



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

September 4, 2007  
NOC-AE-07002196  
10CFR50.46

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
10CFR50.46 Annual Report of ECCS Model Revisions

- References:
1. Letter from D. A. Leazar to NRC Document Control Desk, "10CFR50.46 Annual Report of ECCS Model Revisions," dated February 11, 2003 (NOC-AE-03001464, ML030500320)
  2. Letter from D. A. Leazar to NRC Document Control Desk, "10CFR50.46 Annual Report of ECCS Model Revisions," dated September 18, 2006 (NOC-AE-06002064, ML062690497)

Pursuant to 10CFR50.46(a)(3)(ii), STP Nuclear Operating Company (STPNOC) submits this report concerning revisions to the accepted Emergency Core Cooling System (ECCS) evaluation model at South Texas Project (STP) Units 1 and 2.

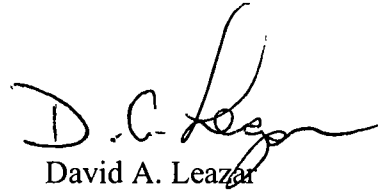
The STP Unit 1 and Unit 2 Small Break LOCA peak clad temperatures (PCT) are unchanged from those reported in the previous report (Reference 2): 1612°F

STPNOC has determined that the rebaseline described in Reference 1 was a reanalysis to establish a new Analysis of Record for Large Break LOCA with a PCT of 2136 °F. Corrections to the STP Unit 1 and Unit 2 Large Break LOCA analyses resulted in a PCT of 2112°F, as described in the attachment. The change is less than the 50°F criterion for reanalysis in 10CFR50.46(a)(3)(ii).

There are no commitments in this submittal.

A002  
LRR

If you should have any questions concerning this matter, please contact Mr. A. W. Harrison at (361) 972-7298 or me at (361) 972-7795.

A handwritten signature in black ink, appearing to read "D. A. Leazar", with a stylized flourish extending to the right.

David A. Leazar  
Manager,  
Fuels & Analysis

Attachment: Peak Clad Temperature Summary for Appendix K Large Break LOCA

cc:  
(paper copy)

Regional Administrator, Region IV  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, Texas 76011-8064

Mohan C. Thadani  
Senior Project Manager  
U.S. Nuclear Regulatory Commission  
One White Flint North (MS 7 D1)  
11555 Rockville Pike  
Rockville, MD 20852

Senior Resident Inspector  
U. S. Nuclear Regulatory Commission  
P. O. Box 289, Mail Code: MN116  
Wadsworth, TX 77483

C. M. Canady  
City of Austin  
Electric Utility Department  
721 Barton Springs Road  
Austin, TX 78704

Richard A. Ratliff  
Bureau of Radiation Control  
Texas Department of State Health Services  
1100 West 49th Street  
Austin, TX 78756-3189

(electronic copy)

A. H. Gutterman, Esquire  
Morgan, Lewis & Bockius LLP

Mohan C. Thadani  
U. S. Nuclear Regulatory Commission

Thad Hill  
Eddy Daniels  
Marty Ryan  
Harry Holloway  
Steve Winn  
NRG South Texas LP

Ed Alarcon  
J. J. Nesrsta  
R. K. Temple  
Kevin Pollo  
City Public Service

Jon C. Wood  
Cox Smith Matthews

C. Kirksey  
City of Austin

Attachment

**Peak Clad Temperature Summary for Appendix K Large Break LOCA  
South Texas Units 1 & 2**

**Analysis Information:**

Analysis Date: 12/17/2002  
Evaluation Model: BASH                      Limiting Break Size: Cd=0.8, Min SI  
FQ: 2.55      FdH: 1.62  
Fuel: RFA /Vantage 5H      Steam Generator Tube Plugging (%): 10  
Notes: RFA Re-analysis - FdH = 1.55 for Once Burned Standard Fuel

**Licensing Basis**

Analysis-Of-Record (AOR) PCT\*:                      2136 °F

**PCT Assessments (Delta PCT)**

**A. Prior ECCS Model Assessments**

- 1 . IMP Database Error Corrections:                      0
- 2 . PAD Version 4.0 Implementation:                      -30°F

**B. Planned Plant Modification Evaluations**

- 1 . None

**C. 2007 ECCS MODEL ASSESSMENTS**

- 1 . LOCBART Pellet Volumetric Heat Generation Rate:                      6 °F

**Licensing Basis PCT + PCT Assessments PCT:**                      2112 °F

\* As noted in the cover letter, STPNOC has determined that the rebaseline performed in 2002 established a new AOR. The new AOR PCT of 2136 °F was calculated from 2090 °F (1998 AOR) + 46 °F (2002 Rebaseline).