



November 20, 2006

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Serial No. 06-981  
MPS Lic/WDB R0  
Docket No. 50-423  
License No. NPF-49

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 3**  
**30-DAY REPORT OF EMERGENCY CORE**  
**COOLING SYSTEM (ECCS) MODEL CHANGES**  
**PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.46**

In accordance with 10 CFR 50.46(a)(3)(ii), Dominion Nuclear Connecticut, Inc. (DNC) hereby submits information regarding changes to the Westinghouse Emergency Core Cooling System (ECCS) Evaluation Model for the BASH Large Break Loss of Coolant Accident (LBLOCA) analysis for Millstone Power Station Unit 3 (MPS3) and its application in existing analyses.

Attachment 1 provides a report describing changes associated with the Westinghouse BASH LBLOCA ECCS Evaluation Model for MPS3.

Information regarding the effect of the ECCS evaluation model changes upon the reported LBLOCA analysis of record (AOR) result for MPS3 is provided in Attachment 2. To summarize the information in Attachment 2, the calculated peak cladding temperature (PCT) for the LBLOCA analysis is increased by 74°F to a new value of 2048°F. This result represents a significant change in PCT, as defined in 10 CFR 50.46(a)(3)(i).

10 CFR 50.46(a)(3)(ii) requires the licensee to provide a report within 30 days, which includes a proposed schedule for providing a reanalysis or taking other action as may be needed to show compliance with 10 CFR 50.46. Dominion has reviewed the information provided by Westinghouse and determined that the adjusted LBLOCA PCT value and the manner in which it was derived continue to conform to the requirements of 10 CFR 50.46. As such, Dominion considers the schedular requirements of 10 CFR 50.46(a)(3)(ii) to be satisfied with the submission of this notification. Dominion routinely tracks adjustments to the Small Break Loss of Coolant Accident (SBLOCA) and LBLOCA calculated PCT values to ensure that reasonable margins to the acceptance value set by 10 CFR 50.46 are maintained.

This information satisfies the 30 day reporting requirements of 10 CFR 50.46(a)(3)(ii).

If you have any further questions regarding this submittal, please contact Mr. David W. Dodson at (860) 447-1791, Extension 2346.

Very truly yours,



Gerald T. Bischof  
Vice President – Nuclear Engineering

Commitments made in this letter: None

Attachments: (2)

- 1) Report of Changes in Westinghouse BASH Large Break LOCA ECCS Evaluation Model – Millstone Power Station Unit 3.
- 2) Reporting of 10 CFR 50.46 Margin Utilization – Westinghouse BASH Large Break LOCA ECCS Evaluation Model - Millstone Power Station Unit 3.

**ATTACHMENT 1**

**REPORT OF CHANGES IN**  
**WESTINGHOUSE BASH LARGE BREAK LOCA**  
**ECCS EVALUATION MODEL**

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 3**

**REPORT OF CHANGES IN**  
**WESTINGHOUSE BASH LARGE BREAK LOCA**  
**ECCS EVALUATION MODEL**

**MILLSTONE POWER STATION UNIT 3**

**Identification of ECCS Evaluation Model Changes**

The current large break loss of coolant accident (LBLOCA) analysis for Millstone Power Station Unit 3 (MPS3) was performed using the Westinghouse BASH LBLOCA Evaluation Model. Westinghouse identified the change described below and provided the results of an assessment to determine the impact on peak cladding temperature (PCT).

Change:      BASH Minimum and Maximum Time Step Sizes

Westinghouse reviewed recent BASH LBLOCA Evaluation Model sensitivity calculations. This review led to a recommendation to reduce the minimum and maximum time step sizes in the BASH LBLOCA Evaluation Model during the reflood phase of the accident. Westinghouse performed sensitivity calculations using the BASH LBLOCA Evaluation Model with reduced minimum and maximum time step sizes. The results showed a decrease in the integral flooding rate late in the reflood phase of the accident that resulted in a 44°F increase in PCT ( $\Delta PCT = 44^\circ F$ ).

**Conclusion**

Dominion has performed an evaluation of PCT for comparison to 10 CFR 50.46 requirements. The Analysis of Record (AOR) PCT is 1974°F. Considering the current PCT change as well as all previously reported changes, the corrected LBLOCA PCT is 2048°F. The MPS3 LBLOCA results have sufficient margin to the 2200°F limit specified in 10 CFR 50.46(b)(1). The PCT assessments for 10 CFR 50.46(a)(3)(i) accumulation include the current assessment ( $\Delta PCT = 44^\circ F$ ) and a previous assessment resulting from a rebaseline of the AOR ( $\Delta PCT = 30^\circ F$ ). The 10 CFR 50.46(a)(3)(i) accumulation of  $\Delta PCT = 74^\circ F$  is greater than the 50°F limit for reporting; hence, the changes are significant and submittal of this 30 day report to the NRC is required.

**ATTACHMENT 2**

**REPORTING OF 10 CFR 50.46 MARGIN UTILIZATION**  
**WESTINGHOUSE BASH LARGE BREAK LOCA**  
**ECCS EVALUATION MODEL**

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 3**

