

#### UNITED STATES NUCLEAR REGULATORY COMMISSION REGION IV 1600 EAST LAMAR BOULEVARD ARLINGTON, TEXAS 76011-4511

June 27, 2024

Brad Kapellas, Site Vice President Entergy Operations, Inc. Grand Gulf Nuclear Station P.O. Box 756 Port Gibson, MS 39150

## SUBJECT: GRAND GULF NUCLEAR STATION – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000416/2024010

Dear Brad Kapellas:

On May 16, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution inspection at your Grand Gulf Nuclear Station 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 team evaluated the station's effectiveness in identifying, prioritizing, evaluating, and correcting problems, reviewed licensee audits and self-assessments, and the station's use of industry and NRC operating experience. The team identified findings associated with the evaluation of issues. Considering the findings, samples reviewed, and performance in this area, the team identified a weakness associated with evaluation of issues. The results of the team's assessment are documented 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 did not identify 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.

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.

A licensee-identified violation, which was determined to be of very low safety significance, is documented in this report. We are treating this violation as an NCV 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 IV; the Director, Office of Enforcement; and the NRC Resident Inspector at Grand Gulf Nuclear Station.

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 IV; and the NRC Resident Inspector at Grand Gulf Nuclear Station.

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,

Signed by Agrawal, Ami on 06/27/24

Ami N. Agrawal, Team Leader Insp Programs and Assessment Team Division of Operating Reactor Safety

Docket No. 05000416 License No. NPF-29

Enclosure: As stated

cc w/ encl: Distribution via LISTSERV

GRAND GULF NUCLEAR STATION – BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000416/2024010 – DATED JUNE 27, 2024

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DOCUMENT NAME: 2024 Grand Gulf Nuclear Station Biennial Problems Identified ADAMS ACCESSION NUMBER: **ML24176A243** 

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## U.S. NUCLEAR REGULATORY COMMISSION Inspection Report

Docket No.	05000416
License No.	NPF-29
Report No.	05000416/2024010
Enterprise Identifier:	I-2024-010-0008
Licensee:	Entergy Operations, Inc.
Facility:	Grand Gulf Nuclear Station
Location:	Port Gibson, MS
Inspection Dates:	April 29, 2024, to May 16, 2024
Inspectors:	<ul> <li>B. Baca, Health Physicist</li> <li>K. Chambliss, Senior Resident Inspector</li> <li>D. Dodson, Senior Reactor Inspector</li> <li>A. Smallwood, Senior Resident Inspector</li> </ul>
Approved By:	Ami N. Agrawal, Team Leader Inspection Programs and Assessment Team Division of Operating Reactor Safety

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a biennial problem identification and resolution inspection at Grand Gulf Nuclear Station, 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 <u>https://www.nrc.gov/reactors/operating/oversight.html</u> for more information. A licensee-identified non-cited violation is documented in report section: 71152B.

## List of Findings and Violations

Failure to Adequately Evaluate Control Room Air Conditioning Compressor B Functional					
Failures	Failures				
Cornerstone Significance Cross-Cutting Report					
		Aspect	Section		
Mitigating	Green	[P.4] - Trending	71152B		
Systems	NCV 05000416/2024010-01	_			
Open/Closed					
The inspectors identified a Green non-cited violation of 10 CER 50.65(a)(2), for the licensee's					

The inspectors identified a Green, non-cited violation of 10 CFR 50.65(a)(2), for the licensee's failure to adequately demonstrate that the performance or condition of a structure, system, or component is being effectively controlled through the performance of appropriate preventive maintenance, such that the structure, system, or component remains capable of performing its intended function. Specifically, the licensee failed to appropriately evaluate all control room air conditioning B compressor failures within the maintenance rule program, and as a result, the site failed to adequately justify keeping the compressor in (a)(2) status.

Failure to Properly Evaluate Feedwater Isolation Check Valve Leakage Impacting Technical Specifications 3.6.1.3 and 3.0.4

Cornerstone	Significance	Cross-Cutting	Report
		Aspect	Section
Barrier Integrity	Green	[H.11] -	71152B
	NCV 05000416/2024010-02	Challenge the	
	Open/Closed	Unknown	

The inspectors identified a Green finding and associated non-cited violation of Technical Specification 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," for the licensee's failure to ensure each PCIV was operable following failed leakage rate tests during a refueling outage. A violation of Technical Specification 3.0.4 was also identified for making a mode change without meeting the requirements to do so as a result of not meeting Technical Specification 3.6.1.3. Specifically, following leak rate testing failures of feedwater isolation check valve 1B21F032B, the valve was not repaired, an adequate operability evaluation was not completed, and the station operated almost 2 years in this condition.

## Additional Tracking Items

Туре	Issue Number	Title	Report Section	Status
CAPR	05000416/2024010-03	CAPR 2021040 4a (1) – 95002 CAPR 1 [May 25, 2020 Event - Root Cause 1]	71152B	Closed

CAPR	05000416/2024010-04	CAPR 2021040 4a(2) – 95002 CAPR 2 [August 8, 2020 Event - Root Cause 1]	71152B	Closed
CAPR	05000416/2024010-05	CAPR 2021040 4a(3) – 95002 CAPR 8 [November 6, 2020 Event - Root Cause 1]	71152B	Closed

### **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 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.

### 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, audits and self-assessments, 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 team also evaluated the station's compliance with NRC regulations and licensee standards for corrective action programs. The inspectors sampled over 200 condition reports and their associated cause evaluations, as applicable. The inspectors also conducted a five-year review of division III components and high-pressure core spray, reactor core isolation cooling, and radiation monitor systems. These reviews included failures; maintenance issues; surveillances; corrective and preventive maintenance; reliability; and maintenance rule performance. Additionally, inspectors reviewed findings and violations issued during the biennial assessment period.
  - 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.

