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UniStar
NUCLEAR ENERGY

10 CFR 50.4
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November 30, 2011

UN#11-290

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

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Calvert Cliffs Nuclear Power Plant, Unit 3,
Updated RAI Closure Plan

References:

1) UniStar Nuclear Energy Letter UN#11-240, from Greg Gibson to Document Control Desk, U.S. NRC, RAI Closure Plan, dated August 23, 2011

2) Surinder Arora (NRC) to Paul Infanger (UniStar Nuclear Energy), "FINAL RAI No. 322 RGS1 6031" email dated September 29, 2011

3) UniStar Nuclear Energy Letter UN#11-275, from Greg Gibson to Document Control Desk, U.S. NRC, Response to Request for Additional Information for the Calvert Cliffs Nuclear Power Plant, Unit 3, RAI No. 322, Vibratory Ground Motion, dated October 28, 2011

4) UniStar Nuclear Energy Public Meeting with NRC dated November 1, 2011, Calvert Cliffs Nuclear Power Plant, Unit 3, Topics Related to Seismic Analysis

On August 23, 2011, UniStar Nuclear Energy (UNE) submitted an RAI Closure Plan (Reference 1) for the Phase 2 and Phase 4 review of the Calvert Cliffs Nuclear Power Plant Unit 3 (CC3) Combined License Application (COLA). Since that time UniStar has performed a more detailed assessment of The Near-Term Task Force Review of Insights from the Fukushima – Dai-ichi Accident, specifically regarding the seismic design basis recommendation. In addition, and also on August 23, 2011, a significant seismic event occurred within the local Mid-Atlantic region at Mineral Virginia. The NRC issued a Request for Additional Information (RAI) 322 on September 29, 2011 (Reference 2) asking UNE to evaluate the impact of the Mineral Virginia earthquake on

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the seismic reconciliation analyses done for CC3. In Reference 3, UNE responded that the Mineral Virginia earthquake would require additional reanalysis and that the strategy for moving forward would be discussed in a Calvert Cliffs Unit 3 Seismic Design Issues public meeting November 1, 2011 (Reference 4). In addition, UniStar proposed that a revised RAI Closure Plan letter would be provided by November 30, 2011.

In the November 1, 2011 Public Meeting, UNE presented a revised strategy for addressing the outstanding RAIs relating to seismic analyses. The proposed strategy would encompass existing RAIs, address the regional Mineral Virginia earthquake impact and also would incorporate the revised EPRI/NRC/DOE Central and Eastern United States Seismic Source Characterization for Nuclear Facilities (CEUS-SSC) model. The CEUS-SSC model is currently being finalized and is scheduled for issuance January 2012. The RAI response schedule, included as an enclosure to this letter, assumes that the final version of this document (joint EPRI/NRC/DOE report) will be issued in mid-January 2012. Any delay of the final release of the CEUS-SSC model will have a direct impact on the proposed schedule.

UniStar believes that re-evaluation of its August 23, 2011 RAI Closure Plan in light of these current developments is appropriate. Evaluating the Mineral Virginia earthquake impact and the CEUS-SSC model for incorporation into the CC3 seismic analysis will necessitate a delay in the committed UniStar RAI responses. The seismic reconciliation evaluation is more complex due to the quantity of data that must be considered and will take longer than estimated in the initial RAI Closure Plan (which was based on incorporating the New Madrid Seismic Zone only). UNE believes incorporation of the CEUS-SSC model into the CC3 design basis is an appropriate and complete response to the seismic portion of the NRC Fukushima Near-Term Task Force Evaluation Recommendation 2. After release of the CEUS-SSC report, UNE will assess the impact of the new data at the Calvert Cliffs site, and, specifically, assess any potential impact on the generic ground motion assumed in the U.S. EPR FSAR. The attached schedule assumes that the ground motion used as input to the generic design in the U.S. EPR remains bounding. If this is not the case, further actions will be necessary that could impact the schedule. UNE will reassess the proposed schedule approximately three months after CEUS-SSC model is finalized and provide an update of the attached schedule if necessary.

Revised Closure Plan

Enclosed Table 1 presents UNE's Revised Closure Plan for the 19 open Phase 2 and Phase 4 RAI Civil/Structural/Seismic issues associated with FSAR Chapters 2 and 3 (i.e., FSAR Chapters 2.4, 2.5, 3.7, and 3.8).

Table 2 provides response dates for the remaining 8 non-civil Calvert Cliffs Unit 3 open RAI questions, and requires the following discussion. The response to RAI 317, Physical Security Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC), is changed to 1/31/2012. The site-specific ITAAC being updated in RAI 317 are dependent on the wording of the U.S. EPR Security ITAAC, which is still being revised in response to Design Certification (DC) RAI 491, Physical Security Hardware - ITAAC. The responses to RAI 325, Information Systems Important to Safety, are being deferred to 4/15/2012 to permit development of AREVA's final response to related DC RAI U.S. EPR FSAR RAI 505, Question 07.05-11, and to coordinate final technical input. The response for RAI 287 is being delayed to 5/21/2012 to permit evaluation of design issues that will impact the response.

