



FPL.

POWERING TODAY.
EMPOWERING TOMORROW.®

APR 26 2011

L-2011-120
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" – 2010 Annual Report

References:

1. Letter from Michael Kiley to US NRC Document Control Desk, "Turkey Point Units 3 & 4, Dockets Nos. 50-250 and 50-251 10 CFR 50.46, 'Acceptance Criteria for Emergency Core Cooling Systems in Light Water Nuclear Power Reactors' – 2009 Annual Report," L-2010-074, April 15, 2010.
2. Letter from Michael Kiley to US NRC Document Control Desk, "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' – 30 Day Special Report," L-2010-231, October 19, 2010.

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 (EM), or in the application of such models that affect the peak clad temperature calculation and their effect on the limiting ECCS analysis. The attachment to this letter provides the Florida Power and Light Company (FPL) report for Turkey Point Units 3 and 4 for 2010.

FPL letter L-2010-074 (Reference 1), documented no changes in Peak Clad Temperature (PCT) for the Large Break Loss of Coolant Accident (LBLOCA) and no changes for the Small Break Loss of Coolant Accident (SBLOCA) during 2009 for Turkey Point Units 3 and 4. The LBLOCA PCT reported was 1986 °F, and the SBLOCA PCT reported was 1689 °F. The cumulative changes reported by L-2010-074 for the LBLOCA and SBLOCA were 271 °F and 105 °F, respectively.

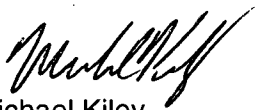
10 CFR 50.46(a)(3)(ii) requires that changes to the LBLOCA Evaluation Model (EM) and SBLOCA EM PCT exceeding 50 °F have to be reported to the NRC within 30 days from its determination. FPL letter L-2010-231 (Reference 2), documented the impact on PCT due to Turkey Point mixed cores starting with Unit 3 Cycle 25 and Unit 4 Cycle 26 with the presence of 15X15 DRFA and 15X15 Upgrade fuel assemblies in these cores. There was no change in PCT for the SBLOCA. Therefore, the SBLOCA PCT of 1689 °F with a cumulative change of 105 °F remains unchanged. The mixed core penalty for LBLOCA was an increase of 12 °F in PCT with a resulting LBLOCA PCT of 1998 °F and a cumulative change of 283 °F.

There were no changes in PCT for the SBLOCA and LBLOCA during 2010 other than the mixed core penalty discussed above. Attachment 1 provides the PCT cumulative changes for the LBLOCA and SBLOCA for Turkey Point Units 3 and 4.

10 CFR 50.46(a)(3)(ii) also requires that a schedule for reanalysis be provided or compliance with the requirements of the regulation be shown. Compliance with 10 CFR 50.46 requirements is demonstrated by the total estimated LBLOCA PCT of 1998 °F, and the SBLOCA PCT of 1689 °F, both remaining well below the limit of 2200 °F and by the total cumulative PCT changes having been calculated conservatively. Accordingly, a schedule for reanalysis is not required.

Should there be any questions, please contact Robert Tomonto, Licensing Manager, at 305-246-7327.

Very truly yours,



Michael Kiley
Vice President
Turkey Point Nuclear Plant

Attachment

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

Table 1

<u>SBLOCA</u>	<u>Peak Cladding Temperature</u>	<u>Cumulative Change</u>
2009 10 CFR 50.46 Annual Report (Ref. 1)	1689 °F	105 °F
Errors in 2010		
- Pellet Crack and Dish Volume Calculation	0 °F	0 °F
- Treatment of Vessel Average Temperature Uncertainty	0 °F	0 °F
2010 10 CFR 50.46 Annual Report	1689 °F	105 °F
	<u>Peak Cladding Temperature</u>	<u>Cumulative Change</u>
<u>LBLOCA</u>		
2009 10 CFR 50.46 Annual Report (Ref. 1)	1986 °F	271 °F
Mixed Core Assessment (Ref. 2)		
- Transition Core (to Upgrade Fuel)*	12 °F	283 °F
Errors in 2010		
Treatment of Vessel Average Temperature Uncertainty	0 °F	0 °F
2010 10 CFR 50.46 Annual Report	1998 °F	283 °F

* Mixed core assessment applies to Unit 3 starting in Cycle 25 (November 2010) and to Unit 4 starting in Cycle 26 (projected to start May 2011).