



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

May 9, 2023

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

SUBJECT: ST LUCIE UNITS 1 & 2 – INTEGRATED INSPECTION REPORT
05000335/2023001 AND 05000389/2023001

Dear Bob Coffey:

On March 31, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at St Lucie Units 1 & 2. On April 6, 2023, the NRC inspectors discussed the results of this inspection with Mr. Rob Craven, Nuclear Site Vice President, St Lucie Power Plant, and other members of your staff. The results of this inspection are documented in the enclosed report.

One Severity Level IV violation without an associated finding is documented in this report. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

No NRC-identified or self-revealing findings were identified during this inspection.

If you contest the violation or the significance or severity of the violation documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement; and the NRC Resident Inspector at St Lucie Units 1 & 2.

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."

B. Coffey

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Sincerely,



Signed by Dumbacher, David
on 05/09/23

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

Docket Nos. 05000335 and 05000389
License Nos. DPR-67 and NPF-16

Enclosure:
As stated

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SUBJECT: ST LUCIE UNITS 1 & 2 – INTEGRATED INSPECTION REPORT
05000335/2023001 AND 05000389/2023001 Dated May 09, 2023

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NAME	J. Hickman	S. Roberts	D. Orr	N. Childs	D. Dumbacher
DATE	04/26/23	04/26/23	04/26/23	05/02/23	05/09/23

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

Docket Numbers: 05000335 and 05000389

License Numbers: DPR-67 and NPF-16

Report Numbers: 05000335/2023001 and 05000389/2023001

Enterprise Identifier: I-2023-001-0049

Licensee: Florida Power & Light Company

Facility: St Lucie Units 1 & 2

Location: Jensen Beach, FL

Inspection Dates: January 01, 2023 to March 31, 2023

Inspectors: J. Bell, Health Physicist
J. Diaz-Velez, Senior Health Physicist
S. Downey, Senior Reactor Inspector
P. Gresh, Emergency Preparedness Inspector
J. Hickman, Resident Inspector
D. Orr, Senior Resident Inspector
J. Rivera, Health Physicist
S. Roberts, Resident Inspector
S. Sanchez, Senior Emergency Preparedness Inspector
J. Walker, Senior Emergency Preparedness 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 St Lucie Units 1 & 2, 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

Failure to Adequately Analyze the Basis for a Change to an Emergency Plan Implementing Procedure			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000389,05000335/2023001-01 Open/Closed	Not Applicable	71114.04
The inspectors identified a SL-IV non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR), Part 50.54(q)(3), for the licensee's failure to make changes to the St. Lucie Nuclear Plant emergency plan, associated with the Notification and Protective Action Recommendation (PAR) implementing procedure, without an analysis demonstrating that the changes do not result in a reduction in effectiveness of the Emergency Plan. Specifically, the licensee made changes to the PAR flowchart that were not included in Part 50.54(q) documentation.			

Additional Tracking Items

None.

PLANT STATUS

Unit 1 operated at or near rated thermal power (RTP) for the entire inspection period.

Unit 2 began the inspection period at RTP. The unit was shut down for planned refueling outage, SL2-27, on February 18, 2023. The unit was restarted on March 18, 2023, and was returned to RTP on March 20, 2023, and remained at or near RTP for the remainder of the inspection period.

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

71111.04 - 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) 1B high pressure safety injection (HPSI) and 1B containment spray (CS) trains while the 1A component cooling water (CCW) train was out-of-service (OOS), on January 11, 2023
- (2) 1A low pressure safety injection (LPSI) train while the 1B CCW train was OOS, on January 18, 2023
- (3) 2A emergency diesel generator (EDG) air start system while the A3 and A4 air starting receivers were OOS, on January 23, 2023

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 1 switchgear room 1B, cable spread room, and switchgear room 1A, Fire zones (FZ) 56, 57 and 60 respectively, on January 31, 2023

- (2) Unit 1 steam trestle and auxiliary feedwater pump (AFW) area, FZ 1, on February 2, 2023
- (3) Unit 2 steam trestle and AFW pump area, FZ 6, on February 2, 2023
- (4) Unit 2 switchgear room 2B, switchgear room 2A, and cable spread room, FZs 34, 37, and 52 respectively, on February 5 and 9, 2023
- (5) Unit 2 containment, FZ 14, on March 3, 2023

Fire Brigade Drill Performance Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the on-site fire brigade training and performance during an unannounced fire drill on January 27, 2023.

