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10 CFR 50.4
10 CFR 52.79

October 31, 2008

UN#08-056

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

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Submittal of Response to Requests for Additional Information for the
Calvert Cliffs Nuclear Power Plant, Unit 3 – Hydrology Report

Reference: MEMORANDUM TO: Joseph Colaccino, Chief EPR Project Branch 1,
FROM: John Rycyna, Project Manager, EPR Projects Branch 1, SUBJECT:
TRIP REPORT – JUNE 24-26 2008, HYDROLOGY-RELATED SITE VISIT IN
SUPPORT OF THE CALVERT CLIFFS COMBINED LICENSE
APPLICATION, dated September 17, 2008

The purpose of this letter is to submit responses and supplemental information to NRC Audit findings contained in the subject trip report, not previously provided. These responses and related information are specific to Hydrology Audit Items 1, 4, 6, and 10.

If there are any questions regarding this transmittal, please contact me or Mr. George Wrobel at (585) 771-3535.

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

Executed on October 31, 2008

A handwritten signature in black ink, appearing to read "Greg Gibson", is written over the printed name below it.

Greg Gibson

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Enclosure: Electronic media (CDs)

CD (Disk 1) – Local PMP Analysis (Associated with Calculation 25237-000-K0C-CY00-00003 Rev. 1) – HEC-HMS 3.0.1 Files and HEC-RAS 3.1.3 Files

CD (Disk 2) – Johns Creek PMP Analysis (Associated with Calculation 25237-000-K0C-CY00-00002 Rev. 1) – HEC-HMS 3.0.1 Files and HEC-RAS 3.1.3 Files

CD (Disk 3) – Probably Maximum Storm Surge (Associated with Calculation 25237-000-K0C-CD04-00001 Rev. 0) – SLOSH Display Files

Attachment: Responses to NRC Hydrology-Related site Audit Unresolved Item NRC Audit Serial No. 1, 4, 6, and 10 on COLA FSAR Section 2.4

cc: U.S. NRC Region I
U.S. NRC Resident Inspector, Calvert Cliffs Nuclear Power Plant, Units 1 and 2
NRC Environmental Project Manager, U.S. EPR Combined License Application
NRC Project Manager, U.S. EPR Combined License Application
NRC Project Manager, U.S. EPR Design Certification Application (w/o enclosure)

Enclosure

Electronic Media (CDs)

CD (Disk 1) – Local PMP Analysis (Associated with Calculation 25237-000-K0C-CY00-00003 Rev. 1) – HEC-HMS 3.0.1 Files and HEC-RAS 3.1.3 Files

CD (Disk 2) – Johns Creek PMP Analysis (Associated with Calculation 25237-000-K0C-CY00-00002 Rev. 1) – HEC-HMS 3.0.1 Files and HEC-RAS 3.1.3 Files

CD (Disk 3) – Probably Maximum Storm Surge (Associated with Calculation 25237-000-K0C-CD04-00001 Rev. 0) – SLOSH Display Files

Attachment

Responses to NRC Hydrology-Related site Audit Unresolved Items
NRC Audit Serial No. 1, 4, 6, and 10 on CCNPP3 COLA FSAR Section 2.4

**Responses to NRC Hydrology-related Site Audit
Unresolved Items Audit Serial #1**

Provide a subject matter expert (SME) to discuss the availability of the input/output files associated with the HEC-HMS and HEC-RAS model simulations

Note that NRC had discussions with SME (Bechtel) during the site audit on June 24-26, 2008.

Unresolved: The NRC staff may formulate an RAI to obtain copies of the HEC-HMS and HEC-RAS input files used in the local flooding analysis.

The NRC staff further requested the HEC-HMS and HEC-RAS simulation input/output files during the teleconference on October 9, 2008.

UniStar Response:

This response is consistent with and based on the review of FSAR Revision 3 submitted to the NRC. Included are responses to the NRC hydrology-related site audit unresolved item NRC Audit Serial No. 1, 4, 6, and 10 on COLA FSAR Section 2.4.

