



NUCLEAR CRITICALITY SAFETY PROGRAM (NCSP)
TECHNICAL PROGRAM REVIEW
February 20-23, 2024
Hosted by: Brookhaven National Laboratory
Hyatt Place Long Island/East End, Sea Star Grand Meeting Ballroom
Riverhead, New York

Wi-Fi Password is **seastar!**

AGENDA

Time (Eastern)	NCSP SITE	Task ID	TOPIC/PRESENTATION TITLE	PRESENTER	DURATION (Min.)
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Tuesday, February 20, 2024

8:00	NCSP		Welcome from NCSP	Angela Chambers	0:05
8:05	BNL		Welcome from Brookhaven National Laboratory Director of Science and Technology	John Hill	0:15
8:20	BNL		BNL Welcome	David Brown	0:10
8:30	NCSP		The Purpose of the DOE/NNSA Nuclear Criticality Safety Program Technical Program Review	Doug Bowen	0:10

NCSP MANAGER INVITED SITE REPORTS

8:40	LANL			Joetta Goda	0:15
8:55	LLNL			Catherine Percher	0:15
9:10	MSTS		Site Program Manager Discussions on the Following Topics: 1. FY23 Budget and Spending, 2. Provide 8 highlights for FY23 including MIHL items, 3. Highlights for the technical talks to be given at this TPR	William Hall	0:15
9:25	ORNL			Doug Bowen	0:15
9:40	PNNL			Travis Zipperer	0:10
9:50	RPI			Yaron Danon	0:15

10:05 Break (Refreshments) 0:15

10:20	SNL			David Ames	0:15
10:35	SRS		Site Program Manager Discussions (Continued)	Scott Finrock	0:15
10:50	Y-12			Kevin Reynolds	0:10
11:00	BNL			Gustavo Nobre	0:15

INTERNATIONAL COLLABORATIONS

11:15	AWE		International Collaborations AWE UK, Progress FY24 and Look Ahead	Matthew Harker	0:15
11:30	CEA		Overview of CEA activities in nuclear criticality safety	Aurelien Dorval, Michael Prigniau	0:15
11:45	IRSN		IRSN work in support to NCSP : FY2023	Sophie Pignet	0:15
12:00	OCED NEA		NEA Nuclear Science Committee activities in connection with the NCSP	Julie-Fiona Martin	0:15

12:15 Lunch 1:00

FY23 ANALYTICAL METHODS (AM) TECHNICAL PRESENTATIONS

13:15	LANL	LANL-AM1	FY23 MCNP® Updates for the Nuclear Criticality Safety Program	Michael Rising	0:15
13:30	LANL	LANL-AM2	Overview of NJOY work for NCSP FY23	Wim Haeck	0:15
13:45	LANL	LANL-AM1	Whisper Updates	Alexander Clark	0:15
14:00	LANL	LANL-AM1	Processing, Verification, and Validation of ENDF/B-VIII.1 Beta Releases at LANL	Wim Haeck	0:15



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14:15	RPI	LANL-AM3	On-The-Fly Sampling for Inelastic Incoherent Thermal Neutron Scattering for Monte Carlo Codes	Camden Blake	0:15
14:30 Break (Refreshments)					
14:45	ORNL	ORNL-AM1	Radiation Safety Information Computational Center (RSICC)	Tim Valentine	0:00
14:45	ORNL	ORNL-AM2	SCALE Activities in FY23	Will Wieselquist, Kursat Bekar	0:15
15:00	ORNL	ORNL-AM3	AMPX Developments in FY2023	Jesse Brown, Doro Wiarda	0:15
15:15	ORNL	ORNL-AM17	Status of the Verified, Archived, Library of Inputs and Data (VALID)	Travis Greene	0:15
15:30	ORNL	ORNL-AM18	Assessing the Impact of Sensitivity/Uncertainty Selection Criteria on Computational Bias Prediction	Lisa Fassino	0:15
15:45	PNNL	PNNL-AM1	Sum-of-Fractions Method	Travis Zipperer	0:15
	ORNL	ORNL-AM19		Travis Greene	
16:00	IRSN	LLNL-AM3	Status of the slide rule update	Sophie Pignet	0:15
	LLNL	ORNL-AM6			
	ORNL				
16:15	IRSN	LANL-AM5	International Benchmark Comparison for Nuclear Data and Code Validation : Outlook and Status	Romain Vuiart	0:15
	LANL	LLNL-AM5			
	LLNL	ORNL-AM10			
	ORNL	Y12-AM1			
16:30	LANL	Invited	Writing Benchmark Models with a Computer Program	Jeffrey Favorite	0:15

16:45 END OF TUESDAY TPR PRESENTATIONS

Dinner at the Long Island Aquarium in the Coliseum Banquet Room from 6:30 PM - 9:30 PM