71111.07A - Heat Exchanger/Sink Performance

Annual Review (IP Section 03.01) (2 Samples)

The inspectors evaluated readiness and performance of:

- (1) 1A CCW heat exchanger during a clean, inspect, and eddy-current test preventive maintenance activity on January 11, 2023
- (2) 1B CCW heat exchanger during a clean, inspect, and eddy-current test preventive maintenance activity on January 16 - 19, 2023

71111.08P - Inservice Inspection Activities (PWR)

PWR Inservice Inspection Activities Sample - Nondestructive Examination and Welding Activities (IP Section 03.01) (1 Sample)

The inspectors verified that the following nondestructive examination and welding activities were performed appropriately:

- (1) Liquid Penetrant Examination
 - Weld SI-113-FW-2001, pipe to valve (V-3259) weld, ASME Class 1. This included a review of the associated welding activities.
 - Weld SI-515-FW-2001, valve (V-3259) to pipe weld, ASME Class 1. This included a review of the associated welding activities.

Magnetic Particle Examination

- Weld MS-1-FW-2, pipe to valve (HCV-08-1A) weld, ASME Class 2.

Ultrasonic Examination

- Weld 101-642-A, pressurizer lower shell longitudinal weld, ASME Class 1.
- Weld 304-671, pressurizer lower shell to lower head weld, ASME Class 1.
- Weld MS-1-FW-2, pipe to valve (HCV-08-1A) weld, ASME Class 2.
- Weld SI-111-1-SW-8, pipe to elbow weld, ASME Class 1.
- Weld SI-137-1-SW-2, reducer to pipe weld, ASME Class 1.
- Weld SI-138-1-SW-2, reducer to pipe weld, ASME Class 1.
- Weld SI-113-FW-2001, pipe to valve (V-3259) weld, ASME Class 1. This included a review of the associated welding activities.

- Weld SI-515-FW-2001, valve (V-3259) to pipe weld, ASME Class 1. This included a review of the associated welding activities.

PWR Inservice Inspection Activities Sample - Vessel Upper Head Penetration Inspection Activities (IP Section 03.02) (1 Sample)

The inspectors verified that the licensee conducted the following vessel upper head penetration inspections and addressed any identified defects appropriately:

- (1) Bare metal visual of the Reactor Pressure Vessel Upper Head, Penetration 85, ASME Class 1

PWR Inservice Inspection Activities Sample - Boric Acid Corrosion Control Inspection Activities (IP Section 03.03) (1 Sample)

- (1) The inspectors verified the licensee is managing the boric acid corrosion control program through a review of the following evaluations:

- Boric Acid Walkdown - February 27, 2023
- Action Request (AR) 2337504
- AR 2403095
- AR 2405240
- AR 2412547
- AR 2415246

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:
 - Unit 2 planned power reduction and shutdown to begin refueling outage SL2-27 on February 17-18, 2023
 - Unit 2 reactor coolant system cooldown and operational mode 5, cold shutdown, entry on February 18, 2023
 - Unit 2 reactor startup on March 18, 2023

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

- (1) The inspectors observed and evaluated a licensed operator continuing training evaluation in the control room simulator on January 17, 2023.

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) AR 2449293, unsatisfactory acceptance criteria during 2B channel engineered safeguards features actuation system attachment 5 test for V2554, 2B charging pump recirculation valve, review completed on March 31, 2023

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure several safety-related SSCs remained capable of performing their intended function by reviewing multiple work orders (WOs) and ensuring quality control verifications were properly specified in accordance with the Quality Assurance Program and implemented in:

- (1) WOs 40283965, 40794216, 40797269, 40802708, 40802716, 40814123, 40833885, 40833886, 40834095, and 40845702, review completed on March 27, 2023

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 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 1 and 2 elevated risk while the 1B 125Vdc battery charger, the 1A boric acid makeup pump, and the 1A EDG were OOS for maintenance on January 5, 2023
- (2) Unit 1 elevated risk while the 1A CCW train was OOS for maintenance on January 9 - 11, 2023
- (3) Unit 1 elevated risk while the 1B CCW train was OOS for maintenance on January 17 - 18, 2023
- (4) Unit 1 and 2 elevated risk while the 2B EDG was OOS for maintenance on January 23 - 24, 2023
- (5) Unit 1 and 2 elevated risk while the 2AB 4kV switchgear bus was OOS for maintenance on 4kV vacuum breaker modifications on January 30 - 31, 2023

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (6 Samples)

