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

October 27, 2022

Cheryl A. Gayheart
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
3535 Colonnade Parkway
Birmingham, AL 35243

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000424/2022003 AND 05000425/2022003

Dear Cheryl A. Gayheart:

On September 30, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Vogtle Electric Generating Plant, Units 1 and 2. On October 20, 2022, the NRC inspectors discussed the results of this inspection with Mr. Sonny Dean, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

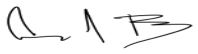
Two findings of very low safety significance (Green) are documented in this report. Two of these findings involved violations of NRC requirements. We are treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

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 Vogtle Electric Generating Plant, Units 1 and 2.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; and the NRC Resident Inspector at Vogtle Electric Generating Plant, Units 1 and 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."

Sincerely,



Signed by Blamey, Alan
on 10/31/22

Alan J. Blamey, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos. 05000424 and 05000425
License Nos. NPF-68 and NPF-81

Enclosure:
As stated

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SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000424/2022003 AND 05000425/2022003 DATED OCTOBER 27, 2022

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000424 and 05000425
License Numbers:	NPF-68 and NPF-81
Report Numbers:	05000424/2022003 and 05000425/2022003
Enterprise Identifier:	I-2022-003-0021
Licensee:	Southern Nuclear Operating Company, Inc.
Facility:	Vogtle Electric Generating Plant, Units 1 and 2
Location:	Waynesboro, GA
Inspection Dates:	July 01, 2022, to September 30, 2022
Inspectors:	B. Caballero, Senior Operations Engineer T. Fanelli, Senior Reactor Inspector T. Morrissey, Senior Resident Inspector D. Parent, Project Engineer B. Pursley, Health Physicist C. Safouri, Senior Project Engineer
Approved By:	Alan J. Blamey, Chief Reactor Projects Branch 2 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 Vogtle Electric Generating Plant, Units 1 and 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 Comply with Procedures for Entry into a High Radiation Area			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000424,05000425/2022003-01 Open/Closed	[H.4] - Teamwork	71124.01
The inspectors identified a self-revealed Green finding and associated non-cited violation (NCV) of Technical Specifications 5.7.1.e for failure to comply with the requirements stated therein for entry into a high radiation area.			

Inadequate Fire Door Inspection Procedures			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000424,05000425/2022003-02 Open/Closed	[H.1] - Resources	71152A
An NRC-identified Green NCV of Technical Specification 5.4.1.d, "Fire Protection Program implementation," was identified for the licensee's failure to establish and maintain procedures for inspecting and maintaining the functionality of fire doors.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000424/2022-001-00	LER 2022-001-00 for Vogtle Electric Generating Plant, Unit 1, Manual Reactor Trip Due to Loss of a Main Feed Pump	71153	Closed
NOV	05000424,05000425/ 2021401-01	A Former Senior Reactor Operator Failed to Report a Change in Medical Condition	92702	Closed

PLANT STATUS

Unit 1 began the inspection period at rated thermal power (RTP). On July 30, 2022, the unit was down powered to approximately 60 percent RTP for a planned upgrade to the main feedwater pump digital controllers. The unit was returned to RTP on July 31, 2022. On September 1, 2022, the unit was down powered to 92 percent for quarterly main turbine valves stroke test and returned to RTP. The unit remained at or near RTP for the remainder of the inspection period.

Unit 2 began the inspection period at RTP. On July 22, 2022, the unit was down powered to approximately 35 percent RTP for a planned upgrade to the main feedwater pump digital controllers. The unit was returned to RTP on July 24, 2022. On September 6, 2022, the unit was down powered to 92 percent for quarterly main turbine valves stroke test and returned to RTP. The unit 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

71111.01 - 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 for the following Unit 1 and 2 systems on July 14, 2022:
- auxiliary feedwater (AFW)
- emergency diesel generators (EDGs)
- nuclear service cooling water (NSCW).

