132

Uribe, Juan

From: Khanna, Meena
Sent: Tuesday, September 13, 2011 3:19 PM
To: Roquecruz, Carla
Cc: Uribe, Juan; Manoly, Kamal
Subject: boxer question

Carla, pls use this response for clarification
Juan, pls revise in comm. plan..thanks

Q4. There have been reports that the plant was designed to withstand a 5.9-6.1 magnitude earthquake and the earthquake experienced was a 5.8 magnitude earthquake. Given the current understanding of the seismic risks, describe the difference in the margin of safety assumed at the time the plant was built versus when the earthquake occurred.

Answer to Q4:

As indicated in the response to Q3 above, the design of NAPS is based on a Modified Mercalli Intensity (MMI) of VII. This intensity does not correlate directly with the measured magnitude 5.8 experienced at the plant site. The preliminary information on the measured response spectra from the ground motion experienced by plant structures indicates that the ground motion may have exceeded the design spectra at certain frequencies, however, well within the IPEEE review level earthquake mentioned above, except for some structures and components whose capacity are yet to be verified. This does not appear to appreciably encroach on the built-in seismic design margin of safety related structures and components. It should be noted that the ground response spectrum from the recent earthquake experienced at North Anna is weaker than the anticipated response spectrum the licensee would be expected to use in its seismic risk evaluation in conjunction with the response to the proposed generic letter for Generic Issue 199, "Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States on Existing Plants," currently under development.

Meena Khanna, Branch Chief
Mechanical and Civil Engineering Branch
Division of Engineering
Office of Nuclear Reactor Regulation
(301)415-2150
meena.khanna@nrc.gov

P/132