



**FPL**

JAN 29 2001

L-2001-010

10 CFR §50.46

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

Re: Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
10 CFR 50.46, "Acceptance Criteria for  
Emergency Core Cooling Systems in Light Water  
Nuclear Power Reactors" - Annual Report

10 CFR 50.46(a)(3)(ii) requires that licensees report to the Commission at least annually the nature of changes to, or errors discovered in, the Emergency Core Cooling System (ECCS) evaluation models, or in the application of such models that affect the peak clad temperature calculation and their effect on the limiting ECCS analysis. This letter provides the Florida Power and Light Company (FPL) report for Turkey Point Units 3 and 4 since the last report submitted by FPL letter L-99-271, dated January 6, 2000.

Should there be any questions, please contact us.

Very truly yours,

R. J. Hovey  
Vice President  
Turkey Point Plant

OIH

attachment

cc: Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant

A001

Small Break Loss of Coolant Accident (SBLOCA)

By letter L-99-271, dated January 6, 2000, Florida Power and Light Company (FPL) reported a Peak Clad Temperature (PCT) of 1676°F for the worst case SBLOCA transient analysis. A 13°F penalty on PCT has been assessed due to several modeling errors related to the NOTRUMP code logic to track mixture level transitions between node boundaries in a stack of fluid nodes. This penalty is applicable to both units. In addition, a 2°F penalty has been assessed to address a postulated maximum number of 10 stainless steel filler rods. This assessment is temporary and only applies to Unit 3 which was loaded with one stainless steel filler rod in a once burned fuel assembly at the beginning of Cycle 18. The 2°F penalty will be maintained until Unit 3 Cycle 19 is completed. Based on the above, a revised PCT of 1691°F is applicable for Unit 3, and a revised PCT of 1689°F is applicable for Unit 4.

Large Break LOCA (LBLOCA)

By letter L-99-271, dated January 6, 2000, FPL reported a PCT of 2105°F for the worst case LBLOCA transient analysis. Since the last report, a postulated maximum number of 10 stainless steel filler rods have been evaluated with no penalty in PCT for the LBLOCA analysis. This assessment is temporary and only applies to Unit 3 which was loaded with one stainless steel filler rod in a once burned fuel assembly at the beginning of Cycle 18. The assessment will be tracked until Unit 3 Cycle 19. Based on the above, a PCT of 2105°F for the worst case LBLOCA is applicable for both units.

Summary

The peak clad temperature of 1691°F for Unit 3 and 1689°F for Unit 4 for the worst case SBLOCA and the peak clad temperature of 2105°F for the worst case LBLOCA, correcting for the effects discussed above and summarized in Tables 1, 2 and 3, are below the 10 CFR 50.46 ECCS acceptance criteria limit of 2200°F. Turkey Point Units 3 and 4 remain in compliance with the Emergency Core Cooling System performance criteria specified in 10 CFR 50.46 (b).

TABLE 1

TURKEY POINT UNIT 3  
PREDICTED PEAK CLAD TEMPERATURES  
CURRENT SBLOCA EVALUATIONS  
THAT HAVE ASSESSED PCT PENALTIES

|  |               |
|--|---------------|
| Analysis of Record                                       | 1688°F        |
| <b>Total SBLOCA PCT specified in FPL Letter L-99-271</b> | <b>1676°F</b> |
| <u>Evaluations since issuance of FPL letter L-99-271</u> |               |
| <b>Permanent</b>   |               |
| NOTRUMP, Mixture Level Tracking Error                    | +13°F         |
| <b>Temporary</b>   |               |
| 10 Non-Uranium Filler Rods                               | +2°F          |
| <b>Total Estimated SBLOCA PCT</b>                        | <b>1691°F</b> |

TABLE 2

TURKEY POINT UNIT 4

PREDICTED PEAK CLAD TEMPERATURES

CURRENT SBLOCA EVALUATIONS  
THAT HAVE ASSESSED PCT PENALTIES

|  |        |
|--|--------|
| Analysis of Record                                       | 1688°F |
| Total SBLOCA PCT specified in FPL Letter L-99-271        | 1676°F |
| <u>Evaluations since issuance of FPL letter L-99-271</u> |        |
| Permanent  |        |
| NOTRUMP, Mixture Level Tracking Error                    | +13°F  |
| Total Estimated SBLOCA PCT                               | 1689°F |

TABLE 3

TURKEY POINT UNITS 3 AND 4  
PREDICTED PEAK CLAD TEMPERATURES  
CURRENT LBLOCA EVALUATIONS  
THAT HAVE ASSESSED PCT PENALTIES

|  |        |
|--|--------|
| Analysis of Record                                       | 2040°F |
| Total LBLOCA PCT specified in FPL letter L-99-271        | 2105°F |
| <u>Evaluations since issuance of FPL letter L-99-271</u> |        |
| <b>Temporary</b>   |        |
| 10 Non-Uranium Filler Rods (Unit 3)                      | +0°F   |
| Total Estimated LBLOCA PCT                               | 2105°F |