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

(1) The inspectors evaluated the adequacy of the overall preparations to protect risk significant systems from impending severe weather associated with the remnants of Hurricane Ian, on September 28, 2022.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (2 Samples)

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

(1) Unit 1, ‘A’, and ‘B’ AFW train alignment, while the ‘C’ turbine-driven AFW (TDAFW) train was out of service (OOS) for unplanned maintenance, on August 4, 2022.
(2) Unit 2, ‘A’ train NSCW alignment, while ‘B’ NSCW system was inoperable during planned NSCW pump 6 re-installation, on September 28, 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) Fire zones 145/146/160A/160B, Unit 1 train ‘A’ and ‘B’ NSCW pump rooms and mechanical/electrical tunnels, on July 19, 2022.
(2) Fire Zones 91/92/98/103, Unit 1 control building level ‘A’ and 4.16 kilovolt (kV) switchgear and remote shutdown rooms, on August 12, 2022.
(3) Fire zones 145/146/160A/160B, Unit 2 train ‘A’ and ‘B’ NSCW pump rooms and mechanical/electrical tunnels, on August 29, 2022.
(4) Fire Zones 91/92/97/98/103, Unit 2 control building level ‘A’ and 4.16 kV switchgear and remote shutdown rooms, on September 4, 2022.
(5) Fire Zones 530/531 north and south firewater pump houses, September 21, 2022.

71111.06 - Flood Protection Measures

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

The inspectors evaluated internal flooding mitigation protections in the:

(1) Unit 2, 'A’ and ‘B’ train centrifugal charging pump rooms, on September 16, 2022.

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 Unit 2 main control room during a planned down power to 35 percent RTP, on July 22-23, 2022.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (2 Samples)

(1) The inspectors observed and evaluated a simulator annual exam scenario of a secondary system steam leak concurrent with a large break loss of coolant accident (LOCA), on July 18, 2022.

(2) The inspectors observed and evaluated a simulator annual exam scenario of a loss of a safety-related bus with engineered safety features actuation system malfunctions followed by a LOCA and a faulted steam generator, on July 25, 2022.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (5 Samples)

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

(1) Unit 1 'C' TDAFW train near Maintenance Rule performance criterion for unavailability, on March 17, 2022.
(2) Unit 2 instrument air Maintenance Rule condition monitoring events criteria exceeded, on June 29, 2022.
(3) Unit 1 train 'B' main feed pump plant level event, on May 3, 2022.
(4) Unit 2 steam generator atmospheric relief valves (System 1301) exceeded its Maintenance Rule performance criteria, on August 29, 2022.
(5) Unit 2 component cooling water (CCW) system, on September 22, 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) Unit 2, train 'B' EDG inoperable due to planned maintenance on fuel transfer pump 4B with train 'B' NSCW pump 6 OOS for extended planned maintenance, on July 5, 2022.
(2) Unit 1, elevated risk while 'C' TDAFW pump was OOS for unplanned maintenance from August 3 - 4, 2022.
(3) Unit 2, train 'A' NSCW pump 1 OOS for planned maintenance with train 'B' NSCW pump 6 OOS for extended planned maintenance, on August 16, 2022.
(4) Unit 2, train 'B' EDG OOS for unplanned maintenance with train 'B' NSCW pump 6 OOS for extended planned maintenance, on August 17, 2022.
(5) Unit 1, troubleshoot of main steam isolation valve, 1HV3006B, trouble annunciator (condition report 10906519), on September 8, 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) Condition report (CR) 10898467, Unit 1 TDAFW Pump Driver Output Low, on August 3, 2022.
(2) CR 10890894, Unit 1 train 'B' EDG unplanned limited condition of operation entry for barring device engaged and low control air pressure annunciators, on June 28, 2022.

(3) CR 10900713, Unit 1 train 'A' NSCW Fan 2 did not start in the acceptable temperature setpoint range on August 12, 2022.
(4) CR 10904469, Unit 1, train 'B' NSCW return header bypass leakage, on September 2, 2022.
(5) CR 10884287, Unit 1 NSCW supply to 'A' safety injection motor cooler lube oil cooler vent small leak, on September 26, 2022.
(6) CR 10910242, Unit 1 train 'B' EDG lube oil leak during 24-hour surveillance, on September 27, 2022.

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) Unit 2 train 'A' main steam isolation valve inboard actuator permanent modification to new valve design, on August 12, 2022.

