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10 CFR 50.4
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August 16, 2010

UN#10-229

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 241, Probabilistic Risk Assessment and Severe Accident Evaluation

- References:
- 1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI 241 SPRA 4549" email dated April 30, 2010
 - 2) UniStar Nuclear Energy Letter UN#10-214, from Greg Gibson to Document Control Desk, U.S. NRC, Response to RAI 241, Probabilistic Risk Assessment and Severe Accident Evaluation, dated July 30, 2010

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 April 30, 2010 (Reference 1). This RAI addresses Severe Accident Evaluations, as discussed in Section 19.2 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.

Reference 2 provided an August 31, 2010 schedule for the response for Question 19-25. The enclosure provides our response to RAI 241, Question 19-25, 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.

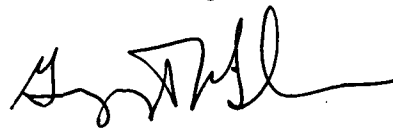
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MRO

This letter does not contain any sensitive or proprietary information.

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 August 16, 2010

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a stylized, cursive script.

Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI 241, Question 19-25, Probabilistic Risk Assessment and Severe Accident Evaluation, 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 241, Question 19-25,
Probabilistic Risk Assessment and Severe Accident Evaluation,
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI 241

Question 19-25

In response to RAI 133, Question 19-243 (currently an open item), of the U.S. EPR FSAR review, AREVA stated that it is planning to add the following COL Information Item to the U.S. EPR FSAR Tier 2, Section 19.2.5 and to Table 1.8-2:

A COL applicant that references the U.S. EPR design certification will develop and implement severe accident management guidelines prior to fuel loading using the Operating Strategies for Severe Accidents methodology described in FSAR Tier 2, Section 19.2.5.

Please address this COL Information Item in the Calvert Cliffs Unit 3 FSAR and propose a license condition for the implementation of the guidelines.

Response

As provided in the AREVA response to U.S. EPR RAI 133, Question 19-243¹, a COL item has been added to U.S. EPR FSAR Section 19.2.5, requiring a COL Applicant that references the U.S. EPR design certification to develop and implement severe accident management guidelines prior to fuel loading using the Operating Strategies for Severe Accident methodology as described in U.S. EPR FSAR Section 19.2.5.

CCNPP Unit 3 FSAR Table 1.8-2, FSAR Section 19.2.5, and COLA Part 10 are being updated to add the COL item, proposed license condition, and to provide the information to address the COL item.

¹ R. Wells (AREVA) to G. Tesfaye (NRC), "Response to U.S. EPR Design Certification Application RAI No. 133, FSAR Ch. 19, Supplement 5," email dated June 19, 2009.

COLA Impact

FSAR Table 1.8-2 is being revised as follows:

Table 1.8-2—FSAR Sections that Address COL Items

Item No.	Description	Section
19.1-7	A COL applicant that references the U.S. EPR design certification will perform the site specific screening analysis and the site-specific risk analysis for external events applicable to their site.	19.1.5.4
19.1-8	A COL applicant that references the U.S. EPR design certification will describe the uses of PRA in support of site-specific design programs and processes during the design phase.	19.1.1.1
19.1-9	A COL applicant that references the U.S. EPR design certification will review as-designed and as-built information and conduct walk-downs as necessary to confirm that the assumptions used in the PRA (including PRA inputs to RAP and SAMDA) remain valid with respect to internal events, internal flood and fire events (routings and locations of pipe, cable and conduit), and HRA analyses (development of operating procedures, emergency operating procedures and severe accident management guidelines and training), external events including PRA-based seismic margins HCLPF fragilities, and LPSP procedures.	19.1.2.2
19.2-1	<u>A COL applicant that references the U.S. EPR design certification will develop and implement severe accident management guidelines prior to fuel loading using the Operating Strategies for Severe Accidents (OSSA) methodology described in U.S. EPR FSAR Section 19.2.5.</u>	<u>19.2.5</u>

FSAR Section 19.2 is being revised as follows:

19.2 SEVERE ACCIDENT EVALUATIONS

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

19.2.1 Introduction

No departures or supplements.

19.2.2 Severe Accident Prevention

No departures or supplements.

19.2.3 Severe Accident Mitigation

No departures or supplements.

19.2.4 Containment Performance Capability

No departures or supplements.

19.2.5 Accident Management

The U.S. EPR FSAR includes the following COL Item in Section 19.2.5:

A COL applicant that references the U.S. EPR design certification will develop and implement severe accident management guidelines prior to fuel loading using the Operating Strategies for Severe Accidents (OSSA) methodology described in U.S. EPR FSAR Section 19.2.5.

This COL Item is addressed as follows:

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} will develop and implement severe accident management guidelines prior to fuel loading using the Operating Strategies for Severe Accidents (OSSA) methodology described in U.S. EPR FSAR Section 19.2.5.

19.2.6 Consideration of Potential Design Improvements under 10 CFR 50.34(f)

No departures or supplements.

19.2.7 References

No departures or supplements.

COLA Part 10, Appendix A, Item 2 is being revised to include COL item 19.2-1 as follows:

Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure

Appendix A- Proposed Combined License Conditions

2. COL ITEMS

There are several COL items that can not be resolved prior to issuance of the Combined License. The referenced U.S. EPR FSAR and the COL application FSAR together: 1) justify why each of these COL items can not be resolved before the COL is issued; 2) provides sufficient information on these items to support the NRC licensing decision; and 3) identifies an appropriate implementation milestone. Therefore, in accordance with the guidance in Regulatory Guide 1.206, Section C.III.4.3, the following Combined License Condition is proposed to address these COL items.

PROPOSED LICENSE CONDITION:

Each COL item identified below shall be completed by the identified implementation milestone through completion of the action identified.

COL Item 19.1-5 in Section 19.1.2.4.1

The {CCNPP Unit 3} PRA shall be treated as a living document. A PRA Configuration Control Program shall be put in place to maintain (update) or upgrade the PRA, as defined in ASME Standard RA-Sc 2007 and as clarified by Regulatory Guide 1.200.

COL Item 19.2-1 in Section 19.2.5

{Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC} will develop and implement severe accident management guidelines prior to fuel loading using the Operating Strategies for Severe Accidents (OSSA) methodology described in U.S. EPR FSAR Section 19.2.5.