LeeRAIsPEm Resource

From: Hughes, Brian
Sent: Monday, June 22, 2009 3:28 PM
To: LeeRAIsPEm Resource
Subject: LEE-RAI-LTR-072.doc
Attachments: LEE-RAI-LTR-072.doc

Hearing Identifier: Lee_COL_RAI
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Mail Envelope Properties (D841D501B2C4D244B75AB897F70C14949A167C8B24)

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Sent Date: 6/22/2009 3:28:16 PM
Received Date: 6/22/2009 3:28:17 PM
From: Hughes, Brian

Created By: Brian.Hughes@nrc.gov

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

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June 8, 2009

Mr. Peter S. Hastings, P.E.
Licensing Manager, Nuclear Plant Development
Duke Energy
526 South Church Street
Charlotte, NC 28201-1006

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 072 RELATED TO SRP SECTION: SRP SECTION: 02.04.02 - FLOODS FOR THE WILLIAM STATES LEE III UNITS 1 AND 2 COMBINED LICENSE APPLICATION

Dear Mr. Hastings:

By letter dated December 12, 2007, as supplemented by letters dated January 28, 2008, February 6, 2008 and February 8, 2008, Duke Energy submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advance 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 301-415-6582.

Sincerely,

/**RA**/

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

Docket Nos. 52-018
52-019

Enclosure:
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-6582.

Sincerely,

/**RA**/

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

Docket Nos. 52-018
52-019

eRAI Tracking No. 2679

Enclosure:
Request for Additional Information

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DATE	04/23/09	04/24/09	05/04/09	06/09/09

*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 2679 Revision 0

6/8/2009

William States Lee III, Units 1 and 2
Duke Energy Carolinas, LLC
Docket No. 52-018 and 52-019
SRP Section: 02.04.02 - Floods
Application Section: FSAR Section 2.4.2

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.02-3

In its independent review of the effects of local intense precipitation, the staff determined that the values of Manning's roughness coefficient range from 0.025 to 0.035 for short grass and from 0.030 to 0.050 for high grass (Chow, 1959). The staff also determined that the values of Manning's roughness coefficient range from 0.017 to 0.025 for lined or built-up channels with gravel bottom and formed concrete sides (Chow, 1959). The staff conservatively selected Manning's roughness coefficient values of 0.048, the average of maximums for short and high grass, and 0.025 for paved surfaces in its confirmatory analysis. The applicant had used Manning's roughness coefficient values of 0.035 for grass and 0.015 for paved surfaces. The staff determined during the confirmatory analysis that flow velocities modeled by HEC-RAS changed by up to 20 percent compared to applicant's estimates. Since change in flow velocities may affect the determination of the time of concentration, the applicant should re-evaluate the effects of local intense precipitation based on more appropriate values of Manning's roughness coefficient, or justify why the base values of Manning's roughness coefficient used in the FSAR analysis are conservative.