WBN2Public Resource

From: Crouch, William D [wdcrouch@tva.gov]
Sent: Wednesday, September 29, 2010 1:00 PM
To: Poole, Justin
Cc: Koontz, Frank A Jr; morgance@westinghouse.com
Subject: Need a clarification call with the NRC on 15.3.1 -2f
Attachments: image001.png

We would like to have a call to clarify the intent of one of the FSAR RAI question 15.3.1-2f (See below). Not all of the parameters in the Table will appear in the Tech Specs. Some are in the COLR. And some may be in neither. The COLR will not be available for another year. We will confirm in the future that the values in the FSAR table match those in the Tech Spec/COLR as part of our QA of those documents.

So we wanted to make sure we understand the question.

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SER 15.3.1, "Major Reactor Coolant System Pipe Ruptures (Loss of Coolant Accident [LOCA])"

FSAR 15.3.1 "Loss of Reactor Coolant from Small Ruptured Pipes or from Cracks in Large Pipes which Actuate the Emergency Core Cooling System"

FSAR 15.4.1, "Major Reactor Coolant System Pipe Ruptures (Loss of Coolant Accident)"

1. Post-LOCA Boric Acid Precipitation

   a. Provide the analysis results and write-up for the timing for boric acid precipitation supporting the emergency operating procedure input for timing to switch to the simultaneous injection mode following a LOCA.

   b. What is the sump temperature versus time following recirculation, and how does this impact precipitation? Provide an explanation discussing whether the boric acid concentration in the vessel is below the precipitation limit based on the minimum sump temperature at the time the switch to simultaneous injection is performed.

2. Small-Break LOCA (SBLOCA)

   a. Provide the refueling water storage tank maximum temperature used in the SBLOCA analysis.

   b. Provide the head flow curves for all pumped injection used in the SBLOCA analyses. Confirm that these curves included the error on head and flow rate in generating these curves.

   c. Confirm that the hot-leg nozzle gap and core barrel alignment key leakage paths were not credited in the SBLOCA analyses.

   d. Provide the results of SBLOCA from a severed injection line. Also, provide the degraded head flow curves for each injection location. Since the broken safety injection line dumps to containment at very low pressure, the injection into the other intact lines will be degraded under these conditions.

   e. Explain why the SBLOCA analysis assumed the accumulator liquid volume of 1050 ft^3 compared to the minimum value of 1005 ft^3 in the large-break LOCA (LBLOCA) analysis. Also, confirm the potential negligible impact on the SBLOCA peak clad temperature for this difference in liquid volume.

   f. Confirm/verify that the operating plant ranges given in FSAR Table 15.4-19 are consistent with the Technical Specification limits on these parameters.

   g. Identify the loop seal piping locations that clear of liquid for the breaks in the SBLOCA analyses.

Hearing Identifier: Watts_Bar_2_Operating_LA_Public
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Subject: Need a clarification call with the NRC on 15.3.1 -2f
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From: Crouch, William D

Created By: wdcrouch@tva.gov

Recipients:
"Koontz, Frank A Jr" <fakoontz@tva.gov>
Tracking Status: None
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Tracking Status: None
"Poole, Justin" <Justin.Poole@nrc.gov>
Tracking Status: None

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MESSAGE	567	9/29/2010 1:00:10 PM
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Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

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