

February 11, 2004

MEMORANDUM TO: Catherine Haney, Program Director
Policy and Rulemaking Programs
Division of Regulatory Improvement Programs, NRR

FROM: Timothy A. Reed, Senior Reactor Systems Engineer */RA/*
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF FEBRUARY 5, 2004, MEETING WITH NUCLEAR
ENERGY INSTITUTE (NEI) AND OTHER STAKEHOLDERS ON THE
IMPLEMENTATION GUIDANCE FOR 10 CFR 50.69 (DG-1121 AND
NEI 00-04)

On February 5, 2004, Nuclear Regulatory Commission (NRC) staff met with representatives from Nuclear Energy Institute (NEI) and industry at the NRC's office in Rockville, Maryland. The meeting focused on the industry proposed 50.69 categorization guidance contained in draft Revision D of NEI 00-04 and the resolution of staff positions provided in draft regulatory guide DG-1121. A list of attendees is provided in Attachment 1.

The industry discussed draft Revision D of NEI 00-04 noting where it believed it has addressed the staff issues identified in the attachment to DG-1121. This was a constructive discussion that helped to clarify the remaining areas within NEI 00-04 where the staff may decide to either clarify, or take exception to, the NEI 00-04 guidance. Attachment 2 provides a summary the meeting discussion for each of these key areas in NEI 00-04. During the meeting, NEI referred to a table that provided a discussion of their resolution of the DG-1121 issues. The NEI table is located in ADAMS at ML040420512.

Attachments: As stated

MEMORANDUM TO: Catherine Haney, Program Director February 11, 2004
Policy and Rulemaking Programs
Division of Regulatory Improvement Programs, NRR

FROM: Timothy A. Reed, Senior Reactor Systems Engineer */RA/*
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF FEBRUARY 5, 2004, MEETING WITH NUCLEAR
ENERGY INSTITUTE (NEI) AND OTHER STAKEHOLDERS ON THE
IMPLEMENTATION GUIDANCE FOR 10 CFR 50.69 (DG-1121 AND
NEI 00-04)

On February 5, 2004, Nuclear Regulatory Commission (NRC) staff met with representatives from Nuclear Energy Institute (NEI) and industry at the NRC's office in Rockville, Maryland. The meeting focused on the industry proposed 50.69 categorization guidance contained in draft Revision D of NEI 00-04 and the resolution of staff positions provided in draft regulatory guide DG-1121. A list of attendees is provided in Attachment 1.

The industry discussed draft Revision D of NEI 00-04 noting where it believed it has addressed the staff issues identified in the attachment to DG-1121. This was a constructive discussion that helped to clarify the remaining areas within NEI 00-04 where the staff may decide to either clarify, or take exception to, the NEI 00-04 guidance. Attachment 2 provides a summary the meeting discussion for each of these key areas in NEI 00-04. During the meeting, NEI referred to a table that provided a discussion of their resolution of the DG-1121 issues. The NEI table is located in ADAMS at ML040420512.

Attachments: As stated

Distribution: ADAMS ACRS OGC EMcKenna MSnodderly
CHaney GMizuno,OGC TScarborough DFischer DHarrison GParry

ADAMS Accession No.: **ML040420138**

Document Name:

E:\Filenet\ML040420138.wpd

Office	RPRP	SC:RPRP
Name	TReed	EMcKenna
Date	2/11/04	2/11/04

OFFICIAL RECORD COPY

List of Attendees
2/5/04 Meeting on Implementing Guidance for 10 CFR 50.69

<u>Name</u>	<u>Organization</u>
Tim Reed	NRC/NRR/RPRP
Tony Pietrangelo	NEI
Biff Bradley	NEI
Thomas Scarbrough	NRC/NRR/DE
Nancy Chapman	SERCH Bechtel
Gareth Parry	NRC/NRR/DSSA
Donnie Harrison	NRC/NRR/DSSA
Gerald Sowers	PVNGS
Doug True	Erin Engineering
Glen Schinzel	STPNOC
Bob Lutz	Westinghouse
Thomas Hook	Dominion
David Fischer	NRC/NRR/DE
Dave Blanchard	Applied Reliability Engineering
Stanley Levinson	Framatome
Eric Jebson	BWROG
Deann Raleigh	Sciencetech
Bruce Mrowca	ISL
Don Dube	NRC/RES
Mike Knapik	McGraw-Hill
David Alford	WCNOC
John Fair	NRC/NRR/DE
Getachew Tesfaye	Constellation
Mike Snodderly	ACRS
Elliot Rosenfeld	NJ BNE
Christopher Jackson	NRC/OCM
Syed Ali	RES/DET/ERAB
Jim Chapman	Sciencetech
Stewart Magruder	NRC/NRR/DSSA
Cathy Haney	NRC/NRR/DRIP
Robin Graybeal	Inservice Engineering
Jason Brown	Westinghouse
Parviz Moieni	SCE
John Gaertner	EPRI

