LevyCountyRAIsPEm Resource

From: Brian Anderson
Sent: Wednesday, March 04, 2009 1:29 PM
To: LevyCountyRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 016 RELATED TO SRP SECTION 2.3.1 FOR THE LEVY COUNTY UNITS 1 AND 2 COMBINED LICENSE APPLICATION
Attachments: LNP-RAI-LTR-016.doc

Importance: High

Hearing Identifier: Levy_County_COL_eRAIs
Email Number: 17

Mail Envelope Properties (CB87FC66F95637428C5E0D066E756B6FABAE4B7D77)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 016 RELATED TO SRP SECTION 2.3.1 FOR THE LEVY COUNTY UNITS 1 AND 2 COMBINED LICENSE APPLICATION
Sent Date: 3/4/2009 1:28:53 PM
Received Date: 3/4/2009 1:28:54 PM
From: Brian Anderson

Created By: Brian.Anderson@nrc.gov

Recipients:
"LevyCountyRAIsPEm Resource" <LevyCountyRAIsPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	8	3/4/2009 1:28:54 PM
LNP-RAI-LTR-016.doc	81914	

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

March 4, 2009

Mr. Garry Miller
General Manager, Nuclear Plant Development
Progress Energy Florida, Inc.
PO Box 1551
411 Fayetteville Street Mall
Raleigh, NC 27602

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 016 RELATED TO SRP SECTION 2.3.1 FOR THE LEVY COUNTY NUCLEAR PLANT, UNITS 1 and 2 COMBINED LICENSE APPLICATION

Dear Mr. Miller:

By letter dated July 28, 2008, as supplemented by a letter dated September 12, 2008, Progress Energy Florida, Inc. submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967.

Sincerely,

/**RA**/

Brian C. Anderson, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

eRAI Tracking No. 1892

Enclosure:
Request for Additional Information

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967.

Sincerely,

/**RA**/

Brian C. Anderson, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

eRAI Tracking No. 1892

Enclosure:
Request for Additional Information

Distribution:

Public	SCoffin	TSimms	KQuinlan
RidsNroDnrlNwe1	JSebrosky	SGoetz	CCox
RidsNroLAKGoldstein	BHughes	SHaggerty	
RidsOgcMailCenter	MComar	JMartin	
RidsAcrsAcnw_MailCenter	CAraguas	SBrock	
RidsRgn2MailCenter	RJoshi	BAnderson	

NRO-002

OFFICE	RSAC/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	CCox *	BAnderson *	JMartin*	BAnderson*
DATE	01/05/09	01/06/09	01/16/09	03/04/09

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Request for Additional Information
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: General Climate

QUESTIONS for Siting and Accident Consequences Branch (RSAC)

