

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

August 5, 2022

Mr. 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 – INTEGRATED INSPECTION REPORT 05000400/2022002

Dear Mr. Haaf:

On June 30, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Shearon Harris Nuclear Plant. On July 20, 2022, the NRC inspectors 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.

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

Licensee-identified violations which were determined to be of very low safety significance are documented in this report. We are treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or the significance or severity of the violations 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 Shearon Harris Nuclear Plant.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <u>http://www.nrc.gov/reading-rm/adams.html</u> 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,

Matthe France

Signed by Fannon, Matthew on 08/05/22

Matthew S. Fannon, Chief Reactor Projects Branch 4 Division of Reactor Projects

Docket No. 05000400 License No. NPF-63

Enclosure: As stated

cc w/ encl: Distribution via LISTSERV

# SUBJECT: SHEARON HARRIS NUCLEAR PLANT – INTEGRATED INSPECTION REPORT 05000400/2022002 dated August 5, 2022

# **DISTRIBUTION**:

M. Kowal S. Price N. Doiley RidsNrrPMHARRIS RidsNrrDRO Public

## ADAMS ACCESSION NUMBER: ML22217A006

SUNSI Review		Non-SensitiveXSensitive		XPublicly AvailableImage: Non-Publicly Available	
OFFICE	RII/DRP	RII/DRP	RII/DRP	RII/DRP	
NAME	J. Zeiler	C. Smith	A. Wilson	M. Fannon	
DATE	8/3/2022	8/3/2022	8/5/2022	8/5/2022	

OFFICIAL RECORD COPY

# U.S. NUCLEAR REGULATORY COMMISSION Inspection Report

Docket Number:	05000400
License Number:	NPF-63
Report Number:	05000400/2022002
Enterprise Identifier:	I-2022-002-0019
Licensee:	Duke Energy Progress, LLC
Facility:	Shearon Harris Nuclear Plant
Location:	New Hill, NC 27562
Inspection Dates:	April 1, 2022 to June 30, 2022
Inspectors:	C. Smith, Resident Inspector J. Zeiler, Senior Resident Inspector
Approved By:	Matthew S. Fannon, Chief Reactor Projects Branch 4 Division of Reactor Projects

#### SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated 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 <a href="https://www.nrc.gov/reactors/operating/oversight.html">https://www.nrc.gov/reactors/operating/oversight.html</a> for more information. Licensee-identified non-cited violations are documented in report section: 71152A.

## List of Findings and Violations

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

### **Additional Tracking Items**

None.

## PLANT STATUS

Unit 1 began the inspection period at rated thermal power. On April 29, 2022, a manual reactor trip occurred due to degrading main turbine condenser vacuum as a result of the trip of the operating main condenser vacuum pump. The unit was restarted on April 30, 2022, and was returned to rated thermal power on May 1, 2022. The unit remained at or near rated thermal power 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 <a href="http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html">http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html</a>. 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

### Seasonal Extreme Weather Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal hot temperatures on May 19, 2022.

#### Impending Severe Weather Sample (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated the adequacy of the overall preparations to protect risksignificant systems from impending severe weather involving a tornado warning on May 23, 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) 'A' emergency service water (ESW) system while 'B' ESW was out of service for room cooling exhaust fan damper preventive maintenance on April 6, 2022
- (2) 'A' essential services chilled water (ESCW) system while 'B' ESCW was out of service for preventive maintenance on May 3, 2022
- (3) 'A' component cooling water (CCW) pump and 'B' motor-driven auxiliary feedwater (AFW) pump while 'B' CCW pump was out of service for preventive maintenance on May 11, 2022

