



NUCLEAR ENERGY INSTITUTE

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February 23, 2011

(1)

Ms. Cindy K. Bladey
Chief, Rules, Announcements and Directives Branch (RADB)
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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RULES AND DIRECTIVES
BRANCH
US NRC

Subject: Industry Comments on Draft NUREG-1953, *Confirmatory Thermal-Hydraulic Analysis Risk Models – Surry and Peach Bottom* (*Federal Register* of November 10, 2010, 75 FR 69140-69141; Docket ID NRC-2010-0344).

Project Number: 689

Dear Ms. Bladey:

The subject *Federal Register* notice issued for public comment a draft U.S. Nuclear Regulatory Commission Regulation NUREG document, *Confirmatory Thermal-Hydraulic Analysis Risk Models – Surry and Peach Bottom*. This draft NUREG documents in-depth analysis of the thermal-hydraulic aspects of the Standardized Plant Analysis Risk (SPAR) models for Surry and Peach Bottom, and suggests numerous changes to improve the consistency of the SPAR models with licensee-generated analyses.

The industry has reviewed the draft NUREG, and appreciates that the document both clearly summarizes the results and adequately details the specific analysis performed to arrive at those results. The industry also notes that several changes to the document could improve its clarity and ensure that future uses of the results are appropriate; comments regarding these changes are provided in an attachment. In addition to the comments provided in this attachment, NEI endorses the comments submitted by Exelon on December 15, 2010, and recommends that the NRC also carefully consider those comments prior to issuance of the final NUREG.

SURSI Review Complete

E-RIDS = ADM-013

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Template = ADM-013

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Ms. Cindy K. Bladey

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We appreciate your consideration of the enclosed comments. If you have any questions or require additional information, please contact me at 202-739-8083; reb@nei.org or Victoria Anderson at vka@nei.org; 202-739-8101.

Sincerely,



Biff Bradley

Attachment

c: Mr. Kevin Coyne, NRC
Mr. Donald Helton, NRC
NRC Document Control Desk

Detailed Industry Comments on Draft NUREG-1953, *Confirmatory Thermal-Hydraulic Analysis Risk Models – Surry and Peach Bottom*

Description of Major Plant Characteristics: In the description of the major plant characteristics in Section 4.1, it is suggested that for Surry, it be noted that successful sump recirculation function requires containment heat removal through the recirculation spray system.

Plant Representation in MELCOR: In describing the plant representation used for the study, it is stated that the core nodalization assumed 10 axial and 5 radial regions. Clarification of the sensitivity of this nodalization assumption would be helpful in illustrating its impact.

SLOCA Case Assumptions: It appears that accumulator injection was credited for all SLOCA cases discussed in this report; however, probabilistic risk assessments normally do not credit accumulator injection for SLOCA mitigation. The impact of this should be explored before issuance of the final NUREG.

Additional Sensitivities to Consider: While the work described in the draft NUREG involved extensive analysis evaluating sensitivities, the industry suggests two other sensitivities to consider. The first is the impact of crediting manual actions to trip the Reactor Coolant Pumps in accordance with existing guidance, as such credit was not assumed in the analysis. The second suggested sensitivity that the industry suggests evaluating is the impact of the Safety Relief Valves at Peach Bottom sticking open due to elevated gas temperatures, as the State-of-the-Art Reactor Consequence Analysis identified this as a significant sensitivity.