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April 12, 2010

UN#10-095

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

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Correction to Materials Reliability Program for Reactor Internals, and
Response to Request for Additional Information for the
Calvert Cliffs Nuclear Power Plant, Unit 3,
RAI 225, Reactor Design – Fluence Surveillance

- References:
- 1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI 225 SRSB 4518" email dated April 5, 2010
 - 2) Greg Gibson (UniStar Nuclear Energy) to Document Control Desk (U.S. NRC), "Materials Reliability Program for Reactor Internals," Letter UN#10-069, dated March 12, 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 (UNE), dated April 5, 2010 (Reference 1). This RAI addresses Reactor Design – Fluence Surveillance, as discussed in Section 4.3 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 6.

Additionally, this letter provides clarification of the correspondence UNE provided to the staff regarding the reactor internals materials reliability program (MRP) (Reference 2). In Reference 2, UNE referred to U.S. EPR RAI 344, Question 04.03-27, with regard to revising a COL Item to address plant specific surveillance of the reactor internals. The UNE letter should have made reference to U.S. EPR RAI 339, Question 04.05.02-10.

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NRC

Therefore, for clarification, AREVA has communicated with UNE on a preliminary basis that they intend to respond to RAI 339, Question 04.05.02-10 by supplementing existing U.S. EPR FSAR, Tier 2, COL Item 3.9-2. The revised COL item will require the COL applicant to address the results and conclusions from the reactor internals material reliability programs applicable to the U.S. EPR reactor internals, with regard to known aging degradation mechanisms such as irradiation-assisted stress corrosion cracking or void swelling.

At such time that it is incorporated and reflected in the U.S. EPR FSAR, applicable parts of the CCNPP Unit 3 COLA will be updated to include this additional requirement.

The enclosure provides our response to RAI 225, Question 04.03-1, and does not impact COLA content. 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 April 12, 2010



Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI 225, Question 04.03-1, Reactor Design – Fluence Surveillance, 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 225, Question 04.03-1, Reactor Design – Fluence Surveillance,
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI 225

Question 04.03-1

In U.S. EPR RAI 344, Question 04.03-27, AREVA NP Inc. was requested to provide a COL Item in the FSAR for the U.S. EPR to address plant specific surveillance of the reactor internals in regard to fluence methodology benchmarking. The COL FSAR will need to address this COL information item once it is added to the U.S. EPR FSAR Tier 2, Section 4.3. In a letter dated March 12, 2010, UniStar stated that when the COL item is added to the U.S. EPR FSAR, the applicable parts of the COL application for CCNPP Unit 3 would be updated to address this additional requirement. Provide an update to the COL FSAR Tier 2 to include the additional requirements of the COL item referenced above, when available.

Response

AREVA has communicated to UniStar Nuclear Energy (UNE) on a preliminary basis that they intend to respond to U.S. EPR RAI 344, Question 04.03-27 by providing a COL item requiring a COL applicant that references the U. S. EPR design certification to provide plant specific surveillance capsule data to benchmark Topical Report BAW-2241P-A, "Fluence and Uncertainty Methodologies," and demonstrate applicability to the specific plant.

At such time that it is incorporated and reflected in the U.S. EPR FSAR, applicable parts of the CCNPP Unit 3 COLA will be updated to include this requirement.

COLA Impact

FSAR Table 1.8-2 and Section 5.3.1.6 will be revised to address the new COL item following incorporation in the U.S. EPR FSAR.