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

December 4, 2024

Thomas Haaf
Site Vice President
Duke Energy Progress, LLC
5413 Shearon Harris Road
Mail Code HNP01
New Hill, NC 27562-9300

SUBJECT: SHEARON HARRIS NUCLEAR PLANT – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000400/2024010

Dear Thomas Haaf:

On October 24, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution inspection at your Shearon Harris Nuclear Plant and discussed the results of this inspection with you 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 to confirm that the station was complying with NRC regulations and licensee standards. Based on the samples reviewed, the team determined that your program complies with NRC regulations and applicable industry standards such that the Reactor Oversight Process can continue to be implemented.

The team also evaluated the station's effectiveness in identifying, prioritizing, evaluating, and correcting problems, reviewed licensee audits and self-assessments, and assessed the licensee's use of industry and NRC operating experience information. The results of these evaluations are in the enclosure.

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 McCurry, Katherine
on 12/04/24

Katherine McCurry, Chief
Projects Branch 2
Division of Operating Reactor Safety

Docket No. 05000400
License No. NPF-63

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: SHEARON HARRIS NUCLEAR PLANT – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000400/2024010 DATED DECEMBER 04, 2024

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A. Wilson, RII/DORS
P. Boguszewski, RII/DORS
M. Kay, RII/DORS
C. Curran, RII/DORS
A. Ponko, RII/DORS
K. McCurry, RII/DORS
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NAME	A. Wilson	K. McCurry			
DATE	12/04/2024	12/04/2024			

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000400
License Number:	NPF-63
Report Number:	05000400/2024010
Enterprise Identifier:	I-2024-010-0038
Licensee:	Duke Energy Progress, LLC
Facility:	Shearon Harris Nuclear Plant
Location:	New Hill, North Carolina
Inspection Dates:	October 7, 2024 to October 24, 2024
Inspectors:	C. Curran, Resident Inspector M. Kay, Resident Inspector A. Ponko, Senior Construction Project Inspector A. Wilson, Senior Project Engineer
Approved By:	Katherine McCurry, Chief Projects Branch 2 Division of Operating Reactor Safety

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 Shearon Harris Nuclear Plant, 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 equipment aging issues. The corrective actions for the following non-cited violations (NCV), minor violations (MV), and findings (FIN) were evaluated as part of the assessment: NCV 2024001-01, NCV 2024011-01, MV 2023-003 (1), MV 2023-003 (2), FIN 2023003-01, FIN 2023003-02, NCV 2023002-01, NCV 2023002-02, NCV 2023404-01, NCV 2023404-02, NCV 2023404-03, MV 2023401, NCV 2023001-01, NCV 2022004-01, LIV 2022003, NCV 2022003-01, NCV 2022003-02, NCV 2022003-03, MV 2022003, LIV 2022002 (1), LIV 2022002 (2), MV 2022011, NCV 2022010-01, NCV 2022010-02, NCV 2022010-03.

- 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

PI&R Assessment

1) Corrective Action Program Effectiveness
Problem Identification: Based on a review of the requirements for initiating condition reports as described in licensee procedure AD-PI-ALL-0100, "Corrective Action Program," the inspectors determined that the licensee was effective in identifying problems and entering them into the corrective action program (which includes the work management system), and there was a low threshold for entering issues into the corrective action program. Additionally, site management was actively involved in the corrective action program and focused appropriate attention on significant plant issues.

Problem Prioritization and Evaluation: Based on the review of condition reports, work orders, and work requests, the inspectors determined that problems were prioritized and evaluated in accordance with licensee guidance. The inspectors determined that adequate consideration was given to system or component operability and associated plant risk. The inspectors determined that, in general, plant personnel had conducted cause evaluations in compliance with the licensee's corrective action program procedures, and cause determinations were appropriate and considered the significance of the issues being evaluated.

Corrective Actions: Based on a review of corrective action documents, interviews with licensee staff, and verification of completed corrective actions, the inspectors determined that generally corrective actions were timely, commensurate with the safety significance of the issues, and effective, in that conditions adverse to quality were corrected. The team determined that the licensee was generally effective in developing corrective actions that were appropriately focused to also address the root and contributing causes for significant conditions adverse to quality to preclude repetition. Effectiveness reviews for corrective actions to preclude repetition were sufficient to ensure corrective actions were properly implemented and were effective.

Based on the samples reviewed, the team concluded that the licensee's corrective action program complied with regulatory requirements and self-imposed standards. The licensee's implementation of the corrective action program adequately supported nuclear safety.

2) Use of Operating Experience
The team determined that the station's processes for the use of industry and NRC operating experience information were effective and complied with regulatory requirements and licensee standards. The implementation of these programs adequately supported nuclear safety. The team concluded that operating experience was adequately evaluated for applicability and appropriate actions were implemented in accordance with applicable procedures.

3) Self-Assessments and Audits
The inspectors determined that the licensee was effective at performing self-assessments and audits to identify issues at a low level, properly evaluating those issues, and resolving them commensurate with their safety significance. The self-assessments and audits were adequately self-critical, and performance-related issues were being appropriately identified.

