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UniStar
NUCLEAR ENERGY

10 CFR 50.4
10 CFR 52.79

February 10, 2011

UN#11-084

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

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Supplemental Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant, Unit 3,
RAI 128, Tornado Loads

References:

1) John Rycyna (NRC) to Robert Poche (UniStar Nuclear Energy), "RAI No. 128 SEB 2535.doc" email dated July 28, 2009

2) UniStar Nuclear Energy Letter UN#09-378, from Greg Gibson to Document Control Desk, U.S. NRC, Submittal of Response to RAI No. 128, Tornado Loads, dated September 10, 2009

3) UniStar Nuclear Energy Letter UN#10-285, from Greg Gibson to Document Control Desk, U.S. NRC, Ultimate Heat Sink Makeup Water Intake Structure and Response to RAI 253, Seismic System Analysis, dated November 16, 2010

The purpose of this letter is to supplement the response to the request for additional information (RAI) identified in the NRC e-mail correspondence to UniStar Nuclear Energy, dated July 28, 2009 (Reference 1). This RAI addresses Tornado Loads, as discussed in Section 3.3 of the Final Safety Analysis Report (FSAR), as submitted in Part 2 of the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 Combined License Application (COLA), Revision 7.

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Reference 2 provided the UniStar response to RAI 128, Question 03.03.02-1, which included revised COLA content. Reference 3 provided the UniStar responses to several RAI 253 questions, as well as COLA changes associated with the re-orientation of the Ultimate Heat Sink Makeup Water Structure and Electrical Building. Reference 3 also included a change in the seismic classification of the Forebay to Seismic Category I. The change in the seismic classification of the Forebay effectively revises the COLA impacts provided in Reference 2. For clarification, the enclosure provides the markup of FSAR Section 3.3.2.3 that was previously provided in Reference 3, and supersedes the COLA impacts provided in Reference 2 in its entirety. Our response does not include any new regulatory commitments and does not provide any new impacts to COLA content. This letter does not contain any sensitive or proprietary information.

If there are any questions regarding this transmittal, please contact me at (410) 470-4205, or Mr. Wayne A. Massie at (410) 470-5503.

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

Executed on February 10, 2011

Greg Gibson

Enclosure: Supplemental Response to NRC Request for Additional Information RAI 128, Question 03.03.02-1, Tornado Loads, Calvert Cliffs Nuclear Power Plant, Unit 3

cc: Surinder Arora, NRC Project Manager, U.S. EPR Projects Branch
Laura Quinn, NRC Environmental Project Manager, U.S. EPR COL Application
Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application (w/o enclosure)
Charles Casto, Deputy Regional Administrator, NRC Region II (w/o enclosure)
Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2
U.S. NRC Region I Office

GTG/RDS/mdf

Enclosure

Supplemental Response to NRC Request for Additional Information
RAI 128, Question 03.03.02-1, Tornado Loads,
Calvert Cliffs Nuclear Power Plant, Unit 3

COLA Impacts

The following excerpt was previously provided with the response to RAI 253[1], with the exception that the section title has been changed to reflect the title provided in CCNPP Unit 3 COLA Revision 7:

3.3.2.3 Interaction of Non-Seismic Category I Structures with Seismic Category Structures

{Non-safety-related structures located on the site and not included in U.S. EPR FSAR Section 3.3.2.3 include:

- Fire Protection Water Tanks
- Fire Protection Building
- Storage / Warehouse
- Central Gas Supply Building
- Security Access Facility
- Switchgear Building
- Grid Systems Control Building
- Circulating Water System Cooling Tower
- Circulating Water System Pump Building
- Circulating Water System Makeup Water Intake Structure
- Circulating Water System Retention Basin
- Desalinization/Water Treatment Plant
- Waste Water Treatment Plant
- ~~Forebay~~
- Demineralized Water Tanks

Except for the Switchgear Building~~, Forebay~~, and concrete portions of the Circulating Water System (CWS) Makeup Water Intake Structure (MWIS), the non-safety-related buildings are miscellaneous steel and concrete structures, which are not designed for tornado loadings. These structures are distant enough from safety-related structures that their collapse due to tornado loadings would not result in adverse interaction with any safety-related structure. During detailed design of such structures, their heights and separation distances from safety-related structures will be maintained such that the failure of these structures due to tornado loadings will not affect the ability of safety-related structures to perform their intended safety functions. Missiles generated by the collapse of these structures during tornado loadings are

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1 G. Gibson (UniStar) to Document Control Desk (NRC), "Ultimate Heat Sink Makeup Water intake Structure and Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant Unit 3, RAI 253, Seismic System Analysis," Letter UN#10-285, dated November 16, 2010.

enveloped by the design basis tornado missile loads described in U.S. EPR FSAR Section 3.5.1.4.

The Switchgear Building ~~and Forebay have~~has a potential for interaction with safety-related structures and ~~are~~is designed to withstand the effects of tornado loadings. The structural system of the Switchgear Building employs engineered pressure relief sliding panels to mitigate the effects of tornado loadings. Conservatively, the concrete portion of CWS MWIS is designed for tornado loadings.}