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (3 Samples)

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

(1) 14825-1, "Quarterly Inservice Valve Test," after replacing actuator on steam generator atmospheric relief valve,1PV-3020, work order (WO) SNC1132419, on August 19,2022.
(2) 14802A-2, "Train A NSCW Pump/Check Valve IST and Response Time Test," (NSCW pump 1 only), after pump 1 motor and discharge valve preventive maintenance, WOs SNC1129382 and SNC1138187, on August 17, 2022.
(3) SP-ENG-2022-01, Unit 2 train 'B' NSCW pump 6 functional test; and 14802B-02, "Train B NSCW Pump / Check Valve IST and Response Time Test," WO SNC1047118, on September 30, 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) (3 Samples)

(1) 14410-1, "Control Rod Operability Test," on September 13, 2022.
(2) 14668A-1, "Train A Diesel Generator Operability Test," on September 8, 2022.
(3) 11882-2, "Unit 2 Outside Area Rounds," September 22, 2022.

Inservice Testing (IP Section 03.01) (1 Sample)

(1) 14810-2, "TDAFW Pump & Check Valve IST Response Time Test," (IST portion only), on August 8, 2022.

Reactor Coolant System (RCS) Leakage Detection Testing (IP Section 03.01) (1 Sample)

(1) 14905-1 (Unit 1), “RCS Leakage Calculation (Inventory Balance),” on August 2, 2022.

FLEX Testing (IP Section 03.02) (1 Sample)

(1) WO SNC1184339, “Makeup FLEX pump (HL-110) Operational Inspection (observed pump A2800P4014 test),” on August 24, 2022.

71114.06 - Drill Evaluation

Select Emergency Preparedness Drills and/or Training for Observation (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated a tabletop exercise for the technical support center response to a loss of all feedwater and AFW event, on July 6, 2022.

Drill/Training Evolution Observation (IP Section 03.02) (2 Samples)

The inspectors evaluated:

(1) On July 18, 2022, the inspectors evaluated a licensed operator continuing training dynamic simulator annual exam scenario that included a secondary steam leak and a large break LOCA resulting in an ‘Alert’ declaration and notification to the State of Georgia and the surrounding counties.
(2) On July 25, 2022, the inspectors evaluated a licensed operator continuing training dynamic simulator annual exam scenario that included a loss of power to a safety-related bus followed by a LOCA and a faulted steam generator, resulting in an ‘Alert’ declaration and notification to the State of Georgia and the surrounding counties.

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (1 Sample)

The inspectors evaluated licensee controls of the following high radiation and/or very high radiation areas:

(1) The inspectors reviewed a High Radiation Area occurrence that occurred on March 21, 2022, and is documented in the licensee's corrective action program as CR 10868188. The inspection results associated with this issue is documented in this report under the ‘Inspection Results’ Section 71124.01.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

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

(1) Unit 1 (July 1, 2021 – June 30, 2022)
(2) Unit 2 (July 1, 2021 – June 30, 2022)

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

(1) Unit 1 (July 1, 2021 – June 30, 2022)
(2) Unit 2 (July 1, 2021 – June 30, 2022)

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

(1) Unit 1 (July 1, 2021 – June 30, 2022)
(2) Unit 2 (July 1, 2021 – June 30, 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)
- CRs 10900114 and 10900125, NRC-identified fire door issues.
- CR 10900538, improper fire door functionality determination.

The inspection results associated with these issues is documented in this report under the 'Inspection Results' Section 71152A.

(2)
- CR 10885388, Unit 1 pressurizer safety valve 'C', 1PSV8010C, showing signs of elevated seat leakage.

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):

(1) LER 05000424/2022-001-00, "Manual Reactor Trip due to loss of a Main Feed Pump," (ADAMS Accession No. ML22175A161). The inspectors determined that it was not reasonable to foresee or correct the cause discussed in the LER therefore no performance deficiency was identified. The inspectors did not identify a violation of NRC requirements.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

92702 - Follow-Up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, and Orders

The inspectors conducted a follow-up inspection of Southern Nuclear Operating Company's (SNC) response to notice of violation (NOV) EA-21-026 issued on January 4, 2022.

Follow-Up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, and Orders (1 Sample)

(1) The inspectors evaluated the corrective actions that were implemented by SNC to determine whether they were adequate to address the identified deficiencies and to prevent recurrence. The inspectors concluded that SNC's corrective actions were both timely and appropriate. Based on the results of this review, no additional NRC actions are necessary.

