

PMLevyCOLPEm Resource

From: Anderson, Brian
Sent: Wednesday, December 14, 2011 11:56 AM
To: 'robert.kitchen@pgnmail.com'; Snead, Paul; 'david.waters@pgnmail.com';
'tillie.wilkins@pgnmail.com'
Cc: PMLevyCOLPEm Resource; McGovern, Denise
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 107 RELATED TO SRP
SECTION 2.3.1 FOR THE LEVY COUNTY UNITS 1 AND 2 COMBINED LICENSE
APPLICATION
Attachments: LNP RAI 107.pdf
Importance: High

Attached is RAI Letter No. 107 related to SRP Section 2.3.1 for the Levy County Units 1 and 2 combined license application.

Brian Anderson
301-415-9967
Senior Project Manager, AP1000 Projects Branch 1
Office of New Reactors
U.S. Nuclear Regulatory Commission

Hearing Identifier: Levy_County_COL_Public
Email Number: 935

Mail Envelope Properties (B46615B367D1144982B324704E3BCEED85D7A493C1)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 107 RELATED TO SRP SECTION 2.3.1 FOR THE LEVY COUNTY UNITS 1 AND 2 COMBINED LICENSE APPLICATION
Sent Date: 12/14/2011 11:55:45 AM
Received Date: 12/14/2011 11:55:46 AM
From: Anderson, Brian

Created By: Brian.Anderson@nrc.gov

Recipients:

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Tracking Status: None

"McGovern, Denise" <Denise.McGovern@nrc.gov>

Tracking Status: None

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Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	285	12/14/2011 11:55:46 AM
LNP RAI 107.pdf	116370	

Options

Priority: High

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received:

December 14, 2011

Mr. John Elnitsky
Vice President, Nuclear Plant Development
Progress Energy Florida, Inc.
P.O. Box 14042
Saint Petersburg, FL 33733

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 107 RELATED TO
SRP SECTION 2.3.1 FOR THE LEVY COUNTY NUCLEAR PLANT, UNITS 1
AND 2 COMBINED LICENSE APPLICATION

Dear Mr. Elnitsky:

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, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

eRAI Tracking No. 6201

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, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

eRAI Tracking No. 6201

Enclosure:
Request for Additional Information

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NRO-002

OFFICE	RSAC/BC	NWE1/PM	NWE1/L-PM
NAME	GHatchett *	BAnderson *	BAnderson*
DATE	11/16/11	11/17/11	12/14/11

*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: Regional Climatology

QUESTION for Siting and Accident Conseq Branch (RSAC)

02.03.01-20

10 CFR 52.79(a)(1)(iii) states, in part, that the COL FSAR must include 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 period of time in which the historical data have been accumulated. 10 CFR 100.20(c)(2) states that the meteorological characteristics of the site that are necessary for safety analysis or that may have an impact upon plant design must be identified and characterized and 10 CFR 100.21(d) states, in part, that the meteorological characteristics of the site must be evaluated and site parameters established such that potential threats from such physical characteristics will pose no undue risk to the type of facility proposed to be located at the site.

Nuclear power plants must be designed so that they remain in a safe condition under extreme meteorological events, including those that could result in the most extreme wind events (tornadoes and hurricanes) that could reasonably be predicted to occur at the site. Initially, the U.S. Atomic Energy Commission (predecessor to the NRC) considered tornadoes to be the bounding extreme wind events and issued RG 1.76, "Design-Basis Tornado for Nuclear Power Plants," in April 1974. The design-basis tornado wind speeds were chosen so that the probability that a tornado exceeding the design basis would occur was on the order of 10^{-7} per year per nuclear power plant. In March 2007, the NRC issued Revision 1 of RG 1.76, "Design-Basis Tornado and Tornado Missiles for Nuclear Power Plants." Revision 1 of RG 1.76 relied on the Enhanced Fujita Scale, which was implemented by the National Weather Service in February 2007. The Enhanced Fujita Scale is a revised assessment relating tornado damage to wind speed, which resulted in a decrease in design-basis tornado wind speed criteria in Revision 1 of RG 1.76. Since design-basis tornado wind speeds were decreased as a result of the analysis performed to update RG 1.76, it was no longer clear that the revised tornado design basis wind speeds would bound design-basis hurricane wind speeds in all areas of the United States. This prompted an investigation into extreme wind gusts during hurricanes and their relation to design basis hurricane wind speeds, which resulted in issuing RG 1.221, "Design-Basis Hurricane and Hurricane Missiles for Nuclear Power Plants," in October 2011.

The Levy County COLA incorporates by reference Revision 19 of the AP1000 Design Control Document (DCD). Section 3.5.4 of the DCD states, in part, that the COL applicant must show that missiles caused by external events separate from the tornado have energies less than the tornado missile spectrum energies that the AP1000 is designed to withstand. Further, Section 3.5.4 of the DCD states that if missile energy is greater than the tornado missile spectrum energy evaluated in the DCD, the COL applicant must evaluate and show that it will not compromise the safety of AP1000 safety-related structures and components. In consideration of the guidance provided in RG 1.221, the applicant is requested to describe how the Levy County COLA satisfies the Combined License Information requirement of AP1000 DCD Section 3.5.4, or justify why this information is not needed. As appropriate, the applicant is also requested to provide proposed revisions to the Levy County FSAR that include the updated missile spectrum site characteristic values, or provide a justification as to why this is not necessary.