

ArevaEPRDCPEm Resource

From: Getachew Tesfaye
Sent: Friday, May 22, 2009 8:10 PM
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Cc: Hanh Phan; Theresa Clark; Edward Fuller; Lynn Mrowca; Prosanta Chowdhury; Joseph Colaccino; ArevaEPRDCPEm Resource
Subject: U.S. EPR Design Certification Application RAI No. 226 (2596, 2597), FSAR Ch. 17
Attachments: RAI_226_SPLA_2596_2597.doc

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on May 15, 2009, and on May 21, 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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Request for Additional Information No. 226 (2596, 2597), Revision 0

5/22/2009

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 17.04 - Reliability Assurance Program (RAP)
SRP Section: 17.06 - Maintenance Rule
Application Section: FSAR Ch. 17

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

17.04-16

Follow-up to Question 17.04-12 of RAI 21, currently, COL applications that reference the US EPR design conclude that the SSCs within the plant-specific RAP scope are the same SSCs identified for consideration within the RAP during the design certification process. Since the list of D-RAP risk-significant SSCs is used as a foundation for the development of plant-specific RAP, the staff would benefit greatly in its review of the COL applications if AREVA formally identify and document the D-RAP risk-significant SSCs in the US EPR FSAR. Thus, the staff requests that AREVA include the list of D-RAP risk-significant SSCs in EPR FSAR Section 17.4.

17.04-17

Followup to Question 17.04-15 (RAI 21): The response to Question 17.04-15 (in the commitment wording and acceptance criteria) states that a Reliability Assurance Program exists and provides reasonable assurance that the overall plant reliability is maintained.

SRP 17.4 says that the purposes of the RAP are to provide reasonable assurance, for systems, structures, and components (SSCs) that are identified as being significant contributors to plant safety, that

1. a reactor is designed, constructed, and operated in a manner that is consistent with the assumptions and risk insights for these SSCs,
2. these SSCs do not degrade to an unacceptable level during plant operations,
3. the frequency of transients that challenge SSCs is minimized, and
4. these SSCs function reliably when challenged.

It is not clear that maintaining overall reliability satisfies these objectives for any given SSC.

Please revise the ITAAC commitment wording and acceptance criteria to address these issues. In addition, explain how you will inspect for the "existence of a Reliability Assurance Program," as noted in the inspections, tests, or analysis portion of the ITAAC.

17.04-18

Follow-up to Question 17.04-08 of RAI 21, please explicitly identify the ASME RA-Sb-2005 section which outlines the expert panel members selection process as mentioned in the response to Question 17.04-08.

17.04-19

Please explain why the EPR core melt stabilization passive flooding device, MOVs, and other SSCs credited in the severe accident assessment are excluded from the D-RAP list of risk-significant SSCs. These components are important in responding to the severe accident and should be included in the scope of RAP.

17.04-20

Regarding the EPR core melt stabilization, if water inadvertently enters the core spreading area, explain how the water is removed. What is the failure probability of the passive flooding device (including the spring-loaded valve and triggering device) to perform its intended function?

17.04-21

Please justify the exclusion of the following SSCs from the D-RAP list.

- a) Fire Water Distribution System (fire diesel pump, one firewater storage tank, fire mains feeding nuclear island)
- b) Gas fire suppression system (in MCR)
- c) Sprinkler/Deluge Systems in safety-related areas to include RCP pump deluge system, safety-related EDG (or fuel tank) spray system
- d) Smoke control portions of the HVAC system(s) - those portions designed IAW NFPA 90A and 92A (and 204)
- e) The RCP oil collection system
- f) MCR to Remote Shutdown Panel Transfer switch [and circuitry]
- g) Emergency [on-site] communications needed for safe shutdown and fire brigade operations.

17.06-2

Follow-up to Question 17.06-1 of RAI 121, as mentioned in Question 17.06-1, it is expected that implementing the industry operating experience (IOE) is the responsibility of the COL applicants as part of their MRule program. However, because the COL applications that reference US EPR DC would develop their MRule program in accordance with the template provided in NEI 07-02A and the US EPR FSAR Section 17.6, please include IOE in EPR FSAR Section 17.6 with other principal functions listed therein.