LeeRAIsPEm Resource

From: Brian Hughes
Sent: Friday, November 07, 2008 9:11 AM
To: LeeRAIsPEm Resource
Subject: RAI LETTER NO. 049 RELATED TO SRP 02.05.02 FOR THE W.S. LEE UNITS 1 AND 2 COLA
Attachments: LEE-RAI-LTR-049.doc

Brian Hughes
Project Manager
NRO/DNRL/NWE1
US NRC
301-415-6582

Hearing Identifier: Lee_COL_RAI
Email Number: 60

Mail Envelope Properties (D841D501B2C4D244B75AB897F70C149481B6825F57)

Subject: RAI LETTER NO. 049 RELATED TO SRP 02.05.02 FOR THE W.S. LEE UNITS 1 AND 2 COLA
Sent Date: 11/7/2008 9:11:25 AM
Received Date: 11/7/2008 9:11:27 AM
From: Brian Hughes

Created By: Brian.Hughes@nrc.gov

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

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Files	**Size**	**Date & Time**
MESSAGE	96	11/7/2008 9:11:27 AM
LEE-RAI-LTR-049.doc	51706	

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

November 7, 2008

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. 049 RELATED TO SRP 02.05.02 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

P.Hastings

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. 1292

Enclosure:
Request for Additional Information

Distribution:

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NRO-002

OFFICE	RGS2/BC	RGS2	OGC	NWE1/L-PM
NAME	CMunson	VGraizer	SBrock*	BHughes*
DATE	9/17/08	9/14/08	09/28/08	11/07/08

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Request for Additional Information No. 1292

William States Lee III, Units 1 and 2
Duke Energy Carolinas, LLC
Docket No. 52-018 and 52-019
SRP Section: 02.05.02 - Vibratory Ground Motion
Application Section: 2.5.2

QUESTIONS for AP1000 Projects Branch 1 (NWE1)

02.05.02-***
FSAR Section 2.5.2.5 describes the Lee Nuclear Site as a hard rock site located on igneous and metamorphic rocks of Paleozoic age with the majority of shear wave velocity measurements exceeding 9,200 ft/sec, and variation in shear wave velocity measurements of several hundred ft/sec centered at the hard rock condition considered to be a negligible variation in site response calculations. Therefore the EPRI 1009684 (2004) ground motion equations are used directly, without calculation of site response and the recommended uniform hazard response spectrum reflects this hard rock condition (FSAR Section 2.5.2.5, p. 2.5-122 and 123).

The velocity profile shown in FSAR Figure 2.5.4-249 (NW corner of the site) demonstrates shear-wave velocity less than 5500 ft/sec in the upper ~40 ft. This velocity profile also demonstrates high impedance contrast between upper and lower layers at the depth of about 82 ft below the yard grade. Other velocity profiles also show velocities lower than 9200 ft/sec.

Please provide the basis for your decision not to do a site response analysis in consideration of the shear wave velocity less than 5500 fps for the unit shown in FSAR Figure 2.5.4-249. Please explain if this layer will disqualify the site as a “hard rock” site and what is the potential impact of this material to the GMRS calculation.