



10 CFR 50.4  
10 CFR 52.79

February 25, 2013

UN#13-013

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

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016  
Revised Response to Request for Additional Information for the  
Calvert Cliffs Nuclear Power Plant, Unit 3,  
RAI 346, Emergency Planning

- References:
- 1) Surinder Arora (NRC) to Paul Infanger (UniStar Nuclear Energy), "CCNPP3 - Final RAI 346 NSIR EP 6495," dated June 12, 2012
  - 2) UniStar Nuclear Energy Letter UN#12-107, from Mark T. Finley to Document Control Desk, U.S. NRC, Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant, Unit 3, RAI 346, Emergency Planning, dated October 23, 2012
  - 3) UniStar Nuclear Energy Letter UN#13-006, from Mark T. Finley to Document Control Desk, U.S. NRC, Updated RAI Closure Plan, dated January 30, 2013

The purpose of this letter is to provide a revised response to the request for additional information (RAI) identified in the NRC e-mail correspondence to UniStar Nuclear Energy, dated June 12, 2012 (Reference 1). This RAI addresses Emergency Planning, as discussed in Section 13.3 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.

In a January 23, 2013 meeting on Emergency Preparedness, the NRC noted that the original RAI 346 response (Reference 2) did not specifically commit to compliance with NEI 12-01, Revision 0, and included an option to comply with "other NRC approved guidance in effect six months prior to commencement of the assessment." NRC requested that this option regarding alternative guidance be clarified or removed.

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Reference 3 indicated that a revised response to RAI No. 346, Question 13.03-51, would be provided to the NRC by February 28, 2013. This letter supersedes the RAI 346, Question 13.03-51 response transmitted on October 23, 2012 (Reference 2) in its entirety.

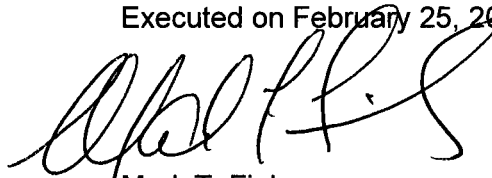
Enclosure 1 provides our revised response to RAI No. 346, Question 13.03-51 and includes revised COLA content. A Licensing Basis Document Change Request has been initiated to incorporate these changes into a future revision of the COLA. Enclosure 2 provides a table of changes to the CCNPP Unit 3 COLA associated with the RAI 346 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.

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

Executed on February 25, 2013



Mark T. Finley

- Enclosures:
- 1) Revised Response to NRC Request for Additional Information RAI No. 346, Question 13.03-51, Emergency Planning, Calvert Cliffs Nuclear Power Plant, Unit 3
  - 2) Table of Changes to CCNPP Unit 3 COLA Associated with the Revised Response to RAI No. 346, Question 13.03-51, 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  
Amy Snyder, 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#13-013

**Enclosure 1**

**Revised Response to NRC Request for Additional Information  
RAI No. 346, Question 13.03-51, Emergency Planning,  
Calvert Cliffs Nuclear Power Plant, Unit 3**

**RAI No. 346**

**Question 13.03-51**

Open Item 01.05-4: Subject: Implementation of Fukushima Task Force Recommendation 9.3

Regulatory Basis: NUREG-0800, 10 CFR 50.47 (b)(2), 10 CFR 50.47 (b)(6)

The NRC staff requests that you address provisions for enhancing emergency preparedness as it relates to staffing and communications associated with Recommendation 9.3 outlined in Enclosure 5 of the March 12, 2012 letter "Request for information pursuant to Title 10 of the Code of Federal Regulations 50.54(f) regarding Recommendations 2.1, 2.3, and 9.3, of the near-term task force review of insights from the Fukushima Dai-Ichi accident." (ML12053A340)

**Response**

UniStar Nuclear Energy (UNE) is incorporating Combined License (COL) Item 13.3-2 into the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 Combined License Application (COLA) as a License Condition in COLA Part 10, Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure. COL Item 13.3-2 was provided by AREVA NP in their response to U.S. EPR FSAR RAI 549, Question 13.03-8<sup>1</sup>.

The response to COL Item 13.3-2 addresses provisions to be taken to enhance emergency preparedness related to staffing and communications per Recommendation 9.3, provided in the March 12, 2012 letter (ML12053A340) to licensees and construction permit holders. The current regulatory environment is one best described as "in transition." A new emergency planning rule is currently being implemented by the industry with some aspects of the new rule not required to be fully implemented for several years. Industry-developed staffing assessment guidance (NEI 10-05 and NEI 12-01, Revision 0) will be utilized. Advance Notice of Proposed Rulemaking (based on the Fukushima Task Force Report), published in April 2012, described additional considerations for rulemaking that may significantly affect emergency response facility requirements. Current licensees are implementing the orders issued as a result of Fukushima and will acquire empirical data, generate lessons learned, and identify efficiencies beneficial to subsequent emergency response facility implementation.