For administrative purposes. The original apparent violation (AV) and the circumstances surrounding it were previously described in detail in the NRC's letter to SNC Vogtle on September 14, 2021 (ADAMS Accession No. ML21257A238), and was assigned violation tracking number AV 05000424, 05000425/2021401-01. This AV tracking number was re-designated as NOV 05000424, 05000425/2021401-01 in an NRC inspection report dated January 4, 2022 (ML22004A388), when the NOV was issued. The NOV 05000424, 05000425/2021401-01 is now closed.

INSPECTION RESULTS

<table>
<tr><td colspan="4">Failure to Comply with Procedures for Entry into a High Radiation Area</td></tr>
<tr><td>Cornerstone</td><td>Significance</td><td>Cross-Cutting Aspect</td><td>Report Section</td></tr>
<tr><td>Occupational Radiation Safety</td><td>Green
NCV 05000424,05000425/2022003-01
Open/Closed</td><td>[H.4] - Teamwork</td><td>71124.01</td></tr>
<tr><td colspan="4">The inspectors identified a self-revealed Green finding and associated non-cited violation (NCV) of Technical Specifications 5.7.1.e for failure to comply with the requirements stated therein for entry into a high radiation area (HRA).</td></tr>
<tr><td colspan="4">Description: On March 21, 2022, two maintenance workers received dose rate alarms in an HRA inside the biological shield on the 171-foot elevation of unit 2 containment building. The workers were briefed on dose rates in an HRA on the 189-foot elevation of the reactor coolant system (RCS) loop 1, inside the biological shield where maximum dose rates were 100 milli-roentgen equivalent man per hour (mrem/hr). The two individuals were moving equipment and tools from a previous work location to a new work location but failed to inform radiation protection personnel, during the pre-job brief, that the equipment required to perform their work activities was located on the 171-foot elevation of RCS loop 4 where general area dose rates were as high as 600 mrem/hr. The dose rate alarm set point on their self-reading dosimeter was 250 mrem/hr. The workers received dose rate alarms of 258 mrem/hr and 272 mrem/hr, exited the area, and reported to radiation protection personnel.

Corrective Actions: RP validated surveys in the work area, placed temporary exclusions on individuals, and completed an investigation in accordance with plant procedures.

Corrective Action References: Condition report 10868188</td></tr>
<tr><td colspan="4">Performance Assessment:

Performance Deficiency: Failure to comply with procedures for entry into an HRA.

Screening: The inspectors determined the performance deficiency was more than minor</td></tr>
</table>

because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, workers failing to comply with requirements for entry into an HRA could result in unplanned dose to workers.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix C, "Occupational Radiation Safety SDP." The inspectors determined the finding had a very low safety significance (Green) because: (1) it was not associated with ALARA planning and work controls, (2) it was not an overexposure, (3) there was no potential for an overexposure; and (4) the ability to assess dose was not compromised.

Cross-Cutting Aspect: H.4 - Teamwork: Individuals and work groups communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained. The workers failed to communicate and/or coordinate with RP their work in an area that was outside the scope of the pre-job brief.

Enforcement:

Violation: Technical Specification 5.7.1.e requires, in part, each HRA area where the intensity of radiation is > 100 mrem/hr but < 1000 mrem/hr, that except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. Contrary to these requirements, on March 21, 2022, two workers entered an HRA in unit 2 containment building who were not qualified in radiation protection procedures, were not escorted by such individuals, and were not knowledgeable of the dose rates in the area that had been determined prior to their entry.

Enforcement Action: This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

Inadequate Fire Door Inspection Procedures			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000424,05000425/2022003-02 Open/Closed	[H.1] - Resources	71152A

An NRC-identified Green non-cited violation (NCV) of Technical Specification 5.4.1.d, "Fire Protection Program implementation," was identified for the licensee's failure to establish and maintain procedures for inspecting and maintaining the functionality of fire doors.