Wednesday, February 21, 2024

FY23 INTEGRAL EXPERIMENTS (IE) TECHNICAL PRESENTATIONS

8:00	LANL	IE	IER 555: Status of Godiva-IV Benchmark (HEU-MET-FAST-086) Revision	Jeffrey Favorite	0:15
8:15	LANL	IE	IER 121: Updates on the NeSO benchmark	Alexander Clark	0:15
8:30	LANL	IE	IER 423: Flattop-HEU Benchmark Re-evaluation Summary	Kristin Stolte	0:15
8:45	LANL	IE	IER 479: Challenges of a Low Temperature Experiment and Proposed Solutions	Joetta Goda	0:15
9:00	LANL	IE	IER 517: MOBY DICK - Molybdenum Critical Experiment HEU Design	Cole Kostelac	0:15
9:15	LANL	IE	IER 537: Update on CERBERUS Experiment Execution & HEU Plate Characterization	Kristin Stolte	0:15
9:30	LANL	IE	IER 551: EUROPA - Intermediate Pu and Be Experiment	Peter Brain	0:15
9:45	LANL	IE	IER 605: Godiva IV Criticality Accident Alarm System (CAAS) Testing for AWE	Joetta Goda	0:15

10:00 Break (Refreshments)

10:15	ORNL	IE	FY23 ORNL Integral Experiment and DOE-EM work summary	Mathieu Dupont	0:20
10:35	SNL	IE	Completion of IER 305: Molybdenum Sleeve Experiments and Preparations for Performing IER 441: Epithermal Tantalum Experiments	David Ames	0:20
10:55	SNL	IE	Procurement Process Challenges, Issues, and Lessons Learned from IER 305 and IER 441	Augie Chapa	0:15
11:10	SNL	IE	IER 523: Updates on UO2-BeO Experiments	Mac Cook	0:15
11:25	LLNL	IE	IER 480: TEX-Pu Benchmark (PU-MET-THERM-004) to Test Polyethylene and Lucite Thermal Scattering Laws	Catherine Percher	0:15
11:40	LLNL	IE	IER 479 and 547: Low Temperature TEX Surrogate Testing and Reflector Design	Jacob Glesmann, Eric Aboud	0:15



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Time (Eastern)	NCSP SITE	Task ID	TOPIC/PRESENTATION TITLE	PRESENTER	DURATION (Min.)
11:55			Lunch		1:00
	Sidebar during Lunch		RPI LINAC Refurbishment	Jason Thompson, Angela Chambers, Doug Bowen, Yaron Danon, Mike Zerkle	0:30
12:55	LLNL	IE	IER 518: Data Analysis for High Multiplication Subcritical Experiments	Jesse Norris	0:15
13:10	LLNL	IE	IER 500: Restarting the AWE Five Year Measurement Campaign	Samuel Varghese	0:15
13:25	LLNL	IE	IER 484: AFRR Field Characterization Measurements	Aaron Tamashiro	0:15
13:40	LLNL	IE	IER 499: Final Design of a TEX Variant with Chlorine to Support NNSA Operations	Eric Aboud	0:15
FY23 INFORMATION PRESERVATION AND DISSEMINATION (IPD) TECHNICAL PRESENTATIONS					
13:55	ORNL	ORNL-IPD3 ORNL-IPD4	Nuclear Criticality Safety Repository, LFE Database, and the NDA Program	Doug Bowen	0:15
14:10	ORNL	ORNL-IPD5	Status of the HPRR experiments evaluation to create a published shielding benchmark	Mathieu Dupont	0:15
14:25	LLNL	LLNL-IPD1 LLNL-IPD6	LLNL IPD Tasks: ICSBEP and Pulsed Spheres Benchmark	Catherine Percher, Aaron Tamashiro	0:15
14:40			Break (Refreshments)		0:15
FY23 TRAINING AND EDUCATION (TE) TECHNICAL PRESENTATIONS					
14:55	ORNL	ORNL-TE1	ORNL NCSP Training and Education Support for FY 2023	Doug Bowen	0:10
15:05	ORNL	ORNL-TE14	Overview and Status Update of the Nuclear Criticality Safety Training and Pipeline Program	Walid Metwally	0:15
FY23 NUCLEAR DATA (ND) TECHNICAL PRESENTATIONS					
15:20	ORNL	ORNL-ND4	Thermal Neutron Total Cross Section Measurements for Improvement of Criticality Calculations and Propagation of Scattering Kernel Uncertainties	Chris Chapman	0:15
15:35	ORNL	ORNL-ND11	Status update of ORNL ND11 task for FY23	Kemal Ramic	0:15
15:50	ORNL	ORNL-ND6	Recent Developments in the R-Matrix Code SAMMY	Dorothea Wiarda	0:15
16:05	ORNL	ORNL-ND2	ORNL nuclear data evaluation contribution to NCSP	Marco Pigni	0:30
16:35			END OF WEDNESDAY TPR PRESENTATIONS		
	Sidebar at the EOD		NCERC Control Room Upgrades	Joetta Goda, LANL, William Hall, MGT Team	0:30
Thursday, February 22, 2024					
8:00	ORNL	ORNL-ND1 ORNL-ND3	ORNL Neutron Cross Section Measurements of Zr-isotopes	Klaus Guber	0:15
8:15	ORNL	ORNL-ND9	Simultaneous TSL/RRR Evaluation of UO2 & PuO2 – Theory and Preliminary Results	Chris Chapman	0:15
8:30	NCSU	LLNL-ND12	Thermal Scattering Law Research and Development at NC State University	Ayman Hawari	0:15
8:45	LLNL	LLNL-ND9	Scoping Study for a 6Li-Doped Scintillator Array for Fission Correlation Measurements	Tim Classen	0:15
9:00	RPI	RPI-ND1	Measurements and Evaluation of Fe54	Sukhjinder Singh	0:15
9:15	RPI	RPI-ND1	High Energy Quasi-Differential Neutron Emission Measurements of Ta-181 and F-19	Greg Siemers	0:15
9:30	RPI	RPI-ND1	Automatic Determination of Resonance Parameters from Self-Shielded Measurements	Alec Golas	0:15
9:45			Break (Refreshments)		0:15



