AP1000DCDFileNPEm Resource

From: Loza, Paul G. [lozapg@westinghouse.com]
Sent: Monday, February 09, 2009 5:47 PM
To: Bill Gleaves; Christopher Proctor
Cc: Perry Buckberg; Rhonda Carmon; Lindgren, Donald A.
Subject: Acknowledgement of RAI-SRP3.9.3-EMB2-07 R1 and RAI-SRP3.9.3-EMB2-10
Attachments: image001.jpg

Billy,

I acknowledge receipt for Westinghouse of these two RAIs (RAI-SRP3.9.3-EMB2-07 R1 and RAI-SRP3.9.3-EMB2-10). I will advise you if a phone call is required.

Thanks,

Paul Loza

From: Bill Gleaves [mailto:Bill.Gleaves@nrc.gov]
Sent: Friday, February 06, 2009 9:34 AM
To: Loza, Paul G.
Cc: Rhonda Carmon; Lindgren, Donald A.; Tuan Le; Abdul Sheikh
Subject: Draft AP1000 Requests for Additional Information - Chapter 3.0

Paul/Don,

Below are draft RAIs on the AP1000 DCD review. Please respond that you have received this email. Also please respond when you have either 1) accepted these questions, or 2) request a conference call to discuss these draft RAIs.

Billy

RAI –SRP3.9.3-EMB2-07, Rev1.

Westinghouse reduced the CUF from 0.99 to 0.90 by redefining definition of transients that are used and number of fatigue cycles used for each transient and the tube collapse pressure limit ratio from 0.96 to 0.90 by redefining transient and use of an ASME Code Case in calculation. However, the response needs additional clarifications as discussed below:

1. Provide basis for the redefinition of the umbrella transient and explain how it relates to the historical data.

2. Explain the ASME Code Case N579-1 and its use in the tube collapse pressure limit calculation. Confirm if this Code Case is acceptable to the staff in RG 1.84.

3. Clarify how the design basis tube wall thinning allowance is applied to individual tubes and what ASME Code criteria ensure the functional performance and integrity of the tubes.

4. Discuss the reasons for the conservatism when 3 mils allowance is used for loss of material due to corrosion/erosion in SG tubes. Include a discussion of the prototypicality of the experiments and the conservatisms in the interpretation of the results.

5. Discuss how the analyses performed provide an adequate wall thinning tube allowance due to flow induced vibration wear and the details for scaling measured workrate trends from “prototypic” test conditions.

RAI –SRP3.9.3-EMB2-10

The staff reviewed the design specification and other supporting documents associated with Containment Recirculation Screens and found several issues that are incompletely addressed in the design specification. Address the following:

(a) According to the design specification, the Supplier will provide additional design details, design drawings and requirements. Therefore, the engineering drawings (envelope drawings) of the screen assemblies were not available at the time of site audit or at the Rockville office. This was identified by Westinghouse as "Open" at the time of audit in the Rockville office. Provide these engineering drawings of the screen assemblies for review by the staff.

(b) The loading conditions and combinations are incompletely presented in the documents reviewed by the staff. Provide the following: (i) design and service level A-D loads and load combinations, (ii) fatigue evaluation, and (iii) the origin and the basis of using ±5 psi pressure loading on the IRWST screen from sparger discharge.

(c) While it is possible to design containment cleanliness programs to sustain low latent debris inventory in containment, justify the latent debris mass value used for the screen pressure drop component of the structural load on the IRWST and sump screens. Additionally, justify that the flow rate through the screen is conservatively calculated.

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From: Loza, Paul G.

Created By: lozapg@westinghouse.com

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