

June 22, 2012

MEMORANDUM TO: Richard Correia, Director  
Division of Risk Analysis  
Office of Nuclear Regulatory Research

THRU: Kevin Coyne, Chief **/RA/**  
Probabilistic Risk Assessment Branch  
Division of Risk Analysis  
Office of Nuclear Regulatory Research

FROM: Donald M. Helton **/RA/**  
Probabilistic Risk Assessment Branch  
Division of Risk Analysis  
Office of Nuclear Regulatory Research

SUBJECT: SUMMARY OF CLOSED MEETING TO DISCUSS ONGOING  
OFFICE OF NUCLEAR REGULATORY RESEARCH  
CONFIRMATORY LEVEL 1 PROBABILISTIC RISK  
ASSESSMENT SUCCESS CRITERIA ANALYSES

On May 24, 2012, NRC staff held a noticed, closed teleconference with Exelon/Byron station to discuss ongoing Office of Nuclear Regulatory Research confirmatory Level 1 probabilistic risk assessment (PRA) success criteria analyses. During the teleconference, participants discussed boundary conditions and qualitative results for sequence timing and success criteria aspects of selected, small-break, loss-of-coolant accident sequences, as well as boundary conditions for upcoming calculations related to loss of a direct current (DC) bus. These discussions (and the associated analyses) do not relate to any ongoing or anticipated regulatory actions; rather, they are to confirm specific underlying modeling aspects in the agency's standardized plant analysis risk models for 4-loop Westinghouse plants with large, dry containments (a continuation of an activity described further in NUREG-1953, "Confirmatory Thermal-Hydraulic Analysis to Support Specific Success Criteria in the Standardized Plant Analysis Risk Models – Surry and Peach Bottom").

This meeting was closed because (a) there has been no public interest expressed in past public activities related to this work, (b) the meeting is an information exchange not related to any specific regulatory decision, and (c) closure of the meeting facilitates the discussion of facility details (e.g., emergency operating procedures) that are not in the public domain. Should a member of the public wish to participate in any future discussions between NRC and Exelon associated with this project, they should contact Donald Helton, Senior Reliability and Risk Engineer, at 301-251-7594 or at [Donald.Helton@nrc.gov](mailto:Donald.Helton@nrc.gov).

CONTACT: Donald Helton, RES/DRA  
301-251-7594

With regard to the qualitative results presented on the draft, small-break, loss-of-coolant accidents, qualitative results were provided for three different scenarios:

- sequence timing for alignment of sump recirculation
- sequence timing for steam generator depressurization and condensate feed
- sequence timing for primary side bleed and feed

It was acknowledged by all participants that such evaluations are complex and that this format (a teleconference without transmittal of details in advance) makes it difficult for the receiver of the information to provide substantive feedback.

With regard to the loss of DC bus (111) scenario, participants discussed the basic boundary conditions. Again, the format hindered substantive discussion, but the licensee was able to confirm the validity of the major assumptions. There was a desire on the licensee's part to further research an assumption related to the condenser steam dump system, which the licensee offered to confirm.

The licensee expressed interest in participating in future calls of this type related to this activity. Participants agreed that to improve the process, in the meeting announcement, NRC staff should include more substantive information about the scenarios being analyzed as well as information about key assumptions. This would allow the licensee to better prepare for the discussion and improve the usefulness of the exchange for all parties.

At this time, the loss of DC bus calculations are ongoing. Staff will schedule a subsequent teleconference when calculations are substantively completed, likely in early August 2012.

The following people participated in the teleconference:

<u>NRC</u>	<u>Exelon</u>	<u>Erin Engineering</u>
Bruce Bartlett	Joe Edom	Patrick Bozym
James Corson	Joe Langan	Heather Lucek
Donald Helton	Barry Quigley	
Joel Wiebe		

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