The actions identified in the COL Item 13.3-2 response will allow for a more efficient assessment and implementation of corrective actions identified as a result of the Fukushima events. Performing assessments after regulatory guidance has been established and after reviewing lessons learned, allows for a more efficient, regulatory compliant result. In addition, this approach allows for consideration of improvements in technology as part of the assessment of communications capabilities.

The actions identified in the COL Item 13.3-2 response require UNE to perform an assessment of on-site and augmented staffing capability that satisfies regulatory requirements for response to a single-unit event at least two years prior to scheduled initial fuel load. The two year timeframe is sufficient to address additional staffing needs and/or organizational changes that

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<sup>1</sup> AREVA NP Response to U.S. EPR Standard Design Certification RAI No. 549 (6524), FSAR Ch. 13 - NEW PHASE 4 RAI - Fukushima, Supplement 1, dated September 14, 2012

may be identified in the assessment (e.g., hiring and training of new employees, changes to the emergency response organization, etc.) prior to the full participation exercise and subsequent initial fuel loading.

Additionally, the actions identified in the COL Item 13.3-2 response require UNE to perform an assessment of the on-site and off-site communications systems at least two years prior to scheduled initial fuel load, but allow for the performance and implementation as soon as the regulatory environment stabilizes. The communications assessment will likely be accomplished at an earlier date (pending rule making and regulatory guidance development) to support equipment procurement and installation, development and training of the emergency response organization, and performance of the full participation exercise. Corrective actions from the assessment shall be identified and implemented at least 180 days prior to scheduled initial fuel load. The timeframe of 180 days prior to scheduled initial fuel load for completion of the corrective actions is also consistent with the completion milestones for program implementation described in Chapter 13 of the CCNPP Unit 3 Final Safety Analysis Report.

**COLA Impact**

COLA Part 2, FSAR Table 1.6-1 has been revised as follows:

**Table 1.6-1 – {Reports Referenced}**

Report No.	Title/Revision	Date Submitted to the NRC	FSAR Section
...			
NEI 08-08A	Generic FSAR Template Guidance for Life Cycle Minimization of Contamination	October 2009	11.2,11.3,11.4,11.5
<u>NEI 12-01</u>	<u>Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities, Revision 0</u>	<u>May 2012</u>	<u>13.3</u>

FSAR Table 1.8-2 has been revised as follows:

**Table 1.8-2 – FSAR Sections that Address COL Items**

Item No.	Description	Section
...		
13.3-1	A COL applicant that references the U.S. EPR design certification will provide a site-specific emergency plan in accordance with 10 CFR 50.47 and 10 CFR 50 Appendix E.	13.3
<u>13.3-2</u>	<u>A COL applicant that references the U.S. EPR design certification will address the requested information in Fukushima Recommendation 9.3 regarding Emergency Preparedness Communications and Staffing, as outlined in Enclosure 5 of the request for additional information, pursuant to the 10 CFR 50.54(f) letter dated March 12, 2012 (ML12053A340).</u>	<u>13.3</u>
13.4-1	A COL applicant that references the U.S. EPR design certification will provide site-specific information for operational programs and schedule for implementation.	13.4
...		

FSAR Section 13.3 has been revised as follows:

### 13.3 EMERGENCY PLANNING

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

The U.S. EPR FSAR includes the following COL Item in Section 13.3:

A COL applicant that references the U.S. EPR design certification will provide a site-specific emergency plan in accordance with 10 CFR 50.47 and 10 CFR 50 Appendix E.

This COL Item is addressed as follows:

A comprehensive Emergency Plan is provided in COLA Part 5. The schedule for emergency planning implementation is provided in Table 13.4-1.

The U.S. EPR FSAR includes the following COL Item in Section 13.3:

A COL applicant that references the U.S. EPR design certification will address the requested information in Fukushima Recommendation 9.3 regarding Emergency Preparedness Communications and Staffing, as outlined in Enclosure 5 of the request for additional information, pursuant to the 10 CFR 50.54(f) letter dated March 12, 2012 (ML12053A340).

This COL Item is addressed as follows:

At least two (2) years prior to scheduled initial fuel load, the licensee shall have performed an assessment of the on-site and augmented staffing capability to satisfy the regulatory requirements for response to a single-unit event. The staffing assessment will be performed in accordance with NEI 12-01 (NEI, 2012), "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities."

At least two (2) years prior to scheduled initial fuel load, the licensee shall revise the Emergency Plan to include the following:

- Incorporation of corrective actions identified in the staffing assessment described above.
- Identification of how the augmented staff will be notified given degraded communications capabilities.

At least two (2) years prior to scheduled initial fuel load, the licensee shall have performed an assessment of on-site and off-site communications systems and equipment required during an emergency event to ensure communications capabilities can be maintained during prolonged station blackout conditions. The communications capability assessment will be performed in accordance with NEI 12-01 (NEI, 2012).