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

(1) The inspectors evaluated system configurations during a complete walkdown of the containment spray system on April 19 and May 19, 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) 'A' and 'B' ESW pump rooms and intake structure (fire zones 12-I-ESWPA, 12-I-ESWPA-BAL, 12-I-ESWPB, 12-I-ESWPB-BAL, and 12-I-ESW-BAL) on April 6, 2022
- (2) Fuel oil transfer pump rooms A, B, 2A, and 2B in the diesel fuel oil storage building (fire zones 1-O-PA, 1-O-PB, and 5-O-BAL) on April 19, 2022
- (3) Reactor auxiliary building (RAB) 236' elevation mechanical penetration room (fire zone 1-A-3-MP) on April 26, 2022
- (4) RAB 216' elevation service water and safety injection pipe tunnels (fire zone 1-A-2-PT) on April 27, 2022
- (5) RAB 286' elevation switchgear ventilation rooms 'A' and 'B' and cable spreading rooms 'A' and 'B' (fire zones 1-A-5-HVA, 1-A-5-HVB, 1-A-CSRA, and 1-A-CSRB) on May 16, 2022

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

(1) The inspectors evaluated the onsite fire brigade training and performance during an announced fire drill on June 14, 2022.

### 71111.07A - Heat Exchanger/Sink Performance

### Annual Review (IP Section 03.01) (2 Samples)

The inspectors evaluated readiness and performance of:

- (1) 'A' train containment fan cooler units AH-2 and AH-3 heat exchangers and associated service water valves
- (2) 'B' CCW heat exchanger and associated valves

### 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 the following activities:
  - Reactor restart on May 1, 2022, following manual reactor trip on degraded condenser vacuum on April 29, 2022
  - Control rod power mismatch speed control circuitry card replacement on May 5, 2022

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

(1) The inspectors observed and evaluated a simulator scenario for an operator requalification annual examination on May 18, 2022.

## 71111.12 - Maintenance Effectiveness

#### Maintenance Effectiveness (IP Section 03.01) (2 Samples)

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

- (1) Momentary isolation of reactor coolant pump seal injection flow during 'B' charging and safety injection pump (CSIP) testing (non-conformance report [NCR] 02426708) on May 2, 2022
- (2) Sample pump tripped for waste monitor tank discharge radiation monitor RM-3541 (NCR 02423298) on April 10, 2022

#### 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) Elevated (green) risk during scheduled 'B' ESW pump room ventilation damper maintenance on April 6, 2022
- (2) Elevated (green) risk during startup from a reactor trip on April 30, 2022
- (3) Elevated (green) risk during scheduled 'B' ESCW chiller maintenance on May 3-4, 2022
- (4) Elevated (green) risk during scheduled 'B' CCW pump maintenance on May 11, 2022
- (5) Elevated (green) risk during scheduled testing of 'A' train solid state protection system on May 17, 2022

### 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) Alternate mini-flow recirculation valve (1CS-745) failed code criteria (NCR 02420744) on April 18, 2022
- (2) Through-wall leakage in 'B' ESW cooling return piping from 'B' emergency diesel generator room fan cooler (NCR 02425852) on May 2, 2022
- (3) 'B' ESCW chiller refrigerant found low during post-maintenance testing following unrelated maintenance (NCR 02426074) on May 3, 2022

- (4) Degraded insulation on 'B' phase line side of bus bars feeding the 6.9 kilovolt breaker 1B-5 from unit auxiliary transformer 1B (NCR 02420406) on May 23, 2022
- (5) Leak tightness issue associated with boron injection tank outlet valves (NCR 02425557) on June 1, 2022
- (6) Potential leakage through steam outlet valve (1MS-70) to turbine-driven auxiliary feedwater pump (NCR 02430227) on June 22, 2022

## 71111.18 - Plant Modifications

## <u>Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (3</u> <u>Samples)</u>

The inspectors evaluated the following temporary or permanent modifications:

- (1) Permanent modification engineering change (EC) 414532, RAB 261' Elevation Fire Detection System Upgrade
- (2) Permanent modification EC 419063, Refurbishment of Siemens RLN 480-volt Circuit Breakers
- (3) Permanent modification EC 420418, Upgrade ESW Drain and Pressure Connection Instrument Lines to CSIP Coolers

