



**FPL Energy**  
**Seabrook Station**

FPL Energy Seabrook Station  
P.O. Box 300  
Seabrook, NH 03874  
(603) 773-7000

June 3, 2003

Docket No. 50-443  
NYN-03046

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

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

In accordance with the requirements of 10 CFR 50.46(a)(3)(ii), FPL Energy Seabrook, LLC submits a tabulation of the current Small Break and Large Break LOCA PCT margin utilization tables applicable to Seabrook Station. The Small Break and Large Break LOCA utilization tables are consistent with the tables provided in North Atlantic's 2001 10 CFR 50.46 Report, NYN-02060, dated June 26, 2002.

Should you have any questions regarding this report, please contact Mr. Paul V. Gurney, Reactor Engineering Manager at (603) 773-7776.

Very truly yours,

FPL Energy Seabrook, LLC

James M. Peschel  
Regulatory Programs Manager

cc: H. J. Miller, NRC Region I Administrator  
V. Nerses, NRC Project Manager, Project Directorate I-2  
G.T. Dentel, NRC Senior Resident Inspector

A001

**ENCLOSURE TO NYN-03046**

**Small Break Peak Clad Temperature Margin Utilization  
ECCS EVALUATION MODEL REVISIONS/ERRORS  
10 CFR 50.46 ANNUAL REPORT**

Evaluation Model: NOTRUMP  
F Δ H=1.65  
Limiting Break: 4 inch

Fuel: 17x17 V5H  
SGTP=13%

FQ=2.5  
3411 MWt

	<u>Clad Temperature (°F)</u>
<b>ANALYSIS OF RECORD</b>	
<b>MARGIN ALLOCATIONS (Delta PCT)</b>	<b>1082</b>
<b>A. PRIOR PERMANENT ECCS MODEL ASSESSMENTS</b>	
1. Effect of SI in Broken Loop	150
2. Effect of Improved COSI	-150
3. Drift Flux Flow Regime Errors	-13
4. LUCIFER Error Corrections	-16
5. Boiling Heat Transfer Correlation Error	-6
6. Steam Line Isolation Logic Error	30
7. Axial Nodalization, RIP Model Revision and SBLOCTA Error Corrections	13
8. NOTRUMP Specific Enthalpy Error	20
9. SBLOCTA Fuel Rod Initialization Error	10
10. NOTRUMP Mixture Level Tracking / Region Depletion Errors	13
<b>B. PLANNED PLANT CHANGE EVALUATIONS</b>	
1. Increased Safety Injection Pump Head Degradation Limiting Case Evaluation	105
2. Annular Blankets	10
<b>C. 2002 10 CFR 50.46 MODEL ASSESSMENTS (Permanent Assessments of PCT Margin)</b>	
1. None	0
<b>D. TEMPORARY ECCS MODEL ISSUES</b>	
1. None	0
<b>E. OTHER</b>	
1. Increased T-Avg Uncertainty for RTD Bypass Elimination	8
2. +/-3°F T-Avg Window	24
3. Increase of 2°F to T-Avg Window	16
4. AFW Actuation on SI Signal Only	5

**LICENSING BASIS PCT + MARGIN ALLOCATIONS**

**PCT Total = 1301°F**

**Large Break Peak Clad Temperature Margin Utilization  
ECCS EVALUATION MODEL REVISIONS/ERRORS  
10 CFR 50.46 ANNUAL REPORT**

Evaluation Model : BASH  
F  $\Delta$  H=1.65  
Limiting Break Size: Cd = 0.6

Fuel: 17x17 V5H  
SGTP=13%

FQ=2.5  
3411 MWt

	<u>Clad Temperature (F°)</u>
<b>ANALYSIS OF RECORD</b>	
<b>MARGIN ALLOCATIONS (Delta PCT)</b>	1889
<b>A. PRIOR PERMANENT ECCS MODEL ASSESSMENTS</b>	
1. None	0
<b>B. PLANNED PLANT CHANGE EVALUATIONS</b>	
1. None	0
<b>C. 2002 10 CFR 50.46 MODEL ASSESSMENTS (Permanent Assessments of PCT Margin)</b>	
1. None	0
<b>D. TEMPORARY ECCS MODEL ISSUES</b>	
1. None	0
<b>E. OTHER</b>	
1. Increased T-Avg Uncertainty for RTD Bypass Elimination	5
2. +/-3°F T-Avg Window	15
3. Increase of 2°F to T-Avg Window	10
4. V5H AOR Limiting Case w/IFMs Reanalysis	-51
5. Transition Core Penalty	50
6. RFA Fuel Evaluation	33
<b>LICENSING BASIS PCT + MARGIN ALLOCATIONS</b>	<b>PCT Total = 1951°F</b>