From: "Gregory D Robison" <gdrobiso@duke-energy.com>
To: OWFN_DO.owf4_po(JMS3)
Date: Fri, Aug 6, 1999 7:51 AM
Subject: CASS Thoughts

Joe

My thoughts on the CASS situation -

Issue: Loss of fracture toughness of CASS components.
Guiding Principle: Find a way to manage this applicable aging effect in a practical way.

What we had in mind before we read the SER: The BWOG addressed this issue for the BWOG plants (including Oconee) in BAW-2243 for specific RCS components - cast safety valve bodies. The scope of this report did not cover other CASS items like the pump casing, but the evaluation technique accepted in the SE on BAW-2243A (see p. 16) is assumed by us to be applicable to all CASS materials subject to loss of fracture toughness. The technique there did not invoke any screening criteria even though it was available. We felt the screening criteria did not help result in a practical solution. The screening criteria analytical efforts were complicated and there are so few RCS CASS components at the BWOG plants . So we assumed that we failed the screening criteria and chose to programmatically manage the issue. The practical end point of this technique is that the program is the regular ASME Section XI oversight coupled with a new fracture mechanics requirement based on the fracture toughness properties of a shielded arc weld found in Section XI if and when inspection discovers cracking. This is the technique described in BAW-2243A and also in Oconee Application Section 4.18.2.

Oconee SER: An alternative approach is provided in the Oconee SER. The problem comes in the fact that the SER does not complete the solution by describing or accepting the practical programmatic end point for components where (1) we chose to assume the components require programmatic management since its easier to jump right to management and skip the analyticals (like described above) or (2) a RCS CASS component goes through the analyticals, fails the revised screening criteria and thus requires programmatic oversight. I'd like to see the SER describe the process to use the screening criteria (or acknowledge that you can simply assume failure of the criteria if that's more practical) and then describe the technique described and accepted in the SE to BAW-2243A. We may need to review the specific code inspection techniques to assure all RCS CASS components are covered, but the programmatic technique described in Application Section 4.18.2 should be acceptable if the inspection technique will find cracking.

Aside: The improvements in the screening criteria still need to be published and the industry/EPRI reports adjusted to take advantage of this new information. I have EPRI ready to do this when the data is published...

Hope this helps with the bigger picture. I have discussed with Sam Lee and he can also help clarify story.

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