Discussion of NEI 00-04 Draft Revision D
with Regard to Addressing DG-1121 Issues

1. Regarding the quality attributes for external events PRA and non-PRA type analyses for application to 50.69 discussed in DG-1121¹ "A. Quality Attributes", NEI indicated that it is leaving this to the licensees to address.

2. Regarding the factor used in the risk sensitivity study (DG-1121 "B. Determination of Potential Risk Increase with Non-PRA Methods") and its linkage to the corrective action program, NEI indicated that it was the intent that this factor be based on what could be detected within the corrective action program and acknowledged that perhaps NEI 00-04 draft revision D did not describe this sufficiently. Currently this is discussed on page 51 of the guidance, and this discussion simply indicates that it would take a substantial rise in failure rates (to exceed the assumed values) and that corrective actions would be taken long before the entire population exceed the assumed value. But this discussion does not directly tie the assumed failure rate increase to corrective action. NEI indicated they would clarify this discussion in NEI 00-04.

3. NEI indicated that it agreed with the staff's comments in the DG-1121 attachment regarding issues: "1. Section 1.2", "2. Section 1.3", and "3. Section 1.4." The staff commented that in order for the staff to review and approve the categorization process for 50.69, we will need to look at aspects of the whole PRA (i.e., not just limited to the modeling or assumptions for a couple systems) since the categorization and supporting PRA can be used for any system in the plant. NEI recognized that this was the practical reality.

4. NEI agreed with the DG-1121 issue entitled "4. Section 2" and revised NEI 00-04 draft revision D to address it. With regard to the issue regarding detailed engineering review, NEI agreed and modified draft D to contain a dotted line on Figure 2-1 for this aspect of the process.

5. Regarding DG-1121 issue "5. Section 3.2", NEI indicated that it would revise NEI 00-04 to state that the April 2, 2002 NRC guidance can be used to guide licensees on the application of RG 1.200 to 50.69. NEI indicated that EPRI has performed a parametric study that examined whether the sensitivity studies performed within NEI 00-04 adequately cover modeling and data uncertainties. It was indicated that the results of that study showed that the sensitivity studies take care of this issue. It was also noted that this issue would be discussed with the ACRS on Feb 19, 2004.

6. Regarding the reference to the ASME code case on repair and replacement (now N660), it was recognized that the footnote within NEI 00-04 (that indicates that if the ASME code case is not endorsed, licensees need to describe their process in their submittal) was adequate to address the current situation (i.e., this code case is currently being modified). It was also noted that there is no intent at this time to put a new N660 code case out before issuance of the final 50.69 rule. This is to allow the lessons-learned from the Surry pilot to be folded into the code case.

¹This discussion refers to the staff's list of issues which are described in the attachment to draft Regulatory Guide DG-1121 "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to Their Safety Significance." DG-1121 is available on the NRC's external website.

