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10 CFR 50.4
10 CFR 52.79

November 15, 2012

UN#12-130

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 377, Instrumentation and Controls

Reference: Surinder Arora (NRC) to Paul Infanger (UniStar Nuclear Energy), "CCNPP3 -
FINAL RAI 377 ICE 6764," dated October 18, 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 October 18, 2012 (Reference). This RAI addresses Instrumentation and Controls, as discussed in Section 7.1 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 8.

Enclosure 1 provides our response to RAI No. 377, Question 07.01-1 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 377 response.

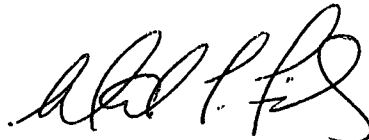
There are no regulatory commitments identified in this letter. This letter does not contain any proprietary or sensitive information.

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

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MRO

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

Executed on November 15, 2012



Mark T. Finley

- Enclosures:
- 1) Response to NRC Request for Additional Information RAI No. 377, Question 07.01-1, Instrumentation and Controls, Calvert Cliffs Nuclear Power Plant, Unit 3
 - 2) Table of Changes to CCNPP Unit 3 COLA Associated with the Response to RAI No. 377, Question 07.01-1, 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)
 - Patricia 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)

UN#12-130

Enclosure 1

**Response to NRC Request for Additional Information RAI No. 377, Question 07.01-1,
Instrumentation and Controls,
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI No. 377

Question 07.01-1

Address the following U.S. EPR combined license (COL) Item, regarding the plan regarding the site-specific implementation of the limitations and conditions identified in Section 4 of the U.S. NRC Safety Evaluation for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems."

10 CFR 52.79 states in part that the application must contain information sufficient to enable the Commission to reach a final conclusion on safety matters. As part of the staff's review of the U.S. EPR, AREVA NP provided a response to request for additional information (RAI) 505 Question 07.01-50, Supplement 16, which included EPR Final Safety Analysis Report (FSAR) markup pages for Table 1.8-2, titled, U.S. EPR Combined License Information Items, which added the following COL item:

Item No.	Description	Section
7.1-4	A COL applicant that references the U.S. EPR design certification will establish a plan to address the site-specific implementation of the limitations and conditions identified in Section 4 of the NRC Safety Evaluation for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems."	7.1.1.2

Also, the AREVA NP response to RAI 505, Question 07.01-50, Supplement 16, included FSAR markup pages for Section 7.1.1.2.2 which provided the following additional information:

"A COL applicant that references the U.S. EPR design certification will establish a plan to address the site-specific implementation of the limitation and conditions identified in Section 4 of the NRC Safety Evaluation for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems."

The staff was not able to identify where the COL Item related to the plan to address the site-specific implementation of the limitations and conditions for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems" is addressed in Section 7.1 of the Calvert Cliffs Unit 3 FSAR.

The applicant is requested to address the COL Item. If the COL Item is addressed in another part of the FSAR, then provide information pointing to that location in Section 7.1 of the FSAR.

Response

COL Item 7.1-4 is included in Revision 4 of the U.S. EPR Final Safety Analysis Report (FSAR)¹ and it will be included and addressed in the Calvert Cliffs Unit 3 (CCNPP Unit 3) Combined License Application (COLA) as identified in the COLA Impact section below. The CCNPP Unit 3 FSAR Table 1.8-2 has been revised, as identified in the COLA Impact section below, to add COL Item 7.1-4. CCNPP Unit 3 FSAR Chapter 7 and COLA Part 10 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) have also been revised to reflect the new COL Item 7.1-4.