Description: On August 10, 2022, the resident inspectors observed that the flush bolts of the inactive leaf of both double swinging fire doors V1211L1A50, (1BA03 ES 4.160 kV ES train switchgear room) and V1211L1A53 ('B' train electrical penetration room), were not properly inserted into the door frame with the doors closed. The licensee entered the fire door issues into the corrective action program (CAP) as condition reports (CRs) 10900125 and 10900114, respectively. The resident inspectors reviewed the two CRs and determined that operations, after consulting with site engineering, inappropriately determined the fire doors were functional but degraded since the doors would close and latch without assistance. After the inspectors questioned the functionality determination, site engineering consulted with corporate fire protection and determined that the doors should have been declared non-functional. Corporate procedure NMP-ES-035-017, "Fleet Fire Doors Functional Inspection

Governance and Acceptance Criteria," Version 1.1, states, in part, that a flush bolt that will not engage the door frame or threshold at least ½ inch is a 'Major Deficiency' resulting in non-functionality of the fire door. Licensee procedure 92040, "Fire Protection Functionality and LCO Requirements," Version 48.1, required a 1-hour fire watch for non-functional fire door V1211L1A50. The 1-hour fire watches were not completed from approximately 1330 hours on August 10 until the door was repaired on August 11, 2022, at 0817 hours. Door V1211L1A53 did not require a compensatory fire watch since both sides of the door contained equipment of the same safe shutdown train. The inadequate functionality determination on the fire doors was placed in the CAP as CR 10900538.

Corporate procedure NMP-ES-035-017, Section 1.0, "Purpose," states that the procedure will establish minimum standards for inspection and acceptance criteria to be utilized in site-specific inspection procedures. NMP-ES-035-017 contains inspection guidance and acceptance criteria for flush bolts. However, site procedures 29124-C, "Fire door Inspection (FSAR Fire Protection Surveillance)," Version 30.2, and 29123-C, "Fire Door Visual Inspection," Version 14.1, did not contain clear inspection guidance and acceptance criteria for flush bolts. In addition, both procedures' list of 'Major Deficiencies,' did not include flush bolts with less than ½ inch engagement as a major deficiency. Site engineering utilized these procedures when making the functionality determination. The licensee had an opportunity to include flush bolt inspection guidance and flush bolt discrepancies as 'Major Deficiencies' in these procedures when the procedures were revised in 2021. The purpose of these revisions was to ensure the procedures reflected NMP-ES-035-017 requirements for fire doors. The inspector's review of procedure 29123-C versions dated back to version 1 (August 9, 2004) and procedure 29124-V, version 11 (August 17, 2000) determined that at least since those revisions, the procedures did not contain acceptance criteria related to fire doors being non-functional due to flush bolt discrepancies.

Corrective Actions: The site completed an extent of condition review of the plant's 208 double fire doors. Each door was inspected to determine the doors functionality with respect to flush bolt engagement with the door frame. A total of 43 fire doors were determined to have flush bolt deficiencies that were determined to be 'Major Deficiencies'. Each door found with major flush bolt deficiencies was declared non-functional, a 1-hour fire watch established, as necessary, and corrective actions were initiated to repair the door. The extent of condition results was placed in the CAP as CR 10903492 to investigate the cause and the need for any additional corrective actions.

Corrective Action References: CR 10903492

Performance Assessment:

Performance Deficiency: The licensee's failure to establish and maintain procedures for inspecting fire doors was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency adversely affected the cornerstone objective in that fire doors with inactive leaf flush bolt deficiencies compromised the door's fire rating qualification.

Significance: The finding was screened in accordance with NRC Inspection Manual Chapter

(IMC) 0609, “Significance Determination Process,” Attachment 4, “Initial Characterization of Findings,” which determined that an IMC 0609, Appendix F, “Fire Protection Significance Determination Process,” review was required. The finding category of “Fire Confinement” was assigned. Using Attachment 2, “Degradation Rating Guidance,” the inspectors assigned a ‘High Degradation Level’ since the flush bolt deficiencies were like having a broken door latch. Using Attachment 1, “Fire Protection Significance Determination Process Worksheet,” Step 1.4.4, “Fire Containment,” the inspectors were able to screen the finding to Green utilizing the screening questions for each fire door. None of the fire doors protected an area with a gaseous fire suppression system. The flush bolt deficiencies for 38 of the doors did not impact the ability of those doors to close resulting in a screen to Green for those doors (Question 1.4.4-D). Four of the five remaining doors screened to Green since an automatic suppression system was available on at least one side of the door (Question 1.4.4-B). The remaining door screened to Green due to having the same fire area on each side of the door (Question 1.4.4-E).