7. Regarding DG-1121 issue "8.Section 5", industry indicated that "mitigation" in Fig 5-1 is meant to include everything up to, and including, containment systems. Even though this addresses the staff's concern regarding the use of this language, the staff indicated that it might include a clarification in DG-1121 on this issue.
8. NEI explained that in assigning overall SSC safety significance, if a SSC's basic event importance measures are below the NEI 00-04 criteria such that the SSC can be designated low safety significant, but one or more of the PRA sensitivity studies increase the SSC's importance measures above the criteria, then this information is provided to the IDP to make a final decision on the SSC's safety significance designation (see Figure 7-1). NEI also noted that it revised draft revision D to contain an acceptance criteria for common cause RAW (CCF RAW >20). The staff noted that CCF RAW needs to be added to section 5.5, at the bottom of page 42.
9. Regarding DG-1121 issue "9.Section 5.1", industry discussed what is meant by "relevant failure modes." NEI indicated that they would clarify the intent of "relevant" or delete it.
10. NEI agreed with the staff's interpretation and revised NEI 00-04 to address DG-1121 issue "10.Section 5.2."
11. The staff suggested that the words in Table 5-3 "All manual suppression=1.0" be revised to something like "no credit for manual suppression."
12. The staff commented that the validity of the sentence on page 34 beginning with "If the fire CDF is a small fraction of the internal events CDF ..." is dependent on the method used to account for the contribution of screened fire areas in the total CDF.
13. There was discussion during the meeting concerning the meaning of the term "safe shutdown path" in Figure 5-6 and in the discussion in Section 5.4, concerning other external hazards. NEI commented that their main intent was to address those SSCs that protect the plant systems from the external hazards, e.g., tornado barriers. It was suggested that NEI should clarify Fig 5-6 and the related text in Section 5.4 where a structure is credited in an external hazard and as a result of this credit, becomes safety significant (rather than the protected SSC being safety significant).
14. For DG-1121 issue "13.Section 5.5," industry explained their intended meaning of "primary shutdown safety system," that it included both the typically running shutdown safety means and an alternative shutdown safety means. The staff suggested further clarifying the text.
15. There was a discussion concerning the guidance on page 41 of NEI 00-04 and industry suggested that a NEI 00-04 should be revised to use the language "core damage" and "releases" instead of "CDF" and "LERF" since this portion of the guidance refers to a qualitative analysis.
16. The staff commented that the revision to NEI 00-04 to address the issues associated with section 6.1 and defense-in-depth have clarified the process.
17. NEI has modified the criterion related to long-term containment integrity to state that when an SSC supports a system function and its the only means for preserving long-term containment integrity, it is identified as candidate safety significant.

18. The staff noted that inter-system LOCAs must be fully modeled in the PRA, including modeling event mitigation, (or screened out due to low probability) in order to support the first bullet under containment bypass on page 46 of NEI 00-04, without including mitigation.

19. The staff indicated that its comment in DG 11-21 "16. Section 7.1" was a result of a misunderstanding of the NEI process of categorizing functions.

20. NEI indicated that Figure 7-1 was added to draft D of NEI 00-04 to address comment "17. Section 7.2."

21. The staff suggested that guidance on how to analyze experience data to monitor the factor assumed for the risk sensitivity study of Section 11 needs to be included somewhere in NEI 00-04. It was agreed that Bayesian updating of the reliability parameters would not be appropriate since it would take a significant amount of evidence to significantly change those parameter values.

22. For SSCs not in the PRA or not modeled, industry looks at this as a non-issue since they are categorizing functions. With a function-based approach, a function is either high or low, and if a SSC is not modeled and the SSC is designated through the process as low safety significant, then it by definition cannot impact a high safety-significant function. Hence, the list of IDP questions the staff has proposed concerning such SSCs seem moot.

23. The discussions related to staff comments 22 and 23 on Sections 11.1 and 11.2 were recognized as being addressed directly by the 50.69 rule language.

24. NEI is not revising NEI 99-04 to manage 50.69 commitments. Instead, NEI intended to drop all commitments related to the special treatment requirements which are removed per 50.69 based on the logic that if 50.69 is good enough to remove the requirements, it is good enough to remove the associated commitments. Staff indicated that the situation is unfortunately not this simple, since some of these commitments may relate to design issues (and probably should have been better linked to a design rule, but that the staff did not anticipate removal of the special treatment requirement and simply linked the commitment to an special treatment requirement). As a result, unless a licensee looks at each commitment, they may (if they were to simply eliminate all commitments) "throw away" design related commitments and this would result in noncompliance with 50.69 since changing the design basis functional requirements of the facility is beyond the scope of 50.69.

25. There was discussion concerning Appendix B of NEI 00-04 and a recognition that this appendix can be improved particularly when the lessons-learned for the ongoing Surry pilot effort are fed back into the NEI 00-04 guidance. Hence, it was suggested, that for the time being this appendix should be removed, and that a later date, NEI could revise NEI 00-04 to include it.

