

August 23, 2018

MEMORANDUM TO: Bo M. Pham, Chief
ROP Support and Generic Communications Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Tekia V. Govan, Project Manager */ra/*
ROP Support and Generic Communications Branch
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SUBJECT: SUMMARY OF A CATEGORY 2 PUBLIC MEETING HELD WITH THE
NUCLEAR ENERGY INSTITUTE TO PROVIDE AN OPPORTUNITY TO
DISCUSS THE STATUS OF THE NRC STAFF'S REVIEW OF THE
DRAFT NEI 96-07, APPENDIX D

On June 26, 2018, the U.S. Nuclear Regulatory Commission (NRC) staff held a Category 2 public meeting with the Nuclear Energy Institute (NEI) in Rockville, Maryland. The purpose of the meeting was to discuss the status of the draft NEI 96-07, Appendix D, "Supplemental Guidance for Application of 10 CFR 50.59 to Digital Modifications," which is being developed to assist licensees in the performance of 10 CFR 50.59 reviews for activities involving digital modifications. This meeting provided an opportunity for NRC staff and NEI to discuss the current draft NEI 96-07, Appendix D.

Background

On April 4, 2016, NEI requested the NRC staff's comments on NEI 96-07, Appendix D, Revision 0 prior to formal submittal for endorsement (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16126A197). The NRC staff reviewed and provided comments on several draft revisions of NEI 96-07, Appendix D as discussed in Category 2 public meetings from April 2017 through November 2017. In December 2017, NEI and the NRC staff mutually agreed to place the review of NEI 96-07, Appendix D on hold in order to dedicate resources to the issuance of Regulatory Issue Summary (RIS) 2002-22, Supplement 1, "Clarification on Endorsement of Nuclear Energy Institute Guidance in Designing Digital Upgrades in Instrumentation and Controls Systems" (ADAMS Accession No. ML18143B633). The NRC staff halted their review of NEI 96-07, Appendix D with two versions of the document. The first version of NEI 96-07, Appendix D, contained all sections of the appendix with the exception of section 4.3.6 (ADAMS Accession No. ML18176A178), while the second version of NEI 96-07, Appendix D, only contained section 4.3.6, "Malfunctions of a SSC Important to Safety with Different Result" (ADAMS Accession No. ML17311B088).

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With the issuance of RIS 2002-22, Supplement 1, the NRC staff is now focused on providing comments to NEI that will facilitate the submittal of NEI 96-07, Appendix D for NRC endorsement.

Meeting Summary

The NRC made brief opening remarks, and introductions were made by all in attendance. The NRC staff presented on the following topics for discussion:

Topic 1: Request for NRC review of draft NEI 96-07, Appendix D

On April 4, 2016, NEI requested NRC's comments on NEI 96-07, Appendix D, Revision 0, prior to the formal submittal for NRC endorsement (ADAMS Accession Number ML16126A197). The NRC staff noted in this meeting that at the completion of the NRC staff's review of NEI 96-07, Appendix D, the NRC endorsement will be documented by a revision to Regulatory Guide (RG) 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests and Experiments." The NRC staff also noted that the development of the regulatory guide endorsing NEI 96-07, Appendix D does not preclude licensees from using the guidance prior to NRC endorsement.

Topic 2: Consolidation of 10 CFR 50.59 Guidance for Digital I&C Modifications

The NRC staff discussed with NEI the need to consolidate 10 CFR 50.59 guidance for digital I&C modifications into NEI 96-07, Appendix D. NEI 01-01, "Guideline on Licensing Digital Upgrades: EPRI TR-102348," provides guidance for designing, licensing, and implementing digital upgrades and replacements to I&C systems in a consistent and comprehensive manner. Regulatory Issue Summary 2002-22, Supplement 1, provides licensees with clarification guidance to prepare and document qualitative assessments that can be used to evaluate the likelihood of failure for a proposed digital modification. The NRC staff explained that the development of NEI 96-07, Appendix D should be structured to incorporate the guidance from NEI 01-01, and the qualitative assessment approach from RIS 2002-22, Supplement 1. This would result in NEI 96-07, Appendix D becoming the location for permanent guidance for 10 CFR 50.59 digital I&C modifications.

