

King, Mark

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From: King, Mark
Sent: Monday, September 12, 2011 7:24 AM
To: Bernardo, Robert
Subject: RE: North Anna - UNANALYZED CONDITION BASED ON SEISMIC ACTIVITY THAT POTENTIALLY EXCEEDED DESIGN BASIS EARTHQUAKE MAGNITUDE

RE: NEW EN 47201 from North Anna. With this issue below, the ALERT, the AIT, etc. John for political reasons would like to go ahead and screen this item in as an IFR, sooner rather than later (i.e. no need to wait for the AIT report before screening-in, and certainly screen in within this fiscal year). FYI –
Thanks, Mark

North Anna - UNANALYZED CONDITION BASED ON SEISMIC ACTIVITY THAT POTENTIALLY EXCEEDED DESIGN BASIS EARTHQUAKE MAGNITUDE

"On August 23, 2011 at 1351 hours, North Anna Power Station experienced a seismic activity event which resulted in a loss of offsite power and automatic reactor trip of both units. At 1403 hours, an Alert was declared, based on Shift Manager judgment, due to significant seismic activity on the site. Subsequent to the earthquake, both units were stabilized and offsite power was restored. Following the event, seismic data was retrieved from the installed monitoring system and shipped to the vendor to determine the response spectrum for the event. On August 26, 2011 at 1340 hours, initial reviews of the data determined that the seismic activity potentially exceeded the Design Basis Earthquake magnitude value above 5 Hz. Therefore, this is reportable per 10CFR50.72(b)(3)(ii) (B) for the nuclear power plant being in an unanalyzed condition that significantly degrades plant safety.
"North Anna Unit 1 is currently in Cold Shutdown with the Residual Heat Removal System providing core cooling.
North Anna Unit 2 is currently in Hot Shutdown and will be taken to Cold Shutdown with the Residual Heat Removal System providing core cooling. No significant equipment damage to Safety Related system (including Class 1 Structures) has been identified through site walk-downs nor has equipment degradation been detected through plant performance and surveillance testing following the earthquake. Therefore, there is reasonable assurance that the Safety Related systems are fully functional.
"The Spent Fuel Pit cooling system also remains fully functional and the temperature of the Spent Fuel Pit remained unchanged during the event.
"The vendor will complete the analysis of the seismic data and this information will be utilized to address the long term actions following the earthquake."
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Event #
The licensee notified the NRC Resident Inspector.
* * * UPDATE FROM DON TAYLOR TO PETE SNYDER AT 1739 EDT ON 9/9/11 * * *
"This is an update to EN 47201 reported on 8/26/2011 where it was reported that North Anna potentially exceeded the Design Basis Earthquake (DBE) magnitude value above 5 Hz.
"The vibratory motion from the 5.8 magnitude earthquake were recorded in all three orientations at several locations in the plant using two types of instruments: the Engdahl scratch plates that record 12 discrete spectral accelerations between 2 and 25.4 Hz, and the Kinometrics analog recorders that recorded time histories of the

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accelerations. Based on evaluation of recorded plant data, it is concluded that the Central Virginia earthquake of 8/23/2011 exceeded the spectral accelerations for the Operational Basis Earthquake (OBE) and DBE of North Anna Plant.

"Extensive actions are underway to inspect, evaluate, test, and repair if necessary, systems and components to ensure they are capable of performing their required functions. To date, no significant damage to safety related structures, systems or components (SSC) has been identified."

The licensee notified the NRC Resident Inspector.

Notified R2DO (Rich).