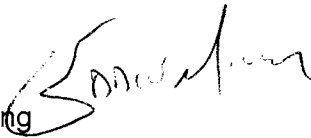




UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 2, 2018

MEMORANDUM TO: Michael T. Markley, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

FROM: G. Edward Miller, Project Manager  
Special Projects and Process Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation 

SUBJECT: SUMMARY OF SEPTEMBER 17, 2018, PUBLIC MEETING WITH  
NUCLEAR ENERGY INSTITUTE REGARDING 10 CFR 50.69  
LICENSE AMENDMENT REQUESTS

On September 17, 2018, a Category 2 public meeting<sup>1</sup> was held between representatives of the U.S. Nuclear Regulatory Commission (NRC), Nuclear Energy Institute (NEI), Electric Power Research Institute (EPRI), and licensees. The purpose of this meeting was to discuss approaches to license amendment requests (LARs) to implement a risk-informed program for categorization and treatment of structures, systems, and components (SSCs) for nuclear power reactors in accordance with Section 50.69, "Risk-informed categorization and treatment of structures, systems, and components for nuclear power reactors," of Title 10 of the *Code of Federal Regulations* (10 CFR 50.69). This public meeting was a continuation of public meetings held on August 18, 2016;<sup>2</sup> and January 25,<sup>3</sup> June 21,<sup>4</sup> September 6,<sup>5</sup> and October 23, 2017;<sup>6</sup> and January 18, 2018,<sup>7</sup> and May 22, 2018,<sup>8</sup> on the same topic. Specifically, this meeting focused on potential approaches to consider seismic risk for categorization of SSCs during implementation of 10 CFR 50.69 as alternatives to the use of a seismic probabilistic risk assessment (SPRA) or a seismic margins analysis (SMA).

The NEI staff, supported by the EPRI staff, presented slides<sup>9</sup> that discussed EPRI Report 3002012988,<sup>10</sup> which evaluated unique risk insights that may be obtained using SPRAs in the categorization of SSCs. The insights were developed using information from four sites where the ground motion response spectra is high compared to the safe shutdown earthquake

<sup>1</sup> The meeting notice is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML18250A193.

<sup>2</sup> The meeting summary for the August 18, 2016, meeting is available under ADAMS Accession No. ML16250A548.

<sup>3</sup> The meeting summary for the January 25, 2017, meeting is available under ADAMS Accession No. ML17027A251.

<sup>4</sup> The meeting summary for the June 21, 2017, meeting is available under ADAMS Accession No. ML17177A063.

<sup>5</sup> The meeting summary for the September 6, 2017, public meeting is available under ADAMS Accession No. ML17265A020.

<sup>6</sup> The meeting summary for the October 23, 2017, public meeting is available under ADAMS Accession No. ML17305A242.

<sup>7</sup> The meeting summary for the January 18, 2018, public meeting is available under ADAMS Accession No. ML18025B737.

<sup>8</sup> The meeting summary for the May 22, 2018, public meeting is available under ADAMS Accession No. ML18143B668.

<sup>9</sup> The NEI slides are available under ADAMS Accession No. ML18263A152.

<sup>10</sup> The EPRI report is available by searching the report number at [www.epri.com](http://www.epri.com).

(SSE) and the corresponding licensee has performed an SPRA to support its response to the March 12, 2012, 10 CFR 50.54(f) letter.<sup>11</sup> The slides indicated that for the majority of components, classification as high safety significant (HSS) was not unique to the SPRA (i.e., another probabilistic risk assessment (PRA) model also identified the component as HSS). NEI and EPRI representatives stated that the EPRI report supported a conclusion that explicit consideration of seismic risks in the categorization process was not necessary for certain plants. As such, industry representatives proposed a three-tiered approach based on a consideration of the magnitude of the seismic hazards at the site relative to the site's seismic design capacity (termed Tiers 1 through 3).

