Florida Power & Light, 9760 S.W. 344 St. Homestead, FL 33035

FPL

JUL 21 2011
L-2011-251
10 CFR 50.90

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
Response to NRC Request for Additional Information Regarding
License Amendment Request No. 209, Relocation of Cycle Specific Parameters
to the Core Operating Limits Report

References:

(1) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2011-006), "License Amendment Request No. 209, Relocation of Cycle Specific Parameters to the Core Operating Limits Report (COLR)," Accession No. ML110550160, February 21, 2011.

(2) Email from J. Paige (NRC) to S. Hale (FPL), "Turkey Point - Relocation of Cycle Specific Parameters to the Core Operating Limits Report (COLR) – Reactor Systems (SRXB) Requests for Additional Information," Accession No. ML11174A261, June 22, 2011.

(3) WCAP-8745-P-A, "Design Basis for the Thermal Overpower ΔT and Thermal Overtemperature ΔT Trip Functions," September 1986.

By letter L-2011-006 dated February 21, 2011 [Reference 1], Florida Power and Light Company (FPL) requested to amend Renewed Facility Operating Licenses DPR-31 and DPR-41 and revise the Turkey Point Units 3 and 4 Technical Specifications (TS). The proposed amendment will relocate selected figures and values from the Technical Specifications (TS) to the Core Operating Limits Report (COLR).

By email from the NRC Project Manager on June 22, 2011 [Reference 2], additional information regarding the relocation of cycle-specific parameters to the COLR was requested by the NRC staff in the Reactor Systems Branch (SRXB) to support their review of the LAR. The RAI consisted of one question regarding the applicability of WCAP-8745 [Reference 3] to Turkey Point. The RAI question and the FPL response are documented in the Attachment to this letter.

In accordance with 10 CFR 50.91(b)(1), a copy of this letter is being forwarded to the State Designee of Florida.

This submittal does not alter the significant hazards consideration or environmental assessment previously submitted by FPL letter L-2011-006 [Reference 1].

This submittal contains no new commitments and no revisions to existing commitments.

Should you have any questions regarding this submittal, please contact Mr. Robert J. Tomonto, Licensing Manager, at (305) 246-7327.

A001
NRR

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 21, 2011.

Very truly yours,

Michael Kiley
Site Vice President
Turkey Point Nuclear Plant

Attachment

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, Turkey Point Nuclear Plant
USNRC Resident Inspector, Turkey Point Nuclear Plant
Mr. W. A. Passetti, Florida Department of Health

Turkey Point Units 3 and 4

RESPONSE TO NRC RAI REGARDING LAR NO. 209
RELOCATION OF CYCLE SPECIFIC PARAMETERS
TO THE CORE OPERATING LIMITS REPORT

ATTACHMENT

Response to Request for Additional Information

The following information is provided by Florida Power & Light (FPL) Company in response to the U. S. Nuclear Regulatory Commission's (NRC) Request for Additional Information (RAI). This information was requested to support License Amendment Request (LAR) No. 209, Relocation of Cycle Specific Parameters to the Core Operating Limits Report (COLR), for Turkey Point Nuclear Plant (PTN) Units 3 and 4 that was submitted to NRC by FPL letter L-2011-006 dated February 21, 2011 [Reference 1].

By email from the NRC PM on June 22, 2011 [Reference 2], additional information regarding the relocation of cycle specific parameters to the COLR was requested by the NRC staff in the Reactor Systems Branch (SRXB) to support their review of the LAR. The RAI consisted of one question regarding the applicability of WCAP-8745 [Reference 3] to PTN. The RAI question and the FPL response are documented below.

SRXB-1.1: **WCAP-8745-A states, "In this report responding to the NRC request, the protection systems and methods for set point determination apply to all Westinghouse plants which reference RESAR-3S, and which are operating under the guidelines of constant axial offset control without part-length control rods (Mode A operation)." Confirm the applicability of WCAP-8745-A to Turkey Point.**

The applicability of the topical report is discussed in the safety evaluation report (SER) issued by the Nuclear Regulatory Commission (NRC) in Reference 4, a copy of which is provided in Section A of the approved WCAP. The SER states the following, in Section 3.2:

"Although Section 1 of the topical report specifies its applicability to Westinghouse plants that reference RESAR-3S and operate under CAOC, Westinghouse has indicated that they consider WCAP-8745 applicable to all Westinghouse plants that employ overpower and overtemperature ΔT trip for core protection. Westinghouse has stated that new methods and technology developed after the submittal of WCAP-8745 are described in separate topical reports, and do not invalidate the conclusions of WCAP-8745. As examples of such new methods, Westinghouse has cited changes in DNB analysis methodology (Improved Thermal Design Procedure and WRB-1 and WRB-2 correlations), fuel design (Optimized Fuel Assembly), and plant operating procedure (Relaxed Axial Offset Control), and referenced topical reports describing these changes. While we agree that the basic design philosophy described in WCAP-8745 is not invalidated by changes in DNB analysis methodology, fuel design, and plant operating procedure, the application of this methodology must account for changes in system design and operation. The adequacy of the standard power shapes in establishing the core DNB protection system must be evaluated whenever changes are introduced that could potentially effect the core power distribution."

Per Westinghouse procedures, the adequacy of the standard power shapes in establishing the core DNB protection system is evaluated whenever there is a change in plant operating procedures (RAOC, for example), fuel type, DNB analysis methodology (for example, RTDP, WRB-1 correlation) or any other item

that could potentially cause a change in the core power distribution. If it is found that more limiting power distributions with respect to DNB exist, then the core DNB protection system is reestablished based on the more limiting shapes. This process was done for the Turkey Point Units 3 and 4 EPU. The power distributions used in the plant core thermal limits calculation were confirmed to be bounding and conservative for Turkey Point, accounting for the EPU and associated methodologies. The plant overtemperature and overpower ΔT setpoints were then established to protect these Turkey Point specific core thermal limits.

Based on the above discussion, WCAP-8745-P-A continues to be applicable to Turkey Point for the EPU.

References:

1. M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2011-006), "License Amendment Request No. 209, Relocation of Cycle Specific Parameters to the Core Operating Limits Report (COLR)," Accession No. ML110550160, February 21, 2011.
2. Email from J. Paige (NRC) to S. Hale (FPL), "Turkey Point - Relocation of Cycle Specific Parameters to the Core Operating Limits Report (COLR) – Reactor Systems (SRXB) Requests for Additional Information," Accession No. ML11174A261, June 22, 2011.
3. WCAP-8745-P-A, "Design Basis for the Thermal Overpower ΔT and Thermal Overtemperature ΔT Trip Functions," September 1986.
4. C. Rossi (NRC) to E. P. Rahe, Jr. (Westinghouse), "Acceptance for Referencing of Licensing Topical Report WCAP-8745(P) / 8746(NP), 'Design Basis for the Thermal Overpower and Thermal Overtemperature ΔT Trip Functions'," April 17, 1986.