

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



MAR 20 2002

Docket No. 50-336
B18612

RE: 10 CFR 50.46(a)(3)(ii)

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

Millstone Nuclear Power Station, Unit No. 2
2001 Annual 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 changes to and errors in the Emergency Core Cooling System (ECCS) evaluation models or applications of those models for Millstone Unit No. 2.

Attachment 1 transmits the annual report for the period January 2001 through December 2001. The following is a synopsis of the information provided in Attachment 1.

1. Attachment 1 reports the Framatome ANP (FRA-ANP) modifications in the ECCS models applicable to Millstone Unit No. 2. These modifications have resulted in permanent peak cladding temperature (PCT) margin allocations for Unit No. 2.
2. FRA-ANP identified one change or error in the Small Break Loss of Coolant Accident (SBLOCA) analysis during the 2001 calendar year. As summarized in Attachment 1, assessment of this item resulted in a 0°F change in PCT. The overall SBLOCA PCT is 2064°F.
3. FRA-ANP identified six changes or errors in the Large Break Loss of Coolant Accident (LBLOCA) analysis during the 2001 calendar year. As summarized in Attachment 1, assessment of these items resulted in a 1°F change in PCT. The overall LBLOCA PCT is 1812°F.
4. Considering the changes summarized in Attachment 1, the corrected PCTs for the limiting SBLOCA and LBLOCA remain below the 2200°F limit defined by 10 CFR 50.46(b)(1).

ADD1

DNC believes that this information satisfies the annual reporting requirements of 10 CFR 50.46(a)(3)(ii).

There are no regulatory commitments contained within this letter.

Should you have any questions regarding 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

Attachment (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

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Attachment 1

Millstone Nuclear Power Station, Unit No. 2

2001 Annual Reporting of 10 CFR 50.46 Margin Utilization

**2001 Annual Reporting of 10 CFR 50.46 Margin Utilization
Small Break Loss of Coolant Accident (SBLOCA)**

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

Analysis Information

EM:	EXEM/PWR Small Break
Limiting Break Size:	0.06 ft ²
Analysis Date:	03/00
Vendor:	Framatome ANP
Peak Linear Power:	14.6 kW/ft
Notes:	None

	<u>Clad Temp (°F)</u>	<u>Notes</u>
LICENSING BASIS		
Analysis of Record PCT	2061	(1)

MARGIN ALLOCATIONS (Delta PCT)

A. Prior Permanent ECCS Model Assessments (Through 12/2000)		
1. RODEX2 Corrosion Enhancement Factor in Millstone Cycle 14 SBLOCA Analysis	-22	
2. Variability in SBLOCA Analysis	25	(2)
B. Planned Plant Change Evaluations		
1. None	0	
C. 2001 Permanent ECCS Model Assessments		
1. Errors Discovered During RODEX2 V&V	0	
D. Temporary ECCS Model Issues		
1. None	0	
E. Other Margin Allocations		
1. None	0	

LICENSING BASIS PCT + MARGIN ALLOCATIONS	PCT = 2064
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NOTES:

- (1) New Analysis of Record to support Cycle 14 operation with reduced charging flow.
- (2) Limiting break size shifts to 0.07 ft².

**2001 Annual Reporting of 10 CFR 50.46 Margin Utilization
Large Break Loss of Coolant Accident (LBLOCA)**

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

Analysis Information

EM:	SEM/PWR-98
Limiting Break Size:	1.0 DECLG
Analysis Date:	11/98
Vendor:	Framatome ANP
Peak Linear Power:	15.1 kW/ft
Notes:	None

	<u>Clad Temp(°F)</u>	<u>Notes</u>
LICENSING BASIS		
Analysis of Record PCT	1814	(1)

MARGIN ALLOCATIONS (Delta PCT)

A. Prior Permanent ECCS Model Assessments

(Through 12/2000)

1.	Corrected Corrosion Enhancement Factor	-1
2.	ICECON Coding Errors	0
3.	Setting RFPAC Fuel Temperatures at Start of Reflood	-2
4.	SISPNCN/ujun98 Code Error	0
5.	Error in Flow Blockage Model in TOODEE2	0
6.	Change in TOODEE2-Calculation of QMAX	0
7.	Change in Gadolinia Modeling	0
8.	PWR LBLOCA Split Break Modeling	0
9.	TEOBY Calculation Error	0

B. Planned Plant Change Evaluations

1.	None	0
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C. 2001 Permanent ECCS Model Assessments

1.	Inappropriate Heat Transfer in TOODEE2	0
2.	End-of-Bypass Prediction by TEOBY	0
3.	R4SS Overwrite of Junction Inertia	0
4.	Incorrect Junction Inertia Multipliers	1
5.	Errors Discovered During RODEX2 V&V	0
6.	Error in Broken Loop SG Tube Exit Junction Inertia	0

D. Temporary ECCS Model Issues

1.	None	0
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E. Other Margin Allocations

1.	None	0
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LICENSING BASIS PCT + MARGIN ALLOCATIONS	PCT = 1812
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Notes:

(1) New Analysis of Record with SEM/PWR-98 LOCA Evaluation Model.