

North Anna Site Visit Notes (Week of August 22, 2011)

Yong Li and George Thomas from NRR/DE conducted a site visit at North Anna during the week of August 22, 2011, to evaluate the issues related to the recent earthquake. They met with the licensee and presented questions from NRR/NRO/RES to the licensee and looked at Earthquake instrument panel in the control room. A summary of the status of the visit, to date, is provided below:

- The licensee conducted the 1st walkdown of the plant with focus on safety related SSC (except the containment) within 8 hours in accordance with the North Anna Power Station abnormal procedure for seismic event. From the walkdown, the licensee identified many discrepancies for which condition reports have been written. The damages noted were generally minor.
- Among the items identified through the initial walkdown, the bushing of all four transformers were found to be damaged and the oil leaked from the transformer which caused the turbine generator to trip, resulting in shutdown of the reactor. The other items were identified to be "superficial," such as, minor cracks on walls, loose insulation, conduits coming lose, 25 of 27 ISFSI vertical casks moved horizontally 0.5 inches to 3 inches, etc.
- The licensee conducted the 2nd walkdown after the aftershock triggered at 2 am on 8/25/11; however, no additional discrepancies were identified. In the mean time, the licensee is in the process of developing specific guidance in preparation for detailed walkdowns.
- The licensee indicated that all seismic monitors are contained in the Unit 1 containment at different levels of the structures as well as in the auxiliary building. No seismic monitors are located in the Unit 2 building.
- Scratch plate readings from the auxiliary building basemat were sent to California to be interpreted by a vendor. We were informed that the time histories initially sent to Calvert Cliffs are being sent to California to be interpreted. Those interpretations were received by the licensee for the auxiliary building. Scratch plates from Unit 1 containment basemat have been sent to California.
- Since the licensee doesn't have a seismic monitor located in the free field on the free surface, therefore, a strictly comparison of ground motion for SSE and OBE is difficult. However, the staff confirmed with the licensee that design response spectra at the mat and different levels are available and a comparison can be carried out between the original design and the recorded data when all the seismic readings from the seismometers are confirmed.
- On August 26, the licensee declared all safety-related SSCs of Units 1 and 2 inoperable, based on growing pieces of evidence that the DBE may have been exceeded at the site.

B/1