

PMLevyCOLPEm Resource

From: Anderson, Brian
Sent: Monday, November 01, 2010 2:38 PM
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Subject: DRAFT RAI - SRP section 2.3.1 - Levy County Units 1 and 2 Combined License Application
Attachments: LNP Draft RAI 5145 - 2.3.1 - REVISED.doc

Importance: High

Attached is a revised draft RAI related to SRP section 2.3.1 for the Levy County Units 1 and 2 Combined License Application. This draft RAI has been revised based on discussions from a conference call on October 27, 2010.

If additional discussion is needed, please let me know.

Thank you,
Brian

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Hearing Identifier: Levy_County_COL_Public
Email Number: 696

Mail Envelope Properties (B46615B367D1144982B324704E3BCEED317DA1A137)

Subject: DRAFT RAI - SRP section 2.3.1 - Levy County Units 1 and 2 Combined License
Application
Sent Date: 11/1/2010 2:37:45 PM
Received Date: 11/1/2010 2:37:46 PM
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Files	Size	Date & Time
MESSAGE	476	11/1/2010 2:37:46 PM
LNP Draft RAI 5145 - 2.3.1 - REVISED.doc		40954

Options

Priority: High
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Request for Additional Information No. 5145
Levy County, Units 1 and 2
Progress Energy Florida, Inc.
Docket No. 52-029 and 52-030
SRP Section: 02.03.01 - Regional Climatology
Application Section: Regional Climatology

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

02.03.01-***

The staff has identified apparent inconsistencies in FSAR Section 2.3.1.2.2, "Tornadoes and Severe Winds." Please clarify the following and make any necessary changes to the FSAR:

- The second to last paragraph in FSAR Section 2.3.1.2.2, Revision 1, states that "[a]n importance factor of 1.15 is applied to this wind speed in the design of safety related functions." The staff finds two errors with this statement:
 1. The design (operating basis) wind speed for the AP1000 standard plant is 145 mph, as indicated in the AP1000 DCD Tier 2, Section 3.3.1.1, not the site characteristic wind speeds listed in FSAR Section 2.3.1.2.2.
 2. The importance factor of 1.15 is applied to the velocity pressure, not the wind speed. An importance factor of 1.15 correlates to a wind speed conversion factor of 1.07.
- The following sentence in the paragraph states, "Therefore, the maximum sustained winds for the design-basis tornado would be 119 km/h (74 mph), 143 km/h (89 mph), 195 km/h (121 mph), 153 km/h (95 mph), and 113 km/h (70 mph) for Gainesville, Jacksonville, Orlando, Tallahassee, and Tampa, respectively." The staff finds two errors with this statement:
 1. The term "observed wind speeds" is ambiguous and should be clarified as to the time scale that was used.
 2. These wind speeds are not design-basis tornado wind speeds. The design-basis tornado wind speed for the AP1000 standard plant is 300 mph as indicated in AP1000 DCD Tier 2, Section 3.3.2.1.

02.03.01-***

FSAR Revision 2 provided updated information on operating basis wind speeds. There appears to be some inconsistencies within the context of FSAR Section 2.3.1.2.2, "Tornadoes and Severe Winds." Please clarify the following:

- The first sentence in the second to last paragraph in FSAR Section 2.3.1.2.2 states that "a site characteristic 3-second gust wind speed that represents a 100-year return period for the LNP site has been established at 224 km/h (139 mph)." This sentence conflicts with the next paragraph that states that the (3-second gust 100-year) wind speed site characteristic value in FSAR Table 2.0-201 is 128 mph.

- The second to last paragraph in FSAR Section 2.3.1.2.2 states that, “the maximum published 3-second gust wind speed based on tornado events and severe winds for these stations is 209 km/h (130 mph) (Orlando and Tampa) and is represented as the 50-year return 3-second gust at 10 m (33 ft) above the ground.”

1. The maximum published 3-second gust wind speed is not based on tornado wind speeds.

2. The identification of the 50-year return 3-second gust wind speed site characteristic as 130 mph appears to conflict with following paragraph, and FSAR Table 2.0-201, that states that the 50-year return period wind speed is 120 mph.

DRAFT