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10:00	BNL	BNL-ND1	Progress towards ENDF/B-VIII.1	Gustavo Nobre	0:15
10:15	LANL	LANL-ND2	R-Matrix analysis of the neutron-induced cross sections on ¹⁴³ Nd measured at LANSCE	Esther Leal Cidoncha	0:15
10:30	LANL	LANL-ND2	R-Matrix analysis of ¹⁴⁹ Sm using DICER and DANCE data	Thanos Stamatopoulos	0:15
10:45	LANL	LANL-ND1	Evaluated U-238 PFNS with Chi-Nu data	Matthew Devlin	0:15
11:00	LANL	LANL-ND1	Evaluation of neutron-induced reactions on medium-mass nuclei and actinides	Ionel Stetcu	0:15
11:15	LANL	LANL-ND1	Recent updates to the ⁶ Li, ⁹ Be and ¹⁶ O evaluations for ENDF/B-VIII.1	Bob Little	0:15
11:30	LANL	LANL-ND2	Prompt Fission Neutron Spectra Measurements at LANSCE: ²⁴⁰ Pu and ²³³ U(n,f)	Matthew Devlin	0:15

11:45	Lunch				1:00
	Sidebar during Lunch	LANL/IRSN SPP		Joetta Goda, Sophie Pignet, MGT Team	0:30

FY23 INVITED TALKS & TECHNICAL PRESENTATIONS

12:45	LANL		Successful PFUNS Execution - Real Time Update	Joetta Goda	0:10
12:55	ORNL		Neutron Moderation: From Quanta to the Continuum	Iyad Al-Qasir	0:10
13:05	ORNL		Graphite: cautionary tale on the importance of inelastic neutron scattering and transmission measurements	Kemal Ramic	0:15
13:20	ORNL		DNCSS Program and Overlap with the NCSP	Will Wieselquist	0:15
13:35	ORNL		SARP Analyst Course: Now and Then	Walid Metwally	0:10
13:45	LANL		EUCLID Project Summary	Bob Little	0:15
14:00	LANL		PARADIGM: PARallel Approach of Differential and InteGral Measurements	Matthew Devlin	0:15
14:15	LANL		NCERC Control System Upgrade Status: Challenges and Accomplishments	Eloura Phelps, Chloe McMath	0:20
14:35	-		Final Remarks	Angela Chambers	0:05
END OF THURSDAY TPR PRESENTATIONS					

Nuclear Data Advisory Meeting - Mike Zerkle Lead

15:00	NDAG Meeting				1:40
16:40	END OF TPR & NDAG Meetings				

SIDE-BAR MEETINGS - Held in the Main Street Terrace

Wed., Feb 21, Lunch	RPI LINAC Refurbishment	Jason Thompson, Angela Chambers, Doug Bowen, Yaron Danon, Mike Zerkle	0:30
Wed., Feb. 21, EOD	NCERC Control Room Upgrades	Joetta Goda, LANL, William, Hall, MGT Team	0:30
Thurs., Feb. 22, Lunch	LANL/IRSN SPP sidebar	Joetta Goda, Sophie Pignet, MGT Team	0:30