

NP-10-0008  
May 20, 2010

10 CFR 52, Subpart A

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

Subject: Exelon Nuclear Texas Holdings, LLC  
Victoria County Station  
Additional Information - Site-Related Design Parameters for Minimum and  
Dynamic Bearing Capacity  
NRC Project Number 0781

References: Exelon Nuclear Texas Holdings, LLC letter to USNRC, Application for  
Early Site Permit for Victoria County Station, dated March 25, 2010

Exelon Nuclear Texas Holdings, LLC (Exelon) submitted an application for an early site permit (ESP) in the referenced letter for the Victoria County Station (VCS) site. That submittal consisted of six parts as described in the referenced letter.

In addition to the contents of the application, Exelon is also providing the following supplemental information in support of the review of the VCS ESP application (ESPA). This information confirms previous discussions with the NRC staff regarding acceptance review questions via conference calls held May 4, 2010 and May 19, 2010.

The VCS ESPA Site Safety Analysis Report (SSAR) Table 2.0-1 provides the proposed Plant Parameter Envelope (PPE) Site Characteristics and Site-Related Design Parameters for the VCS site. SSAR Table 2.0-1, Sheet 2 of 7, identifies Site-Related Design Parameters for Minimum Bearing Capacity (Static) and Dynamic Bearing Capacity. Table 2.0-1 references the SSAR Table 2.5.4-88 for the site-specific values for Minimum Bearing Capacity (Static), and SSAR Figures 2.5.4-135 and 2.5.4-136 for the site-specific values for Dynamic Bearing Capacity. Table 2.0-1 also noted that the site-specific values for these parameters are presented for the Economic Simplified Boiling Water Reactor (ESBWR) reactor design structures. These values were developed for the ESBWR reactor design as part of the previous Combined License (COL) Application for the VCS site, and are based on the detailed, comprehensive site soil investigation conducted for the COL Application. The scope of the site soil investigation described in the SSAR for the designated power block area is expected to be adequate to support detailed design calculations for any of the reactor designs considered in the proposed Plant Parameter Envelope (PPE) for the VCS site.

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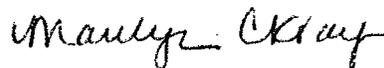
Exelon will revise the VCS ESPA SSAR Table 2.0-1, SSAR Section 2.5.4.10, associated SSAR Table 2.5.4-88 and SSAR Figures 2.5.4-135 and 2.5.4-136, and any supporting SSAR sections, tables, and figures as needed, to clarify that the calculated Minimum Bearing Capacity (Static) and the Dynamic Bearing Capacity site-specific values presented in the SSAR are based on the use of assumed typical plant structure size, shape, location, foundation depth, and settlement limits that are representative of large Light Water Reactor (LWR) design structures. The SSAR will also be revised to identify that a complete stability assessment (including bearing capacities, settlement analyses, liquefaction analyses, and lateral load assessment) is required to be performed at the COL application stage to ensure that the bearing capacities and settlements meet the specified minimum value, based on the selected technology.

Exelon will provide corrected markups of the affected SSAR pages by June 30, 2010. The content of this submittal has been previously discussed with the NRC staff.

Regulatory commitments established in this submittal are identified in Enclosure 1. If any additional information is needed, please contact David J. Distel at (610) 765-5517.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 20<sup>th</sup> day of May, 2010.

Respectfully,



Marilyn C. Kray  
Vice President, Nuclear Project Development

Enclosure: (1) Summary of Regulatory Commitments

cc: USNRC, Director, Office of New Reactors/NRLPO (w/enclosure)  
USNRC, Project Manager, VCS, Division of New Reactor Licensing  
(w/enclosure)  
USNRC Region IV, Regional Administrator (w/enclosure)

**ENCLOSURE 1**

**SUMMARY OF REGULATORY COMMITMENTS**

**(Exelon Letter to USNRC No. NP-10-0008, dated May 20, 2010)**

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITTED DATE	COMMITMENT TYPE	
		ONE-TIME ACTION (Yes/No)	Programmatic (Yes/No)
Exelon will provide markups of the affected SSAR pages to clarify that the Minimum Bearing Capacity (Static) and the Dynamic Bearing Capacity site-specific values presented in the SSAR are based on the use of assumed typical plant structure size, shape, location, foundation depth, and settlement limits that are representative of large Light Water Reactor (LWR) design structures. The SSAR will also be revised to identify that a complete stability assessment (including bearing capacities, settlement analyses, liquefaction analyses, and lateral load assessment) is required to be performed at the COL application stage to ensure that the bearing capacities and settlements meet the specified minimum value, based on the selected technology.	June 30, 2010	Yes	No