

May 14, 2015

MEMORANDUM TO: Mohamed K. Shams, Chief  
Hazards Management Branch  
Japan Lessons-Learned Division  
Office of Nuclear Reactor Regulation

FROM: Nicholas J. DiFrancesco, Senior Project Manager */RA/*  
Hazards Management Branch  
Japan Lessons-Learned Division  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MARCH 31, 2015, CATEGORY 2 PUBLIC  
MEETING WITH THE NUCLEAR ENERGY INSTITUTE TO DISCUSS  
HIGH FREQUENCY CONFIRMATION GUIDANCE ASSOCIATED  
WITH IMPLEMENTATION OF JAPAN LESSONS-LEARNED  
NEAR-TERM TASK FORCE RECOMMENDATION 2.1: SEISMIC

On March 31, 2015<sup>1</sup>, the U. S. Nuclear Regulatory Commission (NRC) staff held a Category 2 public meeting with the Nuclear Energy Institute (NEI) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of this meeting was to discuss staff comments on NEI's proposed draft guidance, "High Frequency Program: Application Guidance for Functional Confirmation and Fragility Evaluation"<sup>3</sup> related to the seismic hazard reevaluations associated with the implementation of Recommendation 2.1: Seismic of the March 12, 2012, NRC request for information issued pursuant to Title 10 to the *Code of Federal Regulations* Part 50, Section 50.54(f) (hereafter referred to as the 50.54(f) letter<sup>2</sup>).

During the meeting Electric Power Research Institute (EPRI) representatives discussed technical details of the proposed guidance for functional confirmation and fragility evaluation for the high frequency program<sup>3</sup>.

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<sup>1</sup> The meeting notice is available via the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML15082A187.

<sup>2</sup> The 50.54(f) letter and Enclosure 1 are available under ADAMS Accession Nos. ML12053A340 and ML12056A047, respectively

<sup>3</sup> The Draft EPRI Report is available via ADAMS under Accession No. ML15036A199.

NRC staff and NEI representatives' discussions included the following meeting highlights:

- NEI communicated an estimate of 3 weeks to finalize the guidance, not including changes proposed during the March 31st meeting.
- NEI/EPRI provided clarification on the basis for in-structure response spectra outlined in Appendix B of the guidance. NEI agreed to expand to the existing basis argument with greater detail.
- NEI provided clarification on how the guidance document will be used by industry for functional confirmation and SPRA fragility evaluation. NEI agreed to provide a description of the process to clarify how the test results would be used by industry.
- NEI discussed that they planned to provide technical references to support the guidance to estimate the vertical GMRS basis. NRC staff committed to continuing the review of the vertical GMRS engineering basis.
- NRC staff requested that the basis for sub-screening be added to the guidance document. NEI/EPRI clarified that diminishing power spectral density in the higher frequencies and supporting test results were the basis for the sub-screening and agreed to add the clarification to the guidance document.
- NRC staff requested clarification on cabinet amplification methodology. NEI/EPRI clarified that the methodology follows NP-6041, but that staff review may be required to ensure it was properly applied. NRC staff agreed to further review the current guidance and provide additional comment.
- NRC staff requested, in general, that NEI/EPRI review the document and provide or enhance the bases for selecting initial parameters or thresholds, such that it is clear why generic ranges or thresholds would be suitable to all plants and that selection/screening criteria have a sound basis for inclusion/exclusion decisions. For example, the basis for a screening criteria of 10 percent; sufficiency of 3 sample sites (Section 4.3.1) to represent all building sites.
- NRC staff asked for clarification of what the submittals to address the high frequency evaluation would look like. NEI agreed to add further description or an example submittal to help improve the consistency of submittals and reduce unnecessary requests for additional information.

NRC staff and NEI discussed the proposed scope of the high frequency study. Specifically, the staff pointed out that the proposed scope is limited to components that are the control components subject to intermittent states associated with Phase 1 FLEX seismic implementation (as identified in Section 3.2 of EPRI 3002000704) and that could challenge the boundary conditions of FLEX implementation. The NRC staff indicated that the plant equipment scope should be broader than the mitigating strategies equipment and should include more protective functions. NRC and NEI agreed to discuss equipment scope in subsequent public meetings.

