

PMTurkeyCOLPEm Resource

From: Comar, Manny
Sent: Thursday, December 03, 2015 9:07 AM
To: TurkeyCOL Resource
Subject: FW: NRC/FPL Clarification on Hurricane Missiles eRAI 6544

From: Franzone, Steve [mailto:Steve.Franzone@fpl.com]
Sent: Thursday, December 03, 2015 8:30 AM
To: Comar, Manny
Cc: CHILDRESS, ELWOOD ; Maher, William ; TurkeyCOL Resource ; Burkhart, Lawrence ; Hughes, Brian
Subject: [External_Sender] NRC/FPL Clarification on Hurricane Missiles eRAI 6544

Manny

Here is a brief description of the additional work to be performed to address the recent NRC clarification requests.

A clarification call with the NRC was held on November 18 during which the FPL hurricane missile analysis work was discussed. The NRC requested the following information be provided:

- There was a question about the distance of the impact load from the edge of the slab. During the call, the NRC staff indicated that for beam shear calculations the distance of the load from the edge of the slab should be the effective depth of the beam, d as required by the ACI code. Westinghouse was requested to confirm if this was done for the hurricane missile analysis.
- The NRC requested a comparison between the shear stresses obtained by hand calculations for one-way beam action and the results obtained by the finite element method for corner and edge impacts.

For item 1, a review of the analysis shows the distance from the edge of the slab to the impact load that was used in the analysis was $d/2$, which is appropriate (and also conforms to the ACI code) for punching shear. To address beam shear and the impact distance d , some new finite element cases will be performed.

For item 2, The requested comparison will be performed. It should be noted that the results from the finite element method will be more accurate.

The schedule of this work is very tight due vendor resource constraints caused by the time of year and the work in support of LAR-30 (the turbine building first bay wall missile impact). It is anticipated that the submittal will be sent the first week in February.

Thanks

Steve Franzone

NNP Licensing Manager - COLA

"Before anything else, preparation is the key to success." ~ Alexander Graham Bell

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