

## LeeRAIsPEm Resource

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**From:** Brian Hughes  
**Sent:** Wednesday, January 14, 2009 10:28 AM  
**To:** LeeRAIsPEm Resource  
**Subject:** RAI LETTER NO. 051 RELATED TO SRP SECTION: 02.05.02 - VIBRATORY GROUND MOTION FOR W.S. LEE UNITS 1 AND 2 COL  
**Attachments:** LEE-RAI-LTR-051.doc

**Hearing Identifier:** Lee\_COL\_RAI  
**Email Number:** 73

**Mail Envelope Properties** (D841D501B2C4D244B75AB897F70C1494857777FD83)

**Subject:** RAI LETTER NO. 051 RELATED TO SRP SECTION: 02.05.02 - VIBRATORY  
GROUND MOTION FOR W.S. LEE UNITS 1 AND 2 COL  
**Sent Date:** 1/14/2009 10:28:12 AM  
**Received Date:** 1/14/2009 10:29:25 AM  
**From:** Brian Hughes

**Created By:** Brian.Hughes@nrc.gov

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

**Post Office:** HQCLSTR01.nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	3	1/14/2009 10:29:25 AM
LEE-RAI-LTR-051.doc	56430	

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

P.Hastings

January 14, 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. 051 RELATED TO  
SRP SECTION: 02.05.02 - VIBRATORY GROUND MOTION 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.

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

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. 1589

Enclosure:  
Request for Additional Information

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NRO-002

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NAME	CMunson*	Vraizer	SBrock*	BHughes*
DATE	11/03/08	10/30/08	11/14/09	01/14/09

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

Request for Additional Information No. 1589

1/14/2009

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 Geosciences and Geotechnical Engineering Branch 2 (RGS2)

02.05.02-48

FSAR section 2.5.2.4 Table 2.5.2-218 "Controlling Earthquakes from Deaggregation" lists the low and high frequency controlling earthquakes magnitude and distance pairs for 10-4, 10-5 and 10-6 annual frequency of exceedance. For 10-4 and 10-5, the high frequency controlling earthquakes are distant events rather than a local event. This differs from the controlling earthquake magnitude and distance from the earlier EPRI-SOG and LLNL NUREG/CR-6606 studies. For example, the Summer site HF controlling earthquake was M 5.5 at a distance of 13 km, and for the three sites shown for comparison in Table 2.5.2-216:

Oconee site HF controlling earthquake was M 5.6 at a distance of 15 km,  
Catawba site HF controlling earthquake was M 5.5 at a distance of 13 km,  
McGuire site HF controlling earthquake was M 5.5 at a distance of 14 km.

Please justify the absence of a local high frequency controlling earthquake for Lee site and explain how the local event spectral shape was incorporated into the site response analysis for Lee.