M. Shams

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No regulatory decisions or commitments were made during the meeting. The public was invited to observe the meeting and was given several opportunities to communicate with the NRC during the public meeting and before adjourning. The NRC staff received no public comments.

Enclosure:  
List of Attendees

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Enclosure:  
List of Attendees

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\*Concurrence via e-mail

<b>OFFICE</b>	NRR/JLD/JHMB/PE	NRR/JLD/LA	NRO/DSEA/RGS/BC*	NRR/JLD/JHMB/BC*	NRR/JLD/PMB/PM
<b>NAME</b>	SWyman	SLent	DJackson	MShams	NDiFrancesco
<b>DATE</b>	04/22/15	04/22/15	05/14/15	05/04/15	05/14/15

**OFFICIAL RECORD COPY**

List of Attendees

U.S. Nuclear Regulatory Commission  
Public Meeting with the Nuclear Energy Institute  
Concerning Seismic Hazard Reevaluation Submittals  
Japan Lessons-Learned Near-Term Task Force Recommendation 2.1: Seismic  
High Frequency Confirmation  
March 31, 2015

<b>Attendees</b>				
<b>Name</b>	<b>Organization</b>		<b>Name</b>	<b>Organization</b>
Andrea Kock	NRC/NRO/DSEA		John Richards	EPRI
Donnie Harrison	NRC/NRO/DSEA		Andrew Mauer	NEI
Diane Jackson	NRC/NRO/DSEA		Greg Hardy	SGH
Nilesh Choksi	NRC/NRO/DSEA		Michael Tschultz	NEI
Nicholas DiFrancesco	NRC/NRR/JLD		(continues to next page)	
Jose Pires	NRC/RES/DE			
Kamal Manoly	NRC/NRR/DE			
Yong Li	NRC/NRR/DE			
Frankie Vega	NRC/NRR/JLD			
Tuan Le	NRC/NRO/DE			
Ian Tseng	NRC/NRR/DE			
Steve Wyman	NRC/JLD			

**Abbreviations:**

DE – Division of Engineering  
DSEA – Division of Site Safety and Environmental Analysis  
EPRI - Electric Power Research Institute  
DSRA – Division of Safety Systems & Risk Assessment

JLD – Japan Lesson-Learned Project Directorate  
NEI – Nuclear Energy Institute  
NRO – Office of New Reactors  
NRR – Office of Nuclear Reactor Regulation  
RES – Office of Nuclear Regulatory Research  
TVA – Tennessee Valley Authority

Enclosure

<b>Attendees Via Webinar or Telephone</b>				
<b>Name</b>	<b>Organization</b>		<b>Name</b>	<b>Organization</b>
Divakar Bhargava	Dominion		Todd Swoyer	
Anthony Bockelman			John Traynor	Exelon
Greg DuBois	SargentLundy		Daniel Vasquez	Dominion
Robert Enis	TVA		Christopher Wandell	APS
Charlotte Geiger	PSEG		Dale Wuokko	Toshiba
Roger Gish	TVA		Jason Young	Westinghouse
Derek Helmick	NPPD		Jeffrey Clark	Exelon
Whitney Hemingway	DTE Energy		Chikako Ogura	Toshiba
William Horstman	PGE			
Justin Huber	TVA			
Nozar Jahangir	PGE			
Paul Karavoussianis	Stevenson & Assoc			
Robert Keiser	Duke			
Robert Kennedy				
Brenda Kovarik	AEP			
Marvin Lewis				
Daniel Madden	Dominion			
Robin McGuire	Lettis Consultants			
Kelvin Merz	SGH			
Robert Meyer				
Donald Moore	Southern Company			
Leon Rafner	Certrec			
James Raleigh	Nuscale			
Richard Rohrer	XE Nuclear			
Steve Sheahan	Energy Northwest			
Tim Solberg	WCNOC			
Ram Srinivasan				