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10 CFR 50.4
10 CFR 52.79

October 23, 2012

UN#12-108

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 371, Radiation Protection Design Features

- References:
- 1) Michael Canova (NRC) to Paul Infanger (UniStar Nuclear Energy), "CCNPP3 - FINAL RAI No. 371 RPAC 6595" email dated September 26, 2012
 - 2) UniStar Nuclear Energy Letter UN#12-026, from Mark T. Finley to Document Control Desk, U.S. NRC, Submittal of Revision 8 to the Combined License Application for the Calvert Cliffs Nuclear Power Plant Unit 3, and Application for Withholding of Documents, dated March 27, 2012

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 26, 2012 (Reference 1). This RAI addresses Radiation Protection Design Features, as discussed in Section 12.3 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 8.

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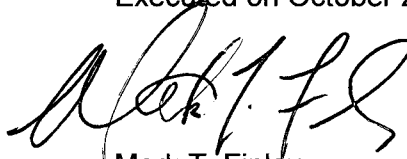
Enclosure 1 provides our response to RAI No. 371, Question 12.03-11, and includes revised COLA content. A Licensing Basis Document Change Request has been initiated to incorporate these changes into a future revision of the COLA. Enclosure 2 provides a table of changes to the CCNPP Unit 3 COLA associated with the RAI 371 response.

Our response does not include any new regulatory commitments. This letter does not contain any sensitive or proprietary information.

If there are any questions regarding this transmittal, please contact me at (410) 369-1907 or Mr. Wayne A. Massie at (410) 369-1910.

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

Executed on October 23, 2012



Mark T. Finley

- Enclosures:
- 1) Response to NRC Request for Additional Information, RAI No. 371, Question 12.03-11, Radiation Protection Design Features, Calvert Cliffs Nuclear Power Plant, Unit 3
 - 2) Table of Changes to CCNPP Unit 3 COLA Associated with the Response to RAI No. 371, Question 12.03-11, Calvert Cliffs Nuclear Power Plant, Unit 3

cc: Surinder Arora, NRC Project Manager, U.S. EPR Projects Branch
Laura Quinn-Willingham, NRC Environmental Project Manager, U.S. EPR COL Application
Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application, (w/o enclosures)
Patrica Holahan, Acting Deputy Regional Administrator, NRC Region II, (w/o enclosures)
Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2,
David Lew, Deputy Regional Administrator, NRC Region I (w/o enclosures)

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Enclosure 1

**Response to NRC Request for Additional Information,
RAI No. 371, Question 12.03-11,
Radiation Protection Design Features,
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI No 371

Question 12.03-11

10 CFR 52.79(a) requires in part that the final safety analysis report describes the facility, presents the design bases and the limits on its operation, and presents a safety analysis of the structures, systems, and components of the facility as a whole. Furthermore, the final safety analysis report shall include information at a level sufficient to enable the Commission to reach a final conclusion on all safety matters, including information on the kinds and quantities of radioactive materials expected to be produced and the means for controlling and limiting radiation exposures within the limits set forth in 10 CFR Part 20.

In addition, 10 CFR 20.1101(b) requires that the licensee use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable.

COL Item 12.3-4 (in FSAR Section 12.3.2.3) states that, "A COL applicant that references the U.S. EPR design certification will maintain dose rates below the administrative limits shown in Table 12.3-14 or revise nearby or adjacent radiation zone designations as necessary based on site-specific dose analysis for the areas listed in Table 12.3-14." In response to this COL Item, in order for the staff to adequately evaluate the application, it is the staff's position that the applicant commit to one of the above two COL options (i.e, commit to maintain dose rates below the administrative dose rate limits shown in FSAR Table 12.3-14, or if any of these administrative dose rate limits are exceeded, revise the radiation zone designations where applicable, for those areas where the administrative dose rate limits have been exceeded). If the applicant's response to COL Item 12.3-4 does not specify the selection of only one of the two COL options, then it is the staff's position that the applicant provide sufficient information in the FSAR for the staff to perform an independent evaluation of both options to determine their acceptability.

In the applicant's response to COL Item 12.3-4, the applicant must ensure that all sections of the FSAR are accurate, consistent, and complete regarding the approach taken. For example, if the applicant chooses to maintain dose rates below the administrative limits shown in U.S. EPR FSAR Table 12.3-14, the FSAR should be modified, as necessary, to reflect the amount of resin use, boric acid use, waste generation rates, etc., that will be necessary in each of these areas to maintain the associated dose rates below the administrative limits. Alternately, if the applicant chooses to update the radiation zone maps, the applicant must ensure that all other FSAR changes that are necessary as a result of updating the maps, such as possible changes to worker dose estimates, are made as a result of the zoning changes.

Response

The Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 Combined License Application (COLA), Final Safety Analysis Report (FSAR) Section 12.3.2.3 has been updated to commit to maintain dose rates below the administrative dose rate limits shown U.S. EPR FSAR Tier 2, Table 12.3-14. Information regarding resin use, boric acid use, and waste generation rates is contained within the U.S. EPR FSAR and incorporated by reference in the CCNPP Unit 3 COLA FSAR.

COLA Impact

The CCNPP Unit 3 COLA FSAR Section 12.3.2.3 has been updated as follows:

12.3.2.3 Radiation Zoning

The U.S. EPR FSAR included the following COL Item in Section 12.3.2.3:

A COL applicant that references the U.S. EPR design certification will maintain dose rates below the administrative limits shown in Table 12.3-14 or revise nearby or adjacent radiation zone designations as necessary based on site-specific dose analysis for the areas listed in Table 12.3-14.

The COL Item is addressed as follows:

Dose rates will be maintained below the administrative limits shown in U.S. EPR FSAR Table 12.3-14 ~~or the nearby or adjacent radiation zone designations will be revised as necessary based on the site specific dose analysis for the areas listed in U.S. EPR FSAR Table 12.3-14.~~

Enclosure 2

**Table of Changes to CCNPP Unit 3 COLA
Associated with the Response to RAI No. 371,
Question 12.03-11,
Calvert Cliffs Nuclear Power Plant, Unit 3**

**Table of Changes to CCNPP Unit 3 COLA
 Associated with the Response to RAI No. 371**

Change ID #	Subsection	Type of Change	Description of Change
Part 2 – FSAR			
GN-11-0178	12.3.2.3	Incorporate COLA markups associated with the submittal of CCNPP Unit 3 COLA Revision 8.	CCNPP Unit 3 COLA Revision 8 included the addition of a COL Item and response in FSAR Section 12.3.2.3.
GN-12-0178	12.3.2.3	Clarify the manner in which the COL Item is addressed associated with the RAI 371 Question 12.03-11 response.	Commits to maintain dose rates below the administrative dose rate limits shown U.S. EPR FSAR Tier 2, Table 12.3-14.