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The Northeast Utilities System

Docket No. 50-336
B18115

Re: 10 CFR 50.46(a)

MAY 11 2000

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

Millstone Nuclear 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), Northeast Nuclear Energy Company (NNECO) hereby submits changes to, and errors in, the Emergency Core Cooling System (ECCS) evaluation models or applications of those models for Millstone Unit No. 2.

The last report was submitted to the Nuclear Regulatory Commission (NRC) Staff on March 13, 2000,[1] and satisfied the annual reporting requirements for the calendar year 1999. This report covers changes to, and errors in, the Small Break Loss of Coolant Accident (SBLOCA) Analysis performed for Millstone Unit No. 2, since March 13, 2000. Siemens Power Corporation (SPC) notified NNECO of these changes to, and errors in, the SBLOCA analysis on April 14, 2000. The following is a synopsis of the information provided in Attachment 1.

1. The current analysis of record for the Millstone Unit No. 2 SBLOCA was not performed in full compliance with SPC's current guidelines for performing this analysis. The SBLOCA analysis was reanalyzed in compliance with the guidelines and resulted in an increase in SBLOCA peak cladding temperature (PCT) of 1°F.

2. The current analysis of record for the Millstone Unit No. 2 SBLOCA was not performed taking into account all the latest input corrections that had been previously identified. The SBLOCA analysis was reanalyzed incorporating the input corrections and resulted in an increase in SBLOCA PCT of 66°F. This change in PCT is considered significant with respect to 10 CFR 50.46(a)(3)(i) and, as such, is being reported as required by 10 CFR 50.46(a)(3)(ii).

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[1] S. E. Scace letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2 - 1999 Annual Reporting of Changes to, and Errors in, Emergency Core Cooling System Models or Applications," dated March 13, 2000.

A001

3. The Large Break Loss of Coolant Accident (LBLOCA) analysis is not affected by the changes described above.

4. Considering the changes summarized in Attachment 1, the corrected PCTs for the limiting SBLOCA and LBLOCA remain below the 2200°F limit as defined by 10 CFR 50.46(b)(1).

NNECO believes that this information satisfies the 30-day reporting requirements of 10 CFR 50.46(a)(3)(ii).

There are no regulatory commitments contained within this letter.

If you have any additional questions concerning this submittal, please contact Mr. Ravi G. Joshi at (860) 440-2080.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace
Director - Nuclear Oversight and
Regulatory Affairs

Attachments (1)

cc: H. J. Miller, Region I Administrator
J. I. Zimmerman, NRC Project Manager, Millstone Unit No. 2
D. P. Beaulieu, Senior Resident Inspector, Millstone Unit 2

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Attachment 1

Millstone Nuclear Power Station, Unit No. 2

30-Day Reporting of 10 CFR 50.46 Margin Utilization

May 2000

30-Day Reporting of 10 CFR 50.46 Margin Utilization
Small Break LOCA

Plant Name:	Millstone Unit No. 2
Utility Name:	Northeast Nuclear Energy Company

Analysis Information

EM:	EXEM/PWR Small Break	**Limiting Break Size:**	0.07 ft^2
Analysis Date:	08/98		
Vendor:	Siemens		
Peak Linear Power:	14.6 kW/ft		
Notes:	None		

	Clad Temp(°F)	Notes
LICENSING BASIS		
Analysis of Record PCT	1986	(1)
MARGIN ALLOCATIONS (Δ PCT)		
A. Prior Permanent ECCS Model Assessments		
1. Corrected Corrosion Enhancement Factor	2	
2. Core Nodalization Non-Convergence	-268	(2)
3. Error in Flow Blockage Model in TOODEE2	1	
B. 10 CFR 50.59 Safety Evaluations		
1. None	0	
C. 2000 10 CFR 50.46 Model Assessments		
(Permanent Assessment of PCT Margin)		
1. SBLOCA Guideline Compliance	1	
2. Millstone Unit 2 SBLOCA Analysis Input	66	
D. Temporary ECCS Model Issues		
1. None	0	
E. Other Margin Allocations		
1. None	0	
LICENSING BASIS PCT + MARGIN ALLOCATIONS	**PCT = 1788**	

NOTES:

(1) New Analysis of Record.

(2) Re-evaluation included a break size spectrum analysis and determined that the limiting break size changed from 0.07 ft^2 to 0.1 ft^2.

30-Day Reporting of 10 CFR 50.46 Margin Utilization
Large Break LOCA

Plant Name:	Millstone Unit No. 2		
Utility Name:	Northeast Nuclear Energy Company		
Analysis Information			
EM:	SEM/PWR-98	**Limiting Break Size:**	1.0 DECLG
Analysis Date:	11/98		
Vendor:	Siemens		
Peak Linear Power:	15.1 kW/ft		
Notes:	None		

		Clad Temp(°F)	Notes
LICENSING BASIS			
	Analysis of Record PCT	1814	
MARGIN ALLOCATIONS (Δ PCT)			
A.	**Prior Permanent ECCS Model Assessments**		
1.	Corrected Corrosion Enhancement Factor	-1	
2.	ICECON Coding Errors	0	
3.	Setting RFPAC Fuel Temperatures at Start of Reflood	-2	
4.	SISPNCH/ujun98 Code Error	0	
5.	Error in Flow Blockage Model in TOODEE2	0	
6.	Change in TOODEE2-Calculation of QMAX	0	(1)
7.	Change in Gadolinia Modeling	0	(1)
B.	**10 CFR 50.59 Safety Evaluations**		
1.	None	0	
C.	**2000 10 CFR 50.46 Model Assessments** (Permanent Assessment of PCT Margin)		
1.	None	0	
D.	**Temporary ECCS Model Issues**		
1.	None	0	
E.	**Other Margin Allocations**		
1.	None	0	
LICENSING BASIS PCT + MARGIN ALLOCATIONS		**PCT =** **1811**	

Notes:

(1) Previously reported in 1999 Annual 10 CFR 50.46 Report.