From: Sikhindra Mitra
To: Stewart, Roger
Date: 5/6/03 4:44PM
Subject: Clarification to RAI Response

Roger,

Following are the RAI response clarification items, I have so far. As we discussed if you have the answer ready for them we do not have to wait until the meeting face to face, we can address them in conference call.

A. The staff has questions on the applicant's draft responses to RAI B.3.8 and B.3.12 regarding buried piping and Tanks surveillance program and Inspection program, respectively.

(1) The applicant stated that service water and fire protection systems also have buried piping, in addition to the fuel oil piping (Table 3.3-1 Item 17). However, in the draft response to B.3.8-D1 (buried piping surveillance program) and B.3.12-D1, it seems that the buried pipes in the service water system and fire protection system are not considered in either the buried piping surveillance program or buried piping inspection program. The only buried piping covered in these two AMPs is the fuel oil piping. The staff believes that all buried piping considered for the license renewal application should be covered either in the surveillance program or inspection program or both. Clarify why the service water and fire protection system piping are not considered by these 2 AMPs.

(2) The applicant needs to discuss how they intend to inspect or conduct surveillance on the service water and fire protection system buried piping, if these piping are not covered in the buried piping surveillance program or inspection program. Identification of water on the soil surface above the underground piping is not a sufficient method of surveillance because it would be after the effect.

(3) Confirm that the buried piping covered in the license renewal application consists of the fuel oil piping, service water system piping, and fire protection system piping.

(4) Identify those buried piping that are not covered in the license renewal and clarify why they are not considered in the scope of review.

B. The RAI responses are reasonable except for RAI 2.3.3.15-5. The applicant states that the boundaries are 'viable isolation points', but it is not clear from the response that there will be no problem if leaks were to occur in the unmanaged portions. For example, one pipe feeds to the fuel pool. If the pipe were to leak to the fuel pool, this could cause dilution of the fuel pool, or overflow of the pool. This would be significant.

The fire protection system is not designed to identify the specific location of leaks, although a leak will be detected by the actuation of the fire pump, it won't be clear to the operations staff until a plant walkdown occurs where the leak exists.

I feel that the solution is to include the piping all the way up to the isolation valve in scope. If RNP choose not to do this, a much more significant justification than is currently provided in the RAI will be needed.

C. My concerns relate to the responses to RAIs 2.3.3.8-1, 2.3.3.8-2, and 2.3.3.9-1. For RAI 2.3.3.8-1, the response does not provide sufficient justification to support the applicant's contention that the dam failure described in Sections 9 and 10 of the SAR is not a design basis event. For RAI 2.3.3.8-2, the reference to GL 84-04 allows the applicant to credit leak-before-break in protecting CCW system piping from rupture of large-diameter RCS piping, but ruptures of SI, PZR spray, and S/G blowdown piping are also credible initiators of missiles capable of damaging CCW piping. Finally, for RAI 2.3.3.9-1, Amendment 156 credits the redundant SFP cooling pump and makeup from the RWST in preventing a substantial loss of coolant inventory, which is a design basis event.

D. Open Item related to response to RAI 3.5.1-19:

a. Please provide a summary of the technical evaluation performed that concludes that potential degradation in the inaccessible areas as indicated by the inspection in accessible areas is acceptable until the scheduled one-time inspection in 2005. (This can be verified during AMR inspection).

b. The corrective action related to liner plate corrosion: The applicant states that "identified corrosion will be prepared, recoated, and new moisture barrier installed." Without knowing the extent of corrosion, how the applicant decided that just recoating of the corroded areas would suffice. The corrective action should include the techniques required to bring the liner to its design thickness, e. g. weld overlays or coring the degraded areas and replacing with new compatible liner plate. Please discuss the corrective actions in terms of the extent of liner degradation.

In RAIs related to the review of Section B.3.13 of the LRA, I had indicated an item that should be included in AMR inspection. I am keeping the item hanging in my DSER until the findings in the associated inspection report. The Item is:

II B3.13-1 Confirm the reasonableness of the containment degradation accepted without repairs or corrective actions. ----------Inspection Item during AMP inspection.

E. The applicant listed the TLAAs applicable to RNP in Table 4.1-1 of the LRA. Tables 4.1-2 and 4.1-3 in NUREG-1800 identify potential TLAAs determined from the review of other license renewal applications. In RAI 4.1-1 the staff requested that the applicant discuss:

1. Whether there are any calculations or analyses at RNP that address the topics listed in Tables 4.1-2 and 4.1-3 of NUREG-1800 and were not included in Table 4.1-1 of the LRA.
2. Discuss how these calculations or analyses were evaluated against the TLAA definition provided in 10 CFR 54.3 if they do exist.

In its RAI response dated April 28, 2003, the applicant indicated that documentation existed for the following topics listed in NUREG-1800 that are applicable to PWR facilities and were not included in Table 4.1-1 of the LRA of RNP are:

1. In service flaw growth analysis of structure stability
2. Metal containment corrosion allowance
3. High energy line break analysis based on cumulative usage factor
4. Reactor vessel low temperature over pressure protection (LTOP) analysis
5. Main steam supply lines to AFW pump

6. RCP flywheel fatigue analysis
7. Reactor vessel internals transient analysis
8. Reactor vessel internals fracture toughness ductility reduction
9. Containment liner plate fatigue analysis

The applicant stated that there are no high energy line break analysis (item 3) for RNP that rely on fatigue cumulative usage factors, such as those in R.G. 1.46, to identify potential postulated break locations. Based on the results of the search for RNP-specific TLAAs, the calculations or analyses that were identified for these generic TLAA categories, include the reactor vessel for LTOP analysis (item 4), the main steam supply lines to AFW pump (item 5), and the RCP flywheel fatigue analysis (item 6).

The analysis of the main steam supply lines to the AFW pump (item 5) is addressed in LRA Subsection 4.3.2. No explicit fatigue analysis of the main steam supply lines to the steam-driven AFW pump has been identified for RNP. Items 4 and 6 were determined to not meet the criterion from 10 CFR 54.3 that the analysis involves time-limited assumptions defined by the current operating term. The RNP LTOP analyses (item 4) have been performed for periods less than the current operating term and are periodically updated. Further discussion on this matter is provided in RNP Response to RAI 4.2.3-1, Part 2.. The RCP flywheel fatigue analysis (item 6) has been performed using an operating life of 60 years.

The RAI response does not address the reasons why items 1, 2, 7, 8, and 9, identified in the RAI response, were not included in Table 4.1-1 of the LRA. The staff finds further justifications are required. This is defined as open item 4.1.2-1.

CC: Clements, Talmage; Kozyra, Jan

Accession no.: ML031280684

Document name: C:\ORPCheckout\FileNET\ML031280684.wpd