



**Oak Ridge National Laboratory  
1 Bethel Valley Road  
Oak Ridge, TN 37831**

**SUBJECT:** Report on Foreign Travel to the ICSBEP meeting in Paris, France (OECD/NEA)

**DATE:** April 25, 2023

**TO:** Dr. Angela Chambers, Nuclear Criticality Safety Program Manager, National Nuclear Security Administration / NA-511

**FROM:** Dr. Doug Bowen, NCSP Execution MGR, ORNL Section Head

**MEETING TITLE:** ICSBEP Technical Review Group

**MEETING LOCATION:** OECD/NEA, Paris, France

**MEETING DATES:** April 5-7, 2023

**ATTENDEES ON BEHALF OF NCSP: [Only 1 report from the institution for ALL attendees]**

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**MEETING PURPOSE:**

Review ICSBEP benchmark evaluation drafts as a committee and discuss review comments and possible resolutions. Doug Bowen also attended meetings with OECD/NEA staff, and IRSN staff throughout the week to discuss ongoing NCSP collaborations.

**MEETING BENEFITS TO THE NCSP:**

The ICSBEP TRG meeting is the necessary review stage for all NCSP integral benchmarks being shared with the NCS community.

**PURPOSE OF TRAVEL** [Provide a detailed purpose of the travel]:

To participate in the TRG meetings as an official delegate and to have NCSP collaboration meetings.

**Persons Contacted on your trip** [If applicable, provide a list of everyone you met with during the trip.]:

OECD/NEA staff (Tatiana Ivanova, Andrew Holcomb, Ian Hill), LLNL and LANL staff, IRSN staff (Aurelie Bardelay, Mariya Brovchenko, Nicolas Leclaire) and other staff.

**Presentations, Chair Responsibilities, Etc.:**



TRG Participant and NCSP representative.

[Please list all applicable to your trip. If possible, include the agenda and highlight presentations given by attendees, sessions chaired, etc.]

### DRAFT AGENDA

5-7 April 2023

46, quai Alphonse Le Gallo, 92100 Boulogne-Billancourt, Paris France  
Room BB2

Upon arrival please report to the Reception Desk on the ground floor with a photo ID.  
A badge will be issued that will allow you to enter the premises at all times during the meeting.  
Local information about hotels and transport, as well as an area map, can be found on the Web page:  
<http://www.oecd-neo.org/general/practical/>

Wednesday, 5 April 2023 (ICSBEP)			
8:45 – 9:00	SESSION 1:	WELCOME AND INTRODUCTION	
		Welcome and Introduction Administrative Items: Sign-In, List of Experiment for Next Year	
9:00 – 10:30	SESSION 2:	APPROVAL OF NEW EVALUATIONS	
	ALARM-CF-FE-SHIELD-002	Fast Neutron Leakage Spectra from an Iron or Nickel Sphere with <sup>252</sup> Cf Source in Center	Tomas Czakoi
10:30 – 10:45	BREAK		
10:45 – 12:15	SESSION 3:	APPROVAL OF NEW EVALUATIONS	
	ALARM-CF-SST-SHIELD-001	Fast Neutron Leakage and Spatial Distribution of Activation of a Stainless Steel 321 Sphere with <sup>252</sup> Cf Source in Center	Tomas Czakoi
12:15 – 13:15	LUNCH		
13:15 – 14:45	SESSION 4:	APPROVAL OF REVISED EVALUATION	
	PU-SOL-THERM-028	Water-reflected Annular Cylinders (50/30 cm diam.) Containing Plutonium (3% <sup>239</sup> Pu) Nitrate Solutions	Nicolas Leclaire
14:45 – 15:00	BREAK	GROUP PHOTO	Everyone
15:00 – 16:30	SESSION 5:	APPROVAL OF NEW EVALUATIONS (Continued)	
	LEU-COMP-THERM-111	Molybdenum Sleeve Experiments in Fully-Reflected Water-Moderated Triangular-Pitched U(6.90)O <sub>2</sub> Fuel Rod Lattices (1.55 cm Pitch)	Gary Harms
16:30 – 18:00	Additional Time if Needed		

### International Criticality Safety Benchmark Evaluation Project (ICSBEP)

#### FINAL AGENDA

3-7 April 2023

46, quai Alphonse Le Gallo, 92100 Boulogne-Billancourt, Paris France  
Room BB2

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Thursday, 6 April 2023 (ICSBEP)			
8:45 – 9:00	SESSION 1:	WELCOME AND INTRODUCTION	
		Welcome and Introduction Administrative Items: Sign-In, List of Experiment for Next Year	
9:00 – 10:30	SESSION 2:	APPROVAL OF NEW EVALUATIONS	
	LEU-COMP-THERM-109	Criticality Experiments in Hexagonal Lattices (1.275 cm Pitch) of VVER-1000 Low Enriched U(3.3 wt.% <sup>235</sup> U) <sub>2</sub> O <sub>7</sub> Fuel Assemblies in Light Water with Seven Void, Silicon Dioxide or Graphite Modules in Center	Tomas Czakoi
10:30 – 10:45	BREAK		
10:45 – 12:15	SESSION 3:	APPROVAL OF NEW EVALUATIONS	
	ALARM-REAC-PE-001	Neutron Fluence Response to a Bare and to a Lucite-Reflected Pulse of the ORNL Health Physics Research Reactor	Mathieu Dupont
12:15 – 13:15	LUNCH		
13:15 – 14:45	SESSION 4:	APPROVAL OF NEW EVALUATIONS (Continued)	
	HEU-MET-FAST-102	ZEUS: Fast Spectrum Critical Assemblies with a Pb-HEU Core Surrounded by a Copper Reflector	Kelsey Amundson
14:45 – 15:00	BREAK		
15:00 – 18:00	SESSION 3:	APPROVAL OF NEW EVALUATIONS (Continued)	
	HEU-MET-FAST-104:	MUSIC: Critical Experiments with Bare Highly-Enriched Uranium Shells	Alex McSpaden Rene Sanchez



Annual International Criticality Safety Benchmark Evaluation Project  
(ICSBEP) Technical Review Group Meeting  
OECD NEA: 5-7 April 2023

Friday, 7 April 2023 (ICSBEP)			
8:50 – 9:00	WELCOME BACK		
9:00 – 10:30	SESSION 4:	APPROVAL OF NEW EVALUATIONS (Continued)	
	PU-MET-THERM-005	Thermal Spectrum Critical Assemblies with a Polyvinyl Chloride and Chlorinated Polyvinyl Chloride-Plutonium-Aluminum Metal Alloy Core surrounded by a Polyethylene Reflector	Jeff Favorite
10:30 – 10:45	BREAK		Everyone
10:45 – 12:15	SESSION 5:	DISCUSSION	
		TEX Plutonium Thermal Assemblies: Plutonium-Aluminum Metal Alloy Plates with Thick Polyethylene and Polymethyl Methacrylate (Lucite) Moderators	Catherine Percher
	PU-MET-THERM-004		

**Distribution:**

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