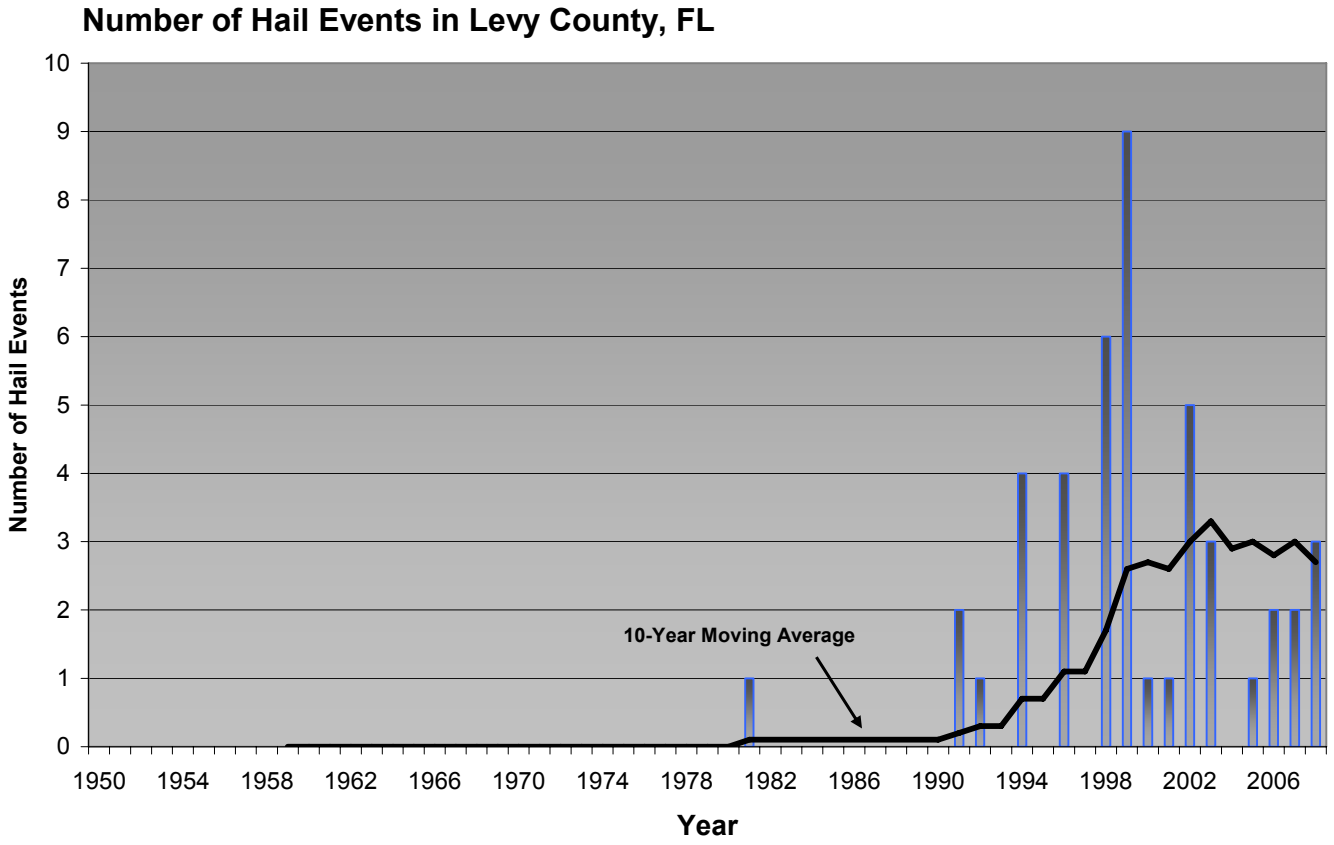
02.03.01-1
Consistent with NUREG-0800, Section 2.3.1, please identify the National Climatic Data Center (NCDC) state climatic division for the proposed site and make the necessary changes to FSAR Section 2.3.1.1, "General Climate."

02.03.01-2
This request for additional information relates to FSAR Table 2.3.1-202.

The staff compared the extreme wind speeds against data from the National Institute of Standards and Technology (NIST) and Texas Tech. A database of peak gust wind speeds is available at http://www.itl.nist.gov/div898/winds/nistttu.htm. The staff found similar values for all of the stations except Tampa, FL. FSAR table 2.3.1-202 lists an extreme wind gust of 61 mph, which occurred during June, 1988, while the NIST database reports an extreme wind gust of 98 mph, which occurred uring May, 1979. Please justify the 61 mph wind speed presented in Table 2.3.1-202. Also make any necessary changes to FSAR Section 2.3.1.2.2.

02.03.01-3
10 CFR 52.79(a)(1)(iii) states, in part, that the COL 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.

The Staff notes that in the NCDC Storm Events Database many severe weather reports are often incomplete or missing for older periods of record. The following graph shows the annual number of hail events that have occurred in Levy County, FL. Note the increase in the number of reported events during the more recent years in the attached graph.



Please revise FSAR Section 2.3.1.2.1 to account for this data deficiency, or provide an explanation why the data presented in Section 2.3.1.2.1 is accurate.