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

- (1) AR 2445442, Engine 2A2 cooling water pressure low annunciator received during the 2A EDG surveillance, review completed on January 19, 2023
- (2) AR 2445032, 1A emergency core cooling system room radiation monitor failed functional test, review completed on January 20, 2023
- (3) AR 2446435, 2A EDG 2A4 starting air receiver inlet check valve leaking by, review completed on January 23, 2023
- (4) AR 2449855, SL2-27 reactor coolant system loose parts evaluation, review completed on March 21, 2023

- (5) AR 2449163, 1A1 safety injection tank (SIT) level rising trend; AR 2452470, 2A1 SIT level is trending upward; and AR 2452473, 2A2 SIT level is slowly lowering, reviews completed on March 28, 2023
- (6) AR 2449293, unsatisfactory acceptance criteria during 2B channel engineered safeguards features actuation system attachment 5 test for V2554, 2B charging pump recirculation valve, review completed on March 30, 2023

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Engineering change 298432, rewire Unit 2 pressurizer heater bank B5 interlock and bypass circuits, review completed on March 28, 2023

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated refueling outage SL2-27 activities from February 18, 2023, to March 18, 2023.

71111.24 - Testing and Maintenance of Equipment Important to Risk

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

Post-Maintenance Testing (PMT) (IP Section 03.01) (4 Samples)

- (1) WO 40804024, 2B EDG 18-month inspection, review completed on January 25, 2023
- (2) WO 40802729, 2AB 4kV switchgear vacuum breaker modifications, review completed on February 13, 2023
- (3) WO 40797269, 2B 125Vdc battery replacement, review completed on March 7, 2023
- (4) WO 40283965, 2B EDG voltage regulator and excitation system replacement, review completed on March 8, 2023

Surveillance Testing (IP Section 03.01) (2 Samples)

- (1) 2-SMM-08.08, Main Steam Safety Valve Setpoint Surveillance Using Furmanite Trevitest Mark VIII Equipment, review completed on March 7, 2023
- (2) 2-PTP-81, Reload Startup Physics Testing, review completed on March 31, 2023

Inservice Testing (IST) (IP Section 03.01) (1 Sample)

- (1) 2-OSP-07.02A, 2A Containment Spray Pump Safeguards Full Flow Test, review completed on March 8, 2023

Containment Isolation Valve (CIV) Testing (IP Section 03.01) (1 Sample)

- (1) 2-OSP-68.04, Purge Valve Leak Rate Test, Penetration 57 - Hydrogen Purge Exhaust, review completed on February 28, 2023

Diverse and Flexible Coping Strategies (FLEX) Testing (IP Section 03.02) (1 Sample)

- (1) 0-OSP-83.01A, Periodic Testing of the Flex Steam Generator Pump A, review completed on February 12, 2023

71114.02 - Alert and Notification System Testing

Inspection Review (IP Section 02.01-02.04) (1 Sample)

- (1) The inspectors evaluated the maintenance and testing of the alert and notification system during the week of January 23, 2023.

71114.03 - Emergency Response Organization Staffing and Augmentation System

Inspection Review (IP Section 02.01-02.02) (1 Sample)

- (1) The inspectors evaluated the readiness of the Emergency Response Organization during the week of January 23, 2023.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated submitted Emergency Action Level, Emergency Plan, and Emergency Plan Implementing Procedure changes during the week of January 13, 2023. This evaluation does not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness

Inspection Review (IP Section 02.01 - 02.11) (1 Sample)

- (1) The inspectors evaluated the maintenance of the emergency preparedness program during the week of January 13, 2023.

71114.06 - Drill Evaluation

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

- (1) On January 17, 2023, the inspectors evaluated a licensed operator continuing training simulator evaluation that included a stuck open pressurizer power operated relief valve and a loss of offsite power resulting in an Alert declaration and notification to the Florida State Watch Officer and St Lucie and Martin County Emergency Operations Centers.

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated how the licensee identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assesses radiological hazards.

Instructions to Workers (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated how the licensee instructs workers on plant-related radiological hazards and the radiation protection requirements intended to protect workers from those hazards.

Contamination and Radioactive Material Control (IP Section 03.03) (2 Samples)

The inspectors observed/evaluated the following licensee processes for monitoring and controlling contamination and radioactive material:

- (1) Workers exiting the radiological controlled area during unit 2 outage.
- (2) Workers exiting the unit 2 containment contaminated area during unit 2 outage.