## 71111.19 - Post-Maintenance Testing

### Post-Maintenance Test Sample (IP Section 03.01) (7 Samples)

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

- (1) Operations periodic test (OPT)-1512, Essential Chilled Water Turbopak Units Quarterly Inspection/Checks Modes 1-6, following replacement of hot gas bypass valve and refrigerant addition to 'B' ESCW chiller on May 3-4, 2022
- (2) Operating procedure (OP)-145, Component Cooling Water (CCW), following preventative maintenance of 1B CCW pump on May 11, 2022
- (3) OP-111, Residual Heat Removal System, following breaker replacement of 'A' RHR Pump on May 18, 2022
- (4) OP-139, Service Water System, Section 8.1, Swapping ESW Suctions or Auxiliary Reservoir Makeup Using ESW System, following restoration of 'A' ESW booster pump for motor breaker replacement activities on May 24, 2022
- (5) Maintenance surveillance test (MST)-I0018, Main Steam/Feedwater Flow Loop 2 (F-048/F-0487) Channel Calibration, following replacement of circuit cards in the associated reactor protection system cabinet on June 20, 2022
- (6) OP-156.02, AC Electrical Distribution, Section 8.37, Restoration of the Auto Transfer Switch for MCC 1D23, following dedicated shutdown diesel generator maintenance on June 22, 2022
- (7) OP-139, Service Water System, Section 5.2, Supplying ESW Headers with an ESW Pump, to start 'B' ESW pump, following motor maintenance on June 29, 2022

### 71111.22 - Surveillance Testing

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

### Surveillance Tests (other) (IP Section 03.01) (4 Samples)

- (1) OPT-1530, Dedicated Shutdown Diesel Generator Operability Test Monthly Interval Modes: All, on April 6, 2022
- (2) OST-1054, Permissives P-6 and P-10 Verification Quarterly Interval Modes 3-6, on April 30, 2022
- (3) OST-1045, ESFAS Train B Slave Relay Test 18-Month Interval Modes 1-4, on June 2, 2022
- (4) OST-1017, Pressurizer PORV Block Valve Full Stroke Test Quarterly Interval Modes 1-2-3-4, on June 10, 2022

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

(1) OST-1191, Steam Generator PORV and Block Valve Operability Test, on June 6, 2022

#### 71114.06 - Drill Evaluation

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

(1) Inspectors observed an off-hours emergency response organization activation and site report-in emergency drill involving a reactor auxiliary building fire followed by a loss-of-offsite power and anticipated transient without scram event on June 16, 2022.

#### OTHER ACTIVITIES – BASELINE

#### 71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

#### MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (1 Sample)

(1) Unit 1 (April 1, 2021 through March 31, 2022)

#### BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (1 Sample)

(1) Unit 1 (April 1, 2021 through March 31, 2022)

#### BI02: RCS Leak Rate Sample (IP Section 02.11) (1 Sample)

(1) Unit 1 (April 1, 2021 through March 31, 2022)

#### 71152A - Annual Follow-up Problem Identification and Resolution

#### Annual Follow-up of Selected Issues (Section 03.03) (2 Samples)

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

- (1) RAB elevation 261' sprinkler header isolation valve found not tripped on December 21, 2021 (NCR 02410358)
- (2) 'A' ESCW chiller pre-rotation vanes found out of position on January 10, 2022 (NCR 02411360)

### 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 equipment and human performance that might be indicative of a more significant safety issue.

#### 71153 - Follow Up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (1 Sample)

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

 LER 05000400/2022-001-00, Essential Services Chilled Water Chiller Inoperable Due to Pre-Rotation Vane Actuator Control Arm Position, (ADAMS Accession No. ML22070A034). The inspection conclusions associated with this LER are documented in this report under inspection Results Section 71152A. This LER is closed.

#### Personnel Performance (IP Section 03.03) (1 Sample)

(1) The inspectors evaluated a manual reactor trip due to degrading condenser vacuum and licensee's performance on April 29, 2022.

