UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 22, 2025

Robert Coffey
Executive Vice President, Nuclear
and Chief Nuclear Officer
Florida Power & Light Company
Mail Stop: EX/JB
700 Universe Blvd.
Juno Beach, FL 33408

SUBJECT: TURKEY POINT NUCLEAR GENERATING, UNIT NOS. 3 AND 4 – REGULATORY AUDIT SUMMARY RELATED TO REVIEW OF LICENSE AMENDMENT FOR EXTENSION OF SURVEILLANCE INTERVALS TO FACILITATE A 24-MONTH FUEL CYCLE (EPID L-2023-LLA-0161)

Dear Robert Coffey:

By application dated November 15, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23320A028), as supplemented by letters dated February 9, October 3, 31, and November 12, 2024 (ADAMS Accession Nos. ML24040A190, ML24278A038, ML24305A144, and ML24317A059, respectively), Florida Power & Light Company (FPL or the licensee), submitted a license amendment request (LAR) to revise the Turkey Point Nuclear Generating ,Unit Nos. 3 and 4 (Turkey Point), technical specifications (TS).

The proposed amendments would revise the Turkey Point licensing basis by incorporating advanced fuel features (e.g., AXIOM® cladding, ADOPT™ fuel pellets, and a PRIME™ fuel skeleton) to extend TS surveillance intervals, modify TS Allowable Values, and make conforming changes to the Updated Final Safety Analysis Report to facilitate a transition to 24-month fuel cycles.

The licensee also submitted technical report Westinghouse Commercial Atomic Program (WCAP)-18888-P, “Westinghouse Setpoint Methodology for Protection Systems Turkey Point Units 3 & 4 24 Month Fuel Cycle,” Revision 0 (ML24040A191 - Proprietary). WCAP-18888-P was prepared to replace older, previously NRC-approved setpoint methodologies and combine the earlier methods into one comprehensive method for calculating TS controlled instrument channel setpoints.

To enhance the review of the licensee’s request, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a virtual regulatory audit that included discussions with your staff on April 30, June 17, June 27, September 9 and September 20, 2024. A summary of the regulatory audit is enclosed. The NRC staff did not identify any significant issues during the audit.

If you have any questions, please contact me at (301) 415-3867, or Michael.Mahoney@nrc.gov.

Sincerely,

/RA/

Michael Mahoney, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251

Enclosure:
Regulatory Audit Summary

cc: Listserv

UNITED STATES
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REGULATORY AUDIT SUMMARY

REGARDING LICENSE AMENDMENT TO TRANSITION

TO A 24-MONTH FUEL CYCLE

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT NUCLEAR GENERATING, UNIT NOS. 3 AND 4

DOCKET NO. 50-250 AND 50-251

1.0 BACKGROUND

A regulatory audit is an activity undertaken by the U.S. Nuclear Regulatory Commission (NRC) staff to examine and evaluate licensee information with the intent to gain an understanding of, verify, or identify information that will require docketing to support the basis of a licensing or regulatory decision.

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The NRC staff performed a preliminary review of the license amendment requests and determined that a regulatory audit would assist in the timely completion of the review. The NRC staff conducted a virtual regulatory audit that included a discussions with the licensee on April 30, June 17, June 27, September 9, and September 20, 2024. The audit plan was provided to the licensee on April 11, 2024 (ML24102A169).

Enclosure

2.0 AUDIT ACTIVITIES AND OBSERVATIONS

The remote audit was conducted using web-conferencing capabilities. The purpose of the audit was to (1) confirm internal licensee information that supports statements made in the LAR, and (2) determine whether the information included in the documents is necessary to be submitted to support a safety conclusion.

Discussions on the topics identified in the attachment of the audit plan were held with the licensee during an audit calls conducted on April 30, June 17, June 27, September 9 and September 20, 2024. The NRC staff assessed the information provided during the audit to determine whether additional information would be needed to support a regulatory finding, and therefore, would need to be submitted for NRC review.

