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

June 29, 2022

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

SUBJECT: ST LUCIE UNITS 1 & 2 – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000335/2022012 AND 05000389/2022012

Dear Mr. Coffey:

On May 20, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution inspection at your St Lucie Units 1 & 2 and discussed the results of this inspection with Mr. Daniel DeBoer, Site Vice President and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspection team reviewed the station's problem identification and resolution program and the station's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, and correcting problems, and to confirm that the station was complying with NRC regulations and licensee standards for problem identification and resolution programs. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

The team also evaluated the station's processes for use of industry and NRC operating experience information and the effectiveness of the station's audits and self-assessments. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

Finally, the team reviewed the station's programs to establish and maintain a safety-conscious work environment, and interviewed station personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of these interviews the team found no evidence of challenges to your organization's safety-conscious work environment. Your employees appeared willing to raise nuclear safety concerns through at least one of the several means available.

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,


Signed by Dumbacher, David
on 06/29/22

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

cc w/ encl: Distribution via LISTSERV

SUBJECT: ST LUCIE UNITS 1 & 2 – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000335/2022012 AND 05000389/2022012

DISTRIBUTION:
S. Price, RII
M. Kowal, RII
N. Doiley, RII
RIDSNRRPMSTLUCIE
RIDSNRRDRO
PUBLIC

ADAMS ACCESSION NUMBER: ML22180A029

X SUNSI Review		X Non-Sensitive ☐ Sensitive		X Publicly Available ☐ Non-Publicly Available	
OFFICE	RII/OI	RII/NRR	RII/DRP	RII/DRP	RII/DRP
NAME	C. Kontz	L. Pressley	S. Roberts	J. Hamman	D. Dumbacher
DATE	06/29/2022	06/29/2022	06/29/2022	06/29/2022	06/29/2022

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000335 and 05000389
License Numbers:	DPR-67 and NPF-16
Report Numbers:	05000335/2022012 and 05000389/2022012
Enterprise Identifier:	I-2022-012-0015
Licensee:	Florida Power & Light Company
Facility:	St Lucie Units 1 & 2
Location:	Jensen Beach, FL
Inspection Dates:	May 02, 2022 to May 20, 2022
Inspectors:	J. Hamman, Senior Project Engineer C. Kontz, Senior Project Engineer L. Pressley, Reliability and Risk Analyst S. Roberts, 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 a biennial problem identification and resolution 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

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

Additional Tracking Items

None.

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 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.

OTHER ACTIVITIES – BASELINE

71152B - Problem Identification and Resolution

Biennial Team Inspection (IP Section 03.04) (1 Sample)

(1) The inspectors performed a biennial assessment of the effectiveness of the licensee's Problem Identification and Resolution program, use of operating experience, self-assessments and audits, and safety conscious work environment.

- Problem Identification and Resolution Effectiveness: The inspectors assessed the effectiveness of the licensee's Problem Identification and Resolution program in identifying, prioritizing, evaluating, and correcting problems. The inspectors also conducted a five-year review of the auxiliary feedwater and 125-volt direct current systems. In addition, the inspectors performed a high-level review of the licensee's corrective action program related to any aging issues, general corrosion and erosion and environmental qualifications with specific attention given to circuit boards, relays and power supplies.

- Operating Experience: The inspectors assessed the effectiveness of the licensee's processes for use of operating experience.

- Self-Assessments and Audits: The inspectors assessed the effectiveness of the licensee's identification and correction of problems identified through audits and self-assessments.

- Safety Conscious Work Environment: The inspectors assessed the effectiveness of the station's programs to establish and maintain a safety-conscious work environment.

INSPECTION RESULTS

Assessment	71152B
The inspectors reviewed the effectiveness of the licensee's Corrective Action Program (CAP). Specifically, as it related to the ability of the CAP to adequately perform the functions of problem identification, prioritization and evaluation of any issues identified and the subsequent related corrective actions.	

This included a review of procedure, PI-AA-104-1000, “Condition Reporting” and other relevant procedures, and associated CAP documents, (i.e., cause evaluation, and operability determination process).

Inspectors performed in-depth reviews of past and current CAP actions for specific systems (i.e. station batteries and auxiliary feedwater and compared those to the current general condition and overall system health.

Inspectors performed a risk-informed sampling review of root cause and other lower-level cause evaluations. Inspectors also reviewed corrective actions associated with prior NRC violations, findings and observations.

During the inspection period, inspectors observed multiple CAP meetings and licensee staff interactions related to the application of the CAP process. Additionally, inspectors conducted multiple interviews with licensee staff specifically related to corrective actions for the systems selected for in-depth reviews.

The inspectors concluded, that in general: the licensee’s CAP was effective in identifying problems and entering them in the CAP, and in prioritizing and evaluating those problems commensurate with the safety significance; that site management and staff were actively involved in managing and maintaining the CAP and in fully resolving any identified problems, and; that the licensee’s CAP complied with the regulatory requirements and self-imposed standards and therefore adequately supported nuclear safety.

