Greg Gibson Vice President, Regulatory Affairs 750 East Pratt Street, Suite 1600 Baltimore, Maryland 21202



10 CFR 50.4 10 CFR 52.79

June 10, 2010

UN#10-154

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

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016 Updated Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant, Unit 3, RAI No. 213

Reference:

- 1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "Final RAI 213 CHPB 4307" email dated February 23, 2010
- UniStar Nuclear Energy Letter UN#10-059, from Greg Gibson to Document Control Desk, U.S. NRC, Response to RAI No. 213, Liquid Waste Management System, dated March 24, 2010

The purpose of this letter is to provide an updated response to the request for additional information (RAI) identified in the NRC e-mail correspondence to UniStar Nuclear Energy, dated February 23, 2010 (Reference 1). This RAI addresses the Liquid Waste Management System, as discussed in Section 11.2 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 6. The original response provided in Reference 2 is superseded.

The enclosure provides our response to RAI No. 213, Question 11.02-2. Our response does not include any new regulatory commitments and does not impact COLA content. This letter does not contain any sensitive or proprietary information.

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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 June 10, 2010

Greg Gibson

- Enclosure: Updated Response to NRC Request for Additional Information, RAI No. 213, Liquid Waste Management System, Question 11.02-2, 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) Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2 U.S. NRC Region I Office

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Enclosure

Updated Response to NRC Request for Additional Information, RAI No. 213, Liquid Waste Management System, Question 11.02-2, Calvert Cliffs Nuclear Power Plant, Unit 3 Enclosure UN#10-154 Page 2

# **RAI No 213**

#### **Question 11.02-2**

A review of Unistar FSAR Tier 2, Rev. 1, Section 11.2 indicates that the design basis and system descriptions incorporate by reference FSAR Section 11.2 of the U.S. EPR design certification. This endorsement includes those aspects of the quality assurance program for the design, fabrication, procurement, and installation of the LWMS that would meet the guidance of RG 1.143. Unistar FSAR Tier 2, Section 17 refers to the Unistar Nuclear Topical Report No. UN-TR-06-001-A, "Quality Assurance Program Description," Rev. 1, Sept. 11, 2008; and incorporates by reference FSAR Section 17 of the U.S. EPR design certification. A review of U.S. EPR FSAR Section 17.2 indicates that the construction phase and operations of the U.S. EPR are not applicable in the context of its design certification; U.S. EPR FSAR Section 17.3 refers to U.S. EPR FSAR Section 17.5 for details on the description of the QA program; U.S. EPR FSAR Section 17.4 is devoted to the reliability program; and U.S. EPR FSAR Section 17.5 relies on the Areva NP Topical Report ANP-10266A (Rev. 1) in describing its quality assurance program.

Unistar FSAR Section 17.2 commits the COLA applicant to provide the applicable quality assurance program; Unistar FSAR Section 17.3 states that the corresponding section of the U.S. EPR FSAR Section 17.3 is incorporated by reference; Unistar FSAR Section 17.4 is devoted to the reliability program; and Unistar FSAR Section 17.5 incorporates by reference Unistar' own topical report (Unistar Nuclear Topical Report No. UN-TR-06-001-A) in describing its QA program responsibilities.

A review of Unistar Nuclear Topical Report, Section U (Quality Assurance Program Commitments) and Section V (Nonsafety-Related SSC Quality Controls) indicates that RG 1.143 is not listed among the cited documents for the LWMS in complying with NRC regulations. Note that although Section U refers to RGs 1.26 and 1.29, these two RGs do not apply to radioactive waste management systems, as stated in both RGs. Similar observations were made during the review of the Areva NP Topical Report ANP-10266A (Rev. 1).

As a result, Unistar FSAR Tier 2, Section 11.2 makes a design commitment for the LWMS that is not supported by Unistar FSAR Tier 2, Sections 11.2 and 17 and Unistar Nuclear Topical Report UN-TR-06-001-A. The applicant is requested to consider the following and make appropriate revisions to Unistar FSAR Tier 2, Sections 11.2 and 17.5. Specifically:

- 1. revise Section U or V of Unistar Nuclear Topical Report UN-TR-06-001-A to include RG 1.143 in its QA program commitments.
- 2. describe in Unistar FSAR Tier 2, Section 11.2 the elements of QA program that address the design, fabrication, procurement, and installation of the LWMS based on the guidance of RG 1.143 in response to U.S. EPR COL Information Item 17.2-1.
- make the corresponding changes to Unistar FSAR Tier 2, Section 11.3 for the GWMS, FSAR Section 11.4 for the SWMS, and FSAR Section 11.5 for the PERMSS for consistency in committing to technical and regulatory guidance and demonstrating compliance with effluent concentration and dose limits of 10 CFR 20.1301 and 20.1302 and design objectives of Part 50, Appendix I.

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#### **Response Update**

The U.S. EPR Design Certification Application review received a similar RAI in Question 11.02-18 (U.S. EPR RAI No. 359), which AREVA NP responded to in a May 6, 2010 submittal (ML101260185). In this response, AREVA committed to revising the U.S. EPR FSAR, Tier 2, Sections 11.2.3.8 and 11.3.3.7, and adding a new Section 11.4.6, to ensure the sections appropriately address RG 1.143 conformance without inferring that Chapter 17 (and therefore the QAPD) explicitly addresses conformance to RG 1.143. The changes committed to the U.S. EPR FSAR are summarized below:

## 11.2.3.8, Quality Assurance

The quality assurance program governing design, fabrication, procurement, and installation of the liquid waste storage and processing systems conform to RG 1.143, indicated in Table 3.2.2-1. Implementation of the quality assurance program is described in Chapter 17.

## 11.3.3.7, Quality Assurance

The quality assurance program governing design, fabrication, procurement, and installation of the gaseous waste processing system conforms to RG 1.143, indicated in Table 3.2.2-1. Implementation of the quality assurance program is described in Chapter 17.

## 11.4.6, Quality Assurance

The quality assurance program governing design, fabrication, procurement, and installation of the solid waste management system conforms to RG 1.143 as indicated in Table 3.2.2-1. Implementation of the quality assurance program is described in Chapter 17.

The CCNPP Unit 3 FSAR incorporates the above U.S. EPR FSAR sections by reference. This appropriately captures the elements of the QA program that address the design, fabrication, procurement, and installation of the radwaste systems, based on the guidance of RG 1.143, and clarifies that QAPD application to these systems is addressed in Chapter 17. As such, a RG 1.143 conformance statement will not be added to the QAPD.

# COLA Impact

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