02.03.01-4
From the NCDC database the staff found a total of 1043 reports of waterspouts in the state of Florida between January 1, 1950 and March 31, 2007. This is in contrast to 10 waterspouts reported in FSAR Subsection 2.3.1.2.2 and FSAR Tables 2.3.1.-203 and 2.3.1-205. Please either revise this FSAR Section or justify the number of waterspouts reported.

02.03.01-5
In FSAR Section 2.3.1.2.2, the design-basis tornado maximum wind speed site characteristic for the proposed COL site is given as 230 miles per hour (mi/h); however, in FSAR Table 2.0-201, the same site characteristic is listed as 300 mi/h. Please correct or explain this apparent discrepancy.

02.03.01-6
FSAR Section 2.3.1.2.4 states that hurricanes have made landfall on both the Atlantic and Gulf of Mexico coastlines of Florida.

Consistent with NUREG-0800, Section 2.3.1, please provide the annual frequency of hurricanes that have occurred in the vicinity of the Levy site in FSAR 2.3.1.2.4.

02.03.01-7
FSAR Table 2.3.1-206 summarizes the number of tropical storms and hurricanes in Florida by year and the Saffir-Simpson Scale Category for the period from 1899 – 2007. Please provide a reference for the hurricanes and tropical storms that are summarized from 2003 through 2007 in this table considering the source provided (Reference 2.3-218) only provides data from 1899 through 2002 for Florida.

02.03.01-8
Please justify why the extreme wind basic wind speed site characteristic value for safety-related structures is not based on the most severe hurricanes that have been historically reported for the site and surrounding area.

10 CFR 52.79(a)(1)(iii) states, in part, that the COL 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.

FSAR Section 2.3.1.2.4 presents information from the NOAA National Weather Service Lake Charles, LA Forecast Office to describe the number of hurricanes that have made landfall in Florida from 1899 through 2007. The staff used NOAA's Coastal Service Center (CSC) historical hurricane track database to discover the number of tropical cyclone storm tracks that have passed within a 100-nautical mile (nm) radius of the LNP site from 1851 through 2007, the staff identified 3 hurricanes that were considered as major (i.e., Saffir-Simpson hurricane category 3 or higher) at the time they made landfall. For each of these 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 of ASCE/SEI 7-05 to estimate the corresponding 3-second gust wind speed over land at landfall. Because hurricane wind speeds typically decrease as storms move inland and the LNP site is located approximately 8-miles inland from the Gulf of Mexico, the staff reduced the gust wind speed at landfall by 5 mi/hr, based on the 5 mi/hr reduction in basic wind speed from the coastline to the inland location of the LNP as shown on Figure 6-1B of ASCE/SEI 7-05.

The staff found that two out of the three major landfall hurricanes had projected gust wind speed values which exceeded the applicant's selected extreme wind basic wind speed site characteristic value of 139 mph for safety related structures. Hurricane Charlie (2004) had an estimated inland peak gust of 184 mph. An unnamed storm in 1896 had projected peak wind gusts of 155 mph.

02.03.01-9
The staff noted several design-basis temperatures listed as "not available" in FSAR Table 2.3.1-207. Please clarify further why these temperatures can not be derived or at least estimated, or specify why these temperatures are not necessary.

02.03.01-10
FSAR Table 2.3.1-210 has missing 0% Occurrence values for Gainesville and Orlando. Please either modify FSAR Table 2.3.1-210 to include these values, or provide explanation as to why they are not relevant.

02.03.01-11
The sentence in FSAR 2.3.1.2.7.2, “The estimated Maximum Safety 100-year recurrent non-coincident wet bulb temperature in the region (85.5°F, Tampa) does not exceed the DCD site parameter value of 5.5°F,” does not appear to accurately reflect the data provided in FSAR Table 2.0-201. Please explain this discrepancy or correct the subject sentence.