### **INSPECTION RESULTS**

Licensee-Identified Non-Cited Violation	71152A
This violation of very low safety significance was identified by the licensee and	l has been
entered into the licensee corrective action program and is being treated as a n	on-cited
violation, consistent with Section 2.3.2 of the Enforcement Policy.	
Violation: License Condition F, "Fire Protection," requires in part, Duke Energy	
LLC shall implement and maintain in effect all provisions of the approved fire p	protection
program. FPP-013 was established as part of the provisions of the approved t	fire protection
program. Procedure FPP-013, provides instructions for implementing compen	satory
measures in the event that both fire detection and suppression are non-function	onal. FPP-013
requires a continuous fire watch in high-risk areas when both the pre-action or	multicycle
sprinkler system (fire suppression) and fire detection are nonfunctional.	
Contrary to the above, from December 22, 2021, to December 29, 2021, the lie	
implement all provisions of the approved fire protection program. Specifically,	the licensee

implement all provisions of the approved fire protection program. Specifically, the licensee failed to implement a continuous fire watch when both fire detection and suppression systems were nonfunctional. In particular, the licensee was performing a modification on the fire detection system associated with the 261' elevation of the reactor auxiliary building, and detection for this area was nonfunctional during this implementation of the modification. On December 22, 2021, the licensee used a provision in FPP-013 which allows the suspension

of firewatch rounds provided the sprinkler header in the area is wetted. However, 1FP-2538 was not properly manipulated and the header was not wetted. This resulted in both fire suppression and detection being nonfunctional when firewatch rounds were suspended from December 22 to 29, 2021.

Significance/Severity: Green. The inspectors assessed the significance of the finding using Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP." The inspectors determined that this issue was associated with the "Fixed Fire Protection Systems" category because the fire watches were posted as a compensatory measure for a fixed fire protection system outage. The inspectors determined that the finding could not be assigned a low degradation rating and the deficiency (degraded fix suppression capability and no fire watch assign to mitigate risk as required by their fire protection program) adversely affected the ability of the system to protect equipment important to safe shutdown. Since Harris does have an approved fire probabilistic risk assessment (PRA) available to screen the issue, in accordance with Step 1.5, a regional senior reactor analyst (SRA) reviewed their fire PRA and risk assessment for acceptability. The licensee's risk assessment determined risk was well below 1E-6.

The SRA completed a modified phase II assessment using IMC 0609, Appendix F, and the NRC's Shearon Harris Standardized Plant Analysis Risk (SPAR) model. The SRA assumed a duration factor of 7 days for the period of time the fixed suppression was isolated and there was no fire watch assigned as a compensatory measure. Using the fire initiation frequencies and conditional core damage probability (CCDP) in the SPAR model for a reactor auxiliary building fire, the SRA's results were comparable with the licensee's. Therefore, questions 1.5.1 and 1.5.2 were both answered yes, and the finding was screened to very low safety significance (Green).

### Corrective Action References: NCR 02410358

Licensee-Identified Non-Cited Violation

71152A

This violation of very low safety significance was identified by the licensee and has been entered into the licensee corrective action program and is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Violation: Shearon Harris Technical Specification 3.7.13, "Essential Services Chilled Water System," requires two ESCW systems to be operable in Modes 1 through 4, and if one ESCW system is inoperable, it shall be returned to an operable condition within seven days or the unit shall be shut down and be in Mode 3 (hot standby) within the next six hours and in Mode 5 (cold shutdown) within the following 30 hours.

Contrary to the above, from December 27, 2021, to January 10, 2022, while operating in Mode 1, the licensee failed to follow the action requirements of TS 3.7.13, in that, following seven days of inoperability associated with the 'A' ESCW system due to an unknown mispositioned pre-rotation vane (PRV) associated with the chiller compressor, the licensee failed to be in hot standby within the following six hours or restore the 'A' ESCW to an operable condition. Specifically, during 'A' ESCW chiller maintenance in August 2021, maintenance personnel failed to properly install a threaded cap screw fastener that holds the chiller compressor PRV control linkage arm to the vane actuator assembly. The cap screw eventually loosened, causing control linkage slippage and mispositioning of the PRV on December 27, 2021, which led to reduced chiller cooling capacity below its design basis accident requirement and inability of the chiller to restart automatically during certain design basis accident events. The mispositioned PRV was later identified by the licensee on January

10, 2022, and subsequently corrected. This issue is associated with LER 05000400/2022-001-00, Essential Services Chilled Water Chiller Inoperable Due to Pre-Rotation Vane Actuator Control Arm Position.

