportation and Use of Microreactors	Stephen Kachur, CPS Technologies



April 24, 2024 (All Day) – Location EIL A111		
Time	Topic	Presenters
Digital Transformation		
2:05 – 2:30	15. Digital Engineering	Peter Suyderhoud
2:30 – 2:55	16. Virtual Test Bed (VTB)	Lise Charlot
2:55 – 3:10	BREAK	
Cost Reduction		
3:10 – 3:40	17. Open Architecture for Nuclear Cost Reduction	Ben Lindley (University of Wisconsin – Madison)
Other Support Projects		
3:40 – 3:55	18. NEPA Roadmap for Advanced Reactor Prototype Deployment	Dave Goodman (PNNL)
3:55 – 4:40	19. Advanced Reactor Regulatory Framework Modernization Program	Scott Ferrara
4:40 – 5:00	20. X-Energy	Luke Voss
5:00 – 5:20	21. BWXT	Michael Haggerty (BWXT)/ Sam Reiss
5:20 – 5:30	Wrap up Discussion	Brad Tomer



NOTES: Attire: Sturdy shoes with closed-toe and closed-heel that cover the whole foot are required. Must wear long slacks.

April 25, 2024 – Tour Day (Optional)

Time	Topic		Location/Presenter
7:00 – 7:15	Badging and Load busses at EIL		EIL A102
7:15 – 7:45	Travel to MFC		
7:45 – 8:15	Ingress MFC and BREAK		
	Group 1	Group 2	Group 3
8:15 – 9:15	MSTEC	Walking Tour of MFC/DOME	Analytical Lab and HFEF
9:15 – 9:20	Switch/BREAK		
9:20 – 10:20	Analytical Lab and HFEF	MSTEC	Walking Tour of MFC/DOME
10:20 – 10:25	Switch/BREAK		
10:25 – 11:25	Walking Tour of MFC/DOME	Analytical Lab and HFEF	MSTEC
11:25 – 11:40	Egress and Travel to RWSF		
11:40 – 12:00	RWSF		
12:00 – 12:30	Return to EIL		

MSTEC	Tour Lead: Toni Karlsson and Carson Stronks
Analytical Lab and HFEF	Tour Lead: Pam Wiscaver, Magen Coleman, and Ian Hobbs NRIC Support: Greg Core and Sam Reiss
Walking tour of MFC / DOME	Tour Lead: Aaron Balsmeier NRIC Support: Troy Burnett and Marvin Fielding
RWSF	Tour Lead: Brett Browning