The NRC staff identified several items that would need to be addressed if the proposed approach is pursued by licensees. Some of those items include:

- The acceptability of SPRAs used in the case studies as well as the internal events models used to develop those SPRAs, whether peer-review findings have been appropriately addressed for risk-informed licensing actions, and whether SPRA peer-review findings have been closed out using an NRC-approved process.
- The treatment of risk significant SSCs identified by fire PRA considering that the approach relies on fire PRA models to identify HSS SSCs.
- Consistency of the approach with 10 CFR 50.69 and its associated statements-of-consideration.
- Information submitted in response to the 10 CFR 50.54(f) letter was for a backfit decision, not licensing. Licensees need to ensure all information supporting a submittal is properly on the docket.
- Treatment of the potential hazard changes in the future that may affect the current proposed classification approach.
- Justification for different treatment of correlated and interaction based failures for Tier 1 and Tier 2 plants.

The NEI representative stated that Calvert Cliffs would be the lead plant to submit a 10 CFR 50.69 LAR that used the alternative approach as a Tier 1 (low hazard to margin) site. The NEI representative stated that they expected a reduced number of NRC staff hours for the review given the recent review of the PRAs for that licensee associated with an LAR to implement a risk-informed completion time (RICT) program. The NRC staff acknowledged that the recent review of the RICT LAR would afford efficiencies, but emphasized that the alternative approach to seismic was not an endorsed methodology and would require significant review as part of the anticipated LAR. Additionally, the NRC staff stated that submitting other LARs containing this methodology prior to completion of the lead plant would likely lead to inefficiencies as issues identified would need to be resolved across all in-house reviews.

During the meeting, representatives from Duke Energy identified that McGuire Nuclear Station would be the lead plant to submit a Tier 2 (medium hazard to margin) LAR. The NRC staff identified that it was unclear how some of the processes described for Tier 2 applications would be implemented. It was identified that, although not required, it would be useful for the NRC staff to observe implementation during an audit.

For Tier 3 (high seismic risk), NEI indicated that licensees would need to use an SPRA or an SMA approach.

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<sup>11</sup> The March 12, 2012, 10 CFR 50.54(f) letter is available under ADAMS Accession No. ML12056A046.

Following the discussion, an opportunity was afforded to any other participants who wished to ask questions or make comments. No questions or comments were received.

The list of attendees is enclosed to this summary.

Enclosure:  
List of Attendees

**ENCLOSURE**  
**LIST OF ATTENDEES**



# Sign In Sheet

DATE: Sept 17, 2018

Public Meeting to Discuss  
Alternative Seismic Approach  
for 10 CFR 50.69

Name	Organization
ED MILLER	NRC/NRR/DORL
Shilp Vananada	NRC/NRR/DRA
Mehdi Reisi Fard	NRC/NRR/DRA
Stacey Rosenberg	NRC/NRR/DRA
Stephen Dinamore	NRR/DRA
Sunil Weerakkody	NRR/DRA
Michael Levine	NRR/DRA
Michaela Bins	NRR/DRA
GREG CISTO	NRR/DRA
Jose Pires	RES/DE
Mike Mackey	NRR/DORL
MIKE FRANOVIK	NRR/DRA
VIA PHONE	
COURTNEY ST. PETERS	NRC/NRR/DRA
ROB BURG	EPM

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SUBJECT: SUMMARY OF SEPTEMBER 17, 2018, PUBLIC MEETING WITH NUCLEAR ENERGY INSTITUTE REGARDING 10 CFR 50.69 LICENSE AMENDMENT REQUESTS DATED OCTOBER 2, 2018

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 MBiro, NRR  
 SDinsmore, NRR  
 SRosenberg, NRR  
 JHanna, RGN-III

**ADAMS Accession No. ML18263A126**

**\*via e-mail**

OFFICE	NRR/DORL/LSPB/PM	NRR/DORL/LAIT*	NRR/DORL/LSPB/LA	NRR/DRA/APLA/BC*
NAME	GEMiller	PTalukdar	JBurkhardt	SRosenberg
DATE	09/21/18	09/21/18	09/24/18	10/01/18
OFFICE	NRR/DRA/APLB/RILIT/TL*	NRR/DORL/LPL2-1/BC	NRR/DORL/LSPB/PM	
NAME	MReisiFard	MMarkley	GEMiller	
DATE	09/28/18	10/02/18	10/02/18	

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