



**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.



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 RTD Bypass Elimination	ΔPCT=	8 °F
B. PRIOR PERMANENT ECCS MODEL ASSESSMENTS	ΔPCT=	38 °F
C. 10 CFR 50.59 SAFETY EVALUATIONS	ΔPCT=	0 °F
D. 1997 10 CFR 50.46 MODEL ASSESSMENTS	ΔPCT=	0 °F
E. OTHER MARGIN ALLOCATIONS		
1. EFW Actuation on SI Signal Only	ΔPCT=	5 °F
2. +/- 5 °F T-AVG Window	ΔPCT=	40 °F
LICENSING BASIS PCT + MARGIN ALLOCATIONS	PCT Total =	<u>1173°F</u>

Large Break Peak Clad Temperature Margin Utilization

ECCS EVALUATION MODEL REVISIONS/ERRORS 10 CFR 50.46 ANNUAL REPORT

Evaluation Model : BASH
F Δ H=1.65
Line Break Size: Cd = 0.6

Fuel: 17x17 V5H
SGTP=13%

FQ=2.5
3411MWt

Clad Temperature

A. ANALYSIS OF RECORD (8/93)

- | | | |
|--|---------------|---------|
| 1. ECCS Analysis | PCT= | 1889 °F |
| 2. Increased T-AVG Uncertainty for
RTD Bypass Elimination | Δ PCT= | 5 °F |

B. PRIOR PERMANENT ECCS MODEL ASSESSMENTS

Δ PCT= 73 °F

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

- | | | |
|---|---------------|------|
| 1. LOCABART Spacer Grid Single-Phase Heat Transfer
Error | Δ PCT= | 15°F |
| 2. LOCABART Zirc-Water Oxidation Error | Δ PCT= | 43°F |

D. OTHER MARGIN ALLOCATIONS

- | | | |
|--------------------------|---------------|-------|
| 1. +/- 5 °F T-AVG Window | Δ PCT= | 25 °F |
|--------------------------|---------------|-------|

LICENSING BASIS PCT + MARGIN ALLOCATIONS

PCT Total = 2050°F