Significance/Severity: Green. The violation involved the 'A' ESCW chiller being incapable of providing its design basis cooling capacity under accident conditions and inability to restart automatically during certain design basis events. The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The finding was screened utilizing Exhibit 2, "Mitigating Systems Screening Questions," under Section A, "Mitigating SSCs and PRA Functionality," and it was determined that the performance deficiency required a detailed risk evaluation because the degraded condition represented a loss of PRA function of one train of a multi-train TS system for greater than its TS allowed outage time. A detailed risk evaluation of the performance deficiency was performed by a Region II SRA in accordance with NRC IMC 0609, Appendix A. The exposure period was from the date of the maintenance to the date repairs were completed and the chiller restored to an operable status (14 days). In order to bound this condition, the SRA conservatively assumed the 'A' ESCW chiller would fail to start and fail to run for its mission time over this 14-day exposure period and chiller supported equipment would also fail. Using SAPHIRE 8 Version 8.2.6 and Harris SPAR Model Version 8.55, dated February 28, 2017, the SRA set CHW-CHL-FR-1A and CHW-CHL-FS-1A ('A' ESCW chiller fails to run and fails to start) to True. The dominant accident sequence was a Small Break Loss of Coolant Accident with a failure of High Pressure Safety Injection Pumps and Failure of Secondary Side Reactor Coolant System Cooldown. The change in plant risk for this conservative bounding analysis was 1.09 E-7 per year. The SRA also evaluated the period described in the LER where both trains were inoperable for one day due to maintenance on the 1B chiller. The SRA set CHW-CHL-FR-1A, CHW-CHL-FS-1A, CHW-CHL-FR-1B and CHW-CHL-FS-1B ('A' and 'B' ESCW chillers fail to run and fail to start) to TRUE for one day. Change in plant risk was determined to be 5.96 E-8. Therefore, the total change in plant risk was less than 1 E-6 and the finding corresponds to a finding of very low safety significance (Green).

Corrective Action References: NCR 02411360

# **EXIT MEETINGS AND DEBRIEFS**

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

• On July 20, 2022, the inspectors presented the integrated inspection results to Thomas Haaf and other members of the licensee staff.

# **DOCUMENTS REVIEWED**

Inspection Procedure	Туре	Designation	Description or Title	Revision or Date
71111.01	Calibration Records	NCR 02409134	Summer Readiness	12/14/2021
	Procedures	AP-300	Severe Weather Response	Rev. 37
71111.04	Procedures	OP-139	Service Water System	Rev. 141
		OP-148	Essential Services Chilled Water System	Rev. 84
71111.05	Fire Plans	CSD-HNP-PFP- RAB-190-216	Reactor Auxiliary Building Elevations 190 and 216 Pre-Fire Plan	Rev. 1
		CSD-HNP-PFP- RAB-236	Reactor Auxiliary Building Elevation 236 Pre-Fire Plan	Rev. 2
		CSD-HNP-PFP- RAB-286	Reactor Auxiliary Building Elevation 286 Pre-Fire Plan	Rev. 1
		CSD-HNP-PFP- SEC	Out Building Pre-Fire Plan	Rev. 8
	Procedures	AD-EG-ALL-1520	Transient Combustible Control	Rev. 14
		AD-OP-ALL-0207	Fire Brigade Administrative Controls	Rev. 4
		FPP-001	Fire Protection Program Manual	Rev. 45
		FPP-002	Fire Emergency	Rev. 47
		FPP-013	Fire Protection - Minimum Requirements, Mitigating Actions, and Surveillance Requirements	Revs. 111 and 112
		OMM-001	Operations Administrative Requirements	Rev. 124
71111.11Q	Miscellaneous	Reactivity Manipulation Plan	H1C24 Loss of Condenser Vacuum Startup	Rev. 0
	Procedures	AD-OP-ALL-1000	Conduct of Operations	Rev. 19
		AOP-019	Malfunction of RCS Pressure Control	Rev. 26
		AOP-042	Secondary Steam Leak/Efficiency Loss	Rev. 8
		AOP-046	Steam Generator Tube Leak	Rev. 0
		EOP-E-0	Reactor Trip or Safety Injection	Rev. 15
		EOP-E-3	Steam Generator Tube Rupture	Rev. 7
		GP-004	Reactor Startup (Mode 3 to Mode 2)	Rev. 68
		GP-005	Power Operation (Mode 2 to Mode 1)	Rev. 115
		OP-145	Component Cooling Water	Rev. 80