3.0 AUDIT PARTICIPANTS

NRC	FPL	Westinghouse
Michael Mahoney	Jarrett Mack	Jean-Dominique LeGarrec
Santosh Bhatt	Yacine Faouzi	James Smith
Richard Fu	Emilio Fuentes	Amy Colussy
Ahsan Sallman	Ralph Jaskiewicz	Kyle Shelton
Joseph Messina	Wendy Zumbo	David Huegel
William Roggenbrodt	Jacob Fauber	Sean Kinnas
Khoi Nguyen	Patrick Hahn	Kevin Barber
Derek Scully		Heather McMillen
Nicholas Soliz		Douglas Hake
Fanta Sacko		Baster Durham
Perry Buckberg		Michael Orner
		Andrew Sheaffer
		Michael Wenner
		Christopher Treleani
		Christopher Briggs
		Lylliam Sekkat
		Richard Karapandi
		Curt Ciocca
		John Moorehead
		Jerrod Ewing

4.0 LIST OF DOCUMENTS PROVIDED ON THE ELECTRONIC PORTAL

FPL provided the following supporting documents on the Certrec portal:

- Drawing 5614-J-839A SH 02-EC298462, “Instrument Setpoints”
- Drawing 5614-J-839 SH 02-EC298462, “Instrument Setpoints”
- Drawing 5614-J-839A SH 03-EC298462, “Instrument Setpoints”
- Drawing 5614-J-839A SH 03-EC298462, “Instrument Setpoints”
- Drawing 5613-J-839 sheet 1, “Instrument Setpoints”
- Drawing 5613-J-839 sheet 2, “Instrument Setpoints”
- Drawing 5613-J-839 sheet 3, “Instrument Setpoints”
- Drawing 5613-J-839 sheet 4, “Instrument Setpoints”
- Drawing 5614-J-839A sheet 2, “Instrument Setpoints”
- Surveillance Maintenance Procedure 3-SMI-072.01, Revision 14, “P-3-458, P-3-474, P-3-484 and P-3-494 Steam Pressures Channel Calibration, Protection Chanell II”
- Drawing 5610-J-844 sheet 10A, “Steam Break Protection (P-474, 484, 494)”
- Drawing 5613-J-839A sheet 2, “Instrument Setpoints”
- Drawing 55613-M-430-268, “Loop A Steam Break Protection Channel II, III, & IV”
- Calculation 21701-566-J03, “Pressure Transmitter Scaling Calculation in Support of Information Notice 91-75”
- Surveillance Maintenance Procedure 3-SMI-071.02A, Revision 11, “Steam Generator 3A Level (Narrow Range) Protection Set I Loop L-474 Channel Calibration”
- WCAP-17283-P, Revision 0, “Westinghouse Setpoint Methodology For Protection Systems Turkey Point Units 3 & 4 (Consolidation of WCAP-1745, Revisions 0 and 1 with WCAP-17070-P, Revision 0)”
- WCAP-17283-P, Revision 1, “Westinghouse Setpoint Methodology For Protection Systems Turkey Point Units 3 & 4 (Consolidation of WCAP-1745, Revisions 0 and 1 with WCAP-17070-P, Revision 3)”
- WCAP-17283-P, Revision 2, “Westinghouse Setpoint Methodology For Protection Systems Turkey Point Units 3 & 4 (Consolidation of WCAP-1745, Revisions 0 and 1 with WCAP-17070-P, Revision 3)”

Westinghouse and FPL provided the following supporting documents on the Westinghouse Electronic Portal during the virtual audit.

- CN-SCS-22-7, Revision 0, “Turkey Point Unit 3 & 4 24-Month Fuel Cycle Extension and 48-Month Surveillance Extension Drift Evaluation”
- CN-SCS-22-7-R0-ASMT-1, “Discovery of Legacy Errors & Re-Evaluation of Containment Pressure Drift Analysis”
- CN-CPS-08-75, Revision 4, “Tavg Rod Control RTDP, DNB, and Tavg Low-Low, Safety Injection, Steam Line Isolation Uncertainty Calculations for Turkey Point Units 3 and 4”
- CN-CPS-08-77, Revision 3, “Pressurizer Pressure – Control, High and Low Reactor Trip, and Low Safety Injection Uncertainty Calculations for Turkey Point Units 3 & 4”
- CN-CPS-08-78, Revision 2, “Pressurizer Water Level – Control Uncertainty, High Reactor Trip Calculations for Turkey Point Units 3 & 4”
- CN-CPS-08-85, Revision 3, “High Steam Flow and Steam/Feedwater Flow Mismatch Setpoint Calculations for Turkey Point Units 3 & 4”
- CN-CPS-08-87, “Turkey Point Units 3 & 4 Overtemperature ΔT and Overpower ΔT Uncertainty Calculation”