Assessment	71152B

The inspectors reviewed the licensee's program for obtaining and using operating experience.

This included a review of procedure, PI-AA-102, “Operating Experience Program” and other relevant procedures, and associated CAP documents. This review included select in-depth reviews from the licensee’s list of all NRC generic communications (e.g., Information Notices, Generic Letters, etc.) and industry operating experience (OE) documents (e.g., Part 21 reports, vendor information letters, information from other sites, etc.).

The inspectors concluded that the licensee’s processes for the use of NRC and industry operating experience information were generally effective and complied with all regulatory requirements and licensee standards.

Assessment	71152B

Inspectors reviewed the licensee’s self-assessments and audits programs.

This included a review of procedure, PI-AA-101, “Assessment and Improvement Programs” and other relevant procedures and licensee documents.

The inspectors concluded that the licensee was generally effective at performing a significant number of relatively critical self-assessments and audits. In addition, the licensee generally evaluated those issues at the appropriate level and prioritized and resolved them commensurate with their safety significance.

Assessment	71152B
The inspectors reviewed the licensee's safety conscious work environment (SCWE). This included a review of Nuclear Safety Culture Site Leadership Team meeting minutes, procedure, AD-AA-103, "Nuclear Safety Culture Program" and other relevant procedures and licensee documents. The inspectors performed interviews with a reasonable sample size and cross-section of St. Lucie employees and contractors. In general, the employees interviewed by the inspectors stated that they were willing to raise nuclear safety concerns to their management chain and were both willing and familiar with the multiple means available to enter problems into the CAP. Inspectors also reviewed the licensee's internal programs to monitor the safety culture, which included CAP trending, the employee concerns program (ECP), and relevant survey results. Inspectors concluded that, in general, the licensee appears to have established an adequate safety conscious work environment.	

EXIT MEETINGS AND DEBRIEFS

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

- On May 20, 2022, the inspectors presented the biennial problem identification and resolution inspection results to Mr. Daniel DeBoer, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152B	Corrective Action Documents	02423529 02372036 02422566 02423857 02377147 02370748 02424262 02395828 02380151 02358851 02398481 02381590 02381509 02404036 02399463 02413519 02404285 02402496 02415359 02404416 02407060 02416187 02411677 02419630 02369201 02417041 02420540 02355625 02426764 02366489 02358403 02426856 02415359 02368316 02426951 02381509 02368421 02426987 02384319 02388996 02426989 02383050 02377657 02426992 02383373 02417569 02426995 02404894 02381504 02426997 02420302 02359116 02407967 02407252 02147383 02380625 02282775 02425203 02423837 02417840 03423929 02417149 02425923 02357024 02322281 02358155 02356660 02358720 02358833 02362210 02404422 02367409 02413519		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Corrective Action Documents Resulting from Inspection	02426764	Control Room Deficiency Log Various Administrative Deficiencies	
		02426856	Degraded Pipe Insulation Unit 2 on piping adjacent to V08112, Secondary Root Valve For PT-08-3B	
		02426951	1B Battery Charger AC Power Light Operations promptly replaced the light bulb.	
		02426987	2B 125V DC Bus Power Panel Yellow electrical tape labeling not part of normal plant labeling applied to circuits located in the 2B 125V DC Bus Power Panel, 125V DC BUS POWER DISTRIBUTION PANEL ESS-SB	
		02426989	V09726 Fitting Corrosion on a fitting adjacent to V09726, CHEM INJ TO 2C AFW PUMP DICH HDR TO 2B S/G/CHECK No evidence of active leakage	
		02426992	V09154 Vent Cap Leaking (less than 1 drop/minute) Unit 2 secondary root valve for PX-09-3B2 V09154 previously identified with seat leak	
		02426995	V09124 External Corrosion Isolation Valve for AFW Pump 2B Discharge	
		02426997	Degraded pipe insulation on tubing tapping off downstream of the 1B MFIV, HCV-09-8	
		02427934	Procedure Change Revision (PCR) for EN-AA-203-1001, Operability Determinations/Functionality, to revise authorized screeners (section 4.2.1) to reflect PSL SM/SRO screening JB CRs. The process change has been effective since 2018 (CMP 2291377). PCR is needed to align with the current process.	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		02428049	NRC Observation: Anonymous Concern Reporting Plant personnel interviewed were unfamiliar with current processes for documenting anonymous concerns. Additionally, the NRC team identified related administrative process inconsistencies.	
	Engineering Changes	295797	CEDMCS Cabinet C2 - Revise 120 VAC Logic Power Source UV relays	4/8/2021
		295961	Channel Assignments for Turbine Trip on Reactor Trip Relays	7/26/2021
		296428	Update PSL-2 USFAR Section 7.6.3.11.2 per AR 2383050	4/8/2021
	Miscellaneous		2020 & 2021 - Quarter 1 through Quarter 4 NUCLEAR SAFETY CULTURE SITE LEADERSHIP TEAM MEETING MINUTES	
			Control Room Deficiencies WO Schedule Dates	
			System Health Report, Unit 1, AFW	April 28, 2022
			System Health Report, Unit 2, AFW	April 28, 2022
			Lists of AFW MOV PM's	
			List of 125V DC System AR's	
			System Health Report, Unit 1, System 50, 125 VDC	
			AR 02278047, MRFF: MV-09-10 SWITCH ON RTGB BROKEN WITH AFW FLOW @ 117 GPM	
			Lists of AFW System AR's	
			System Health Report, Unit 2, System 50, 125 VDC	
			List of Control Room Deficiencies (historical and current)	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Root Cause Evaluation for Unit 2 automatic reactor trip due to an unexpected de-energization of the 480V motor control center 2B2	1/21/2021
		02278047	MRFF: MV-09-10 SWITCH ON RTGB BROKEN WITH AFW FLOW @ 117 GPM	
		02278047	Equipment Failure Investigation	
		02282775	Perform an MRFF IAW ER-AA-100-2002-F01 for 2C AFW PP	
		02282775	Equipment Failure Investigation	
		EVAL-PSL-03b-02442	(a)(1) LPSI System	
		EVAL-PSL-11-02643	(a)(1) Review Heater Drains and Vents System	
		EVAL-PSL-18b-02382	(a)(1) Instrument Air	
		EVAL-PSL-25a-02642	(a)(1) Risk Significant HVAC	
		EVAL-PSL-66-02684	(a)(1) Control Element Drive Mechanism	
		WO 40627600	U1 AFW A-Train WO 40627600, Components Requiring Inspection for License Renewal Walkdown Report	
	Operability Evaluations	02417041		
		02417149		
		02417840		
	Procedures	0-CME-50.20	REPAIR OF LCR / LCY TYPE BATTERY COVERS	1
		0-SME-50.06	SAFETY RELATED 125 VDC SYSTEM MONTHLY MAINTENANCE	17, 20
		0-SME-50.11	SAFETY RELATED 125 VDC SYSTEM QUARTERLY MAINTENANCE	5
		0-SME-66.04	Inspection of the Reactor Trip Switchgear (RTTSG) Breakers	10
		EN-AA-106	RENEWED LICENSE PROGRAM	8
		EN-AA-203-1001	OPERABILITY DETERMINATIONS / FUNCTIONALITY ASSESSMENTS	38
		EN-AA-206	Renewed License Process	13

