

March 7, 2016

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

FROM: Michael L. Marshall, Jr., Senior Project Manager /RA/
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF FEBRUARY 23, 2016, PUBLIC WEBINAR WITH THE
NUCLEAR ENERGY INSTITUTE TO DISCUSS FLOODING
MITIGATION STRATEGIES ASSESSMENT TEMPLATE

On February 23, 2016, the U.S. Nuclear Regulatory Commission (NRC) staff met with representatives of the Nuclear Energy Institute (NEI) in a public webinar to discuss the flooding mitigation strategies assessment (MSA) template developed by NEI. The meeting notice and agenda, dated February 12, 2016, are available in the Agencywide Documents Access and Management System (ADAMS) Accession No. ML16054A091. Copies of revision 2 of NEI's flooding MSA template, NRC Staff's feedback on revision 2, and revision 3 of NEI's flooding MSA template can be found in ADAMS under Accession Nos. ML16053A407, ML16053A447, and ML16054A678, respectively. A list of attendees is provided in the enclosure to this letter.

On March 12, 2012, the NRC issued letters to power reactor licensees pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," Section 50.54(f), which requested that licensees reevaluate the flooding hazards at their sites using updated hazard information and current regulatory guidance and methodologies. Concurrent with the reevaluation of flood hazards, licensees were required to develop and implement mitigating strategies using the most recent external hazard information in accordance with NRC Order EA-12-049, "Issuance of Order to Modify Licenses With Regard to Requirements for Mitigation Strategies for Beyond- Design-Basis External Events" (ADAMS Accession No. ML12054A735). The NRC staff and industry had long recognized the difficulty in developing and implementing mitigating strategies before completing the reevaluation of flood hazards. The staff described these issues and provided recommendations to the Commission on how best to integrate these related activities in COMSECY-14-0037, "Integration of Mitigating Strategies for Beyond-Design-Basis External Events and the Reevaluation of Flooding Hazards," dated November 21, 2014 (ADAMS Accession No. ML14309A256).

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The Commission issued a Staff Requirements Memorandum on March 30, 2015 (ADAMS Accession No. ML15089A236), affirming that the Commission expected licensees for operating nuclear power plants to address the reevaluated flooding hazards within their mitigating strategies for beyond-design-basis external events. It is expected that licensees will complete their MSA and provide a submittal to the NRC in late 2016 (ADAMS Accession No. ML15174A257).

The purpose of the webinar was to discuss the flooding MSA [submittal] template developed by the NEI, including disposition of NRC staff's feedback on the draft template. This webinar was the second of two public webinars to discuss NRC staff's feedback on NEI's flooding MSA template. A summary of the first meeting is available in the ADAMS under Accession No. ML16057A120. The NEI did not request NRC staff endorsement of the flooding MSA template, but the template was provided to the NRC staff to obtain NRC staff's feedback on the flooding MSA template. There were three topics discussed during the meeting:

1. Flooding MSA template and NRC staff feedback on the template.
2. Flooding MSA template examples and NRC staff feedback on the template examples.
3. Broad overview of NRC's plans for reviewing MSA submittals.

During the meeting, the representatives from NEI described the changes in the template and how the changes were intended to address NRC staff feedback. The discussion focused mainly on the NRC staff's feedback from the previous webinar or NRC staff feedback that was provided to NEI on February 19, 2016 (ADAMS Accession No. ML16053A447), which the NEI is still considering. At the conclusion of the discussion on the flooding MSA template, the NRC staff stated that they did not have any additional, substantive feedback on second or third revision of the template.

Prior to the meeting, NEI provided several template examples (ADAMS Accession Nos. ML16053A435, ML16053A422, ML16053A407, and ML16053A341, respectively) to the NRC that were based on the different methods described in Appendix G "Mitigating Strategies for New Flood Hazard Information" of NEI 12-06, Rev 2, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide" (ADAMS Accession No. ML16005A625). During the meeting, the NRC staff informed the NEI representatives that it was unclear to the staff whether the examples were intended to illustrate the implementation of the template or to fully represent a submittal that would be provided to the NRC. If the examples were intended to represent a submittal, they lacked sufficient detail or specificity, in a number of instances. The NEI representatives clarified that some of the examples were illustrative and not intended to be fully representative of a submittal, and some of the examples were more representative of an actual submittal. The NEI representatives stated that it would be appropriate to add "reviewer's notes" to the examples, where necessary, to indicate that additional detail would be necessary in a submittal. In response, the NRC staff stated that the approach of addressing the level of detail via "reviewer's notes" seems reasonable.