Cross-Cutting Aspect: H.1 - Resources: Leaders ensure that personnel, equipment, procedures, and other resources are available and adequate to support nuclear safety. The inspectors determined that the finding had a cross-cutting aspect of “Resources” in the Human Performance area because the licensee did not ensure adequate procedures for fire door inspections and determining functionality were available and adequate to support nuclear safety (H.1).

Enforcement:

Violation: Technical Specification 5.4.1.d required, in part, that written procedures shall be established, implemented, and maintained covering the activities for the Fire Protection Program.

Corporate procedure NMP-ES-035-017, “Fleet Fire Doors Functional Inspection Governance and Acceptance Criteria,” Version 1.1, Section 1.0, “Purpose,” states that the procedure will establish minimum standards for inspection and acceptance criteria to be utilized in site-specific inspection procedures. Furthermore, this procedure states, in part, that a flush bolt that will not engage the door frame or threshold at least ½ inch is a ‘Major Deficiency’ resulting in non-functionality of the fire door.

Site procedures 29124-C, “Fire door Inspection (FSAR Fire Protection Surveillance),” Version 30.2, and 29123-C, “Fire Door Visual Inspection,” Version 14.1, implement activities in the site Fire Protection Program, including inspection of fire doors.

Contrary to this, since at least calendar year 2000, the licensee failed to establish and maintain site procedures for inspecting fire doors to ensure their continued functionality. Site procedures 29124-C, “Fire door Inspection (FSAR Fire Protection Surveillance),” Version 30.2, and 29123-C, “Fire Door Visual Inspection,” Version 14.1, which implement activities for the site’s fire protection program, did not contain clear inspection guidance and acceptance criteria for flush bolts. In addition, both procedures’ list of 'Major Deficiencies,’ did not include flush bolts with less than ½ inch engagement as a major deficiency. As a result, 43 fire doors were identified as non-functional. The licensee initiated, as necessary, hourly roving fire watches for these fire doors and implemented corrective maintenance action to restore affected fire doors.

Enforcement Action: This violation is being treated as an NCV, 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 July 21, 2022, the inspectors presented the IP92702 inspection results to Mr. Sonny Dean, Site Vice President (SVP), and other members of the licensee staff.
- On October 18, 2022, the inspectors presented the IP71124.01 inspection results to Mr. Sonny Dean, SVP, and other members of the licensee staff.
- On October 20, 2022, the inspectors presented the integrated inspection results to Mr. Sonny Dean, SVP, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	NMP-OS-017	Severe Weather	3.0
71111.04	Procedures	13610-1	Auxiliary Feedwater System	53
		14552-2	NSCW Flow Path Verification	6.0
71111.05	Corrective Action Documents Resulting from Inspection	Condition Report(s)	10893290, 10893297, and 10893302	
	Procedures	92791-1	Zone 91 - Control Building Level A Fire Fighting Preplan	4.1
		92792-1	Zone 92 - Control Building Level A Fire Fighting Preplan	3.1
		92798-1	Zone 98 - Control Building - Level A Fire Fighting Preplan	4.0
		92803-1	Zone 103 - Control Building - Level A Fire Fighting Preplan	3.0
		92845-1	Zone 145 – Tunnels IT2A, IT3A, and IT5A Fire Fighting Preplan	1.3
		92845-1	Zone 146 – Tunnels IT2B, IT3B, and IT5B Fire Fighting Preplan	2.0
		92860A-1	NSCW Pumphouse – Train A Fire Fighting Preplan	1
		92860B-1	Zone 160B – NSCW Pumphouse – Train B Fire Fighting Preplan	0.2
71111.06	Calculations	X6CYC-26	Flooding Analysis - Auxiliary Building - Level "C"	10
	Drawings	2X4DB147-1	Aux. Bldg. Flood Retaining Rooms Alarms & Floor Drains System No. 1218	18.0
71111.12	Corrective Action Documents	Condition Report(s)	10850039, 10890935, 10891335, 10867226,10878333, 10885193, 10819657, 10874361, 10874381, 10874362, 10874471, and 10876144	
		Corrective Action Report(s)	308151	
		CR 10819677	CCW oil leakage trend	
		CR 10832569	Unit 2 CCW pump 1 outboard bearing high temperature	
		CR 10881569	Unit 2 System 1301S (SG ARVs) has exceeded its Maintenance Rule performance criteria	05/17/2022
		Technical Evaluation(s)	1105368	