Radiological Hazards Control and Work Coverage (IP Section 03.04) (5 Samples)

The inspectors evaluated the licensee's control of radiological hazards for the following radiological work:

- (1) Unit 2 steam generator J-tube modification
- (2) Unit 2 under-vessel Locked High Radiation Area (LHRA) entry for engineering inspection
- (3) Unit 2 'B' hot leg penetration LHRA entry for magnetic particle non-destructive examination
- (4) Radiography on unit 2 SIT outlet valve
- (5) Unit 2 'B' LPSI pump seal replacement

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (5 Samples)

The inspectors evaluated licensee controls of the following High Radiation Areas and Very High Radiation Areas:

- (1) 2A waste ion exchanger room LHRA door
- (2) 2B purification ion exchanger LHRA door
- (3) Unit 2 fuel pool ion exchanger LHRA door
- (4) Unit 2 under-vessel blast door LHRA controls
- (5) Unit 1 fuel pool purification filter LHRA

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 03.06) (1 Sample)

- (1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements.

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

Permanent Ventilation Systems (IP Section 03.01) (1 Sample)

The inspectors evaluated the configuration of the following permanently installed ventilation systems:

- (1) Unit 2 Control Room Emergency Air Cleanup System

Temporary Ventilation Systems (IP Section 03.02) (1 Sample)

The inspectors evaluated the configuration of the following temporary ventilation systems:

- (1) Temporary HEPA unit no. 007 used for steam generator J-tube modification work during Unit 2 outage

Use of Respiratory Protection Devices (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated the licensee's use of respiratory protection devices.

Self-Contained Breathing Apparatus for Emergency Use (IP Section 03.04) (1 Sample)

- (1) The inspectors evaluated the licensee's use and maintenance of self-contained breathing apparatuses.

71124.04 - Occupational Dose Assessment

Source Term Characterization (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated licensee performance as it pertains to radioactive source term characterization.

External Dosimetry (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated how the licensee processes, stores, and uses external dosimetry.

Internal Dosimetry (IP Section 03.03) (2 Samples)

The inspectors evaluated the following internal dose assessments:

- (1) Level 1 personnel contamination event (PCE) and whole-body count (WBC) for facial contamination.
- (2) Level 2 PCE and WBC for facial contamination.

Special Dosimetric Situations (IP Section 03.04) (2 Samples)

The inspectors evaluated the following special dosimetric situations:

- (1) Two declared pregnant workers.
- (2) One assessment of Effective Dose Equivalent for External Exposures (EDEX).

71124.05 - Radiation Monitoring Instrumentation

Walkdowns and Observations (IP Section 03.01) (10 Samples)

The inspectors evaluated the following radiation detection instrumentation during plant walkdowns:

- (1) Area Radiation Monitor RIM-26-27 Boronometer
- (2) Area Radiation Monitor RIM 26-25 Chem Drain Pump
- (3) Area Radiation Monitor RIM 26-16 Sample Room
- (4) Gamma Exit Monitor (GEM5) Sn: 173, Radiologically Controlled Area (RCA) Exit
- (5) AMS4 Beta Air Monitor, 19' Reactor Auxiliary Building, HP# 13080 (Iodine)/ HP# 2020 (Noble Gas)
- (6) Small Article Monitor (SAM) Sn:12052, RCA Exit
- (7) SAM Sn:12053, RCA Exit
- (8) Personnel Contamination Monitor (ARGOS) Sn: 213, Containment Exit
- (9) Benchtop frisker Ludlum Model 177 Sn:49108
- (10) Canberra Fastscan 2, WBC, South Services Building (SSB) Dosimetry Area

Calibration and Testing Program (IP Section 03.02) (15 Samples)

The inspectors evaluated the calibration and testing of the following radiation detection instruments:

- (1) Argos 5AB Zeus #1307-179 at RCA Exit Area, 11/12/2022
- (2) Argos 5AB Zeus #1307-180 at RCA Exit Area, 05/12/2022
- (3) Argos 5AB Zeus #1411-311 at RCA Exit Area, 07/11/2022
- (4) Argos 5AB Zeus #1012-313 at RCA Exit Area, 09/02/2022
- (5) Argos 5AB Zeus #1012-313 at RCA Exit Area, 03/22/2022
- (6) TEM/SAM-12 #12052 at RCA Exit Area, 11/02/2022
- (7) TEM/SAM-12 #12053 at RCA Exit Area, 11/08/2022
- (8) GEM-5 #1307-173 at SSB RCA Exit Area, 06/22/2023
- (9) Ludlum 177 #49108, 08/30/2022
- (10) Ludlum 177 #40263, 03/16/2022
- (11) Telepole #6610-003, 04/14/2022
- (12) Telepole #6613-090, 06/22/2022
- (13) Canberra Fastscan 2 WBC, 09/25/2022
- (14) Eberline AMS-4 #2028, 11/30/2021, and 11/15/2022
- (15) Unit 1 RIS 26-84/85/86/87 and Unit 2 RIM 26-61/62/65/66 Control Rooms Outside Air Intake Radiation Monitors

