

May 1, 2006

MEMORANDUM TO: James E. Lyons, Director
Division of Risk Assessment
Office of Nuclear Reactor Regulation

THRU: Mark P. Rubin, Chief /RA/
Probabilistic Risk Assessment Licensing Branch A
Division of Risk Assessment
Office of Nuclear Reactor Regulation

FROM: Donald G. Harrison /RA/
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SUBJECT: SUMMARY OF APRIL 19, 2006, PUBLIC MEETING ON REVISIONS TO REGULATORY GUIDE 1.201, "GUIDELINES FOR CATEGORIZING STRUCTURES, SYSTEMS, AND COMPONENTS IN NUCLEAR POWER PLANTS ACCORDING TO THEIR SAFETY SIGNIFICANCE"

On April 19, 2006, the Office of Nuclear Reactor Regulation held a public meeting at the U.S. Nuclear Regulatory Commission (NRC) Headquarters to discuss the proposed revisions to Regulatory Guide (RG) 1.201, "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to Their Safety Significance." These revisions were initiated in response to a letter (ADAMS Accession # ML060900050) from the Nuclear Energy Institute (NEI) regarding the potential for misunderstanding the staff's regulatory positions presented in the original issuance of RG 1.201 in January 2006. The public meeting notice (ADAMS Accession # ML060820413) included a reference to the latest draft of Revision 1 to RG 1.201 (ADAMS Accession # ML060880468) so stakeholders could review the proposed revisions and be prepared to discuss the revisions at the public meeting. Those in attendance at the public meeting (or via telephone bridge line) are identified in Enclosure 1.

The meeting followed the agenda that was included with the public meeting notice, with the NRC and NEI discussions focused on the RG 1.201 endorsement, with clarifications, of NEI 00-04, "[Title 10 of the Code of Federal Regulations Part 50.69] 10 CFR 50.69 [structures systems and components] SSC Categorization Guideline," in satisfying the categorization requirements of 10 CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors." Those in attendance were generally favorable towards the staff's proposed revisions and the meeting primarily focused on those areas of the RG 1.201 revision in which stakeholders continued to have concerns with how the

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staff regulatory position could be misunderstood, primarily the staff's regulatory positions associated with Sections 8.0, 11.1, and 12.1 of NEI 00-04. As a result of these discussions, a better understanding of the intent of the NEI 00-04 guidance was gained by the staff, which lead to some additional modifications to these specific staff regulatory positions, including the deletion of the staff regulatory position on Section 11.1, as provided in Enclosure 2.

During the meeting, the staff noted that 10 CFR 50.69 allows significant flexibility in the implementation of the high-level treatment requirements for safety-related SSCs that are categorized as low safety significant (RISC-3 SSCs) to ensure, with reasonable confidence, that those SSCs remain capable of performing their safety-related functions under design-basis conditions. NEI stated that licensees and applicants will likely follow commercial industrial practices for the treatment of RISC-3 SSCs. The staff indicated that many years of nuclear power plant operating experience have revealed that some commercial industrial practices are not sufficiently effective for the treatment of RISC-3 SSCs at nuclear power plants in providing reasonable confidence in their capability to perform specific safety-related functions. NEI agreed and reported that the Electric Power Research Institute had recently prepared specific treatment guidance for the seismic and environmental qualification of RISC-3 SSCs. NEI stated that additional general industry guidance for the treatment of RISC-3 SSCs is being finalized. NEI offered to provide the industry guidance on the treatment of RISC-3 SSCs to the NRC staff for their information. The staff and NEI agreed to have additional discussions in the future on the subject of treatment practices under 10 CFR 50.69.

Enclosures:

1. Meeting Attendance
2. Proposed Revisions

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NAME	DHarrison	MRubin
DATE	05/01/06	05/01/06

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Meeting: Revisions to Regulatory Guide 1.201

Date: April 19, 2006

Attendees:

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Specific Changes to Current Draft of RG 1.201 Revision 1

Section 8

The risk sensitivity study addresses the ~~potential~~ impact of potential increases in the failure rates ~~on the unavailabilities~~ of all RISC-3 ~~the individual~~ SSCs resulting from the change in treatment. Section 8 of NEI 00-04 includes commentary on the ~~consideration~~ treatment of known degradation mechanisms and common cause interactions and failures in PRAs that includes the observation that intersystem common cause failures are not typically modeled because factors such as design diversity and different service environments ensure they are negligible contributors to risk. ~~The discussion regarding common cause failure and degradation mechanisms in this section should not be relied upon by the licensee or applicant in establishing their treatment process.~~ The NRC staff notes that because intersystem common cause failures ~~and known degradation mechanisms~~ are typically not included in PRA models and are therefore not addressed by the risk sensitivity study, ~~but rather are typically addressed by programmatic elements (e.g., erosion/corrosion program and motor-operated valve program with monitoring, feedback, and corrective action programs), the potential for their increased likelihood following changes in treatment cannot be addressed by the risk sensitivity study.~~ Therefore, the alternative treatment and feedback requirements, including corrective action provisions, of §50.69 and discussed in Section 12 of NEI 00-04 are relied upon by the licensee or applicant to ensure that any significant intersystem common cause failure mechanisms would be identified and corrected so that the assumptions underlying the categorization are not invalidated.

Section 11.4

~~—In addressing regulatory commitments associated with special treatment requirements listed in §50.69(b)(1) for RISC-3 SSCs, Revision 0 of NEI 00-04 specifies that licensees and applicants should ensure that any design-basis commitments for RISC-3 SSCs continue to be maintained. The NRC staff understands this guidance as applying to any commitments identified as explicitly addressing the design-basis functionality of RISC-3 SSCs (e.g., Generic Letter 96-05, “Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves,” September 18, 1996).~~

Section 12.1

The guidance in Section 12 of NEI 00-04 refers to the need to update the risk information and categorization process if the categorization results are “...more than minimally affected.” The NRC staff understands ~~this phrase as applying to the entire risk evaluation process (i.e., Sections 2 through 8 of NEI 00-04) and also understands~~ that being “more than minimally affected” would include a situation in which there is indication that an SSC that is categorized as low safety significant would be changed to safety-significant. The NRC staff also recognizes that the licensee or applicant may change the categorization and/or treatment aspects of SSCs so that there is reasonable confidence that the cumulative risk increase from implementing §50.69 is maintained acceptably small.