- CN-CPS-09-15, Revision 2, “NIS Power Range Neutron Flux – High and Low Reactor Trip for Turkey Point Units 3 and 4”
- CN-CPS-09-18, Revision 2, “Steamline Pressure - Low (SI) for Turkey Point Units 3 and 4”
- CN-CPS-09-33, Revision 3, “Turkey Point (FPL) Units 3 and 4 Narrow Range Steam Generator Level Control/Protection Uncertainty Calculations”
- CN-CPS-09-33-R3-ASMT-1, “Discovery of Legacy Errors & Re-Evaluation of Steam Generator Level Process Measurement Allowance (PMA) terms when using GENF 1.2.0 for Steam Generator Level trip and control functions for Turkey Point Units”
- CN-CPS-09-33-R3-ASMT-2, “Discovery of Legacy Errors & Re-Evaluation of Steam Generator Level Process Measurement Allowance (PMA) terms when using GENF 1.2.0 for Steam Generator Level trip and control functions for Turkey Point Units”
- CN-SCS-23-11, Revision 0, “NIS Intermediate and Source Range Neutron Flux Reactor Trip for Turkey Point Units 3 and 4”
- CN-SCS-23-3, Revision 0, “Containment Pressure – High / Safety Injection and High-High / Spray for Turkey Point Units 3 & 4”
- CN-SCS-23-6, Revision 0, “Turkey Point Units 3 & 4 Technical Specification Containment Particulate and Gaseous Radiation Setpoints”
- CN-SCS-23-7, Revision 0, “Turkey Point Units 3 & 4 Technical Specification Underfrequency Setpoints”
- CN-SCS-23-8, Revision 0, “Turkey Point Units 3 & 4 Technical Specification Undervoltage Setpoints”
- CN-SCS-23-9, Revision 0, “High Differential Steam Pressure Between Steam Header and Steam Generator Line, SI for Turkey Point Units 3 & 4”
- CN-SUA-10-22, Revision 2, “Turkey Point Units 3 & 4 Emergency Trip Header Low Pressure Reactor Trip Uncertainty Calculation”
- CE-23-143, Revision 1, Attachment 1, “Turkey Point Units 3 & 4 24-Month Fuel Cycle Transition Fuel Rod Design Engineering Report Input”
- FPLM-REAC-CN-AA-00001, Revision 1, “Reactor Pressure Vessel Neutron Exposure Evaluation in Support of the Transition to 24-Month Fuel Cycles at Turkey Point Unit 3 and Unit 4”
- Attachment 1 of FPLM-LOCA-TR-AA-000001, Revision 0, “Engineering Summary Report of the Turkey Point Units 3 and 4 (FPL/FLA) 24-Month Fuel Cycle Transition Loss-of-Coolant Accident (LOCA) Analysis with the FULL SPECTRUM LOCA (FSLOCA) Evaluation Model Methodology”
- FPLM-LOCA-TM-AA-000007, Revision 0, “Turkey Point Units 3 and 4 (FPL/FLA) 24-Month Fuel Cycle Transition: Post-LOCA Long Term Cooling Engineering Report Input”
- FPLM-TANL-TM-AA-000010, Revision 1, “Turkey Point Units 3 and 4 Non-LOCA Input to the 24-Month Cycles Engineering Report”
- FPLM-TANL-TM-AA-000010, Revision 1, “Turkey Point Units 3 and 4 Non-LOCA Input to the 24-Month Cycles Engineering Report”
- FPLM-TSPS-TM-L9-000002, Revision 0, “Turkey Point Nuclear Plant, Units 3 and 4 GL-91-04 Non-Calibration and Calibration Without Setpoints SR Evaluation Review Summary”
- WCAP-17070-P, Revision 3, “Westinghouse Setpoint Methodology for Protection Systems Turkey Point Units 3 & 4 (Power Uprate to 2644 MWt – Core Power)”
- CE-23-114, Revision 0, Attachment 1, “Turkey Point Units 3 and 4 24-Month Cycle Transition Engineering Report Input - THD Section”

5.0 RESULTS OF THE AUDIT

As a result of the audit, the NRC staff gained a better understanding of information in the LAR. Requests for additional information (RAIs) were issued to the licensee on September 6 and October 8, 2024 (ML24250A085 and ML24282A672, respectively). The licensee provided a response to the RAIs by letters dated October 3 and October 31,2024 (ML24278A040 [Not Publicly Available] and ML24305A144, respectively).

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