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October 19, 2009

UN#09-420

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. 150, Leak-Before-Break Evaluation Procedures

Reference: Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI
No. 150 CIB1 2673" email dated September 17, 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 September 17, 2009 (Reference). This RAI addresses Leak-Before-Break Evaluation Procedures, as discussed in Section 3.6 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.

The enclosure provides our response to RAI No. 150, Question 03.06.03-2. Our response to Question 03.06.03-2 does not include any new regulatory commitments, does not impact COLA content, or contain any sensitive or proprietary information.

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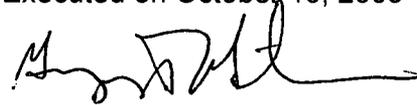
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UN#09-420
October 19, 2009
Page 2

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 October 19, 2009



Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 150, Question 03.06.03-2, Leak-Before-Break Evaluation Procedures, 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

UN#09-420

Enclosure

**Response to NRC Request for Additional Information
RAI No. 150, Question 03.06.03-2, Leak-Before-Break Evaluation Procedures
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI No. 150

Question 03.06.03-2

Regulatory Basis: GDC 4

The EPR leak-before-break (LBB) generic design has had difficulty meeting the staff's safety factor of 2 on dynamic loadings as discussed in NUREG-1061, Volume 3. AREVA is proposing to use a safety factor of 1.7. AREVA is proposing to revise its generic seismic design response spectra. This could cause an increase in seismic loadings, thereby, impacting the generic LBB design and possibly causing a further decrease in the LBB dynamic loading safety factor.

Please provide in the FSAR Section 3.6.3, an analysis or evaluation for CCNPP Unit 3 that demonstrates that the main steam piping inside containment (which has the least safety margin for dynamic loads in the generic design) meets the safety factor of 2 using site-specific seismic response spectra.

Response

The leak-before-break (LBB) analysis for the generic design, including the safety factor for dynamic loadings, is the responsibility of the design certification applicant and is being reviewed by the NRC as part of the review of the U.S. EPR FSAR Tier 2, Section 3.6.3. A similar request for information (RAI) was asked by NRC in U.S. EPR FSAR RAI 265, Question 03.06.03-24. As part of the response¹ to U.S. EPR RAI 265, AREVA NP revised U.S. EPR FSAR Tier 2, Section 3.6.3.6.3.1 to increase the safety factor from 1.7 to 2.0 on dynamic loadings for LBB for the main steam line (MSL) piping. This is due to a decrease in seismic loads based on the application of the modal combinations described in Regulatory Guide (RG) 1.92, Rev. 2. As AREVA NP uses a safety factor of 2.0 for LBB qualification of MSL for the generic design, a site-specific seismic evaluation of Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 is not required.

COLA Impact

The COLA FSAR will not be revised as a result of this response.

¹ E-mail Correspondence Between R. Pederson (AREVA) and G. Tesfaye (NRC), "Response to U.S. EPR Design Certification Application RAI No. 265, FSAR Ch. 3," dated 10/16/09