December 15, 2014

MEMORANDUM TO: John A. Nakoski, Chief
Performance and Reliability Branch
Division of Risk Analysis
Office of Regulatory Research

FROM: Mary Drouin, Senior Program Manager */RA/*
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SUBJECT: MEETING BETWEEN THE NUCLEAR REGULATORY COMMISSION STAFF AND STAKEHOLDERS CONCERNING NRC ENDORSEMENT OF ASME/ANS TRIAL USE PRA STANDARDS AND EVALUATION CRITERIA FOR MULTI-MODULE RISK

On June 26, 2014, the, Nuclear Regulatory Commission (NRC) staff met with representatives from the ASME/American Nuclear Society (ANS) Joint Committee on Nuclear Risk Management (JCNRM), the Nuclear Energy Institute (NEI), utility groups, and other stakeholders at NRC headquarters on the NRC endorsement of ASME/ANS trial use of probabilistic risk assessment (PRA) standards and evaluation criteria for multi-module risk. A public meeting notice was posted on the agency's external (public) web page on June 6, 2014, and a Federal Register Notice (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14155A301) was issued on June 18, 2014. The notice included the meeting agenda and links to both the NRC's and industry's slide presentation, which were also available as a handout at the meeting. A white paper entitled, "Multi-Module Risk: NRC Draft Technical Guidance," (ADAMS ML14150A330) was also available to the public before the meeting.

NRC Endorsement of ASME/ANS Trial Use PRA Standards

The ASME/ANS JCNRM plans to publish four PRA standards for trial use at the end of this calendar year or the beginning of 2015: (1) Low Power Shutdown PRA Standard, (2) Level 2 PRA Standard, (3) Level 3 PRA Standard, and (4) Advanced Light Water Reactor (ALWR) PRA standard. At this public meeting, the NRC discussed with interested stakeholders options for the NRC endorsement of these standards.

After introductions and a brief opening statement from the NRC, Rick Grantom presented personal opinions from some members the Executive Committee of the ASME/ANS JCNRM, prefacing that the presentation was the position of the Committee Chairs. The comments were

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concerning the need for caution in applying trial use PRA standards in regulatory applications. The history of the organization's prior application of trial use standards was explained along with the justification for the need to allow for the trial use of a standard to permit feedback and modification before final issue of a standard and agency endorsement. These slides are available at ADAMS Accession No. ML14176A461.

The staff presented the history of past PRA standard development, including the relationship of RG 1.200 to regulatory activities. Both the schedule for the issuance of the ASME/ANS future trial use standards and final standards, and the associated Agency's issuance of revisions to RG 1.200 were presented during the meeting. NRC official endorsement would occur after the publication of the ASME/ANS standards as formal ANSI standards. Endorsement would be made through revisions to RG 1.200. The formal publication of the standard would occur after a 3-year trial use period and completion of the subsequent standard consensus development process. The revision to RG 1.200 (and therefore the NRC endorsement of the standard) would then proceed following established NRC procedures that provide for a period of public comment. The slides used during this presentation, as well as those for the multi-module risk discussion, can be found at ADAMS Accession No. ML14176A421.

Evaluation Criteria for Multi-Module Risk

The staff presented the reasons that NRC is evaluating multi-module risk, the process staff used to develop the proposed multi-module risk evaluation criteria, and the staff's proposed evaluation criteria for multi-module risk. The slides for this presentation can be found at ADAMS Accession No. ML14176A421, as noted above.

Throughout the presentation, discussion was held on the process for determining the proposed criteria, as well as the criteria themselves. NuScale Power noted that it was not clear on the distinction between multi-unit and multi-module plants. They also noted that it would be helpful to have clarification on NRC's "threshold of expectation" for meeting the criteria. NuScale Power also commented that it has been difficult to evaluate multi-module common cause failure. The staff assured NuScale Power that a qualitative assessment would meet the staff's expectations for evaluating all aspects of multi-module risk, as indicated in the presentation. The staff does not, however, discourage the use of quantitative analysis. Additionally, the staff noted that existing design features and operational strategies (such as the FLEX philosophy) could be used to justify that multi-module accidents are not significant contributors to risk. The staff also recognized that very low core damage frequencies might have nontraditional definitions of significance.

Discussion was held on the planned schedule for issuance of the proposed evaluation criteria for multi-module risk for public review and comment. NuScale Power and the NEI noted that a thirty-day comment period might be too short; however, they would be able to meet a tentative date of September 30, 2014 for close of public comments.

Enclosure:
List of Meeting Attendee

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NAME	M. Drouin	S. Schroer	L. Mrowca via email	J. Nakoski
DATE	12/15/14	12/2/14	12/10/14	12/12/14

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