

August 02, 2001

MEMORANDUM TO: Cynthia A. Carpenter, Chief  
Generic Issues, Environmental, Financial  
and Rulemaking Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

FROM: Peter C. Wen, Project Manager/**RA**  
Generic Issues, Environmental, Financial  
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Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JULY 12, 2001, MEETING WITH THE NUCLEAR  
ENERGY INSTITUTE REGARDING CONTAINMENT INTEGRATED  
LEAK RATE TESTING ISSUES

On July 12, 2001, members of the NRC staff and representatives from the Nuclear Energy Institute (NEI), the Electric Power Research Institute (EPRI), various licensees, and members of the public participated in a public meeting held at the Nuclear Regulatory Commission (NRC) offices in Rockville, Maryland. The purpose of the meeting was to discuss a potential generic approach for extension of the containment integrated leak rate test (ILRT) interval for plants that have implemented 10 CFR 50, Appendix J, Option B. Attachment 1 lists attendees at the meeting. Attachment 2 contains NEI's meeting handout. Attachment 3 is the NRC meeting handout with a draft probabilistic risk assessment using a methodology previously used with Crystal River and Indian Point 3.

NEI provided background, benefits of a generic change, and potential generic change approaches related to the ILRT test interval extension. NEI indicated that for the ILRT, all licensees have adopted Option B in Appendix J to 10 CFR Part 50. (In 1995, the NRC amended the regulations to add Option B to the existing Appendix J; under Option B, the licensee would have to perform an ILRT at least once every 10 years after it had successfully completed two consecutive tests.) In 1998, the staff issued Regulatory Guide 1.174 on the use of probabilistic risk assessment (PRA) in risk-informed changes to a plant's licensing basis. NEI indicated that many licensees plan to use RG 1.174 to assess the acceptability of extending the ILRT test interval beyond that established during the Option B rulemaking. Recently, the staff approved the Indian Point 3 request for ILRT test interval extension to 15 years (on a one-time basis), based on the RG 1.174 guidance. In light of considerable licensing actions associated with ILRT test interval extension requests in the near future, NEI is seeking, through a generic approach, to permanently change the testing interval to 20 years.

The operational experience associated with ILRT was discussed during the meeting. NEI indicated that the risk associated with extending ILRT test intervals is primarily associated with: (1) leakage paths detectable only by ILRTs and (2) the length of time which a potential leak path is not detected. This information is important in the risk assessment for evaluating the incremental risk associated with increasing the interval for ILRT. NEI is conducting an industry survey to determine if the frequency of occurrences of identification of leakage paths identifiable only by ILRT have changed since the original studies done by NRC and EPRI to support Option B rulemaking in 1995.

NRC staff provided an explanation of a probabilistic risk assessment methodology which had already been reviewed based on plant-specific submittals. The discussion and handout (Attachment 3) summarized the methodology that has been used to justify extending the ILRT test interval beyond the current 10 years interval. Also discussed was how such methodology might be incorporated into a generic submittal.

Though the NRC staff is reviewing a number of plant specific applications for the technical specification change, the staff raised the following concerns in the area of containment structural integrity and leak-tightness related to the generic submittal of ILRT extension requests: (1) no data base related to the currently implemented Option B test intervals, (2) detection of degradations occurring in the uninspected areas, (3) detection of degradation of containment bellows that can be found during ILRT only, (4) synergistic effects of increasing the Type B and Type C test intervals, and (5) different vulnerabilities of different types of containment, i.e. PWR dry and subatmospheric, BWR Mark I, Mark II, and Mark III pressure suppression containments, and PWR ice-condenser containments, having different containment event trees. The staff also raised the concern of a monitoring plan to ensure that the engineering evaluation conducted to examine the impact of the proposed change continues to reflect the actual reliability and availability of the containment. The staff clarified that they did not expect the industry to maintain a generic database but asked them to consider how the monitoring plan could be accomplished on a plant specific basis using existing programs. NEI indicated that they need time to further study the staff's concerns.

After NEI completes the industry survey, NEI plans to revise NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10CFR Part 50, Appendix J," and would seek NRC endorsement via revision to Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program." In parallel, NEI would submit the related technical specification change to its Technical Specifications Task Force to change the technical specification standard reference. If NRC approves, the individual licensees may then participate in the consolidated line item improvement process (CLIP) for the associated TS amendment.

The staff noted its appreciation of the opportunity to be briefed by the industry on this industry development and agreed to meet with them again when the industry's task group is ready to discuss specific issues.

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GHolahan/S Black

JPulsipher/G Hubbard/J Hannon

R Barrett/M Rubin/M Snodderly

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J Costello, RES

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OPA

**NRC-NEI Meeting on Containment ILRT Issues**  
**LIST OF ATTENDEES**  
**July 12, 2001**

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John Hannon	NRR/DSSA/SPLB
George Hubbard	NRR/DSSA/SPLB
James Pulsipher	NRR/DSSA/SPLB
Michael Palko Jr.	NRR/DSSA/SPLB
Mike Snodderly	NRR/DSSA/SPSB
David Terao	NRR/DE/EMEB
Hans Ashar	NRR/DE/EMEB
Herman Graves	RES/DET/ERAB
James F Costello	RES/DET/ERAB
Peter Wen	NRR/DRIP/RGEB
Tony Pietrangelo	NEI
Biff Bradley	NEI
Fred Madden	NEI
John Gisclon	EPRI
Jerry Burford	Entergy
Jim Connolly	North Atlantic Energy Services Corp.
Mickael Keating	Southern Nuclear
Ken Heffner	Progress Energy
Michael Adelizzi	PPL Susquehanna
Wendell Brown	Duke Energy
Deann Raleigh	US Scientech
Bob Shirk	ILRT Inc.
Lane Hay	Serch/Bechtel
G R Madden	FPL