The HEC-HMS version 3.0.1 input and output files along with the HEC-RAS version 3.1.3 input and output files for the Johns Creek PMP and Local PMP Drainage analyses are provided on the enclosed CDs.

COLA Impact:

No changes to the Safety Evaluation Report are required.

**Responses to NRC Hydrology-related Site Audit
Unresolved Items Audit Serial #4**

Provide an SME to discuss the availability of copies of the calc packages associated with preparing inputs for the HEC-RAS and HEC-HMS analyses for site drainage and copies of the HEC-RAS and HEC-HMS input files.

Note that NRC had discussions with SME (Bechtel) during the site audit on June 24-26, 2008.

Unresolved: The NRC staff may formulate an RAI to obtain copies of the HEC-HMS and HEC-RAS input files used in the local flooding analysis. The staff may request that the calculation package Bechtel 25237-000-K0C-CY00-00003 will be placed in a reading room or provided to the staff. As requested by the NRC, the calculation package has been placed in a reading room for NRC access.

The NRC staff further requested the HEC-HMS and HEC-RAS simulation input/output files during the teleconference on October 9, 2008.

UniStar Response:

This response is consistent with and based on the review of FSAR Revision 3 submitted to the NRC.

The HEC-HMS version 3.0.1 input and output files along with the HEC-RAS version 3.1.3 input and output files for the Local PMP Drainage analysis are provided in the response to Audit Serial # 1.

COLA Impact:

No changes to the Safety Evaluation Report are required.

Responses to NRC Hydrology-related Site Audit Unresolved Items Audit Serial #6

Provide an SME to discuss the availability of copies of the calculation packages associated with preparing inputs for the HEC-RAS and HEC-HMS analyses for Johns Creek flood analysis and copies of the HEC-RAS and HEC-HMS input files.

Note that NRC had discussions with SME (Bechtel) during the site audit on June 24-26, 2008.

Unresolved: The NRC staff may formulate an RAI to obtain copies of the HEC-HMS and HEC-RAS input files used in the Johns Creek flooding analysis. The staff may request that the calculation package Bechtel 25237-000-K0C-CY00-00002 will be placed in a reading room or provided to the staff. As requested by the NRC, the calculation package has been placed in a reading room for NRC's access.

The NRC staff further requested the HEC-HMS and HEC-RAS simulation input/output files during the teleconference on October 9, 2008.

UniStar Response:

This Response is consistent with and based on the review of FSAR Revision 3 submitted to the NRC.

The HEC-HMS version 3.0.1 input and output files along with the HEC-RAS version 3.1.3 input and output files for Johns Creek PMP Flood analysis are provided in the response to Audit Serial # 1.

COLA Impact:

No changes to the Safety Evaluation Report are required.

**Responses to NRC Hydrology-related Site Audit
Unresolved Items Audit Serial #10**

Provide an SME to discuss the estimation of storm surge under probable maximum hurricane conditions. Storm surge calculation based on height calculated then routed into the Chesapeake Bay.

Note that NRC had discussions with SME (Bechtel) during June 24-26, 2008.

Unresolved: NRC Staff will review calculation package Bechtel 25237-000-K0C-CD04-00001. As requested by NRC, the calculation package has been placed in the reading room for NRC's access.

NRC further requested for SLOSH input files during the teleconference on October 9, 2008.

UniStar Response:

This response is consistent with and based on the review of FSAR Revision 3 submitted to the NRC.

SLOSH model results, as summarized in NOAA SLOSH Results CD, were analyzed for comparison with the surge height estimated separately employing a different methodology, which is summarized in Bechtel calculation 25237-000-K0C-CD04-00001, Rev. 0. Because Bechtel did not run SLOSH model, no input files are available. However, the SLOSH Results CD, as obtained from NOAA and used in Bechtel analysis, is enclosed.

COLA Impact:

No changes to the Safety Evaluation Report are required.