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10 CFR 50.4
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February 21, 2011

UN#11-081

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

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Response to Request for Additional Information for the
Calvert Cliffs Nuclear Power Plant, Unit 3,
RAI 292, Environmental Qualification
RAI 293, Environmental Qualification

- References:
- 1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI 292 CIB1 5373" email dated February 4, 2011
 - 2) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI 293 CIB1 5378" email dated February 4, 2011

The purpose of this letter is to respond to the requests for additional information (RAIs) identified in the NRC e-mail correspondence to UniStar Nuclear Energy, dated February 4, 2011 (References 1 and 2). These RAIs address Environmental Qualification, as discussed in Section 3.11 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.

The enclosure provides our responses to RAI 292, Question 03.11-4, and RAI 293, Question 03.11-5. Our responses do not include any new regulatory commitments and do not impact COLA content. This letter does not contain any sensitive or proprietary information.

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NRO

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 21, 2011

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a stylized, cursive script.

Greg Gibson

Enclosure: Responses to NRC Request for Additional Information RAI 292, Question 03.11-4, and RAI 293, Question 03.11-5, Environmental Qualification, 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

Enclosure

**Responses to NRC Request for Additional Information
RAI 292, Question 03.11-4, and RAI 293, Question 03.11-5, Environmental Qualification,
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI 292

Question 03.11-4

Tier 2, Section 3.11 of U.S. EPR FSAR describes the initial environmental qualification (EQ) of electrical and mechanical equipment with the EQ program for nuclear power plant applying the U.S. EPR reactor design. As discussed in Regulatory Guide 1.206 and Commission Paper SECY-05-0197, COL applicants must fully describe their operational programs to avoid the need for ITAAC regarding those programs. Therefore, the NRC staff requests that Unistar address the operational aspects of the site-specific EQ program. For example, the Calvert Cliffs FSAR should indicate that the EQ operational programs for maintaining equipment qualification during the operational life of the plant will include the following aspects: (1) evaluation of EQ results for design life to establish activities to support continued EQ; (2) determination of surveillance and preventive maintenance activities based on EQ results; (3) consideration of EQ maintenance recommendations from equipment vendors; (4) evaluation of operating experience in developing surveillance and preventive maintenance activities for specific equipment; (5) development of plant procedures that specify individual equipment identification, appropriate references, installation requirements, surveillance and maintenance requirements, post-maintenance testing requirements, condition monitoring requirements, replacement part identification, and applicable design changes and modifications; (6) development of plant procedures for reviewing equipment performance and EQ operational activities, and for trending the results to incorporate lessons learned through appropriate modifications to the EQ operational program; and (7) development of plant procedures for the control and maintenance of EQ records.

Response

U.S. EPR FSAR Section 3.11 describes the environmental qualification of electrical and mechanical equipment. COLA FSAR Section 3.11 incorporates U.S. EPR FSAR Section 3.11 by reference.

As stated in U.S. EPR FSAR Section 3.11.2.2, the operational program that supports implementation of the Maintenance Rule (10 CFR 50.65) and RG 1.160 monitors the effectiveness of maintenance at the plant, and therefore provides assurance that environmental considerations established during design are maintained on a continuing basis. Equipment degradation is monitored, and equipment that does not meet performance criteria is evaluated, corrective actions identified, and identified for continued monitoring.

Development of procedures and maintenance activities related to the Maintenance Rule program is described in COLA FSAR Sections 13.5 and 17.6.

COLA FSAR Section 17.6 states the Maintenance Rule is implemented in accordance with Section 17.7.5. COLA FSAR Section 17.7.5 (designated as Section 17.X.5 within NEI 07-02A), states the Maintenance Rule Program documents will be developed and maintained, and the Maintenance Rule Program will be implemented by the time that initial fuel loading has been authorized.

COLA Impact

The COLA FSAR will not be revised as a result of this response.

RAI 293

Question 03.11-5

Revision 7 to the Calvert Cliffs Unit 3 FSAR includes numerous changes to the description of the site-specific Environmental Qualification (EQ) Program in Table 3.11-1, "Site-Specific Environmentally Qualified Electrical/I&C Equipment." The Calvert Cliffs Unit 3 COL applicant is requested to describe these EQ table changes and their justification.

Response

The changes to COLA FSAR Table 3.11-1, as reflected in CCNPP Unit 3 COLA Revision 7, are the result of changes provided in the responses to RAI 45¹ and RAI 253².

More specifically, in the response to RAI 45 the ESWS (UHS) Cooling Tower Basin Level instrumentation was added to FSAR Table 3.11-1, consistent with COL Item 3.11-2. COL Item 3.11-2 requires a COL applicant referencing the U.S. EPR design certification to identify additional site-specific components that need to be added to the environmental qualification list.

Additionally, during development of the response to RAI 253, advancement was made in the detailed design of the systems and equipment in the UHS Makeup Water Intake Structure. As a result of this effort, FSAR Table 3.11-1 was updated to incorporate the expanded equipment list in response to RAI 253².

COLA Impact

The COLA FSAR will not be revised as a result of this response.

¹ G. Gibson (UniStar) to Document Control Desk (NRC), "Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant Unit 3, RAI No. 45, Instrumentation and Control Systems Important to Safety; and RAI No. 66, Post Accident Monitoring Variables," Letter UN#10-091, dated April 6, 2010.

² G. Gibson (UniStar) to Document Control Desk (NRC), "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.