COLA Impact

FSAR Table 1.8-2 will be updated as follows in a future COLA revision:

Table 1.8-2 – FSAR Sections that Address COL Items

Item No.	Description	Section
...		
7.1-2	A COL applicant that references the U.S. EPR design certification will, following selection of the actual plant operating instrumentation and calculation of the instrumentation uncertainties of the operating plant parameters, prior to fuel load, calculate the primary power calorimetric uncertainty. The calculations will be completed using an NRC acceptable method and confirm that the safety analysis primary power calorimetric uncertainty bounds the calculated values.	7.7.2.3.5
7.1-4	A COL applicant that references the U.S. EPR design certification will establish a plan to address the site-specific implementation of the limitations and conditions identified in Section 4 of the NRC Safety Evaluation for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems."	7.1.1.2
8.1-1	A COL applicant that references the U.S. EPR design certification will provide site-specific information describing the interface between the offsite transmission system, and the nuclear unit, including switchyard interconnections.	8.1.1
...		

CCNPP Unit 3 FSAR Chapter 7 will be updated as follows in a future COLA revision:

7.1 INTRODUCTION

This section of the U.S. EPR FSAR is incorporated by reference with the following supplements.

7.1.1.2.2 Application of the TXS Platform

...

A COL applicant that references the U.S. EPR design certification will establish a plan to address the site-specific implementation of the limitations and conditions identified in Section 4 of the NRC Safety Evaluation for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems."

¹ AREVA NP letter to Document Control Desk, NRC:12:051, "Submittal of Revision 4 of the U.S. EPR Final Safety Analysis Report for Design Certification," dated October 5, 2012.

This COL Item is addressed as follows:

A plan shall be established to address the site-specific implementation of the limitations and conditions identified in Section 4 of the NRC Safety Evaluation for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems" and make it available for NRC review prior to project specific TXS software development.

COLA Part 10 ITAAC will be revised as follows (only the impacted portions are shown):

...

COL Item 7.1-2 in Section 7.7.2.3.5

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} will, following selection of the actual plant operating instrumentation and calculation of the instrumentation uncertainties of the operating plant parameters, prior to fuel load, calculate the primary power calorimetric uncertainty. The calculations will be completed using an NRC acceptable method and confirm that the safety analysis primary power calorimetric uncertainty bounds the calculated values.

COL Item 7.1-4 in Section 7.1.1.2

A plan shall be established to address the site-specific implementation of the limitations and conditions identified in Section 4 of the NRC Safety Evaluation for Topical Report ANP-10272A, "Software Program Manual for TELEPERM XS Safety Systems" and make it available for NRC review prior to project specific TXS software development.

COL Item 8.3-1 in Section 8.3.1.1.5

Prior to initial fuel load, {Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall establish procedures to monitor and maintain Emergency Diesel Generator reliability to verify the selected reliability level goal of 0.95 is being achieved as intended by Regulatory Guide 1.155.

...

Enclosure 2

**Table of Changes to CCNPP Unit 3 COLA Associated with the
Response to RAI No. 377, Question 07.01-1, Instrumentation and Controls,
Calvert Cliffs Nuclear Power Plant, Unit 3**

Table of Changes to CCNPP Unit 3 COLA Associated with Response to RAI No. 377

Change ID #	Subsection	Type of Change	Description of Change
Part 2 – Final Safety Analysis Report			
GN-12-0200	Table 1.8-2	Incorporate COLA markups associated with the response to RAI 377 Question 07.01-1.	The RAI 377 Question 07.01-1 response involves a COLA change to FSAR Table 1.8-2 to add new COL Item 7.1-4.
GN-12-0200	7.1	Incorporate COLA markups associated with the response to RAI 377 Question 07.01-1.	The RAI 377 Question 07.01-1 response involves a COLA change to FSAR Section 7.1 to add new COL Item 7.1-4 and to indicate how the COL item is addressed.
Part 10 – Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure			
GN-12-0200	Appendix A, Part 2, COL Items	Incorporate COLA markups associated with the response to RAI 377 Question 07.01-1.	The RAI 377 Question 07.01-1 response involves a COLA change Part 10 to indicate how new COL Item 7.1-4 is addressed.