The inspectors verified that action requests were created to document areas for improvement and findings and verified actions had been completed consistent with those recommendations.

4) Safety Conscious Work Environment
Based on interviews with plant staff and reviews of the latest safety culture survey results, the team found no evidence of challenges to a safety conscious work environment. Employees interviewed appeared willing to raise nuclear safety concerns through at least one of the several means available.

EXIT MEETINGS AND DEBRIEFS

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

- On October 24, 2024, the inspectors presented the biennial problem identification and resolution inspection results to Thomas Haaf and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152B	Corrective Action Documents	2027397 2384809 2391700 2406337 2409314 2410358 2411360 2418524 2423818 2423878 2424355 2425550 2425558 2426708 2428530 2428530 2431659 2431919 2432246 2432931 2433436 2433692 2434802 2435548 2435666 2437245 2437865 2438075 2439239 2439654 2440181 2440855		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2441196 2441659 2441880 2443443 2443861 2443892 2444020 2445528 2446358 2447152 2447153 2447356 2447591 2447620 2447620 2447663 2447750 2448544 2448837 2450265 2455923 2456610 2456634 2458170 2460166 2460346 2461030 2461094 2461450 2463970 2464264 2465738 2466193 2466223		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2467256 2467578 2469554 2471032 2471415 2472331 2472408 2473696 2475271 2476027 2476806 2477628 2479412 2479586 2479615 2479803 2479966 2482360 2482558 2482565 2486589 2486781 2486870 2486928 2487036 2487626 2488447 2491068 2491308 2492192 2492485 2493782 2494704 2495281		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2496925 2497919 2498238 2501567 2504066 2504618 2504774 2506097 2507380 2509836 2510442 2513355 2514152 2514815 2515924 2517946 2519253 2519349 2519876 2519994 2520157 2523456 2526786 2529800 2529801 2529889		
	Corrective Action Documents Resulting from Inspection	NCR 02531024		
		NCR 02531640		
		NCR 02532352		
		WRs 20276612, 20276622, 20276623, 20276626, 20276633,		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		20276628, 20276629, 20276630		
	Drawings	Document No.: 5-S-0547	Simplified Flow Diagram Circulating & Service Water Systems Sheet 1 – Unit 1,	Revision 067
		Document No.: 7-G-2847	Emer Serv Wtr Sys-Mn Rsvr Int Str M Sh-3-Un 1-2	Revision 013
	Engineering Changes	422923		
		EC422177	ESW Fine Screens	Revision 2
	Miscellaneous		Harris Nuclear Plant Nuclear Safety Culture Assessment	August 2023
		EVAL-2022-HNP-4010-00002224 – NCR 2425550	Maintenance Rule Evaluation	
		EVAL-2022-HNP-4065-00002240 – NCR 2444020	Maintenance Rule Evaluation	
		EVAL-2022-HNP-5165-00002245 – NCR 2447620	Maintenance Rule Evaluation	
	Procedures	AD-EG-ALL-1210	Maintenance Rule Program	5
		AD-NO-ALL-0202	Employee Concerns Program	5
		AD-OP-ALL-0105	Operability Determinations	7
		AD-PI-ALL-0100	Corrective Action Program	30
		AD-PI-ALL-0101	Root Cause Evaluation	9
		AD-PI-ALL-0106	Cause Investigation Checklists	10
		AD-PI-ALL-0300	Self-Assessment and Benchmark Programs	7
		AD-PI-ALL-0400	Operating Experience Program	13
		AD-PI-ALL-0401	Significant Operating Experience Program	9
		AD-WC-ALL-0210	Work Request Initiation, Screening, Prioritization and Classification	17
		AD-WC-ALL-0250	Work Implementation and Completion	16
	Self-Assessments	02410347-05	RP Task to Training Matrix and Training Selection Alignment	
		02454086-05	Annual Effectiveness Review of the Fatigue Rule (Program)	
		02454087-05	Quality Records - Assessment of Accuracy and	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Completeness (Performance)	
		02454283-05	Assess training impacts related to the Eng Organizational changes on Eng	
		02478660-05	NSC Keyworded CRs at HNP MNT	
		02488622-05	Review of AOP actions against critical parameters	
		02499207-05	HNP 2024 NRC PI&R Readiness Assessment	
		02508461-05	2023 Annual Backlog Review	
		2022-FLEET-CAP-01	Fleet Performance Improvement and Corrective Action Program	
		2022-HNP-EMP-LSA-01	Harris Emergency Preparedness	
		2022-HNP-EMP-PR-01	Performance Review - Harris Emergency Preparedness	
		2022-HNP-SEC-01	Harris Physical Security Audit	
		2023-HNP-MNT-01	Harris Maintenance and Special Processes Audit	
		2024-HNP-ENG-01	Harris Engineering Audit	
	Work Orders	20256465 (WR), 20241314 (WR), 20580373-01 (WO), 20645088-01 (WO), 20261635 (WR), 20241320 (WR), 20580193-01 (WO), 20276633 (WR)		