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10 CFR 50.4  
10 CFR 52.79

October 14, 2009

UN#09-417

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. 147, Ensuring that Occupational Radiation Exposures Are As Low As is  
Reasonably Achievable

Reference: Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI  
No. 147 CHPB 3176" email dated September 14, 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 September 14, 2009 (Reference). This RAI addresses Ensuring that Occupational Radiation Exposures Are As Low As Is Reasonably Achievable, as discussed in Section 12.1 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 enclosure provides our response to RAI No. 147, Questions 12.01-4 and 12.01-5, 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 RAI No. 147, Questions 12.01-4 and 12.01-5, does not include any new regulatory commitments and does not contain any sensitive or proprietary information.

DO96  
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 October 14, 2009

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a long horizontal line extending to the right.

Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 147, Questions 12.01-4 and 12.01-5, Ensuring that Occupational Radiation Exposures Are As Low As Is Reasonably Achievable, 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

**Enclosure**

**Response to NRC Request for Additional Information  
RAI No. 147, Questions 12.01-4 and 12.01-5,  
Ensuring that Occupational Radiation Exposures Are  
As Low As Is Reasonably Achievable,  
Calvert Cliffs Nuclear Power Plant, Unit 3**

**RAI No. 147**

**Question 12.01-4**

In its response to RAI No. 89, Question 12.01-2 (ML091180387), the applicant stated that the Calvert Cliffs Unit 3 FSAR Section 12.1 would be modified to incorporate by reference NEI 07-08 and NEI 07-03. The staff finds this acceptable. However, the applicant's FSAR mark-up references the wrong revision of the templates. Please revise the FSAR so that Section 12.1 references the NEI published version of the templates, specifically, NEI 07-03A, revision 1, and NEI 07-08A, revision 1.

**Response**

The Calvert Cliffs Nuclear Power Plant Unit 3 COLA will be updated to reference the current published version of NEI 07-03A, specifically NEI 07-03A, Revision 0. NEI 07-08, Generic FSAR Template Guidance for Ensuring that Occupational Radiation Exposures are as Low as is Reasonably Achievable (ALARA), has not yet been published as approved.

**COLA Impact**

FSAR Table 1.6-1 will be revised as follows in a future COLA revision:

Report No.	Title/Revision	Date Submitted to the NRC	FSAR Section
NEI 07-03A	Generic FSAR Template Guidance for Radiation Protection Program Description, Revision 70	November 2008	12.1.3
		May 2009	12.5

FSAR Section 12.1.3 will be revised as follows in a future COLA revision:

**12.1.3 OPERATIONAL CONSIDERATIONS**

This COL Item is addressed as follows:

This section incorporates by reference NEI 07-08, "Generic FSAR Template Guidance for Ensuring that Occupational Radiation Exposures Are As Low As Is Reasonably Achievable (ALARA)" (NEI, ~~2008a~~2008) and NEI 07-03A, "Generic FSAR Template Guidance for Radiation Protection Program Description" (NEI, ~~2008b~~2009).

FSAR Section 12.1.4 will be revised as follows in a future COLA revision:

**12.1.4 REFERENCES**

{NEI, ~~2008a~~2008. Generic FSAR Template Guidance for Ensuring that Occupational Radiation Exposures Are As Low As Is Reasonably Achievable (ALARA), NEI 07-08, Revision 3, Nuclear Energy Institute, November 2008.

**NEI, ~~2008~~2009.** Generic FSAR Template Guidance for Radiation Protection Program Description, NEI 07-03A, Revision 70, Nuclear Energy Institute, ~~November 2008~~May 2009.}

FSAR Section 12.5 will be revised as follows in a future COLA revision:

## **12.5 OPERATIONAL RADIATION PROTECTION PROGRAM**

This section incorporates by reference NEI 07-03A, "Generic FSAR Template Guidance for Radiation Protection Program Description" (NEI, ~~2008~~2009).

FSAR Section 12.5.1 will be revised as follows in a future COLA revision:

### **12.5.1 REFERENCES**

{NEI, ~~2008~~2009. Generic FSAR Template Guidance for Radiation Protection Program Description, NEI 07-03A, Revision 70, Nuclear Energy Institute, ~~November 2008~~May 2009.}

COLA Part 11D (NEI Reference) of the COLA will be adjusted to reference NRC Accession Number ML091490684 for NEI 07-03A, Rev. 0.

### Question 12.01-5

In RAI No. 111, Question 12.01-3 the applicant was asked to update CCNPP Unit 3 FSAR Table 13.4-1, "Operational Programs Required by NRC Regulations and Program Implementation," to include implementation of the ALARA program.

In its response to RAI No.111, Question 12.01-3 (ML091550729), the applicant stated that the reference to section 12.5 of the FSAR (which incorporates NEI 07-03 by reference) in Table 13.4-1, Item 10, would ensure the implementation of the ALARA program. However, while section 12.5.1 of NEI 07-03 does describe the management policy and commitment to ALARA, a full description of the ALARA program is only provided if Section 12.1 of the CCNPP FSAR is referenced in addition to Section 12.5. Therefore in order to provide a full description of the 10 CFR 20.1101(b) ALARA program implementation, item 10 in Table 13.4-1 should reference both Section 12.5 and Section 12.1 of the FSAR.

Please update FSAR Table 13.4-1 so that item 10, "Radiation Protection Program," references both Section 12.1 and Section 12.5 of the FSAR.

### Response

FSAR Table 13.4-1, item 10, will be revised to include a reference to FSAR Section 12.1.

### COLA Impact

FSAR Table 13.4-1, item 10, will be revised as follows in a future COLA revision:

**Table 13.4-1—{Operational Programs Required by NRC Regulations and Program Implementation}**

Item	Program Title	Source (Required By)	FSAR Section	Implementation	
				Milestones	Requirements
10	Radiation Protection Program	10 CFR 20.1101	12.1 12.5 Note 1	<p>Prior to receipt of by-product, source, or special nuclear material (excluding Exempt Quantities as described in 10 CFR 30.18) for those elements of the Radiation Protection Program (RPP) necessary to support such receipt</p> <p>Prior to receipt of fuel onsite for those elements of the RPP necessary to support such receipt</p> <p>Prior to initial fuel load for those elements of the RPP necessary to support fuel load and plant operation</p> <p>Prior to first shipment of radioactive waste for those elements of the RPP necessary to support such shipment</p>	License Condition