HarrisRAIsPEm Resource

From: Hughes, Brian
Sent: Wednesday, August 11, 2010 2:36 PM
To: HarrisRAIsPEm Resource
Subject: RAI Letter No. 074 TO SRP 02.05.04 -STABILITY OF SUBSURFACE MATERIALS FOR THE SHEARON HARRIS UNITS 2 & 3 COLA

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 074 RELATED TO SRP SECTION 02.05.04 -STABILITY OF SUBSURFACE MATERIALS AND FOUNDATIONS FOR THE SHEARON HARRIS UNITS 2 AND 3 COMBINED LICENSE APPLICATION

Dear Mr. Elnitsky:

By letter dated February 18, 2008, Progress 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, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-022
52-023

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

Docket Nos. 52-022
52-023

ERAI Tracking No. 4944

Enclosure: Request for Additional Information

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DATE	07/30/10	07/30/10	08/11/10	08/11/10

*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 4944

8/11/2010

Shearon Harris
Progress Energy Carolinas, Inc.
Docket No. 52-022 and 52-023
SRP Section: 02.05.04 - Stability of Subsurface Materials and Foundations
Application Section: 2.5.4

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)

02.05.04-16
The AP1000 DCD has changed the classification of one bay of the Turbine Building to a Seismic Category 2 structure. In accordance with 10 CFR 100.23, provide an explanation of how this change in structure classification may alter your backfill plans, especially since the Category 2 Annex Building is on concrete overlying rock.

02.05.04-17
FSAR Table 2.5.4-209 provides the results of the strength testing of the clayey soils, which are the bases for your shear strength parameter (cohesion) used in the bearing capacity analysis considering the oriented rock discontinuity sets submitted in response to RAI 2.5.4-8. FSAR Table 2.5.4-209 also shows that some of the deviator stress results for the nine UU tests were high, while others were low, and the median value was 5.35 ksf, or Su = 2675 psf. Nearly half of the UU sample results presented in this table had less shear strength than assumed for the soil strength below the rock surface, 2200 psf, including some of the samples tested at 4.0 ksf confining pressure. In accordance with guidance in RG 1.206 and RG 1.138, provide an additional explanation regarding the UU test details and an interpretation of the results by providing information on the sample condition prior to testing, saturation level at cell pressure, failure pattern, and other details that may assist the staff in evaluating the UU test results.

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From: Hughes, Brian

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Recipients:
"HarrisRAIsPEm Resource" <HarrisRAIsPEm.Resource@nrc.gov>
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