

PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Wednesday, April 03, 2013 4:44 PM
To: Galvin, Dennis; Woodlan, Don; Conly, John
Cc: ComanchePeakCOL Resource
Subject: Luminant's Response to RAI 03.03.02-9 (Hurricane RAI) - Some Clarification for FSAR Markup

Don/John,

Please review the staff's comments below and let us know if you need a conference call.

(1) In FSAR Section 3.3.2.2.1

3.3.2.2.1 Tornado and Hurricane Velocity Forces

Hurricane velocity pressures for site-specific seismic category I structures are determined by converting hurricane wind speeds into effective velocity pressures in accordance with procedures accepted by SRP 3.3.2 (Reference 3.3-5). Design hurricane loads for seismic category I structures are determined for enclosed and partially enclosed buildings using the analytical procedure method 1 or method 2 provided in Subsection 3.3.1.2. where:

V is the maximum hurricane wind speed = 145 mph

For the design basis hurricane, wind pressure varies with respect to height: therefore, adjustment for wind speed variation with respect to height applies.

The text highlighted in yellow above should be revised as follows:

“SRP 3.3.2” => “SRP 3.3.1”

“(Reference 3.3-5)” => Should be removed (no such reference appears in the CPNPP FSAR).

NRC Staff Comment: Current guidance considers that severe wind (SRP 3.3.1) and Hurricane wind pressures vary with “height”, whereas Tornado (SRP 3.3.2) wind pressure does not. Therefore, Hurricane wind pressure should be calculated following guidance in SRP 3.3.1, not SRP 3.3.2.

(2) In FSAR Section 3.3.2.2.4

3.3.2.2.4 Combined Tornado or Hurricane Effects

Site-specific seismic category I structures, i.e., the UHSRS and exposed portions of the ESWPT and PSFSVs, are designed for the same tornado or hurricane loadings and combined tornado or hurricane effects using the same methods for qualification described for standard plant SSCs.

The text highlighted in yellow above should be revised as follows:

“designed for the same tornado or hurricane loadings” => “designed for the same tornado loadings but for reduced hurricane loadings (corresponding to 145 mph)”, or something like that..

NRC Staff Comment: This discussion is based on the table below excerpted from CPNPP FSAR Table 2.0-1R

Parameter Description	Parameter Value (DCD)	Parameter Value (CPNPP 3&4))
Tornado maximum wind speed	230 mph	230 mph
Design-Basis Hurricane Wind	160 mph	145 mph

Thanks,

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