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		ENG-CSI-XCI-100	EXTERNAL CORROSION (XCI) MONITORING PROGRAM FOR INSULATED PIPING FOR PSL AND PTN LICENSE RENEWAL	2
		ER-AA-100-2002	MAINTENANCE RULE PROGRAM ADMINISTRATION	12
		ER-AA-201-2002	SYSTEM PERFORMANCE MONITORING	7
		MA-AA-101-1000-F01	FME Risk Determination Checklist	16
		MA-AA-200	FIN Team Process	11
		MA-AA-203-1001	Work Order Planning	27
		OP-AA-108-1000	OPERATOR CHALLENGES PROGRAM MANAGEMENT	8
		OPS-529	OPERATIONS DEFICIENCY AND TAGGING POLICY	17
		PI-AA-100-1005	Root Cause Analysis	26
		PI-AA-100-1005-F03	Nuclear Safety Culture Evaluation Form	
		PI-AA-1003	Sharing Operating Experience with Nuclear Industry	15
		PI-AA-102	Operating Experience Program	20
		PI-AA-102-1000	Significant Operating Experience Report (SOER) and INPO Event Report (IER) Process Implementation	21
		PI-AA-102-1001	Operating Experience Program Screening and Responding to Incoming Operating Experience	28
		PI-AA-100-1007	Issue Investigation	28
		PSL-BFJR-13-001	Risk Significance Determination of SSCs for St. Lucie Units 1 & 2	3
	Self-Assessments	PSL 19-009	St. Lucie Nuclear Assurance Report - Performance Improvement	2/6/2020
		PSL 20-005	St. Lucie Nuclear Assurance Report - Operations	8/6/2020
		PSL 20-006	St. Lucie Nuclear Assurance Report - Maintenance and Work Management	7/9/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		PSL 21-003	St. Lucie Nuclear Assurance Report - Access Authorization/Fitness for Duty	04/28/2021
		PSL 21-004	St. Lucie Nuclear Assurance Report - QA Programs and Records Management	5/20/2021
		PSL 21-005	St. Lucie Nuclear Assurance Report - Engineering	06/30/2021
		PSL 21-009	St. Lucie Nuclear Assurance Report - Training	12/15/2021
		PSL 21-010	St. Lucie Nuclear Assurance Report - Performance Improvement	2/4/2022
		PSL 22-003	St. Lucie Nuclear Assurance Report - Radiation Protection	4/8/2022
	Work Orders	40822051 40822561 40692228 40823167 40824133 40723987 40627600 40353539 40704676 40601214 40641402 40704677 40731950 40785620 40712479 40713819 94218741 40792125		