

July 30, 2003

MEMORANDUM TO: Brian E. Thomas, Acting Program Director
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

FROM: Peter C. Wen, Project Manager */RA/*
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF JULY 24, 2003, MEETING WITH THE NUCLEAR
ENERGY INSTITUTE REGARDING RISK-INFORMED CHANGES
INVOLVING 10 CFR 50.46

On July 24, 2003, the Nuclear Regulatory Commission (NRC) staff held a public meeting with the Nuclear Energy Institute (NEI) and other interested stakeholders at NRC headquarters to solicit industry's input to identify issues that require resolution for rulemaking on risk-informed changes involving 10 CFR 50.46. The meeting attendees are listed in Attachment 1.

The meeting continued discussion from the June 9, 2003, meeting about topics related to the rulemaking on large break loss-of-coolant accident (LOCA) redefinition. In its opening remarks, the staff noted the recent meeting with the ACRS on the expert elicitation process for generating LOCA frequency distributions. The staff also discussed several issues that the working group has been evaluating, including the expected scope of application of the "redefinition," and how this would be accomplished through the rulemaking and its implementation. Further, the staff stated that information would need to be provided to show defense-in-depth. In any application of a new break size, the staff will be looking to see what mitigative capability remains for any breaks no longer within the design basis. While agreeing that the requirements of §50.46 and GDC 35 do not apply to these newly classified beyond-design basis events, the staff did want some level of assurance that these breaks would not lead to vessel rupture. Depending upon the changes a licensee might seek to make, this rulemaking could require development of additional analysis techniques or acceptance guidelines.

In preparation for the meeting, NEI submitted a draft white paper summarizing its thoughts about what the rule should require and the rationale. This paper is in Attachment 2 and is available under ADAMS Accession Number ML032030320. NEI explained that its intent was that the rule change itself be very simple, adding words to allow for an alternate break size selected by a risk-informed process. NEI indicated that the revised rule could be implemented by other existing processes, such as RG 1.174 and §50.59. The staff asked some clarifying questions about the proposal, such as the intended extent of use. For instance, the March 31, 2003 Staff Requirements Memorandum (SRM) had stated that no changes to containment capability would be expected, but it was not clear what would preclude this from happening in the draft proposal.

Further, there was discussion about consideration of the change in risk from both individual changes and the cumulative effect of many changes, as well as monitoring and updating. While understanding the desire for simplicity, the staff noted that the rule would need to be sufficiently complete and clear about the requirements to be met, the extent of changes that can be made, etc. The staff noted that for these reasons, a separate section with more detail that

could support other risk-informed rule changes (e.g., removal of coincident LOCA and loss-of-offsite power (LOOP) requirement) might be beneficial. NEI agreed that there may be advantages in this, but it would be more difficult to develop given the available schedule. NEI indicated that it might be possible to do the more simple rule change now, and as technology and experience continues, to later make broader changes.

The ten-year reversibility provision from the SRM was also discussed. The staff believes some language will have to be included in the rule on this point, with respect to the LOCA frequency re-estimation, but that a licensee would be able to use compensatory means to reduce risk rather than being required to "reverse" a specific change that might have been implemented. The staff also noted that the number of risk-informed initiatives, such as this rulemaking, the 50.69 rulemaking, the planned exemption (and rulemaking) on coincident LOCA-LOOP, risk-informed Technical Specifications initiatives, and their schedules, are straining resources as many of these efforts draw upon the same cadre of staff. The staff wishes further dialogue on industry priorities among these initiatives to assist the staff in its planning.

The industry asked about the provision in the SRM about use of best-estimate models, with respect to §50.46 analyses for breaks within the design basis. The staff agreed that there is no technical basis to require a licensee to discard valid Appendix K analyses and to replace them with new analyses using best-estimate methods. The staff will pursue this issue with respect to the wording in the SRM.

In addition, the BWR Owners Group (BWROG) discussed the background for the upcoming topical report (targeted for submittal in October 2003), for exemptions relating to assumed coincident LOOP with a LOCA. The presentation materials are in Attachment 3. In a separate meeting on the same day, the BWROG discussed some of the thermal hydraulic analyses it intends to perform to show defense-in-depth for its proposed application.

Continued interaction between industry groups and other interested stakeholders and the staff on this program is anticipated. The next meeting is planned for sometime in September 2003. NRC plans to provide in advance some discussion material, such as draft rule wording, for that meeting. NEI agreed to consider the issue about defense-in-depth, the intended scope of application of the proposed rule and other topics as noted above.

Representatives of the NRC and the industry agreed that this meeting had been useful for the exchange of information on the discussion topics. Having completed discussion of the agenda items, the meeting was adjourned.

Project No. 689
Attachments: As stated
cc w/att: See next page

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Project No. 689

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NRC/NEI Meeting on Risked-Informed Changes Involving 10 CFR 50.46
List of Attendees
July 24, 2003

<u>NAME</u>	<u>ORGANIZATION</u>
Eileen McKenna	NRR/DRIP/RPRP
Peter Wen	NRR/DRIP/RPRP
Mike Tschiltz	NRR/DSSA/SPSB
Mark Rubin	NRR/DSSA/SPSB
Glenn Kelly	NRR/DSSA/SPSB
Stephen Dinsmore	NRR/DSSA/SPSB
Marty Stutzke	NRR/DSSA/SPSB
Jared Wermiel	NRR/DSSA/SRXB
Jennifer Uhle	NRR/DSSA/SRXB
Mark Kowal	NRR/DSSA/SRXB
Alan Wang	NRR/DLPM
Hossein Hamzehee	RES/DRAA/PRAB
John Lane	RES/DRAA/PRAB
Arthur Buslik	RES/DRAA/PRAB
Norman Lauben	RES/DSARE/SMS
Steve Bajorek	RES/DSARE
Mike Snodderly	ACRS
Tony Pietrangelo	NEI
John Butler	NEI
Mike Schoppman	NEI
Tony Browning	NMC-Duane Arnold
John Gaertner	EPRI
Bob Jaquith	Westinghouse
Rick Hill	GE
Rick Wachowiak	GE
Paul Heck	TVA
Bob Tsai	Exelon
Peter Kokolakis	Entergy N.E.
Nancy Chapman	Serch Bechtel
Deann Raleigh	LIS Scientech
Mike Knapik	McGraw-Hill