Topic 3: NEI 96-07 Appendix D Context

The NRC staff identified that the current version of NEI 96-07, Appendix D has several instances of inconsistencies with the NEI 96-07, base document, as well as other NRC-endorsed guidance. These inconsistencies include, but are not limited to, the use of technical terms, such as dependability and reliability. It was also noted that the current version of NEI 96-07, Appendix D provided unnecessary duplication of guidance that could simply be referenced.

Prior to NEI and the NRC staff mutually agreeing to place the review of NEI 96-07, Appendix D on hold, the NRC staff had two versions of NEI 96-07, Appendix D. One version of the document contained all sections except section 4.3.6, while section 4.3.6 was reviewed as a separate file. The NRC requested that NEI provide a complete file, which contained all sections, in order for the NRC staff to continue their review. The consolidation of these two files should also include the incorporation of the qualitative assessment approach, as described in RIS 2002-22, Supplement 1.

Topic 4: Topics with Applicability not Limited to Digital I&C

The latest version of NEI 96-07, Appendix D, section 4.3.6, was submitted in December 2017, prior to the decision to put a hold on the review. The NRC staff noted that the latest version of NEI 96-07, Appendix D, section 4.3.6, will need to be reviewed and comments will be documented to address any concerns. However, the NRC staff informed NEI during the meeting that “different result” discussions are not unique to digital I&C. The staff recommended that the resolution of “different results” concerns be handled outside of Appendix D, and offered Regulatory Guide 1.187 and/or NEI 96-07 as appropriate documents to address this issue, if needed.

Consistent with the recommended path forward for NEI 96-07, Appendix D, section 4.3.6, the NRC staff informed NEI that it is recommended to address screening issues related to human-machine interface by revision to RG 1.187 rather than in the Appendix D document. The staff explained that human-machine interface issues are not unique to digital I&C and should be addressed in the broader context of the RG 1.187. The staff indicated that choosing to address this item in the associated RG could be a simple change to reflect that screening issues related to human-machine interface do not always require evaluation as currently stated in NEI 96-07.

The NRC staff informed NEI that the embedded examples in NEI 96-07, Appendix D need comprehensive review by the staff. One example noted during the meeting was that the examples that use main feedwater, do not recognize that auxiliary feedwater provides safety-related diversity for this system, although the examples state that there is no diversity. The staff will need to take a closer look at each example once a revised version of NEI 96-07, Appendix D is submitted.

Meeting Conclusion

The NRC staff provided this preliminary feedback to NEI as a starting point for continuing the review of NEI 96-07, Appendix D. These topics represent items that need to be addressed in order to finalize the NEI 96-07, Appendix D guidance as a useful tool for the nuclear industry and submittal for NRC endorsement.

The slide presentation for this meeting can be found in ADAMS at Accession No. ML18233A620. The meeting agenda (Enclosure 1) and list of attendees (Enclosure 2) are enclosed. The meeting ended with an action item for NEI to provide a new version of NEI 96-07, Appendix D for NRC staff review. This new version, revision 0f, would include a consolidated version of Appendix D that includes the separated Section 4.3.6 and incorporation of the qualitative assessment approach as documented in RIS 2002-22, Supplement 1. The Nuclear Energy Institute committed to providing NRC staff with a revised version of NEI 96-07, Appendix D by July 6, 2018. Thereafter, the NRC staff expects to have several public interactions with NEI to discuss comments that will be provided on NEI 96-07, Appendix D.

The NRC staff made no decisions or took any agency positions during this meeting.

