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December 1, 2009

UN#09-488

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. 178, Fire Protection Program

- References:
- 1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI No. 178 SBPA 3704" email dated October 2, 2009
 - 2) UniStar Nuclear Energy Letter UN#09-470, from Greg Gibson to Document Control Desk, U.S. NRC, Submittal of Response to RAI No. 177, Fire Protection Program, and RAI No. 178, Fire Protection Program, dated October 28, 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 October 2, 2009 (Reference 1). This RAI addresses the Fire Protection Program, as discussed in Section 9.5 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 a December 4, 2009 schedule for the response for RAI No. 178, Question 09.05.01-15. The enclosure provides our response to RAI No. 178, Question 09.05.01-15. Our response does not include any new regulatory commitments and does not impact COLA content. This letter does not contain any sensitive or proprietary information.

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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 December 1, 2009



Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 178, Question 09.05.01-15, Fire Protection Program, 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

GTG/RDS/sth

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Enclosure

**Response to NRC Request for Additional Information
RAI No. 178, Question 09.05.01-15, Fire Protection Program,
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI No. 178

Question 09.05.01-15

FSAR Section 9.5.1.2.1 references Appendix 9B for details of the architectural and structural features. Appendix 9B Table 9B-2 states that for barrier rating see the fire area layout drawings but the Appendix 9B Fire Barrier Figures do not show the fire rating for the boundaries that are identified as fire area boundaries only. Specify the fire ratings of these fire area boundaries.

Response

As shown on each figure in FSAR Appendix 9B, the boundaries that are identified as fire area boundaries only are indicative of non-fire rated exterior boundaries that have been evaluated as not requiring a fire rating. NFPA 804 Section 3.3.9 defines fire area as an area that is physically separated from other areas by space, barriers, walls, or other means to contain fire within that area. Regulatory Guide 1.189 (Sections 2.1.4 on minimum separation distance and 4.1.2 on compartmentalization, fire areas and zones) is consistent with this definition.

The non-fire rated exterior boundaries specify the envelope of the fire area and indicate the following in accordance with the Fire Hazards Analysis (See COLA FSAR Appendix 9B):

1. An adjacent building, structure or equipment serving a related purpose justifies the lack of a fire barrier or spatial separation;
2. Spatial separation between an adjacent building, structure or equipment serving a different purpose is sufficient to justify the lack of a fire barrier (i.e., generally 50 ft separation per Regulatory Guide 1.189 and/or NFPA 804); or
3. A fire rated barrier is located on or between the adjacent building, structure or equipment serving a different purpose that sufficiently limits exposure between the two buildings, structures or pieces of equipment.

An example of item 1 is the lack of separation between the Circulating Water Pump Building (Figure 9B-22) and the Cooling Tower Structure (Figure 9B-21) due to their related function. An example of item 2 is the separation of more than 50 ft between the Fire Protection Building (Figure 9B-20) and the Radioactive Waste Processing Building (U.S. EPR FSAR Figures 9A-66 thru 9A-75). An example of item 3 is the fire rated wall located between the Turbine Building (Figures 9B-1 thru 9B-9) and the Generator and Auxiliary Power Transformers (Figure 9B-15).

COLA Impact

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