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NUCLEAR ENERGY

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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 No. 137, Initial Plant Test Program

Reference: John Rycyna (NRC) to Robert Poche (UniStar Nuclear Energy), "RAI No 137 CQVP 2620.doc" email dated August 13, 2009

The purpose of this letter is to respond to the request for additional information (RAI) identified in the NRC e-mail correspondence to UniStar Nuclear Energy, dated August 13, 2009 (Reference). This RAI addresses Initial Plant Test Program, as discussed in Section 14.2 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 5.

The enclosure provides our response to RAI No. 137, Question 14.02-41, and includes revised COLA content. A Licensing Basis Document Change Request has been initiated to incorporate these changes into a future revision of the COLA. Our response to Question 14.02-41 does not include any new regulatory commitments.

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NRO

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 September 14, 2009

for Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 137, Question 14.02-41, Initial Plant Test Program, 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)
Loren Plisco, Deputy Regional Administrator, NRC Region II (w/o enclosure)
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GTG/RDS/mdf

Enclosure

Response to NRC Request for Additional Information
RAI No. 137, Question 14.02-41, Initial Plant Test Program,
Calvert Cliffs Nuclear Power Plant, Unit 3

RAI No. 137

Question 14.02-41

In RAI No. 26, Question 14.02-13, dated October 21, 2008 (ML082960301), the staff requested that the applicant amend Section 14.2.14 of the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 Final Safety Analysis Report (FSAR) to include the testing of personnel monitors and radiation survey equipment. In its response to the staff's RAI, dated December 19, 2008 (ML083590121), the applicant proposed to add a new FSAR Section 14.2.14.10, "Portable Personnel Monitors and Radiation Survey Instruments," to include a test abstract for portable personnel monitors and radiation survey equipment.

The staff has reviewed proposed Section 14.2.14.10 of the CCNPP Unit 3 FSAR, provided in the December 19, 2008 RAI response, and requests that the applicant revise the proposed section to address the following issues:

1) The use of the word "portable" in front of "personnel monitors" is confusing since this test includes Radiologically Controlled Area (RCA) and security building exit contamination monitors, which are usually installed in the facility in some way. Please delete this word to minimize potential confusion.

2) Additionally, RCA egress personnel contamination monitors should have a backup power capability to ensure functionality of the monitors during loss of power events. Provide an additional step to verify back up power function, or justify why such a step is not required.

Response

1) The subject FSAR Section, "Portable Personnel Monitors and Radiation Survey Instruments," is actually FSAR Section 14.2.14.11. Occurrences of the word "portable" will be deleted from FSAR Section 14.2.14.11.

2) In the event of a loss of power to the radiologically controlled area egress personnel radiation monitors, battery-powered portable radiation survey instruments will be used to assess personnel contamination and control the movement of radioactive material until power can be restored.

COLA Impact

FSAR Section 14.2.14.11 will be revised as follows in a future COLA revision:

14.2.14.11 ~~Portable~~ Personnel Monitors and Radiation Survey Instruments

1. OBJECTIVES

   a. To demonstrate the ability of the ~~Portable~~ Personnel Monitors and Radiation Survey Instruments to monitor radiation levels.

   b. Provide local and remote indications, if applicable, to alert personnel of potential releases of radioactive material.

2. PREREQUISITES

   a. Construction activities on the ~~Portable~~ Personnel Monitors and Radiation Survey Instruments have been completed.

   b. Area ventilation systems in the area where the ~~Portable~~ Personnel Monitors and Radiation Survey Instruments are installed are functional.

   c. Plant ventilation systems in the areas where plant personnel are working are complete and functional.

   d. The plant access control has been established (doors and access points installed and wall, ceiling, and floor penetrations in their design condition). This prerequisite ensures that personnel exit routes that do not pass through the ~~Portable~~ Personnel Monitors and Radiation Survey Instruments have been eliminated.

   e. Test instrumentation available and calibrated.

   f. Support systems (120 volt AC, purge gas, etc.) are available.

3. TEST METHOD

   a. Verify alarms, displays, indications and status lights both locally and in the plant access control area are functional.

   b. Verify that background levels have been established.

   c. Verify that alarms and displays are capable of detecting activity levels that are above the acceptance levels.

4. DATA REQUIRED

   a. Background level settings.

   b. Setpoints at which alarms and status light displays occur.

5. ACCEPTANCE CRITERIA

   a. Alarms, displays, and status lights indicate locally and in the plant access control area

   b. The background radiation level from radon and other sources doesn't reduce the ability to detect radiation releases.

   c. The ~~Portable~~ Personnel Monitors and Radiation Survey Instruments are capable of detecting test sources.