At least one hundred eighty (180) days prior to scheduled initial fuel load, the licensee shall complete implementation of corrective actions identified in the communications capability assessment described above, including any related emergency plan and implementing procedure changes and associated training.

### **13.3.1 References**

NEI, 2012. NEI 12-01, Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities, Revision 0, Nuclear Energy Institute, May 2012.

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

...

#### COL Item 11.5-3 in Section 11.5.2

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operation Services, LLC} will develop PERMSS subsystem's LLDs or detection sensitivities, and setpoints (alarms and process termination/diversion) for liquid and gaseous process radiation monitoring equipment not covered by the ODCM based on plant and site specific conditions and operating characteristics of each installed radiation monitoring subsystem prior to initial fuel load.

#### COL Item 13.3-2 in Section 13.3

At least two (2) years prior to scheduled initial fuel load, the licensee shall have performed an assessment of the on-site and augmented staffing capability to satisfy the regulatory requirements for response to a single-unit event. The staffing assessment will be performed in accordance with NEI 12-01, Revision 0, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities."

At least two (2) years prior to scheduled initial fuel load, the licensee shall revise the Emergency Plan to include the following:

- Incorporation of corrective actions identified in the staffing assessment described above.
- Identification of how the augmented staff will be notified given degraded communications capabilities.

At least two (2) years prior to scheduled initial fuel load, the licensee shall have performed an assessment of on-site and off-site communications systems and equipment required during an emergency event to ensure communications capabilities can be maintained during prolonged station blackout conditions. The communications capability assessment will be performed in accordance with NEI 12-01, Revision 0.

At least one hundred eighty (180) days prior to scheduled initial fuel load, the licensee shall complete implementation of corrective actions identified in the communications capability assessment described above, including any related emergency plan and implementing procedure changes and associated training.

COL Item 14.2-2 in Section 14.2.11

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} shall develop a test program that considers the components identified in FSAR Section 14.2.11 and shall provide copies of approved test procedures to the NRC at least 60 days prior to their scheduled performance date.

...

COLA Part 11D, NEI References has been revised as follows:

COLA Part 11D, NEI References, has been revised to include NEI 12-01, Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities, Revision 0.



**Enclosure 2**

**Table of Changes to CCNPP Unit 3 COLA Associated with the  
Revised Response to RAI No. 346, Question 13.03-51  
Calvert Cliffs Nuclear Power Plant, Unit 3**

**Table of Changes to CCNPP Unit 3 COLA Associated with the Revised Response to RAI No. 346**

<b>Change ID #</b>	<b>Subsection</b>	<b>Type of Change</b>	<b>Description of Change</b>
<b>Part 2 – FSAR</b>			
CC3-12-0248	Table 1.6-1	Incorporate COLA markups associated with the response to RAI 346 Question 13.03-51 (this response).	The RAI 346 Question 13.03-51 response (this response) added NEI 12-01, Revision 0 to the list of reports referenced in FSAR Table 1.6-1.
GN-12-0179	Table 1.8-2	Incorporate COLA markups associated with the response to RAI 346 Question 13.03-51 (this response).	The RAI 346 Question 13.03-51 response (this response) includes the incorporation of COL Item 13.3-2 into FSAR Table 1.8-2.
GN-12-0179	13.3	Incorporate COLA markups associated with the response to RAI 346 Question 13.03-51 (this response).	The RAI 346 Question 13.03-51 response (this response) includes the incorporation of COL Item 13.3-2 and its response into FSAR Section 13.3.
GN-13-0043	13.3	Incorporate COLA markups associated with the response to RAI 346 Question 13.03-51 (this response).	The RAI 346 Question 13.03-51 response (this response) deletes the option in the COL Item 13.3-2 response text which read, "or other NRC approved guidance in effect six months prior to commencement of the assessment."
<b>Part 10 – Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure</b>			
GN-12-0179	Appendix A	Incorporate COLA markups associated with the response to RAI 346 Question 13.03-51 (this response).	The RAI 346 Question 13.03-51 response (this response) includes the incorporation of the COL Item 13.3-2 response into COLA Part 10 (ITAAC) Appendix A.
GN-13-0043	Appendix A	Incorporate COLA markups associated with the response to RAI 346 Question 13.03-51 (this response).	The RAI 346 Question 13.03-51 response (this response) deletes the option in the COL Item 13.3-2 response text which read, "or other NRC approved guidance in effect six months prior to commencement of the assessment" and also adds "Revision 0" after the references to NEI 12-01 in the COL Item 13.3-2 response text.

Change ID #	Subsection	Type of Change	Description of Change
<b>Part 11D – NEI Reference</b>			
CC3-12-0248	Part 11D	Incorporate COLA markups associated with the response to RAI 346 Question 13.03-51 (this response).	The RAI 346 Question 13.03-51 response (this response) incorporated NEI 12-01, Revision 0 into COLA Part 11D – NEI Reference.