



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 13, 2023

MEMORANDUM TO: Steven Lynch, Chief  
Advanced Reactor Policy Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

FROM: Joseph M. Sebrosky, Senior Project Manager  
Advanced Reactor Policy Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MAY 11, 2023, PUBLIC MEETING TO DISCUSS  
TECHNOLOGY INCLUSIVE MANAGEMENT OF SAFETY CASE

On May 11, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff held a public meeting with stakeholders to discuss the technology inclusive management of safety case (TIMaSC) industry initiative. The meeting notice is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML23131A007, and the presentation slides are available at ADAMS Accession No. ML23130A294. The enclosure to this summary provides the attendees for the meeting as captured by Microsoft Teams.

The purpose of the meeting was for industry to outline its plans to develop TIMaSC. The purpose of TIMaSC would be to develop an endorsable guidance document for the management of a licensing modernization project (LMP) based safety case. Industry envisions TIMaSC would be used by licensees that follow the guidance in the following documents:

- Nuclear Energy Institute (NEI) 18-04, Revision 1, "Risk-Informed Performance-Based Technology Guidance for Non-Light Water Reactors," ADAMS Accession No. ML19241A336.
- NEI 21-07, Revision 1, "Technology Inclusive Guidance for Non-Light Water Reactor Safety Analysis Report: for Applicants Utilizing NEI 18-04 Methodology," ADAMS Accession No. ML22060A190. This guidance is referred to as technology inclusive content of application project (TICAP) guidance.
- NEI 22-05, Revision A, "Technology Inclusive Risk Informed Change Evaluation (TIRICE)." This is currently a draft document that is part of a separate discussion with industry. NRC staff comments on this version of the document can be found at ADAMS Accession No. ML23107A257.

CONTACT: Joseph Sebrosky, NRR/DANU  
301-415-1132

Meeting Highlights

- Industry noted that during the development of NEI 18-04, NEI 21-07, and NEI 22-05, it identified the need to develop additional guidance related to the maintenance of the safety case. Examples where additional guidance would be beneficial include:
  - Operating experience indicates reliability or capability targets for safety significant structures, systems, and components (SSCs) are not met
  - Operating experience indicates reliability or capability targets for safety significant SSCs have more than anticipated margin
  - Results of tests, experiments, and analyses
  - Management of the safety case as it relates probabilistic risk assessment (PRA) changes and programs to control the PRA
- Industry's proposed timeline included development of the guidance in the 2024 timeframe including tabletop exercises, with the NRC endorsement in the 2025 timeframe.
- The NRC staff noted that the development of TIMaSC guidance appeared to be appropriate and that further interactions on the effort would be beneficial. The NRC staff posed questions regarding the scope of TIMaSC that could be considered as the effort moves forward including:
  - Whether TIMaSC could be used during the operational phase as part of the significance determination process (SDP). The SDP is the process used by the NRC staff to evaluate inspection findings to determine their safety significance. This involves assessing how the inspection findings affect the risk of a nuclear plant accident, either as a cause of the accident or the ability of plant safety systems or personnel to respond to the accident.
  - Whether TIMaSC could be included as part of "programs" that are described in Chapter 8 of NEI 21-07.
  - Whether the PRA periodic upgrade regulatory requirements in Title 10 of the *Code of Federal regulations* (10 CFR) Part 50 (i.e., 50.71(h)) and those PRA upgrade provisions in the ongoing 10 CFR Part 50 and 52 alignment rulemaking would be considered as part of the scope of TIMaSC.

Enclosure:  
Attendance List

SUBJECT: SUMMARY OF MAY 11, 2023, PUBLIC MEETING TO DISCUSS TECHNOLOGY  
INCLUSIVE MANAGEMENT OF SAFETY CASE  
DATED: September 13, 2023

**DISTRIBUTION:**

PUBLIC  
RidsNrrDanu Resource  
RidsNrrDanuUarp Resource  
JSegala  
SLynch  
JSebrosky  
ACubbage  
IJung  
MStutzke  
WReckley

**ADAMS Accession No.**

**NRC-001**

<b>OFFICE</b>	NRR/DANU/UARP/PM	NRR/DANU/UARP/BC	NRR/DANU/UARP/PM
<b>NAME</b>	JSebrosky	SLynch	JSebrosky
<b>DATE</b>	9/13/2023	9/13/2023	9/13/2023

**OFFICIAL RECORD COPY**

**May 11, 2023, Public Meeting to Discuss  
Technology Inclusive Management of Safety Case  
Attendance List\***

<b>NAME</b>	<b>AFFILIATION</b>	<b>NAME</b>	<b>AFFILIATION</b>
John Segala	NRC/NRR/DANU	Brandon Chisholm	Southern Company
Martin Stutzke	NRC/NRR/DANU	Ben Holtzman	Nuclear Energy Institute (NEI)
Nan Valliere	NRC/NRR/DANU	Steven Nesbit	LMNT Consulting
William Reckley	NRC/NRR/DANU/UARP	Karl Fleming	KNF Consulting
Amy Cabbage	NRC/NRR/DANU/UARP	Ingrid Nordby	X-energy
Joe Sebrosky	NRC/NRR/DANU/UARP	Steve Vaughn	X-energy
James O'Driscoll	NRC/NRR/DANU/UARP	Amanda Spalding	Westinghouse
Scott Tonsfeldt	NRC/NRR/DANU/UARP	Dave Grabaskas	Argonne National Lab
Ian Jung	NRC/NRR/DANU/UTB1	Rob Burg	NA
Michelle Hart	NRC/NRR/DANU/UTB2	Jason Andrus	NA
Michael Orenak	NRR/NRR/DANU/UAL1	Svetlana Lawrence	NA
Jim Kinsey	INL	Keeshia B. Goodenough	NA
Chris Chwasz	INL	Steven Pope	NA
Tom King	INL	Barton Landon Pate	NA
Tom Hicks	INL	Mihaela Biro	NA
Paul Santamaura	NA		

\* Attendance list based on Microsoft Teams Participant list. List does not include two individuals that connected via phone.