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SOUTHERN COMPANY
Energy to Serve Your World℠

SEP 6 2006

AR-06-1948
10 CFR 52, Subpart A

U.S. Nuclear Regulatory Commission
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Washington, DC 20555-0001

Southern Nuclear Operating Company
Project Number: 00737
Vogtle Electric Generating Plant Early Site Permit Application
Site Safety Analysis Report Table 2.5.2-23, Supplement S2

Ladies and Gentlemen:

By letter AR-06-1579, dated August 14, 2006, Southern Nuclear Operating Company (SNC) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) requesting an Early Site Permit (ESP) for two additional reactors at the Vogtle Electric Generating Plant (VEGP) site near Waynesboro, Georgia. The application was submitted in accordance with Part 52, Subpart A of Title 10 of the Code of Federal Regulations. Based on subsequent discussions with the NRC regarding ESP Application Site Safety Analysis Report (SSAR) Table 2.5.2-22, *SSE Amplitudes (g) for the Hypothetical Outcrop of Highest Competent in Situ Layer (Top of Blue Bluff Marl)*, SNC is providing an additional table to assist in the review of SSAR Section 2.5.2. Thus, the enclosure to this letter contains new Table 2.5.2-23, *Selected SSE Amplitudes (g) for additional frequencies for the hypothetical outcrop of highest competent in situ layer (top of Blue Bluff Marl).* This table and supporting text will be included in the next revision of the application following Table 2.5.2-22.

This material does not contain restricted data or other defense information that requires separation from the unclassified information in accordance with 10 CFR 50.33(j) pursuant to 10 CFR 52.17(a)(1).

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If you have any questions regarding this letter, please contact Mr. J. T. Davis at (205) 992-7692.

Respectfully submitted,
SOUTHERN NUCLEAR OPERATING COMPANY

Joseph A. (Buzz) Miller

Sworn to and subscripted before me this 6th *day of* September, *2006*

Debra Bates
Notary Public

DEBRA BATES
NOTARY PUBLIC
ALA. STATE AT LARGE
MY COMMISSION EXPIRES
July 2, 2008

JAM/BJS/dmw

Enclosure: Vogtle Early Site Permit Application Site Safety Analysis Report Table 2.5.2-23 and supporting text – Supplement S2

cc: Southern Nuclear Operating Company
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Southern Nuclear Operating Company

AR-06-1948

Enclosure

Vogtle Early Site Permit Application

Site Safety Analysis Report

Supplement S2

Table 2.5.2-23
&
Supporting Text

Revise text in 2.5.2 to support addition of Table 2.5.2-23

Revise last paragraph in Section 2.5.2.6.3 from:

Figure 2.5.2-38 shows the spectrum computed in this manner, for the frequency range 0.1 Hz to 100 Hz. The circles are SSE values calculated according to the ASCE 43-05 **(ASCE 2005)** criterion, as shown in Table 2.5.2-22. The spectrum is smoothed between SSE points as described above. This spectrum is the VEGP ESP horizontal SSE and is specified at the free ground surface of a hypothetical outcrop of the top of the Blue Bluff marl. Figure 2.5.2-44 also shows the VEGP ESP horizontal SSE.

To:

Figure 2.5.2-38 shows the spectrum computed in this manner, for the frequency range 0.1 Hz to 100 Hz. The circles are SSE values calculated according to the ASCE 43-05 **(ASCE 2005)** criterion, as shown in Table 2.5.2-22. The spectrum is smoothed between SSE points as described above. The SSE values of Table 2.5.2-22 and selected SSE values for intermediate frequencies are shown in Table 2.5.2-23. This spectrum is the VEGP ESP horizontal SSE and is specified at the free ground surface of a hypothetical outcrop of the top of the Blue Bluff marl. Figure 2.5.2-44 also shows the VEGP ESP horizontal SSE.

Table 2.5.2-23 Selected SSE Amplitudes (g) for additional frequencies for the hypothetical outcrop of highest competent in situ layer (top of Blue Bluff Marl)

Control point	Freq, Hz	SSE	Freq, Hz	SSE	Freq, Hz	SSE
86' depth	100.00	0.305	10.00	0.801	1.00	0.308
	79.37	0.316	7.88	0.807	0.80	0.281
	63.00	0.336	6.25	0.777	0.63	0.350
	50.00	0.381	5.00	0.719	0.50	0.359
	39.69	0.461	3.94	0.717	0.40	0.191
	31.50	0.563	3.20	0.740	0.32	0.097
	25.00	0.675	2.50	0.710	0.25	0.056
	19.85	0.754	2.02	0.598	0.20	0.033
	15.75	0.798	1.60	0.501	0.16	0.023
	12.50	0.816	1.27	0.435	0.13	0.015
					0.10	0.010