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10 CFR 50.4  
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March 19, 2009

UN#09-162

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. 64, Containment Heat Removal Systems

References: 1) John Rycyna (NRC) to Robert Poche (UniStar), "RAI No 64 SPCV 1588.doc,"  
email dated February 18, 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, dated February 18, 2009 (Reference 1). This RAI addresses the Containment Heat Removal Systems, as discussed in Section 6.3 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 3.

The enclosure provides our responses to RAI No. 64, Questions 06.02.02-1 and 06.02.02-2. Our responses to Questions 06.02.02-1 and 06.02.02-2 do not include any new regulatory commitments. Our responses do not require revision of COLA content.

If there are any questions regarding this transmittal, please contact me at 410-470-4205, or Mr. Michael J. Yox at (410) 495-2436.

DOT9  
NRO

*I declare under penalty of perjury that the foregoing is true and correct.*

Executed on March 19, 2009

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a long horizontal flourish extending to the right.

Greg Gibson

Enclosure: Response to NRC Request for Additional Information, RAI No. 64, Containment Heat Removal Systems, Calvert Cliffs Nuclear Power Plant Unit 3

cc: John Rycyna, NRC Project Manager, U.S. EPR COL Application  
Thomas Fredrichs, 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 No. 64**  
**Containment Heat Removal Systems**  
**Calvert Cliffs Nuclear Power Plant Unit 3**

**RAI No. 64**

**Question 06.02.02-1**

With regard to the containment recirculation systems, the applicant is requested to describe its plan to include updated US EPR design certification application recirculation submittals on sump performance, as well as incorporating US EPR RAI response submittals that address additional programmatic items related to foreign materials, coatings deficiencies, permanent plant changes inside containment, and maintenance activities - including temporary changes - that are assessed and managed in accordance with the Maintenance Rule, 10 CFR 50.65, into the applicant's combined license application.

**Response**

Information that is included in the updated design certification (DC) application for the U.S. EPR is incorporated by reference into the COL application.

AREVA NP's responses to U.S. EPR DC Request for Additional Information No. 139 (RAI-139), Supplement 1, Questions 06.02.02-18, 06.02.02-19, 06.02.02-20 and 06.02.02-21 describe additional programmatic controls related to foreign materials, coatings deficiencies, permanent plant changes inside containment, and maintenance activities (including temporary changes). The response to DC RAI-139 included an update to the U.S. EPR Tier 2 FSAR Section 6.3.2.2.2 (see Reference). Because the updated DC FSAR is incorporated by reference, the additional programmatic controls are applicable to the COL application.

**Reference:**

Email from Ronda M. Pederson (AREVA) to Getachew Tesfaye (NRC) dated March 3, 2009, "Response to U.S. EPR Design Certification Application RAI No. 139, Supplement 1, including Attachment (RAI 139 Supplement 1 Response US EPR DC.pdf).

**COLA Impact**

No changes to the CCNPP Unit 3 COLA are required.

**Question 06.02.02-2**

The US EPR FSAR, in Chapter 6.3, "Emergency Core Cooling System," provides that "[a] COL applicant that references the U.S. EPR design certification will describe the containment cleanliness program which limits debris within containment." The applicant's FSAR, Section 6.3, "Emergency Core Cooling System," describes the containment cleanliness program and states that latent debris will be controlled and surveyed. However, the applicant has not specified any limit/acceptance criteria or margin to limit/acceptance criteria. In order to justify the applicant (and incorporated US EPR) debris assumptions, please specify the quantity and type of latent debris that is deemed acceptable for the applicant's containment cleanliness program in addition to the containment housekeeping programmatic controls in place to control or reduce the latent debris burden.

**Response**

U.S. EPR Tier 2 FSAR Section 6.3.2.2.2 references AREVA NP Inc. Technical Report ANP-10293, "U.S. EPR Design Features to Address GSI-191 Technical Report," which specifies a latent debris quantity of 110 lb. This limit/acceptance criterion was conservatively selected for the U.S. EPR based on operating experience and sampling performed on operating plants. Because the updated U.S. EPR Tier 2 FSAR Section 6.3 is incorporated by reference, this limit/acceptance criterion is applicable to the COL application.

Latent debris is defined as unintended dirt, dust, paint chips, fibers, pieces of paper (shredded or intact), plastic, tape, or adhesive labels, and fines or shards of thermal insulation, fireproof barrier, or other materials that are already present in the containment prior to a postulated break in a high-energy line inside containment. Dust and dirt include miscellaneous particulates that are already present in the containment prior to a postulated break. Potential origins for this material include activities performed during outages and foreign particulates brought into containment during outages.

**COLA Impact**

No changes to the CCNPP Unit 3 COLA are required.