

ArevaEPRDCPEm Resource

From: Gleaves, Bill
Sent: Friday, March 28, 2014 2:59 PM
To: usepr@areva.com; ArevaEPRDCPEm Resource
Cc: Lu, Shanlai; Budzynski, John; Frankl, Istvan; Segala, John; Wunder, George; HOLM Jerald (EXTERNAL AREVA) (jerald.holm.ext@areva.com)
Subject: US EPR DC - Draft RAI on Round 4 Response on ANP-10287P App. F & H
Importance: High

Jerry,

This is a draft RAI per our new process. The new process is that we will send the draft RAIs by email and you will review comment and/or correct the draft RAI (and if you have an answer that makes it moot for example "The information is found in Section X.Y.Z of the Document" then so state in your response).

These could also be treated as "final feedback" on your previous Advanced RAI response. So let us know your preference (new followup RAI or "supplement" or "resubmitted" Final RAI response)

These comments relate to your submittal, Topical Report ANP-10287P, "Incore Setpoint and Transient Method for U.S. EPR," Appendices F & H.

Draft Question 1:

There is an apparent conflict between the FSAR and the Topical Report. In Section F.11, Conclusion, (F.10 of the markup) of Appendix F, the applicant states that "Automatic actions are taken when the calculated boron concentration exceeds the Anti-Dilution trip setpoint that automatically terminates the dilution source."

Whereas, in the EPR FSAR, Revision 5, Subsection 15.4.6.2, the applicant states, "If the RCS boron concentration decreases below this threshold, indicating a possible dilution event or potential loss of shutdown margin, a signal is sent to isolate the CVCS thereby isolating the source of dilution."

The staff believes the FSAR is accurate and the topical report needs correction to indicate that the dilution source is automatically terminated when the calculated boron concentration decreases below the "Anti-Dilution trip setpoint." Correct or provide a clarification of this apparent ambiguity.

Draft Question 2:

There is an apparent conflict between the FSAR and the Topical Report. In Section F.9.1 of Appendix F markup (of the AREVA Advanced RAI response), the applicant states: "Example value for the 'Shutdown with RCPs Not Operating' anti-dilution trip setpoint was calculated to be 927 [1454] ppm, based on a minimum IRWST boron concentration of 1327.4 [1700] ppm (using boron enriched to 37 atom percent boron-10), minus the general boronometer uncertainty value example of 400 ppm." However, in FSAR Subsection 15.4.6.3.3 markup also attached to the advanced response, the applicant has revised the uncertainty value from 400 to 246 ppm. Correct the topical report or provide justification for the differences.

Billy

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