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From: Mohan Thadani
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DRAFT RAI

We have reviewed STP's submittal of April 2, 2002 in support of the request for a one time extension of the Type A test interval to 15 years, and have a need for additional information in support of the review. We have identified the following additional questions, and request your response in time to support a timely completion of our action on your request.

Question (1)

RG 1.174 states that when the calculated increase in LERF is in the range of $1E-07$ to $1E-06$, proposed changes will be considered if the total LERF is less than $1E-05$.

In order to process the current request we would need the licensee to provide an estimate of total LERF. The total LERF estimate should include external events as well as internal events. RG 1.174 references NUREG/CR-6595 to assist licensees in making such estimates in case they have not done so as part of their IPEEE.

An alternative approach would be to argue that the proposed change is less than $1E-07$ per reactor year which is the risk acceptance guideline for a very small change as defined in RG 1.174. The licensee estimated the change in LERF by calculating the increase in the Class 3B frequency. The licensee conservatively used the CDF in estimating the Class 3B frequency. Some plant specific accident classes leading to core damage are likely to include individual sequences that either may already (independently) cause a LERF or could never cause a LERF, and thus are not associated with a postulated large Type A containment leakage path. These contributors can be removed from Class 3B in the evaluation of LERF. This most likely will result in the cumulative increase in LERF dropping below $1E-07$.

Question (2)

We wish to raise a concern that has been discussed in a guidance letter from NEI dated November 30, 2001. The concern is potential degradation of the side of the containment liner, which is not accessible. Calvert Cliffs recently provided information (ADAMS Accession No. ML020920100) in support of a similar request to address this issue. STP may want to consider Calvert Cliffs' response when amending their submittal.

Question (3)

The inservice inspection (ISI) requirements mandated by 10 CFR 50.55a and the leak rate testing requirements of Option B of 10 CFR Part 50, Appendix J complement each other to ensure the leak-tightness and structural integrity of the containment. Since there is no description (or summarization) regarding the containment ISI program being implemented at the plant included in the submittal (reference), provide a description of the ISI methods that provide assurance that in the absence of a containment integrated leak rate testing (ILRT) for 15 to 20 years, the containment structural and leak-tight integrity will be maintained.

IWE-1240 requires licensees to identify the containment surface areas requiring augmented examinations. Provide the locations of the steel containment (or concrete containment liner) surfaces that have been identified as requiring augmented examination and a summary of the findings of the examinations performed.

Question (4)

For the examination of penetration seals and gaskets, and examination and testing of bolted connections associated with the primary containment pressure boundary (Examination Categories E-D and E-G), relief for the requirements of the Code had been requested. As an alternative, it was proposed to examine them during the leakrate testing of the primary containment. However, Option B of Appendix J for Type B and Type C testing (as per NEI 94-01 and RG 1.163), and the ILRT extension requested in this amendment for Type A testing provide flexibility in the scheduling of these inspections. Provide your schedule for examination and testing of seals, gaskets, and bolted connections that provide assurance regarding the integrity of the containment pressure boundary.

Question (5)

The stainless steel bellows have been found to be susceptible to trans-granular stress corrosion cracking, and the leakage through them are not readily detectable by Type B testing (see Information Notice 92-20). If applicable, provide information regarding inspection and testing of the bellows, and how such behavior has been factored into the risk assessment.

Question (6)

Inspections of some reinforced concrete and steel containment structures have found degradation on uninspectable (embedded) side of the drywell steel shell and steel liner of the primary containment. These degradations cannot be found by visual (i.e., VT-1 or VT-3) examinations unless they are through the thickness of the shell or liner, or 100 percent of the uninspectable surfaces are periodically examined by ultrasonic testing. Provide information addressing how potential leakage under high pressure during core damage accidents is factored into the risk assessment related to the extension of the ILRT.

CC: Edward Throm; Hansraj Ashar; James Pulsipher; Thomas Cheng