



February 18, 2014
L-2014-037
10 CFR 50.46

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555-0001

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" – 30 Day Special Report

References:

1. FPL letter, M. Kiley to U. S. Nuclear Regulatory Commission, "Turkey Point Units 3 and 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' – 30 Day Special Report," L-2013-237, August 20, 2013.
2. Westinghouse letter, E. Malek to R. Klein, "Turkey Point Unit 3 & 4, 10 CFR 50.46 Report for the HOTSPOT Burst Strain Error Correction," NF-FP-14-9, January 31, 2014.

10 CFR 50.46(a)(3)(ii) requires that changes to the Large Break Loss of Coolant Accident (LBLOCA) Evaluation Model (EM) and Small Break LOCA (SBLOCA) EM peak clad temperature (PCT) exceeding 50°F have to be reported to the NRC within 30 days. This letter meets this requirement.

FPL letter L-2013-237 (Reference 1), submitted the Turkey Point Units 3 and 4 30-day special report documenting several errors in the Turkey Point LBLOCA EM. The LBLOCA PCT reported was 2115 °F with a cumulative change of 71 °F.

Westinghouse identified an error in the LBLOCA EM in the calculation of the burst strain performed by the HOTSPOT code (Reference 2). Correction of the error yields a thinner cladding at the burst node and consequently more fuel relocating into the burst node leading to an increase in PCT at the burst node. The impact of this error was evaluated with the most limiting Turkey Point HOTSPOT runs with a HOTSPOT version that included the correction of the error and resulted in an estimated PCT impact of +18 °F. Table 1 below provides a summary of the new LBLOCA PCT for Turkey Point Units 3 and 4. The revised LBLOCA PCT for Units 3 and 4 is 2133 °F with a cumulative change of 89°F due to the EM error. The SBLOCA EM is not affected by the identified error.

A002
JE22
NIRL

Table 1
Turkey Point Units 3 and 4 LBLOCA Evaluation Model Error

| <u>LBLOCA</u> | <u>Peak Cladding Temperature</u> | <u>Cumulative Change</u> |
|--|----------------------------------|--------------------------|
| 10 CFR 50.46 30-day Special Report (Ref.1) | 2115 °F | 71 °F |
| ECCS Model Assessments (Ref. 2) | 18 °F | 18 °F |
| | 2133 °F | 89 °F |

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 if the error is significant. For the Turkey Point Units continued compliance with 10 CFR 50.46 requirements is demonstrated by the new estimated LBLOCA PCT of 2133°F remaining below the limit of 2200°F.

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

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