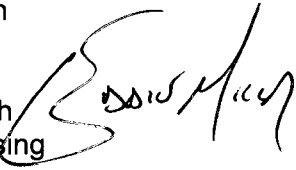




UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 15, 2018

MEMORANDUM TO: Douglas A. Broaddus, 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 JANUARY 24, 2018, PUBLIC MEETING WITH
NUCLEAR ENERGY INSTITUTE REGARDING PROBABILISTIC
RISK ASSESSMENT CHANGE CONTROL PROCESS

On January 24, 2018, the U.S. Nuclear Regulatory Commission (NRC) staff held a public meeting¹ with staff from the Nuclear Energy Institute (NEI). The purpose of the meeting was to discuss licensee control of their probabilistic risk assessment (PRA) following approval of an amendment to implement a risk-informed completion time (RICT) program. Specifically, the meeting was to discuss stakeholder interest in how new PRA methods would be controlled after receipt of a program that uses PRA modeling and when a change in PRA methodology would require a licensee to seek regulatory approval prior to implementation of the methodology.

During the meeting, the NRC staff presented slides that provided both a background of why a change control process was needed and the spectrum of options under consideration to implement such a process.² During the presentation, NEI representatives indicated that they did not believe that Options 1 or 2 were tenable and that Option 3, where control of new methods would be through industry peer review, was the only option of interest. The NRC staff stated that it was unclear how, with Option 3, the staff would be able to effectively oversee the use of new methods.

The NRC staff identified the following points regarding Option 1:

- The NRC staff proposed to continue the development of the Vetting Panel process
- Development of the current Vetting Panel was a multi-year effort between NRC and industry and involved multiple NRC offices (NRR, NRO, and RES)
- In June 2015, NEI's White Paper recommended methods Vetting Panel Process as "an alternative, not replacement" for existing processes
- The White Paper also proposed documenting the acceptance or rejection of the method and providing a report to the NRC for formal acceptance and closure

¹ The original meeting notice is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML17349A094.

² The NRC slides are available under ADAMS Accession No. ML18024B373.

- In February 2016, NEI submitted draft guidance document NEI 16-04 for a Vetting Panel process
- In April 2016, NEI submitted three methods to pilot the Vetting Panel process
- In April 2017, a fee waiver was issued for the pilot methods and NEI 16-04
- In June 2017, NRC commented on NEI 16-04 during public meeting
- NEI has since discontinued work on the Vetting Panel process but not requested closing or suspending the project

Both the NRC and NEI acknowledged that it would be resource intensive to define a "significant" method change to support Option 2.

After the NRC presentation, NEI staff presented slides that described an approach to implementing Option 3.³ The NEI staff proposed that licensees would evaluate the appropriateness of new methods through peer reviews and report the new methods to the NRC following implementation. The NRC staff maintained that the feasibility of Option 3 was based on the establishment of sufficient NRC infrastructure and industry guidance, and that this would require significant time and effort to establish. For the purposes of discussion, though, the NRC staff did explore what outstanding issues would need to be overcome to make the proposed approach to Option 3 feasible assuming that such an infrastructure was in place. During the discussion, NEI acknowledged that it might be possible to model the process after paragraph 50.54(a)(4)(iv) of Title 10 of the *Code of Federal Regulations*, where the NRC is given a period of time to evaluate a new method prior to its use.

