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UniStar
NUCLEAR ENERGY

10 CFR 50.4
10 CFR 52.79

August 17, 2009

UN#09-331

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. 135, Reactor Vessel Integrity

Reference: John Rycyna (NRC) to Robert Poche (UniStar Nuclear Energy), "RAI No 135 CIB1 2371.doc" email dated July 22, 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 July 22, 2009 (Reference). This RAI addresses Reactor Vessel Integrity, as discussed in Section 5.3.3 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 5.

The enclosure provides our response to RAI No. 135, Question 05.03.03-2 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 Question 05.03.03-2 does not include any new regulatory commitments.

D096
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 August 17, 2009

Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 135, Question 05.03.03-2, Reactor Vessel Integrity, Calvert Cliffs Nuclear Power Plant, Unit 3

cc: Surinder Arora, NRC CC3 Project Manager, U.S. EPR COL Application
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

GTG/SFW/kat

**Enclosure**

**Response to NRC Request for Additional Information RAI No. 135,
Question 05.03.03-2, Reactor Vessel Integrity,
Calvert Cliffs Nuclear Power Plant, Unit 3**

**RAI No. 135**

**Question 05.03.03-2**

In the review of the U.S. EPR Design Certification, the staff found that the U.S. EPR FSAR, Revision 0, did not provide an action for the COL applicant to provide its plant specific pressurized thermal shock ($RT_{PTS}$) values for vessel beltline materials. Therefore the staff issued RAI No. 88 (1239, 1044), Question 05.03.02-6 (see ADAMS ML083010115). In its response to this RAI (see ADAMS ML083520699), AREVA proposed to revise U.S. EPR FSAR, Tier 2, Chapter 1 Table 1.8-2 and Section 5.3.2.3 to require a COL applicant to provide plant specific $RT_{PTS}$ values in accordance with 10 CFR 50.61 for vessel beltline materials (COL Information Item 5.3-3). The staff found that this resolution would be acceptable. Please discuss your plans for revising the Calvert Cliffs Nuclear Power Plant Unit 3 COL FSAR to address the newly proposed U.S. EPR COL Information Item 5.3-3.

**Response**

The Calvert Cliffs Nuclear Power Plant (CCNP) Unit 3 COLA will be modified to reflect the changes in the U.S. EPR DCD. These modifications supersede the modifications provided in response to NRC Request for Additional Information No. 77 provided on March 27, 2009.[a]

**COLA Impact**

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

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

| Item No. | Description | Section |
|---|---|---|
| 5.3-3 | A COL applicant that references the U.S. EPR design certification will provide plant-specific $RT_{PTS}$ values in accordance with 10 CFR 50.61 for vessel beltline materials. | 5.3.2.3 |

FSAR Section 5.3.2.3 will be revised as follows in a future COLA revision:

**5.3.2.3 Pressurized Thermal Shock**

~~No departures or supplements.~~

The U.S. EPR FSAR includes the following COL Holder Item in Section 5.3.2.3:

> A COL applicant that references the U.S. EPR design certification will provide plant-specific $RT_{PTS}$ values in accordance with 10 CFR 50.61 for vessel beltline materials.

[a] G. Gibson (UniStar Nuclear Energy) to Document Control Desk (NRC) Response to RAI No. 77, Reactor Vessel Integrity, letter dated March 27, 2009 (ML090900188)

This COL Holder Item is addressed as follows:

The plant-specific $RT_{PTS}$ values for vessel beltline materials will be determined in accordance with 10 CFR 50.61 and provided to the NRC within one year of acceptance of the reactor vessel by the licensee.

FSAR Section 5.3.3 will be revised as follows in a future COLA revision:

### 5.3.3 REACTOR VESSEL INTEGRITY

No departures or supplements. ~~The information in this subsection is incorporated by reference with no departures and the following supplement:~~

~~The plant-specific pressurized thermal shock (PTS) evaluation will be submitted to the NRC within one year of acceptance of the reactor vessel by the licensee.~~

Part 10 (ITAAC), Appendix A, will be revised as follows in a future COLA revision:

### 2. COL ITEMS

COL Item 5.3-3 in Section 5.3.2.3
The plant-specific $RT_{PTS}$ values for vessel beltline materials will be determined in accordance with 10 CFR 50.61 and provided to the NRC within one year of acceptance of the reactor vessel by the licensee.

~~**11. REACTOR VESSEL INTEGRITY**~~

~~COL application FSAR Section 5.3.3 requires submittal of the plant-specific pressurized thermal shock (PTS) evaluation to the NRC within one year of acceptance of the reactor vessel by the licensee.~~

~~PROPOSED LICENSE CONDITION:~~
~~The plant-specific PTS evaluation will be submitted to the NRC within one year of acceptance of the reactor vessel by the licensee.~~