		Technical Evaluation(s)	1099351, and 1107220	
	Engineering Evaluations	EVAL-V-1306-05569	(a)(1) Review - Unit 1 MFP Turbine Drive Steam	08/01/2022
	Miscellaneous		Unit 2 CCW System Health Report licensee database	September 21, 2022
			eSOMS Log Search for U1 TDAFW (9/1/19 - 8/2/22)	
			Maintenance Rule SSC Function Consolidation and Performance Criteria Selection Form	06/11/2019
		20220712	Maintenance Rule Expert Panel Meeting #2022-0712	07/12/2022
		20220809	Maintenance Rule Expert Panel Meeting #2022-0809	08/09/2022
		EVAL-V-2420-05609	Instrument Air (a)(1) Evaluation	07/21/2022
	Procedures	NMP-ES-005	Scoping and Importance Determination for Equipment Reliability	18.2
		NMP-ES-006-001	PM Template Management and PM Optimization Guidance	4.1
		NMP-ES-027	Maintenance Rule Program	10.4
	Work Orders	SNC1372401	Unit 2 CCW pump 3 RTD relocation	
71111.13	Drawings	1X5DV651	instrument Loop Diagram Auxiliary Feed Pump Monitor	3.0
	Miscellaneous		TDAFW Governor Voltage Off scale Low Support/Refute Matrix	8/04/2022
			Unit 1 Phoenix A4 Risk	8/4/2022
			Unit 1 eSOMS Logs	8/4/2022
	Procedures	NMP-OS-010	Protected Train/Division and Protective Equipment Program	8.1
71111.15	Corrective Action Documents	Condition Report(s)	10890894, 10891570, 10891573, and 10892008	
71111.18	Corrective Action Documents	Condition Report(s)	10861444, 10863744, 10867193, 10867508, 10867722, 10868046, 10871020, 10871174, and 10885430	
	Miscellaneous	2021029 & RE0004281167	NMP-AD-025-F02, Records Supplementing / Correction Notice - U2 A-Train MSIV Actuator Replacements	03/23/2022
	Work Orders	SNC1198393, SNC104665650		
71124.01	Corrective Action Documents	Condition Report(s)	10868188	03/21/2022
	Procedures	NMP -HP-300	Radiation and Contamination Survey	5.7
		NMP-HP-204-F02	Radiological Briefing Record	2.3

		NMP-HP-306	Radiological Job Coverage	1.2
	Radiation Surveys	253135	Plant Vogtle Radiation Information Survey #252135, Inside Bio shield (2RXC11)	03/21/2022
		253159	Plant Vogtle Radiation Information Survey #253159, Inside Bio shield (2RXC11)	03/21/2022
		253213	Plant Vogtle Radiation Information Survey #253213, Inside Bio shield (2RXC11)	03/23/2022
71153	Corrective Action Documents	Condition Report(s)	10878154, 10878262, 10878333, 10878347, 10878357, 10878379, 10878397, 10878400, 10878409, 10880176, 10880977, and 10884576	
		Corrective Action Report(s)	308151	
	Miscellaneous	1-22-001	10006-C, Reactor Trip Review	30
		NMP-AD-002-F04	Troubleshooting Log - 11306Z5M6ECM6 - Mark VIe Controller	05/03/2022
		NMP-GM-020-F03	Event Recovery Report - Manual Trip of Unit 1 due to Loss of 1B Main Feed Pump	05/03/2022
92702	Corrective Action Documents	CAR 207318	Apparent Cause Determination for 2013 Events	08/02/2013
		Technical Evaluation (TE) 1084709	Reaffirmation of expectations for license operators	03/17/2021
	Corrective Action Documents Resulting from Inspection	CR 10895087	Training Fleet Alignment for NMP-OS-26, License Maintenance	07/18/2022
		CR 10895664	NRC-Identified Procedure Enhancement - NMP-OS-026	07/20/2022
	Procedures	AP-LT-I-PP-ADM-MAN	Staffing The Shift	10/14/2020
		MS-MED-004	NRC Licensed Operator Physical Examination	07/29/2020
		MS-MED-005	NRC Licensed Operator Physical Examination ANSI/ANS 3.4 1996	04/28/2022
		NMP-OS-026	License Administration	03/08/2022

		Power Point Presentation	Licensed Operator Medical Requirements and Guidelines	07/12/2022