ArevaEPRDCPEm Resource

From: Tesfaye, Getachew
Sent: Monday, August 17, 2009 8:20 PM
To: 'usepr@areva.com'
Cc: Phan, Hanh; Clark, Theresa; Fuller, Edward; Mrowca, Lynn; Roy, Tarun; Colaccino, Joseph; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 268 (3447), FSAR Ch. 17
Attachments: RAI_268_SPLA_3447.doc

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on August 6, 2009, and on August 13, 2009, you informed us that the RAI is clear and no further clarification is needed. As a result, no change is made to the draft RAI. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. For any RAIs that cannot be answered within 30 days, it is expected that a date for receipt of this information will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the published schedule.

Thanks,
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Hearing Identifier: AREVA_EPR_DC_RAIs
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8/17/2009

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 17.04 - Reliability Assurance Program (RAP)
Application Section: 17

QUESTIONS for PRA Licensing, Operations Support and Maintenance Branch 1 (AP1000/EPR Projects) (SPLA)

17.04-22

(Follow-up to Question 17.04-21) The staff reviewed the U.S. EPR design and previous AREVA's responses to the RAIs and noted that:

a. The fire water distribution system (FWDS) (i.e., pumps, valves, as well as piping) is important not only for fire mitigation and protection of safe shutdown equipment but also for providing secondary water source for certain beyond design-basis mitigation scenarios.

b. The sprinkler system (SPRS) and spray deluge system (SDS) are important as designed to provide a layer of defense in protecting certain safe shutdown equipment. Although neither the SPRS nor the SDS was credited in the PRA, these systems could be judged as significant contributors to plant safety on a purely deterministic basis.

c. The core melt stabilization system (CMSS) is important to maintain the EPR containment integrity. In response to RAI 22, Question 19-159, AREVA indicated that, with the core debris remaining confined in the reactor pit, downward ablation of the concrete would lead to base mat failure less than 24 hours after the accident, thus compromising containment integrity. It is clear that the deterministic containment performance goal in SECY-93-087 approved by the Commission in the associated SRM would not be met unless the CMSS worked as designed.

Thus, based on the bases described above, the FWDS, SPRS, SDS, and CMSS are considered to be significant contributors to plant safety for the EPR design and should be included in the D-RAP. Please provide further justification if AREVA is to exclude these systems from the scope of the D-RAP.