



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200  
ATLANTA, GEORGIA 30303-1200

January 27, 2023

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

SUBJECT: TURKEY POINT UNITS 3 & 4 – INTEGRATED INSPECTION REPORT  
05000250/2022004 AND 05000251/2022004

Dear Bob Coffey:

On December 31, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Turkey Point Units 3 & 4. On January 10, 2023, the NRC inspectors discussed the results of this inspection with Mr. Michael Pearce and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

A handwritten signature in black ink that reads "David E. Dumbacher".

Signed by Dumbacher, David  
on 01/27/23

David E. Dumbacher, Chief  
Reactor Projects Branch 3  
Division of Reactor Projects

Docket Nos. 05000250 and 05000251  
License Nos. DPR-31 and DPR-41

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: TURKEY POINT UNITS 3 & 4 – INTEGRATED INSPECTION REPORT  
05000250/2022004 AND 05000251/2022004 DATED January 27, 2023

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OFFICE	RII/DRP	RII/DRP	RII/DRP		
NAME	M. Endress	N. Childs	D. Dumbacher		
DATE	01/17/2023	01/27/2023	01/27/2023		

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05000250 and 05000251

License Numbers: DPR-31 and DPR-41

Report Numbers: 05000250/2022004 and 05000251/2022004

Enterprise Identifier: I-2022-004-0022

Licensee: Florida Power & Light Company

Facility: Turkey Point Units 3 & 4

Location: Homestead, FL

Inspection Dates: October 01, 2022 to December 31, 2022

Inspectors: J. Bundy, Senior Operations Engineer  
M. Endress, Senior Resident Inspector  
J.R. Reyes, Resident Inspector

Approved By: David E. Dumbacher, Chief  
Reactor Projects Branch 3  
Division of Reactor Projects

Enclosure

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Turkey Point Units 3 & 4, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### List of Findings and Violations

No findings or violations of more than minor significance were identified.

### Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000250/2021-004-00	LER 2021-004-00 for Turkey Point, Unit 3, Through-Wall Leakage from Core Exit Thermocouple Tubing	71153	Closed

## **INSPECTION SCOPES**

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met, consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed activities described in IMC 2515, Appendix D, "Plant Status," observed risk-significant activities, and completed on-site portions of IPs. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## **REACTOR SAFETY**

### 71111.01 - Adverse Weather Protection

#### Impending Severe Weather Sample (IP Section 03.02) (2 Samples)

- (1) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems from impending severe weather from Hurricane Nicole on November 8, 2022.
- (2) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems from impending cold weather on December 23, 27, and 28, 2022.

### 71111.04 - Equipment Alignment

#### Partial Walkdown Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Unit 4B containment spray pump (CSP) train while the 4A CSP train was out of service (OOS) for maintenance, on October 18, 2022
- (2) Unit 3B emergency diesel generator (EDG) while the 3A EDG was OOS for maintenance, on November 15 and 16, 2022
- (3) Unit 3B CSP while the 3A CSP was OOS for testing, on December 15, 2022

#### Complete Walkdown Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated system configurations during a complete walkdown of the Unit 3 and Unit 4 CSP systems, on December 13, 2022.

### 71111.05 - Fire Protection

#### Fire Area Walkdown and Inspection Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Unit 3 and Unit 4 component cooling water pump and heat exchanger areas in fire zones (FZ) 054 and 047; and Unit 3 and Unit 4 CSP rooms in FZ 038 and 031, on October 12, 2022
- (2) Cable spreading room in FZ 097 and 098, on October 16, 2022
- (3) Unit 4 4A and 4B EDG rooms in FZ 140 and FZ133, on October 19, 2022
- (4) Emergency security diesel engine room, transformer, inverter, and breaker rooms, FZ 165, on October 26, 2022
- (5) Unit 4 4KV switchgear rooms FZ 068 and 067, on December 20, 2022

#### 71111.06 - Flood Protection Measures

##### Inspection Activities - Internal Flooding (IP Section 03.01) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

- (1) Unit 3 and Unit 4 4kV switchgear rooms

#### 71111.11A - Licensed Operator Requalification Program and Licensed Operator Performance

##### Requalification Examination Results (IP Section 03.03) (1 Sample)

- (1) During the week of December 12, 2022, the inspector reviewed and evaluated the licensed operator examination failure rates for the requalification annual operating exam that was completed on October 28, 2022. The licensee completed the annual requalification operating examinations required to be administered to all licensed operators in accordance with Title 10 of the Code of Federal Regulations 55.59(a)(2), "Requalification Requirements," of the NRC's "Operator's Licenses." The inspector performed an in-office review of the overall pass/fail results of the individual operating examinations and the crew simulator operating examinations in accordance with IP 71111.11, "Licensed Operator Requalification Program." These results were compared to the thresholds established in Section 3.03, "Requalification Examination Results," of IP 71111.11.

#### 71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

##### Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the Control Room during RI-4-11 paper changeout, the 4A EDG operability run, and Unit 4 reactor startup, on October 13, October 14, and December 7, 2022, respectively.

##### Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated a training simulator scenario administered to an operating crew on October 25, 2022.

#### 71111.12 - Maintenance Effectiveness

##### Maintenance Effectiveness (IP Section 03.01) (1 Sample)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

- (1) Unit 3 startup transformer exceeded maintenance rule availability

#### Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) Work order (WO) #40734416, air leak in 3A EDG air start system, on October 3, 2022

#### Aging Management (IP Section 03.03) (1 Sample)

The inspectors evaluated the effectiveness of the aging management program for the following SSCs that did not meet their inspection or test acceptance criteria:

- (1) Residual heat removal and seal water heat exchanger shell and cover (WO #40783649-01), and non-regenerative heat exchanger shell and charging pump oil coolers bonnet (WO #40782723-01)

#### 71111.13 - Maintenance Risk Assessments and Emergent Work Control

##### Risk Assessment and Management Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) Unit 3 and Unit 4 online risk assessment during the risk-informed completion time entry for the 4A CSP maintenance period, on October 20, 2022
- (2) Unit 3 and Unit 4 online risk assessment while the Unit 3A EDG was OOS for maintenance, on November 15 and 16, 2022
- (3) Unit 3 and Unit 4 online risk assessment after securing the excess let down system and subsequently exiting the Unit 3 unusual event, on December 8 and 9, 2022

#### 71111.15 - Operability Determinations and Functionality Assessments

##### Operability Determination or Functionality Assessment (IP Section 03.01) (1 Sample)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) Past operability determination for 4B emergency containment cooler outlet valve, on October 18, 2022

#### 71111.19 - Post-Maintenance Testing

##### Post-Maintenance Test Sample (IP Section 03.01) (2 Samples)

The inspectors evaluated the following post-maintenance testing activities to verify system operability and/or functionality:

- (1) WO# 40734416, 3A EDG air start repair
- (2) WO# 40705909, 4A CSP motor replacement and baseplate repair

#### 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance testing activities to verify system operability and/or functionality:

#### RCS Leakage Detection Testing (IP Section 03.01) (1 Sample)

- (1) 3-OSP-041.1, Reactor Coolant System Leak Rate Calculation, on December 12, 2022

#### 71114.06 - Drill Evaluation

#### Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

The inspectors performed the following:

- (1) Observed the emergency preparedness drill and evaluated the scenarios for the control room simulator and the technical support center on November 3, 2022

### **OTHER ACTIVITIES – BASELINE**

#### 71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

#### MS06: Emergency AC Power Systems (IP Section 02.05) (2 Samples)

- (1) Unit 3 (October 1, 2021 through September 30, 2022)
- (2) Unit 4 (October 1, 2021 through September 30, 2022)

#### MS07: High Pressure Injection Systems (IP Section 02.06) (2 Samples)

- (1) Unit 3 (October 1, 2021 through September 30, 2022)
- (2) Unit 4 (October 1, 2021 through September 30, 2022)

#### MS08: Heat Removal Systems (IP Section 02.07) (2 Samples)

- (1) Unit 3 (October 1, 2021 through September 30, 2022)
- (2) Unit 4 (October 1, 2021 through September 30, 2022)

#### MS09: Residual Heat Removal Systems (IP Section 02.08) (2 Samples)

- (1) Unit 3 (October 1, 2021 through September 30, 2022)
- (2) Unit 4 (October 1, 2021 through September 30, 2022)



MS10: Cooling Water Support Systems (IP Section 02.09) (2 Samples)

- (1) Unit 3 (October 1, 2021 through September 30, 2022)
- (2) Unit 4 (October 1, 2021 through September 30, 2022)

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) Action request (AR) 2445288, intake fire system piping support degradation

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program for potential adverse trends in the 3A EDG air start system reliability that might be indicative of a more significant safety issue.

71153 - Follow Up of Events and Notices of Enforcement Discretion

Event Followup (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated the licensee's declaration of a Notice of Unusual Event (Event Notification (EN) No. 56264) for unidentified reactor coolant system (RCS) leakage of greater than 10 gpm for more than 15 minutes, and the licensee's response on December 8, 2022. EN 56264 was retracted on January 9, 2023, when the licensee obtained additional information, not available at the time of the initial notification, which demonstrated that an actual RCS leak did not exist on December 8, 2022, therefore, the event declaration was not required. The inspectors evaluated the licensee's basis for the retraction.

Event Report (IP Section 03.02) (1 Sample)

The inspectors evaluated the following licensee event reports (LERs):

- (1) LER 05000250/2021-004-00, Through-Wall Leakage from Core Exit Thermocouple Tubing (ADAMS Accession No. ML22006A109). This LER was submitted and subsequently retracted by licensee correspondence titled "Cancellation of LER 2021-004, Through-Wall Leakage from Core Exit Thermocouple Tubing," dated March 28, 2022 (ADAMS Accession No. ML22087A079).

**INSPECTION RESULTS**

No findings were identified.

**EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On January 10, 2023, the inspectors presented the integrated inspection results to Mr. Michael Pearce and other members of the licensee staff.