Enclosure:

1. Meeting Agenda
2. List of Attendees

SUMMARY OF A CATEGORY 2 PUBLIC MEETING HELD WITH THE NUCLEAR ENERGY INSTITUTE TO PROVIDE AN OPPORTUNITY TO DISCUSS THE STATUS OF THE NRC STAFF'S REVIEW OF THE DRAFT NEI 96-07, APPENDIX D, Date: August 23, 2018

ADAMS ACCESSION NO.: ML18234A534

OFFICE	NRR/DIRS/IRGB/PM	NRR/DIRS/IRGB/LA	NRR/DIRS/IRGB/BC	NRR/DIRS/IRGB/PM
NAME	TGovan	ELee	BPHam	TGovan
DATE	08/23/2018	08/23/2018	08/23/2018	08/23/2018

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PUBLIC MEETING AGENDA

Proposed Draft – NEI 96-07, Appendix D

June 26, 2018, 12:30 PM to 04:00 PM

**NRC One White Flint North, O12-B04
11555 Rockville Pike
Rockville, MD**

<u>Time</u>	<u>Topic</u>	<u>Lead</u>
12:30 p.m.	Meeting Introductions and Opening Remarks	NRC Staff
12:45 p.m.	Topic 1 - Request for NRC Review <ul style="list-style-type: none">- NEI request for agency endorsement- Endorsement via revision to Regulatory Guide 1.187	NRC Staff
1:15 p.m.	Topic 2 - Consolidation of 10 CFR 50.59 Guidance for Digital I&C Modifications <ul style="list-style-type: none">- NEI 96-07- Regulatory Guide 1.187- NEI 01-01- Regulatory Issue Summary 2002-22, Supplement 1	NRC Staff
2:00 p.m.	Break	
2:15 p.m.	Topic 3 - Draft Appendix D Content Discussion <ul style="list-style-type: none">- Eliminate inconsistencies with other guidance- Minimize duplication of other guidance	NRC Staff
2:45 p.m.	Topic 4 - Topics with Applicability not Limited to Digital I&C <ul style="list-style-type: none">- Section 4.3.6 - Malfunction of an SSC Important to Safety with a Different Result- Screening Issues Related to Human Machine Interface- Content of and Types of Examples	NRC Staff
3:30 p.m.	Next Steps and Schedule	NEI
3:40 p.m.	Opportunity for public comments/questions for the NRC staff	Members of the Public
3:55 p.m.	Closing Remarks	
4:00 p.m.	Meeting Adjourned	

LIST OF ATTENDEES

Proposed Draft – NEI 96-07, Appendix D

June 26, 2018, 12:30 PM to 04:00 PM

**NRC One White Flint North, O12-B04
11555 Rockville Pike
Rockville, MD**

<u>Name</u>	<u>Organization</u>
1. Jana Bergman	Curtiss-Wright
2. Brian Thomas	NRC
3. Mark Miller	NRC
4. Mike King	NRC
5. Harold Chernoff	NRC
6. Neil Archambo	Duke Energy
7. Jerud Hanson	NEI
8. Kati Austgen	NEI
9. Steven Arndt	NRC
10. Laura Dudes	NRC
11. Ronaldo Jenkins	NRC
12. Dave Beaulieu	NRC
13. Wendell Morton	NRC
14. Tekia Govan	NRC
15. Rossnyev Alvarado	NRC
16. Norbert Carte	NRC
17. Jason Remer	NEI
18. Eric Benner	NRC

Participated via conference line and webinar

19. Rob Berg	EPM, Inc.
20. Gordon Cleifton	Member of the public
21. Jeff Connors	Xe Nuclear
22. Wesley Frewin	FPL
23. Robert Fuld	Westinghouse
24. Ismael Garcia	NRC
25. Rick Garcia	Energy Northwest
26. Bruce Gddes	Southern Engineering
27. Joe Holonich	NRC
28. Bryan Ford	Entergy
29. Erick Martinez-Rodriguez	NRC
30. Warren Odess-Gillett	Westinghouse
31. Ty Rogers	GE
32. Micahel Schoppman	Certrec
33. John Schrage	Entergy
34. Sarah Scott	Xe Nuclear
35. Matthew Shakun	Westinghouse
36. Seenu Srinivasan	Westinghouse
37. Brian Thomas	PSEG
38. Mark Walker	STPEGS