

From: Guzman, Richard
Sent: Thursday, August 04, 2011 6:06 PM
To: Guzman, Richard; 'Dosa, John J'
Subject: Updated Information Request RE: NMP2 EPU - ATWS Simulator Testing Plots and SBO scenario clarification

John,

In addition to the information requested in my July 22 and July 27, 2011 e-mail messages, please respond to the following supplemental requests as discussed during today's conference call:

ECCS NPSH SBO Scenario

In letter dated May 9, 2011, it was stated that the LPCI (RHR) pumps could operate at margin ratio of less than 1.6 for approximately 839 minutes (~14 hours) for DBA-LOCA and 376 minutes (~6.3hours) for ASDC. It was further stated that the operational times were based on the tabular values for suppression pool temperature versus time developed to generate the graphs in NMP2 EPU LAR dated May 27, 2009. However, the graphs that were included in the EPU LAR only go up to 10^5 seconds (~28 hours). It is not clear how long a period did NMPNS evaluate the operation of the pumps. During long-term cool-down, the pumps could operate at a flow rate higher than during short-term, thus potentially reducing NPSHA. Please provide additional information to assure the staff that NMPNS has considered all factors that could potentially affect the margin ratio during long-term cooling in arriving at the above mentioned times.

ATWS Simulator Exercises

- 1) Provide the sequence of both events with the transient response(s) corresponding to ATWS emergency operating procedure actions (e.g., turbine trips, recirculation pump trips, turbine bypass valves open, power increases, water level reduction, standby liquid control system injection, to steady state/oscillation under control, etc.)
- 2) For clarity of the data tables for both the MSIV closure and turbine trip ATWS EPU events, provide the full name/nomenclature with description or definition of each column field (e.g., rrp dome, nmapmfx_z, fwsla101, etc.).
- 3) In addition to the RPV Pressure vs. Time plots in both events, please include an overlay plot of Power vs Time (i.e., show power oscillations/response corresponding to the RPV pressure response).

Thanks,

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From: Guzman, Richard
Sent: Wednesday, July 27, 2011 10:29 AM
To: Dosa, John J
Subject: NMP2 EPU - SBO scenario clarification

John,

The technical staff requests additional clarification in NMPNS' RAI response dated May 9, 2011, regarding the operation of the pumps during an SBO, particularly after the coping period. The RAI response stated that the SBO scenario was not included in the licensee's evaluation as the RCIC pump is relied upon during the coping period. Nothing was said in the response about operation of other pumps past the SBO coping period. While the staff does not believe this to be a major concern in the completion of the associated draft SE section, it's best to get a full understanding at this time as we prepare for our presentation/discussions with the ACRS. Please let me know when you can support a conference call next week to discuss this area w/the tech staff. How about Wednesday 8/3?

Thanks,
Rich

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From: Guzman, Richard
Sent: Friday, July 22, 2011 3:57 PM
To: Dosa, John J
Subject: Follow-up Information request re: EPU ATWS Simulator Testing Plots and Data Tables

John,

As we discussed, while the data provided by NMPNS in February 2011 supports the NRC staff's review of the proposed EPU with respect to thermal and hydraulic design, the staff has determined that clarifying information is necessary to support its completion of the draft safety evaluation (SE) for ACRS' review. Specifically, for the MSIV closure and turbine trip EPU ATWS events, the staff notes that the licensee has provided the appropriate data for both ATWS events via CD copy dated February 2011; however, the staff requests the following information to conclude its review on thermal and hydraulic design. The information should be submitted formally on the docket as the staff intends to reference the supplement in its SE as well as for presentation during the ACRS briefings.

- 1) Provide the sequence of each event with indication of the corresponding ATWS emergency operating procedure action(s).
- 2) For clarity of the data tables for both the MSIV closure and turbine trip ATWS EPU events, provide the full name/nomenclature with description or definition of each column field (e.g., rrp dome, nmapmfx_z, fwsla101, etc.).

Thanks,

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