Although not an exhaustive list, the following items were raised as items that would likely need to be addressed prior to implementing the industry proposed option included the following:

- Proposed approach necessitates an NRR review/Region inspection framework that does not currently exist
- RISC WG 1 would need to be reconvened to develop approach and associated guidance
- NEI would need to provide the prioritization for this and other risk-informed applications
- To begin discussions on their proposed alternative, NRC/Industry RISC WG 1 would need to fully define the proposed approach, including but not limited to:
 - Establish acceptance criteria to be used by the peer review teams for newly developed methods
 - Define what will be included in the notification to the NRC
 - Define an appropriate time window between notification to the NRC and the use in risk-informed programs
 - Define how and when the NRC is expected to respond to the notification, including what no response by the NRC implies
 - NEI proposed a 30 day negative NRC consent process which implies that no response is acceptance which is contrary to the similar 50.59 process
 - Establish process for reviewing peer review findings outside of licensing process
 - Establish process for NRC/Licensee interaction if NRC identifies a technical concern
 - This would include an oversight process for when NRC finds a new method unacceptable for use
 - Define content of notification

³ The NEI slides are available under ADAMS Accession No. ML18023A097.

- information on PRA upgrade and peer review results needed for NRC evaluation, including description of any new-to-the-industry methods, if applicable
- What criteria beyond “scope of upgrade” should be provided in notification
 - Who is the addressee for licensee notification (e.g. Regions or Headquarters?)
 - Where would a repository for acceptability of methods be documented

No regulatory decisions were made and both the NRC staff and the NEI indicated that they would consider the items discussed in the meeting. It was agreed that another meeting was needed to continue discussion of this topic.

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 in the meeting.

Enclosure:
List of Attendees

Sign In Sheet

DATE: Jan 24, 2018

Public Meeting With NEI to Discuss PRA Change Control Process

Name	Organization
Shannon Pafferty-Gincik	Exelon
JEFF STONE	"
Victoria Anderson	NEI
Victoria Warren	Jensen Hughes
Brian Mann	TSTF
Michaela Bino	NRC/NRR/DRA
Daniel Frankin	NRC/NRR/DRA
Sara Lyons	NRC/NRR/DRA
STEVEN ARNDT	NRC/NRR/DE
GREG CISTO	NRC/NRR/DOEL
JAY ROBINSON	NRC/NRR/DRA
Stacey Rosenberg	NRC/NRR/DRA
Jonathan Evans	NRC/NRR/DRA
PAZIEUVE DEIVETZ	NRC/NRR/DRA
VIA PHONE	
CHRISTOPHER RIEDL	TVA
GLENN STEWART	EXELON
TIM SANDE	ENERCON
BRAD DOLAN	TVA
STANLEY LEVINSON	FRAMATOME
ALLEN MOLDENHAUER	DOMINION
MIKE SCHOPPMAN	CERTREC

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Sign In Sheet

DATE: Jan 24, 2018

Public Meeting With NEI to Discuss PRA Change Control Process

Name	Organization
ED MILLER	NRC/NRR/DORL
Jonathan Evans	NRC/NRR/DRA
Kevin Coyne	NRC/RES/DRA
Emyle TurSKI	NRC/RES/DRA FOREIGN ASSIGNEE
Blaqa Sumll	DORL
Leslie Fields	DRA
Michelle Homchanik	DSS/STSB
GREG KRUEGER	NEI
SCOT GROENBERG	EXECON
Ray Lindhien	PURCOG
ANDREW HOWE	EPM, INC.
Stephen Geier	NEI
Mehdi ReisiFard	NRC/NRR/DRA
Jana Bergman	CURTISS-WRIGHT

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SUBJECT: SUMMARY OF JANUARY 24, 2018, PUBLIC MEETING WITH NUCLEAR ENERGY INSTITUTE REGARDING PROBABILISTIC RISK ASSESSMENT CHANGE CONTROL PROCESS DATED MARCH 15, 2018

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ADAMS Accession No.: ML18033A769***via e-mail**

OFFICE	NRR/DORL/LSPB/PM	NRR/DORL/LSPB/LA	NRR/DRA/APLA/BC
NAME	GEMiller	JBurkhardt	SRosenberg
DATE	02/22/2018	02/20/2018	02/20/2018
OFFICE	NRR/DORL/LSPB/BC	NRR/DORL/LSPB/PM	
NAME	DBroaddus	GEMiller	
DATE	03/09/2018	03/15/2018	

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