

PMTurkeyCOLPEm Resource

From: Comar, Manny
Sent: Tuesday, July 26, 2011 4:43 PM
To: orthen, Richard; Raymond Burski; Steve Franzone; STEVEN.HAMRICK; TurkeyCOL Resource; William Maher
Cc: Comar, Manny
Subject: Draft RAI 5908 related to SRP Section 02.03.01 - Regional Climatology for the Turkey Point Units 6 and 7 combined license application.
Attachments: draft RAI 5908_TPN.doc

To All,

Attached is the draft RAI 5908 related to SRP Section 02.03.01 - Regional Climatology for the Turkey Point Units 6 and 7 combined license application.

If you need a conference call to discuss the question(s) of the draft RAIs please contact me at 301-415-3863. Unless you request additional clarification we will normally issue the RAI as final within 3 to 5 days, from today.

Thanks

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Request for Additional Information No. 5908

Turkey Point Units 6 and 7
Florida P and L
Docket No. 52-040 and 52-041
SRP Section: 02.03.01 - Regional Climatology
Application Section: Regional Climatology

QUESTIONS from Siting and Accident Conseq Branch (RSAC)

02.03.01-***

10 CFR 52.17(a)(1)(vi) states, in part, that an application must contain the meteorological characteristics of the proposed site with appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area and with sufficient margin for the limited accuracy, quantity, and time in which the historical data have been accumulated. NUREG-0800, Standard Review Plan (SRP), Section 2.3.1, Regional Climatology, establishes criteria that the NRC staff intends to use to evaluate whether an applicant meets the NRC's regulations. SRP Section 2.3.1 states that the basic 100-year return period 3-second gust wind speed should be based on appropriate standards, with suitable corrections for local conditions.

PTN FSAR Section 2.3.1.3.1 describes the methodology used to derive the site characteristic basic wind speed of 161 mph from Figure 6-1B of ASCE/SEI 7-05. According to Table C6-2 of ASCE/SEI 7-05, the 100 year return period 3-second gust basic wind speed site characteristic value of 161 mph is equivalent to a Saffir-Simpson Category 4 hurricane. FSAR Section 2.3.1.3.3 presents information from the NOAA's Coastal Service Center (CSC) historical hurricane track database on the number of tropical cyclone storm tracks that have passed within a 100-nautical mile (nm) radius of the PTN site from 1851 through 2007. FSAR Section 2.3.1.3.3 states that there have been thirteen Category 3, ten Category 4, and three Category 5 hurricanes to pass within 100 nautical-miles of the PTN site.

Using this same NOAA-CSC database for the same period of record, the staff identified three hurricanes classified as Saffir-Simpson Category 5 at the time they made landfall within 100 nautical miles of the PTN site. For each of these three major hurricanes, the staff used the sustained wind speeds reported in the NOAA-CSC database at landfall along with information presented in Table C6-2 and Figure 6-1B of ASCE/SEI 7-05 to estimate the corresponding 3-second gust wind speed potential at the PTN site. The staff determined that each of these storms potentially result in a 3-second gust wind speed that exceeds the 3-second gust basic wind speed site characteristic value of 161 mph. FSAR Section 2.3.1.3.3 states that wind gusts associated with Hurricane Andrew reached at least 175 mph.

Please provide additional justification regarding how the proposed 100-year return period 3-second gust wind speed site characteristic value for safety-related structures suitably accounts for the historically reported hurricanes, or revise the site characteristic value to suitably correct for these local conditions.