Summary

Tables 1 and 2 supersede the previously submitted RAI submittal schedule dates, and should be utilized by the NRC for schedule and resource planning purposes.

UNE appreciates the NRC's thorough and detailed assessment of the COLA application, and for the Staff's comments and insights offered during the public meeting on November 1, 2011. Although the schedule impact in Tables 1 and 2 is significant, UNE agrees with NRC Staff that it is critical to proactively address these recent seismic developments and the Fukushima lessons learned regarding the seismic design basis and the CEUS-SSC model. We look forward to having frequent dialogue and interactions with NRC as we progress through closure of these RAIs and our updates/closure of FSAR Chapters 2.4, 2.5, 3.7, and 3.8.

UNE respectfully requests NRC review and acceptance of this Revised RAI Closure Plan, provided above, based upon our engineering judgment that our reconciliation analyses will confirm that the design remains robust and will meet regulatory requirements. As previously discussed, UNE requests that the NRC permit any outstanding Phase 2 RAI questions be classified as Safety Evaluation Report (SER) Open Items, to be closed in Phase 4 at the time of final SER preparation. UniStar understands the risk we are assuming as the applicant, for moving closure of some of these RAIs until Phase 4.

This letter does not contain any proprietary or sensitive information. If there are any questions regarding this transmittal, please contact me at (410) 369-1907, or Mr. Wayne A. Massie at (410) 369-1910.

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

Executed on November 30, 2011

Mark T. Finley

Enclosure: Table 1 - Civil/Structural/Seismic RAI Response Schedule
Table 2 - Remaining Calvert Cliffs 3 RAI Response Schedule

cc: Surinder Arora, NRC Project Manager, U.S. EPR Projects Branch
Prosanta Chowdhury, NRC Project Manager, U.S. EPR Projects Branch
Joseph Colaccino. Chief, U.S. EPR Projects Branch
John Segala, Chief, 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
Sandra Sloan. AREVA NP Manager, New Plants Regulatory Affairs

Enclosure

Table 1 - Civil/Structural/Seismic RAI Response Schedule
Table 2 - Remaining Calvert Cliffs Unit 3 RAI Response Schedule

Calvert Cliffs Nuclear Power Plant, Unit 3

Table 1 – Civil/Structural/Seismic RAI Response Schedule

Activity	RAI Number	Question	UNE Response Date to NRC
Seismic Analysis Cat II SSE	253	3.07.02-45	12/09/2011
Seismic System Analysis	323	3.07.02-68 3.07.02-69	12/09/2011
Probable Maximum Surge and Seiche Flooding (schedule letter)	327	2.04.05-8	12/28/2011
Flooding Protection Requirements (schedule letter)	328	2.04.10-1	12/28/2011
Seismic Analysis - SASSI	316	3.07.02-67	1/31/2012
NI Settlement/ FSAR Input	308	3.08.05-8	2/01/2012
EPGB Settlement - FSAR Input	308	3.08.05-9 (1 of 2)	3/14/2012
Vibratory Ground Motion (GMRS)	322	2.05.02-23	8/17/2012
Seismic Analysis (CBIS)	253 304	3.07.02-46 3.07.02-56	10/02/2012
CBIS Seismic & Stability	315	3.07.02-64 (1 of 4)	10/16/2012
Seismic Design Parameters (CBIS)	314	3.07.01-17 (bullet 1)	10/16/2012
ESWB Settlement - FSAR Input	308	3.08.05-9 (2 of 2)	11/05/2012
Seismic Design	301	3.08.04-21	12/21/2012
NI, NAB, AB, EWSB and EPGB site-specific seismic analysis	314	3.07.01-16	2/22/2013
TB/SB/AB Stability & Interaction	315	3.07.02-63	2/22/2013
Nuclear Island (NI) Stability	315	3.07.02-64 (2 of 4)	2/22/2013
EPGB and NAB Stability and Interaction	315	3.07.02-62 3.07.02-64 (3 of 4) 3.07.02-65 3.07.02-66	3/29/2013
ESWB Stability and Interaction	315	3.07.02-62 3.07.02-64 (4 of 4) 3.07.02-65 3.07.02-66	4/26/2013

Table 2 – Remaining Calvert Cliffs Unit 3 RAI Response Schedule

Activity	RAI Number	Question	UNE Response Date to NRC
Turbine Missiles	318	3.05.01.03-19 3.05.01.03-20 3.05.01.03-21 3.05.01.03-22	1/15/2012
Physical Security ITAAC	317	14.03.12-8	1/31/2012
Information Systems Important to Safety	325	7.05-1 7.05-2	4/15/2012
Ultimate Heat Sink	287	9.02.05-19	5/21/2012