Effluent Monitoring Calibration and Testing Program Sample (IP Sample 03.03) (3 Samples)

The inspectors evaluated the calibration and maintenance of the following radioactive effluent monitoring and measurement instrumentation:

- (1) RE-6627, Liquid Radwaste Discharge Process Radiation Monitor (WO 40683469-01, and WO 40771208-01)
- (2) Unit 1 RSC-26-1 Plant Vent Radiation Monitor Channel Calibration (WO 40634933-01, and WO 40736509-01)
- (3) Unit 1 RSC-26-2/3 ECCS EXH Train A/B, Calibration / Functional (WO 40621631-01, WO 40735306-01, WO 40814591-01 and 40723437-01)

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (2 Samples)

- (1) Unit 1 (January 1, 2022 - December 31, 2022)
- (2) Unit 2 (January 1, 2022 - December 31, 2022)

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (2 Samples)

- (1) Unit 1 (January 1, 2022 - December 31, 2022)
- (2) Unit 2 (January 1, 2022 - December 31, 2022)

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (2 Samples)

- (1) Unit 1 (January 1, 2022 - December 31, 2022)
- (2) Unit 2 (January 1, 2022 - December 31, 2022)

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (1 Sample)

- (1) August 31, 2022 through March 14, 2023

EP01: Drill/Exercise Performance (DEP) Sample (IP Section 02.12) (1 Sample)

- (1) January 1, 2022 through September 30, 2022

EP02: Emergency Response Organization (ERO) Drill Participation (IP Section 02.13) (1 Sample)

- (1) January 1, 2022 through September 30, 2022

EP03: Alert and Notification System (ANS) Reliability Sample (IP Section 02.14) (1 Sample)

- (1) January 1, 2022 through September 30, 2022

71152A - Annual Follow-up Problem Identification and Resolution

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

- (1) Unit 1 Charging Pump Discharge Piping Leaks Root Cause Evaluation (ARs 02437929 and 02438397) was selected for follow-up to verify the licensee's extent of condition, root cause analysis, and corrective actions were adequate to resolve the deficiencies and mitigate recurrence of through wall leaks identified in the Unit 1 charging system during the SL1-31 refuel outage on September 26 and 30, 2023.

INSPECTION RESULTS

Failure to Adequately Analyze the Basis for a Change to an Emergency Plan Implementing Procedure			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000389,05000335/2023001-01 Open/Closed	Not Applicable	71114.04
<p>The inspectors identified a SL-IV non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR), Part 50.54(q)(3), for the licensee's failure to make changes to the St. Lucie Nuclear Plant emergency plan, associated with the Notification and Protective Action Recommendation (PAR) implementing procedure, without an analysis demonstrating that the changes do not result in a reduction in effectiveness of the Emergency Plan. Specifically, the licensee made changes to the PAR flowchart that were not included in Part 50.54(q) documentation.</p>			
<p><u>Description:</u> While performing a detailed review of changes to the PAR implementing procedure EPIP-08, "Offsite Notifications and Protective Action Recommendations," Rev 56, the inspectors determined that the licensee failed to conduct adequate analysis demonstrating that changes to emergency preparedness documentation did not reduce the effectiveness of the emergency plan. Specifically, the inspectors identified that the licensee removed a PAR flowchart note, from two decision blocks in the PAR flowchart, that inform the user to continually assess recommended evacuation zones based on changing plant and weather conditions. Additionally, the licensee made changes to ordering and numbering of the notes. The removal and the order of the PAR flow chart notes were made without being analyzed in the associated Part 50.54(q) documentation. The inspectors determined the changes would not likely impact the ERO decision making as the ERO decision makers are trained to continually assess for changing conditions and add evacuation zones as necessary. Additionally, the note still applied to one of the three original decision blocks in the flowchart.</p>			
<p>Corrective Actions: The licensee entered the issue into the corrective action program on January 26, 2023.</p>			
<p>Corrective Action References: AR 02446902</p>			
<p><u>Performance Assessment:</u> The inspectors determined that an analysis was not performed as required by the 50.54(q) change process. Failure to analyze changes to risk significant planning standards has the potential to reduce the effectiveness of the emergency plan. This impeded the NRC's ability to perform its regulatory function and is dispositioned using the Traditional Enforcement process.</p>			

Enforcement: The ROP's significance determination process does not specifically consider the regulatory process impact in its assessment of licensee performance. Therefore, it is necessary to address this violation which impedes the NRC's ability to regulate using traditional enforcement to adequately deter non-compliance.