For flooding MSA submittals that included changes in mitigation strategies from the ones reviewed under NRC Order EA-12-049, the NRC staff informed NEI representatives that the staff would expect the level of detail concerning any changes in mitigation strategies to a comparable level of detail in final integrate plans. For associated effects and flood event duration information that were not provided or reviewed during the reevaluated flood hazard,

the NRC staff informed the NEI representatives that the staff would expect level of detail comparable level of detail included in flood hazard reevaluation reports

The NRC staff provided an overview of the staff's initial plans for reviewing MSA submittals. The type of review and NRC staff involved in the review will vary depending on the method that licensees select from Appendix G. If there are no changes to the mitigation strategies that the NRC staff reviewed under NRC Order EA-12-049 and all aspects of the reevaluated flood were addressed and reviewed under the 50.54(f) letter, the review will only be confirmatory. If a substantive review is needed, the two technical branches responsible for the reviews under NRC Order EA-12-049 will review any changes to the mitigation strategies, and the two technical branches responsible for flooding reviews under the 50.54(f) letter will review associated effects and flood event duration that were not addressed as part of those reviews.

No action items were identified during the meeting for either the NEI representatives or NRC staff. No regulatory decisions were made during the meeting.

Several individuals from other industry organizations participated on the webinar. There were no members of the public in attendance. During the public discussion portion of the webinar, no comments or questions were provided to the NRC staff. Public meeting feedback forms were available via a webinar survey and completed by several participants.

Enclosure:
List of Attendees

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ADAMS Accession Nos.: Package: ML16057A137 Summary: ML16057A120; Notice: ML16026A354

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|---------------|-----------------|-----------------|-----------------|-----------------|
| OFFICE | NRR/JLD/JHMB/PM | NRR/JLD/JHMB/LA | NRR/JLD/JHMB/BC | NRR/JLD/JHMB/PM |
| NAME | MMarshall | SLent | MShams | MMarshall |
| DATE | 03/01/2016 | 03/01/2016 | 03/01/2016 | 03/07/2016 |

OFFICIAL RECORD COPY

List of Attendees

**Public Webinar with NEI to Discuss Flooding MSA Documentation Template
February 23, 2016**

| <u>Name</u> | <u>Organization</u> |
|--------------------|--|
| Bailey, Stewart | U.S. Nuclear Regulatory Commission (NRC) |
| Bamford, Peter | NRC |
| Bensi, Shelby | NRC |
| Bergman, Jana | Curtiss-Wright Nuclear Division |
| Bentley, Don | Entergy Nuclear Operation |
| Conly, John | Certrec Corp. |
| Cook, Christopher | NRC |
| Gasper, Joseph | Omaha Public Power District |
| Geiger, Charlotte | PSEG |
| Giddens, John | Southern Nuclear |
| Hope, Frank | Jensen Hughes |
| Hubbard, Dean | Duke |
| Knezevich, John | Knezevich Consulting, LLC |
| Kovarik, Brenda | American Electric Power |
| Krystek, Brian | Enterprise Project Management, Inc. |
| Launi, Mike | Sargent & Lundy |
| Lyter, Jay | Exelon |
| Marshall, Michael | NRC |
| Maze, Scott | Utility |
| Moenssens, Mark | Westinghouse |
| Powell, Michael | Arizona Public Service Company |
| Quichocho, Jessie | NRC |
| Reckley, William | NRC |
| Riley, Jim | Nuclear Energy Institute |
| Rogalski, Richard | Columbia Generating Station |
| Shams, Mohamed | NRC |
| Spink, Thomas | Tennessee Valley Authority |
| Vines, Dale | Tobolski Watkins Engineering |
| Wuokko, Dale | Toshiba |

Enclosure