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**Martin, Robert**

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**From:** Auluck, Rajender *NR*  
**Sent:** Wednesday, September 14, 2011 2:49 PM  
**To:** Khanna, Meena; Martin, Robert  
**Subject:** North Anna Question 091411.docx  
**Attachments:** North Anna Question 091411.docx

Meena/Robert,

Please see the updated draft. Question 7 may be expanded.

Raj

*D/148*

## Potential License Renewal Questions for North Anna

For all in-scope license renewal components, respond to the following:

1. For all TLAA's submitted with the License Renewal Application and its amendments:
  - State whether the recent seismic activity has resulted in a change to the disposition of any TLAA such that the original conclusions do not remain the same.
  - For any dispositions that have changed, state how the TLAA is now dispositioned (i.e., 10 CFR 54.21(c) (1) (i), 10 CFR 54.21(c) (1) (ii), or 10 CFR 54.21(c) (1) (iii).
  - State the basis for the acceptability of the change in disposition. For example, if a disposition changed from 10 CFR 54.21(c) (1) (i) to 10 CFR 54.21(c) (1) (iii), state how the aging effects will be adequately managed throughout the period of extended operation.
  - According to the North Anna UFSAR Table 5.2-4, faulted conditions (Design Basis Earthquake) are not included in the fatigue analysis of the plant components and structures. In addition, OBE earthquakes are also not included in the fatigue analysis. Therefore, for all TLAA's submitted with License Renewal Application (LRA) and its amendments: provide revised fatigue analyses that include the impact of the August 2011 earthquake on the long term operation of the plant (40-60 years). These analyses should also include the impact of earthquake aftershocks, and consider five additional OBE level earthquakes that may occur until the end period of extended operation.
2. While the staff acknowledges that a seismic event is a near singular aging event, given that the recent seismic activity exceeded the current seismic licensing basis with multiple aftershocks, state how:
  - It was concluded that no existing flaws or defects sizes were impacted such that augmented license renewal inspections need not be conducted.
  - It was concluded that no new flaws or defects occurred such that augmented license renewal inspections need not be conducted.
3. The concrete containment, penetrations, isolation valves, and equipment/personnel hatches were subjected to beyond design basis seismic forces. Please describe the plans and schedule to perform the SIT, ILRT, and ILLRT to demonstrate the ability of the containment to perform its intended function during the period of extended operation.
4. State what augmented license renewal inspections will be conducted at displacement sensitive locations (e.g., tank nozzle connections, piping transitioning between buildings or from a building to the soil, where differential seismic movements occur) to confirm that there was no impact to the pressure boundary function (i.e., PB) or structural and/or function support function (i.e., SNS, SS, SSR), or state the basis for why augmented inspections are not required for programs such as Tank Inspection Activities and Buried Piping and Valve Inspection Activities, or state the basis for why such inspections are not required.
5. State what augmented license renewal inspections will be conducted for structures and piping/component supports to ensure that seismic displacements did not result in significant cracking for concrete and masonry walls, or loss of form for soil, or state the basis for why such inspections are not required.

6. LRA Section B2.2.2, Battery Rack Inspections program states that, "A seismic event would be the limiting condition for battery support rack Integrity." It also states that the program conducts visual inspections. Given that the recent seismic activity exceeded the current seismic licensing basis, state whether augmented surface or volumetric inspections will be conducted to ensure that the battery racks are capable of performing their CLB function. If augmented inspections will not be performed, state the basis why these inspections are not required.
  
7. During the August 2011 earthquake, the reactor internals were also potentially subjected to beyond design basis loads. Please describe the plans and schedule for inspecting the reactor internals. If the reactor internals are not planned to be inspected, please provide the basis for this decision.