Inspection Procedure	Туре	Designation	Description or Title	Revision or Date
71111.12	Corrective Action Documents	NCR 02423298	RM-3541 WMT discharge sample pump tripping	04/10/2022
	Procedures	AD-EG-ALL-1210	Maintenance Rule Program	Rev. 3
71111.13	Procedures	AD-NF-ALL-0501	Electronic Risk Assessment Tool (ERAT)	Rev. 6
		AD-WC-ALL- 0200	On-Line Risk Management	Rev. 20
		AD-WC-ALL- 0410	Work Activity Integrated Risk Management	Rev. 12
71111.15	Corrective Action Documents	NCR 02420744	1CS-745 failed code criteria in open direction	03/21/2022
	Procedures	AD-OP-ALL-0105	Operability Determinations	Rev. 6
71111.18	Procedures	AD-EG-ALL-1110	Design Review Requirements	Rev. 10
		AD-EG-ALL-1132	Preparation and Control of Design Change Engineering Changes	Rev. 20
		AD-EG-ALL-1133	Preparation and Control of Design Equivalent Change Engineering Changes	Rev. 16
	Work Orders	WO 20385132	Replacement of B CSIP pump cooler ESW drain and pressure connection lines	4/25/2022
71111.19	Procedures	PLP-400	Post Maintenance Testing	Rev. 64
	Work Orders	20384613	Replace motor breaker for 'A' ESW booster pump	5/24/2022
		WO 20396203	Replace circuit boards associated with reactor protection system steam flow/feedwater flow channel IV	06/20/2022
		WO 20412505	Replace 'B' ESCW chiller hot gas bypass valve	5/3/2022
71111.22	Procedures	OPT-1530	Dedicated Shutdown Diesel Generator Operability Test Monthly Interval Modes: All	Rev. 010
71114.06	Procedures	AD-EP-ALL-0101	Emergency Classification	Rev. 3
		AD-EP-ALL-0105	Activation and Operation of the Technical Support Center	Rev. 8
		AD-EP-HNP-	HNP Site Specific TSC Support	Rev. 3
		0105		
		CSD-EP-HNP- 0101-01	EAL Technical Basis Document	Rev. 3
		CSD-EP-HNP- 0101-02	EAL Wallchart	Rev. 2
		EP-ALL-EPLAN	Duke Energy Common Emergency Plan	Rev. 2

Inspection	Туре	Designation	Description or Title	Revision or
Procedure				Date
71151	Procedures	AD-PI-ALL-0700	Performance Indicators	Rev. 5
71152A	Corrective Action	NCR 02410358	RAB 261 sprinkler header isolation valve found not tripped	12/29/2021
	Documents	NCR 02413545	Unavailability exceeded on NFPA-805 monitoring PMG	01/26/2022
	Procedures	AD-PI-ALL-0100	Corrective Action Program	Rev. 26 and
				Rev. 27
		AD-PI-ALL-0106	Cause Investigation Checklists	Rev. 7
71152S	Procedures	AD-PI-ALL-0200	Performance Trending	Rev. 11
		AD-PI-ALL-0300	Self-Assessment and Benchmark Programs	Rev. 5
		AD-PI-ALL-1000	Conduct of Performance Improvement	Rev. 10
71153	Miscellaneous		Control Room Operator Logs	4/29/2022
			10 CFR 50.72 NRC Notification of Manual Reactor Trip and Auxiliary Feedwater System Actuation	4/29/2022
	Procedures	AOP-012	Partial Loss of Condenser Vacuum	Rev. 32
		GP-006	Normal Plant Shutdown From Power Operation to Hot	Rev. 97
			Standby (Mode 1 to Mode 3)	
		OMM-004	Post Trip/Safeguards Actuation Review	Rev. 43
		OP-133	Main Condenser Air Removal System	Rev. 47