



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

December 22, 2017

MEMORANDUM TO: Dennis C. Morey, Chief  
Licensing Processes Branch  
Division of Licensing Projects  
Office of Nuclear Reactor Regulation

FROM: Joseph J. Holonich, Senior Project Manager /*RA Leslie Perkins Acting For*/  
Licensing Processes Branch  
Division of Licensing Projects  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF NOVEMBER 29, 2017, MEETING TO DISCUSS STAFF  
COMMENTS ON NEI 16-16 [DRAFT 2]

On November 29, 2017, U.S. Nuclear Regulatory Commission (NRC) staff met with representatives from the Nuclear Energy Institute (NEI). The purpose of the meeting was to discuss staff comments on NEI 16-16 [Draft 2], "Guidance for Addressing Digital Common Cause Failure." All information related to the meeting and discussed in this summary can be found in the Agencywide Documents Access and Management System (ADAMS) package accession number ML17310A088.

The NRC staff provided information on the status of activities related to NEI 16-16 and on the schedule for future work. A copy of the NRC staff presentation can be found in the referenced ADAMS package.

Overall, the meeting focused on discussions related to the 24 NRC staff comments on NEI 16-16 [Draft 2] that are still unresolved. The discussions provided clarifications and details on what the basis was for the NRC staff comment and how NEI could address the comment in the next revision to NEI 16-16. The enclosure to this summary provides information on those comments where significant discussions happened or where there was an action. Not all comments needed to be documented in the enclosure so the number of comments are less than the 24 discussed during the meeting.

In addition to the actions outlined in the enclosure, there were two actions from the meeting not tied to a particular comment. The actions were:

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- 1) NEI will provide a response to the comment document but would need to look at whether it could support submitting the next draft of NEI 16-16 by February 2018.
- 2) A public meeting will be scheduled on NEI 16-16, Appendix A after February 2018.

Docket No. 99902028

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COMMENTS ON NEI 16-16 [DRAFT 2] DATED: DECEMBER 22, 2017

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EXTERNAL DISTRIBUTION:

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**ADAMS Accession Nos.: Package (ML17310A088); Summary (ML17331A451);**

**\* via e-mail**

**NRC-001**

| OFFICE | NRR/DLP/PLPB/PM*            | RES/DE/ICEEB* | NRR/DE/EICB/BC | NRR/DLP/PLPB/PM         |
|--------|-----------------------------|---------------|----------------|-------------------------|
| NAME   | JHolonich                   | RJenkins      | MWaters        | (JRowley for)<br>DMorey |
| DATE   | 12/8/2017                   | 12/11/2017    | 12/21/2017     | 12/22/2017              |
| OFFICE | NRR/DLP/PLPB/PM             |               |                |                         |
| NAME   | (LPerkins for)<br>JHolonich |               |                |                         |
| DATE   | 12/22/2017                  |               |                |                         |

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| Nuclear Regulatory Commission Staff Comments, Discussions, and Actions |   |  |
|--|---|--|
| Comment No. <sup>1</sup>   | Discussion  | Action   |
| 1  | There is alignment on the basic definition of Common Cause Failure based on incorporation of input from the Institute of Electrical and Electronics Engineers standard.   |  |
| 2  | This comment is tied to NEI 96-07, Appendix D, Section 4.3.6  | The Nuclear Energy Institute (NEI) will look at aligning NEI 16-16 and NEI 96-07, Appendix D, Section 4.3.6 and discuss at the November 30, 2017, meeting. |
| 3  | There is a question on how a problem is covered with something that is not frequently used.<br><br>Safety Systems are tested periodically. If a problem is found it is entered into the corrective action program. Also, limiting conditions for operation require actions.               |  |
| 5  | Completed   |  |
| 8 and 10   | These topics are more focused on licensing action requests. NEI better understands the NRC staff position and recognizes the need for greater alignment with NEI 96-07, Appendix D  | NEI will develop a position to better align the topics in Comments 8 and 10  |
| 14   | In response to the Nuclear Regulatory Commission (NRC) staff question about handoff between documents, NEI stated that there is a handoff discussion between NEI 16-16 and NEI 96-07, Appendix D<br><br>NEI clarified that there were no specifics for handoff between detailed sections. |  |

<sup>1</sup> Details on the comments can be found in ML17332A283 which can be accessed directly or through Package ML17310A088.

| Nuclear Regulatory Commission Staff Comments, Discussions, and Actions |   |  |
|--|---|--|
| Comment No.  | Discussion  | Action   |
| 21   | NEI should look at using the term malfunction. NEI stated malfunction has a specific definition in 10 CFR 50.59.  | NEI will look at using the term malfunction and information from the November 30, 2017, meeting on NEI 96-07, Appendix D Section 4.3.6 to further discuss the term at the December 13, 2017, meeting on NEI 16-16. |
| 23   | The term “preferred malfunction state” is a counterintuitive term.  | NEI will look at the term preferred malfunction state and the term safe state in the Regulatory Issue Summary 2017-XX  |
| 26   |   | NEI will add clarification to Section 3.4  |
| 27   | NRC staff asked what was done once the evaluation results were completed. NRC staff explained it was trying to understand what the output product looked like and wanted to better understand it. | NEI will add more detail on how the evaluation feeds into a Code of Federal Regulation, Title 10, Section 50.59 analysis   |
| 29   |   | NEI will present examples at a future meeting, other than the December 13, 2017, meeting.  |
| 38   |   | This comment will be revisited after the November 30, 2017, meeting on NEI 96-07, Appendix D, Section 4.3.6  |
| 39   | NEI understands the comment and believes it is clarified in NEI 16-16, Section 4.2.1 which already points to Section 4.2.2.<br><br>It is not crystal clear on what is done with the results.      | NEI will look at clarifying the discussions related to this comment  |
| 41   |   | NEI will review the flowchart to make sure it accurately reflects the process  |
| 43   | The title is misleading as compared to the simple five-step process outlined in the section.  | NEI will look at revising the title.   |
| 46   | A lead paragraph is needed that reviews the principles.   | NEI will look at adding a lead paragraph.<br>NRC staff will look at the comment and determine if changes are needed or if the comment remains.   |

| Nuclear Regulatory Commission Staff Comments, Discussions, and Actions |  |   |
|--|--|---|
| Comment No.  | Discussion   | Action  |
| 48   |  | NEI will look at Section 4.2.2.4 and Appendix B and develop a better lead into what they are intended to do   |
| 49   | <p>There is a question of how do you do best-estimate analysis. Industry knows how to do a conservative analysis but there can be variations among best-estimate analysis.</p> <p>There is also a question of whether a best-estimate analysis can be used in a 10 CFR 50.59 analysis.</p> | <p>NEI will get internal alignment and discuss this at a future meeting.</p> <p>NRC staff will coordinate with the Office of New Reactors to help identify any guidance that could be applicable.</p> |