

December 15, 2010

Ms. Cindy Bladley, Chief
Rules Announcements and Directives Branch (RADB)
Division of Administrative Services
Office of Administration
Mail Stop TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Comments Concerning Draft NUREG-1953, "Confirmatory Thermal-Hydraulic Analysis to Support Specific Success Criteria in the Standardized Plant Analysis Risk Models - Surry and Peach Bottom; Draft Report for Comment," (Docket ID NRC-2010-0344) (Federal Register Notice 75FR69140, dated November 10, 2010)

Exelon Generation Company, LLC (Exelon) is submitting this letter in response to a request from the U.S. Nuclear Regulatory Commission (NRC) for comments concerning the subject draft NUREG document.

NUREG-1953 investigates specific thermal-hydraulic aspects of the Surry and Peach Bottom facilities' Standardized Plant Analysis Risk (SPAR) models, with the goal of further strengthening the technical basis for decision making that relies on the SPAR models. The analysis discussed in the draft NUREG employs the MELCOR computer code to analyze a number of scenarios with different assumptions.

Exelon appreciates the opportunity to comment on draft NUREG-1953. Attachment 1 contains comments for consideration by the NRC.

If you have any questions or require additional information, please do not hesitate to contact Mr. Frank Mascitelli at 610-765-5512.

Respectfully,

D. P. Helker

David P. Helker
Manager - Licensing
Exelon Generation Company, LLC

Attachment 1 - Exelon Comments on Draft NUREG-1953

*SUNSI Review Complete
Template = ADM-013*

*E-REDS = ADM-03
Add = D. Helker (DMH2)*

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75FR69140*

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ATTACHMENT 1

**Exelon Comments Concerning Draft NUREG-1953,
"Confirmatory Thermal-Hydraulic Analysis to Support
Specific Success Criteria in the Standardized Plant Analysis
Risk Models - Surry and Peach Bottom; Draft Report for Comment,"
(Docket ID NRC-2010-0344)
(Federal Register Notice 75FR69140, dated November 10, 2010)**

General Comments

The draft NUREG summarizes best estimate analyses for Surry and Peach Bottom success criteria. The NUREG provides adequate details to describe the sequences being investigated and provides a clear summary of the results. In addition, the results are summarized in terms of the proposed changes to the current SPAR model assumptions.

A detailed comparison of these results with those from the Modular Accident Analysis Program (MAAP4) code is currently underway as an Electric Power Research Institute (EPRI) sponsored project. That comparison effort may reveal additional insights, the results of which are expected to be communicated to the NRC when they are completed.

Specific Comments

1. Section 5.1 of the draft NUREG states that the core nodalization assumed 10 axial by 5 radial regions. Further clarification on this investigation to the sensitivity of this assumed nodalization scheme would help demonstrate the impact of this assumption.
2. It appears that a credit was not assumed for operator actions to trip the Reactor Coolant Pumps (RCPs) manually. It is recommended that a sensitivity be included to demonstrate the impact of manual actions to trip the RCPs in accordance with the existing guidance.
3. The State-of-the-Art Reactor Consequence Analyses (SOARCA) project identified a significant sensitivity to Safety Relief Valves (SRVs) sticking open due to elevated gas temperatures. Further clarification on how this impacts the current success criteria analysis would be beneficial.