Severity: This finding is determined to be a SL-IV violation in accordance with Section 6.6.d.1 of the Enforcement Policy because it involves the licensee's ability to meet or implement a regulatory requirement not related to assessment or notification such that the effectiveness of the emergency plan is reduced. Although the regulatory requirement could be implemented during the response to an actual emergency, the implementation would be degraded (e.g., not fully effective, inappropriately delayed)."

Violation: Title 10 of the Code of Federal Regulations, Part 50.54(q)(3) states, in part, that a licensee may make changes to its emergency plan without prior NRC approval only if the licensee performs and retains an analysis demonstrating that the changes do not reduce the effectiveness of the plan and the plan, as changed, continues to meet the requirements in Appendix E to this part.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

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

- On April 6, 2023, the inspectors presented the integrated inspection results to Mr. Rob Craven, Nuclear Site Vice President (VP), St Lucie Power Plant, and other members of the licensee staff.
- On March 16, 2023, the inspectors presented the RP Occupational Radiation Safety Baseline inspection results to Mr. Rob Craven, Nuclear Site VP, and other members of the licensee staff.
- On March 2, 2023, the inspectors presented the ISI inspection results to Mr. Rob Craven, Nuclear Site VP, and other members of the licensee staff.
- On January 27, 2023, the inspectors presented the Emergency Preparedness Program inspection results to Mr. Rob Craven, Nuclear Site VP, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.08P	Corrective Action Documents	Action Requests (by Number)	2337504, 2403095, 2045240, 2412547, 2415246, 2449421, 2449646	
	NDE Reports	PSL2-MT-23-001	Magnetic Particle Examination of MS-1-FW-2	02/28/2023
		PSL2-UT-23-006	Ultrasonic Examination of MS-1-FW-2	02/28/2023
		PSL2-UT-23-020	Ultrasonic Examination of SI-111-1-SW-8	03/02/2023
		PSL2-UT-23-021	Ultrasonic Examination of SI-137-1-SW-2	03/02/2023
		PSL2-UT-23-022	Ultrasonic Examination of SI-138-1-SW-2	03/02/2023
	PSL2-VT-23-019	Visual Examination of RPV Head Penetration 85	02/28/2023	
Work Orders	Work Orders (by number)	40757195		
71114.04	Corrective Action Documents Resulting from Inspection	AR02446902	Condition Report - PAR Changes done without 10 CFR 50.54q Evaluation	
	Miscellaneous		10CFR 50.54(q) Screening form for EPIP-08, Offsite Notifications and Protective Action Recommendations Rev 54	8/11/21
	Procedures	EPIP-08	Offsite Notifications and Protective Actions	Revision 54
71124.01	Corrective Action Documents Resulting from Inspection	AR 02449735	Gaps in RP Performance Observed	02/28/2023
		AR 02449951	Work area survey gap for number of smears counted for alpha	03/02/2023
	Procedures	NISP-RP-002	Radiation and Contamination Surveys	Rev. 1
	Radiation Surveys	PSL-M-20230227-17		02/27/2023
71124.03	Corrective Action Documents	AR 02426638	Transition to MSA SCBA equipment	05/03/2022
71124.04	Corrective Action Documents	AR 02423804	DLR reads higher than expected	04/05/2022
71124.05	Corrective Action Documents	AR 02441698	RIM-26-39 Failed	11/12/2022
	Corrective Action	AR 02451064	RCA Exit Portal Monitors failed daily response check	03/14/2023

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents Resulting from Inspection	AR 02451224	Amended IOD for AR # 02441698	03/15/2023
		AR 02451226	RP Portable Instrument Calibration Discrepancies	03/15/2023
		AR 02451358	NRC Question--U2 CHRRMS connector equipment qualification	03/16/2023
		AR 02451838	RIM-26-61 Work Order Missing Calibration Procedure	03/21/2023
	Procedures	PI-AA-104-1000	Condition Reporting	Rev. 37