



**North  
Atlantic**

North Atlantic Energy Service Corporation  
P.O. Box 300  
Seabrook, NH 03874  
(603) 474-9521

The Northeast Utilities System

July 19, 2000  
Docket No. 50-443  
NYN-00066  
CR # 97-18883

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555


Seabrook Station  
North Atlantic Reporting of Changes to, or Errors In  
Emergency Core Cooling System Models or Applications

In accordance with the requirements of 10CFR 50.46(a)(3)(ii), Enclosure 1 includes a tabulation of the current Small Break LOCA and Large Break LOCA Peak Clad Temperature (PCT) margin utilization tables applicable to Seabrook Station. The Small Break LOCA utilization table is consistent with the table provided in North Atlantic's 1998 10CFR 50.46 Report, NYN-99070, dated July 27, 1999. The Large Break LOCA utilization table is consistent with the table provided in North Atlantic letter, NYN-99091, dated October 1, 1999.

Should you have any questions regarding this report, please contact Mr. James M. Peschel, Manager-Regulatory Programs at (603) 773-7194.

Very truly yours,

NORTH ATLANTIC ENERGY SERVICE CORP.

  
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Ted C. Feigenbaum  
Executive Vice President and  
Chief Nuclear Officer

cc: H. J. Miller, Regional Administrator  
R. M. Pulsifer, NRC Project Manager, Project Directorate 1-2  
R. K. Lorson, NRC Senior Resident Inspector

A001

**ENCLOSURE TO NYN-00066**

## Small Break Peak Clad Temperature Margin Utilization

### ECCS EVALUATION MODEL REVISIONS/ERRORS 10 CFR 50.46 ANNUAL REPORT

Evaluation Model : NOTRUMP Fuel: 17x17 V5H  
F Δ H=1.65

FQ=2.5  
SGTP=13% 3411 MWt

#### Clad Temperature

##### A. ANALYSIS OF RECORD (8/93)

- |  |       |         |
|--|-------|---------|
| 1. ECCS Analysis   | PCT=  | 1082 °F |
| 2. Increased T-AVG Uncertainty for<br>RTD Bypass Elimination | ΔPCT= | 8 °F    |

B. PRIOR PERMANENT ECCS MODEL ASSESSMENTS	ΔPCT=	38 °F
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C. 10 CFR 50.59 SAFETY EVALUATIONS	ΔPCT=	0 °F
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D. 1997 10 CFR 50.46 MODEL ASSESSMENTS	ΔPCT=	0 °F
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##### E. OTHER MARGIN ALLOCATIONS

- |                                    |       |       |
|------------------------------------|-------|-------|
| 1. EFW Actuation on SI Signal Only | ΔPCT= | 5 °F  |
| 2. +/- 5 °F T-AVG Window           | ΔPCT= | 40 °F |

<b>LICENSING BASIS PCT + MARGIN ALLOCATIONS</b>	<b>PCT Total =</b>	<b><u>1173°F</u></b>
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## Large Break Peak Clad Temperature Margin Utilization

### ECCS EVALUATION MODEL REVISIONS/ERRORS 10 CFR 50.46 ANNUAL REPORT

Evaluation Model : BASH

Fuel: 17x17 V5H

FQ=2.5

F  $\Delta$  H=1.65

SGTP=13%

3411MWt

Line Break Size: Cd = 0.6

#### Clad Temperature

##### A. ANALYSIS OF RECORD (8/93)

- |  |               |         |
|--|---------------|---------|
| 1. ECCS Analysis   | PCT=          | 1889 °F |
| 2. Increased T-AVG Uncertainty for<br>RTD Bypass Elimination | $\Delta$ PCT= | 5 °F    |

##### B. PRIOR PERMANENT ECCS MODEL ASSESSMENTS

$\Delta$ PCT= 73 °F

##### C. 10 CFR 50.46 Model Assessment (Permanent Assessments of PCT Margin)

- |   |               |      |
|---|---------------|------|
| 1. LOCABART Spacer Grid Single-Phase Heat Transfer<br>Error | $\Delta$ PCT= | 15°F |
| 2. LOCABART Zirc-Water Oxidation Error                      | $\Delta$ PCT= | 43°F |

##### D. OTHER MARGIN ALLOCATIONS

- |                          |               |       |
|--------------------------|---------------|-------|
| 1. +/- 5 °F T-AVG Window | $\Delta$ PCT= | 25 °F |
|--------------------------|---------------|-------|

#### LICENSING BASIS PCT + MARGIN ALLOCATIONS

PCT Total = 2050°F