

## Vogle PEmails

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**From:** Davis, James T. [JTDAVIS@southernco.com]  
**Sent:** Thursday, May 29, 2008 11:17 AM  
**To:** Christian Araguas  
**Cc:** Moore, Don P.  
**Subject:** Roadmap for use of 2.5E  
**Attachments:** Vogtle ESP Seismic Site-specific Cross Ref.doc

Christian,

I meant to send this earlier. This is the road map for use of the 2.5E appendices. You may need this for todays audit.

Jim Davis  
205.253.1248

**Hearing Identifier:** Vogtle\_Public\_EX  
**Email Number:** 38

**Mail Envelope Properties** (25D451237887BA41B1B921CCC461E43C0D9DD2)

**Subject:** Roadmap for use of 2.5E  
**Sent Date:** 5/29/2008 11:16:49 AM  
**Received Date:** 5/29/2008 11:20:38 AM  
**From:** Davis, James T.

**Created By:** JTDAVIS@southernco.com

**Recipients:**

"Moore, Don P." <DPMOORE@southernco.com>  
Tracking Status: None  
"Christian Araguas" <Christian.Araguas@nrc.gov>  
Tracking Status: None

**Post Office:** ALXAPEX46.southernco.com

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MESSAGE	167	5/29/2008 11:20:38 AM
Vogtle ESP Seismic Site-specific Cross Ref.doc		38464

**Options**

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

**Appendix 2.5E – AP1000 Vogtle Site Specific Evaluation Report**  
**Cross Reference**

<b><u>App. 2.5E Section:</u></b>	ESP Soil Data (ESP)	Sensitivity study of Higher Backfill Vs (SEN)	<b><u>Related ESP SAR Section:</u></b>	Comments:
<u>3.0 Vogtle Site Specific Input:</u> Figure 3-3 Acceleration Response Spectra - Input Outcrop Motion at 40' Depth	Yes	N/A	Section 2.5.2.6.4.2; Fig. 2.5.2-48b Fig. 2.5.2-49b Fig.2.5.2-50b	
<u>3.0 Vogtle Site Specific Input:</u> Last Paragraph; see comments.	N/A	Yes	2.5.2.9.1 Sensitivity for Backfill Vs. This section briefly describes the purpose of the sensitivity study and conclusions but refers to App. 2.5E for the complete details.	<u>3.0 Vogtle Site Specific Input:</u> “...a new set of FIRS; time histories... The results of this sensitivity study (SEN) are provided in Sections 5.0, 6.0, and 7.0”
<u>3.0 Vogtle Site Specific Input:</u> Figures 3-4 & 3-5 Comparison of AP1000 CSDRS to Vogtle 40' Outcrop FIRS & GMRS	Yes	See Comments	Fig. 2.5.2-44a FIRS at 40' Depth Fig. 2.5.2-44b GMRS	<u>3.0 Vogtle Site Specific Input:</u> Last Paragraph: “...a new set of FIRS; time histories...” Note that plot of FIRS for SEN study not provided.
<u>4.0 Seismic Models</u> <i>[No discussion of the study of the effects of backfill geometry on seismic response based on seismic modeling is provided in App. 2.5E since the study and results were provided earlier in ESP SAR</i>	Yes (subset)	N/A	2.5.2.9.2 Study of the effects of Backfill Geometry	Results of sensitivity study of the effects of backfill geometry confirm that the extent and geometry of the backfill has

2.5.2.9.2]				negligible effects on response. See ESP SAR section 2.5.2.9.2 and Fig. 2.5.2-52 through 2.5.2.5-64. This ESP section provides the response to RAI 2.5.4-23.
<u>5.0 Soil Cases and SSI Analyses:</u> Figure 5-1 Shear Wave Velocities for the ESP and SEN Soil Cases	Yes	Yes	Figure 2.5.2-51	Low Strain
<u>6.0 Stability Analysis:</u> Sliding coefficient of friction equals 0.45	See comments	See comments	Table 2.5.4-1 (ESP) Table 2.5.4-1a (COL)	App. 2.5E provides factors of safety for both ESP and SEN seismic demand.
<u>7.0 Foundation Bearing Pressures</u>	See comments	See comments	2.5.4.10.1 <u>Bearing Capacity</u>	App. 2.5E provides max. dynamic bearing pressures for both ESP and SEN seismic demand. Bearing capacity provided in ESP SAR 2.5.4.10.1 and is based COL soil data.
<u>8.0 Settlement of Foundations</u>	N/A	N/A	2.5.4.10.2 <u>Settlement Analysis</u>	Detailed settlement analysis is Ref. 3 of App. 2.5E.