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10 CFR 50.4  
10 CFR 52.79

May 15, 2009

UN#09-248

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016  
Calvert Cliffs Nuclear Power Plant, Unit 3  
Transmittal of Revised Schedule for Seismic Analysis and Geotechnical Deliverables

Reference: G. Gibson (UniStar) Letter to Document Control Desk (NRC), Transmittal of Schedule for Seismic Analysis and Geotechnical Deliverables, dated April 22, 2009.

As was stated during the Public Meeting on April 17, 2009, and in the referenced letter, UniStar Nuclear Energy explored alternatives to accelerate the development and submittal of the NRC's information needs associated with FSAR Sections 2.5 and 3.7. Enclosures 1 and 2 provide our revised schedule for developing the applicable information. We will request future meetings to discuss our progress, and request the use of NRC audits to evaluate our methodologies and interim milestones.

If there are any questions regarding this transmittal, please contact me at 410-470-4205, or Mr. Michael J. Yox at (410) 495-2436.

*I declare under penalty of perjury that the foregoing is true and correct.*

Executed on May 15, 2009

A handwritten signature in black ink, appearing to be "Greg Gibson", written over a horizontal line.

Greg Gibson

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NRO

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Enclosure: 1) Seismic Design and Analysis-Analytical Deliverable Schedule  
2) Geotechnical Deliverable Schedule

cc: John Rycyna, NRC Project Manager, U.S. EPR COL Application  
Laura Quinn, NRC Environmental Project Manager, U.S. EPR COL Application  
Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application (w/o enclosures)  
Loren Plisco, Deputy Regional Administrator, NRC Region II (w/o enclosures)  
Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2  
U.S. NRC Region I Office

**Enclosure 1**

**Seismic Design and Analysis – Analytical Deliverable Schedule**

FSAR Section	Description	Original Date	Revised Date
<b>Nuclear Island (NI)</b>			
3.7.1	Definition of Calvert Cliffs design safe shutdown earthquake (SSE) as broad band spectrum (zero period acceleration [ZPA] = 0.15g) to envelope ground motion response spectra (GMRS) per NRC requirements	May 15, 2009	June 12, 2009
3.7.1	Development of dynamic soil properties compatible to Calvert Cliffs design SSE	May 29, 2009	June 12, 2009
3.7.1	Development of spectrally matched time histories	May 29, 2009	June 12, 2009
3.7.1	Comparison of CCNPP Unit 3 design SSE with foundation input response spectra (FIRS) under NI against certified seismic design response spectra (CSDRS)	August 31, 2009	September 14, 2009
3.7.1	Confirmatory structure soil interaction (SSI) analysis using SASSI code	August 31, 2009	September 14, 2009
3.7.1	NI and nuclear auxiliary building (NAB) interaction analysis	August 31, 2009	September 14, 2009
<b>Emergency Power Generation Buildings and Essential Service Water Building (EPGB and ESWB)</b>			
3.7.1	Receipt of structure soil structure (SSSI) motion from NI seismic reconciliation	August 31, 2009	September 14, 2009
3.7.1	Development of structural backfill (static and dynamic) properties	September 30, 2009	August 14, 2009
3.7.1	Development of SSI soil profile	December 31, 2009	October 29, 2009
3.7.1	Development of FIRS	December 31, 2009	October 29, 2009
3.7.1	Comparison of FIRS against CSDRS and design SSE	January 29, 2010	October 29, 2009
3.7.1	Performance of confirmatory SSI analysis using SASSI code	March 31, 2010	December 14, 2009
<b>Ultimate Heat Sink Makeup Water Intake Structure and Electrical Building (UHS MWIS and UHS EB)</b>			
3.7.1	Development of static and dynamic soil properties, including structural backfill	September 30, 2009	August 14, 2009
3.7.1	Development of SSI soil profile	December 31, 2009	October 29, 2009

<b>FSAR Section</b>	<b>Description</b>	<b>Original Date</b>	<b>Revised Date</b>
3.7.1	Development of FIRS	December 31, 2009	October 29, 2009
3.7.1	Comparison of FIRS against design SSE	December 31, 2009	December 14, 2009
3.7.1	Reconciliation of design response spectra with FIRS	January 29, 2010	December 14, 2009
3.7.1	Performance of SSI analysis using SASSI code	April 30, 2010	December 14, 2009
3.7.1/3.7.2	Reconciliation of analysis results with existing analysis	May 31, 2010	December 14, 2009

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**Enclosure 2**

**Geotechnical Deliverable Schedule**

**Geotechnical Deliverable Schedule**

FSAR Section	Description	Original Date	Revised Date	Deliverable
<b>Nuclear Island Common Basemat Structures</b>				
2.5.4	Additional borings, testing, and static analysis.	June 30, 2009	June 12, 2009	COLA Supplement (text), Analytical items available for review
2.5.4	Refine foundation pressure, foundation settlement*	October 30, 2009	August 5, 2009	Analytical items available for review
2.5.4	Refine foundation pressure, foundation settlement*	March 31, 2010	October 8, 2009	COLA Supplement (text)
<b>Emergency Power Generation Buildings and Essential Service Water Building (EPGB and ESWB)</b>				
2.5.4	RCTS (resonant column torsional shear) supplemental laboratory test results (backfill)	August 31, 2009	July 7, 2009	Analytical items available for review
2.5.4	Static and dynamic soil properties analysis (backfill)	September 30, 2009	July 24, 2009	Analytical items available for review
2.5.4	Refined bearing capacity and settlement analysis (backfill)	October 30, 2009	August 26, 2009	Analytical items available for review
2.5.4	Refined soil column/randomization analysis (backfill)	December 31, 2009	August 10, 2009	Analytical items available for review
2.5.4	Refined earth pressure and liquefaction analysis (backfill)	January 29, 2010	August 24, 2009	Analytical items available for review
2.5.4	EPGB and ESWB backfill static and dynamic update	March 31, 2010	October 8, 2009	COLA Supplement (text)
<b>Ultimate Heat Sink Makeup Water Intake Structure and Electrical Building (UHS MWIS and UHS EB)</b>				
2.5.4	Additional borings, testing, and static analysis, bearing capacity estimate, settlement estimate	June 30, 2009	June 12, 2009	COLA Supplement (text), Analytical items available for review
2.5.4	RCTS supplemental lab test results	August 31, 2009	July 14, 2009	Analytical items available for review

### Geotechnical Deliverable Schedule

FSAR Section	Description	Original Date	Revised Date	Deliverable
2.5.4	Static and dynamic soil properties analysis	September 30, 2009	August 5, 2009	Analytical items available for review
2.5.4	Refined bearing capacity and settlement analysis (backfill)	October 30, 2009	September 17, 2009	Analytical items available for review
2.5.4	Refined soil column/randomization analysis (backfill)	December 31, 2009	August 24, 2009	Analytical items available for review
2.5.4	Refined earth pressure and liquefaction analysis (backfill)	January 29, 2010	September 8, 2009	Analytical items available for review
2.5.4	UHS MWIS and UHS EB additional borings dynamic update	March 31, 2010	October 9, 2009	COLA Supplement (text)
2.5.5	Slope stability analysis for UHS MWIS	June 30, 2009	September 29, 2009	Analytical items available for review
2.5.5	Refined slope stability analysis	January 29, 2010	September 29, 2009	Analytical items available for review
2.5.5	Refined slope stability update	March 31, 2010	October 9, 2009	COLA Supplement (text)

\* Provided by existing information in the CCNPP Unit 3 FSAR. Refinement will include in situ data from additional borings.