FAQ 020: Tsunamis – Combining Water Levels

A. TOPIC: Tsunamis – Combining Water Levels

Source document: JLD-ISG-2012-06 Section: 4

B. DESCRIPTION:

Guidance document JLD-ISG-2012-06, Enclosure 2, Tsunami Hazard Assessment, Section 3.4.2 states that "*Section 4 addresses post-modeling tsunami water level additions, such as wind waves and wave run-up*." While section 4.2 addresses wave run-up, no guidance is given in Section 4 with regards to wind waves. This inquiry is intended to clarify the requirements as to the appropriate combinations of the effects of tsunami and other natural phenomena.

C. Initiator:

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D. RESOLUTION: (Include additional pages if necessary. Total pages: 1)
Inquiry number: 20 Priority: High

Wind waves are considered a separate event, which shall be considered in accordance with NUREG CR-7046, Appendix H, "Combined-Effect Floods." Specifically, section H.5 should be used for combinations involving Probable Maximum Tsunami (PMT). This section states that for a shore location, the combination is: PMT run-up and antecedent 10 percent exceedence high tide. However the guidance in section H.5 of the NUREG is misleading in that the PMT run-up estimation already includes the 10 percent exceedence high tide, therefore adding the high tide parameter to PMT run-up is not necessary (and would result in double counting of this effect).

This resolution is consistent with new reactor tsunami hazard assessments for combined licenses and early site permits. For example, this combination for shore locations was specifically reviewed and accepted as part of the COLAs for the Levy Nuclear Plant Units 1 and 2 (ref. FSAR section 2.4.6.6.3.9), Turkey Point Units 6 & 7 (ref. FSAR section 2.4.6.4.1.2), and Calvert Cliffs Nuclear Power Plant (CCNPP FSAR Section 2.4.6.5).

Revision: 2 Date: 06-06-2013

E. NRC Review:

Not Necessary Necessary X
Explanation:

F. Industry Approval:

Documentation Method: June 6, 2013 meeting summary Date: 06-07-13

G. NRC Acceptance:

Interpretation X Agency Position

Documentation Method: Date: