Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion

SEP 5 2002

Docket No. 50-336
B18734

RE: 10 CFR 50.46(a)

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

Millstone Power Station, Unit No. 2
30 Day Reporting of Changes to and Errors in
Emergency Core Cooling System Models or Applications

In accordance with 10 CFR 50.46(a)(3)(ii), Dominion Nuclear Connecticut, Inc. (DNC) hereby submits summaries of a change to and an error in the Millstone Unit No. 2 Emergency Core Cooling System (ECCS) evaluation model of the small break loss of coolant accident (SBLOCA). This information is required to be submitted within 30 days of identifying changes or errors in the ECCS models or applications that result in a greater than 50°F change in the calculated peak cladding temperature (PCT).

In January 2002, the SBLOCA for Millstone Unit No. 2 was reanalyzed by Framatome ANP (FRA-ANP) using the approved S-RELAP5 based methodology. The Analysis of Record SBLOCA PCT was calculated to be 1941°F. In a notification dated August 16, 2002, FRA-ANP identified an error in the decay heat model which overpredicted the decay heat. The SBLOCA Analysis of Record was performed using the built-in decay heat model in S-RELAP5. During the timeframe the SBLOCA PCT is predicted to occur, the S-RELAP5 built-in decay heat model is overly conservative with respect to the model required by 10 CFR 50 Appendix K. Removal of the more conservative estimation of decay heat has resulted in a 133°F reduction in PCT to 1808°F.

FRA-ANP also provided an assessment of a revision to the SBLOCA Guideline in the August 16, 2002, notification. This guideline revision included more detailed modeling of the cold legs and steam generators to be consistent with the non-LOCA and realistic LOCA models. Assessment of this change in the evaluation model resulted in a 66°F increase in PCT relative to the previous guideline revision. However, since this 66°F increase has already been incorporated into the current Millstone Unit No. 2 SBLOCA Analysis of Record (PCT = 1941°F), there is no change in the calculated PCT.

A001

Rec'd 9/24/02

Attachment 1 summarizes the FRA-ANP modifications in the ECCS model applicable to Millstone Unit No. 2. The corrected PCT for the limiting SBLOCA remains below the 2200°F limit specified by 10 CFR 50.46(b)(1).

This information satisfies the 30-day reporting requirements of 10 CFR 50.46(a)(3)(ii). In addition, no reanalysis or other actions are necessary as a result of the error identified.

There are no regulatory commitments contained within this letter.

If you have any additional questions concerning this submittal, please contact Mr. David W. Dodson at (860) 447-1791, extension 2346.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

J. Alan Price
Site Vice President - Millstone

Attachments (1)

cc: H. J. Miller, Region I Administrator
R. B. Ennis, NRC Senior Project Manager, Millstone Unit No. 2
NRC Senior Resident Inspector, Millstone Unit No. 2

10 CFR 50.46 Margin Utilization
Small Break LOCA

Plant Name: Millstone Unit No. 2
Utility Name: Dominion Nuclear Connecticut, Inc.

Analysis Information

EM: PWR Small Break LOCA, S-RELAP5 Based **Limiting Break Size:** 0.08 ft2
Analysis Date: 01/02
Vendor: Framatome ANP
Peak Linear Power: 15.1 kW/ft
Notes: None

	Clad Temp (°F)	Notes
LICENSING BASIS		
Analysis of Record PCT	1941	(1)
MARGIN ALLOCATIONS (Delta PCT)		
A. Prior Permanent ECCS Model Assessments		
1. None	0	
B. Planned Plant Change Evaluations		
1. None	0	
C. 2002 Permanent ECCS Model Assessments		
1. Decay Heat Model Error	-133	
2. Revised SBLOCA Guideline	0	(2)
D. Temporary ECCS Model Issues		
1. None	0	
E. Other Margin Allocations		
1. None	0	
LICENSING BASIS PCT + MARGIN ALLOCATIONS	**PCT =**	**1808**

NOTES:

(1) New Analysis of Record using S-RELAP5 based methodology.

(2) Assessment of this change resulted in a ΔPCT = +66°F. FRA-ANP provided this assessment for information. The +66°F assessment does not apply since the current Analysis of Record incorporates the revised SBLOCA guideline.