The inspectors also assessed three open corrective actions to preclude repetition (CAPRs), which were opened with issuance of Inspection Report 05000416/2021050 on November 18, 2021, following performance of Inspection Procedure 95002, "Supplemental Inspection Response to Action matrix Column 3 (Degraded Performance) Inputs," in response to degraded performance that led to the Grand

Gulf facility being moved into Column 3 of the Action Matrix for the Unplanned Scrams per 7000 Critical Hours performance indicator crossing the Yellow threshold.

## INSPECTION RESULTS

#### Assessment

71152B

### **Corrective Action Program Effectiveness**

Based on the samples reviewed, the inspectors determined that the licensee's corrective action program was adequate and supported nuclear safety during the assessed timeframe. However, the inspectors noted recent challenges in the areas of problem identification, effectiveness of corrective actions, and use of operating experience, as well as a weakness associated with prioritization and evaluation of issues.

### Problem Identification

The inspectors found that the licensee was generally identifying and documenting problems at an appropriately low threshold that supported nuclear safety. During the prior 24 months, the licensee entered approximately 4,200 issue reports into the corrective action program and initiated over 16,000 total condition reports. However, the inspectors noted some current performance challenges associated with identification of issues and entering issues into the corrective action program. Specifically, this report documents one licensee-identified more-than-minor violation associated with identification of dose rates in a room increasing above the radiation area posting and controls, one minor violation associated with a failure to identify non-functional fire door self-closing mechanisms, and additional observations.

In addition to the team's findings and observations, the team noted that the station had two other recent performance challenges associated with problem identification (where a title is not included, the issue also relates to security):

- NCV 05000416/2023403-03
- NCV 05000416/2023001-01, "Failure to Initiate a Condition Report for a Condition Adverse to Quality"

In each case, the performance deficiency was directly related to inadequate identification of problems and use of the corrective action program.

### Problem Prioritization and Evaluation

The inspectors found that the licensee was adequately prioritizing and evaluating problems such that nuclear safety was supported; however, the inspectors concluded that the station has a weakness associated with problem evaluation based on a review of recently documented performance issues and additional concerns identified during the inspection. Specifically, the inspectors noted two Green violations associated with inadequate evaluations of problems documented in the corrective action program (NCV 05000416/2024010-01 and NCV 05000416/2024010-02) and additional observations. In one case, a feedwater isolation check valve was inadequately evaluated and determined to be operable because the station did not adequately consider all applicable design and licensing basis information. As a result, the primary containment isolation valve was declared

operable without adequate justification or corrective actions taken to correct the condition, and the station operated an entire cycle in this condition. In another case, four control room air conditioning system compressor B trips were inadequately evaluated in determining whether the compressor should be considered a 10 CFR 50.65 (a)(1) system requiring goals, increased monitoring, and additional corrective actions.

In addition to these issues identified by the team, the inspectors noted three other recent performance challenges documented in NRC reports. Specifically, the relevant issues that were documented in the last two years included:

- 05000416/2022050-02, "Failure to Consider Out of Tolerance measurements in Operability Determinations"
- 05000416/2022001-04, "Failure to Correct a Condition Adverse to Quality Associated with Transient Combustible Control"
- 05000416/2022002-01, "Failure to Secure Loose items Prior to Impending Severe Weather"

In each case the performance deficiency directly related to inadequate evaluation of a condition adverse to quality or the finding was assigned a P.2, Evaluation, cross-cutting aspect.

## Effectiveness of Corrective Actions

The inspectors concluded that the station is adequately developing effective corrective actions and timely implementing those actions for the problems evaluated in the corrective action program, commensurate with their safety significance. However, the inspectors identified recent performance challenges in this area. Specifically, the team identified two examples of a recent minor violation associated with narrowly focused corrective actions to address fire door misalignment and to fully complete an action to evaluate drywell leakage at all boiling water reactor (BWR) 6s; the inspectors also made one observation. Additionally, the inspectors noted five other recent performance challenges associated with effectiveness of corrective actions, which were documented in the last 2 years. These included:

- 05000416/2022002-03, "Failure to Ensure Functionality of Drywell Unidentified Leakage Monitoring System"
- 05000416/2023001-06, "Failure to Make a Timely Part 21 Report"
- Three concerns related to security (titles are redacted):
  - o 05000416/2022402-01
  - o 05000416/2022402-02
  - o 05000416/2023401-01

In each case, the performance deficiency directly related to effectiveness of corrective actions, the finding was assigned a P.3, Resolution, cross-cutting aspect, or the issue was a

cited violation because the licensee failed to restore compliance within a reasonable period of time after the violation was identified.

Assessment	71152B
Audits and Self-Assessments	

The inspectors reviewed a sample of Grand Gulf Nuclear Station's self-assessments and audits to assess whether performance trends were regularly identified and effectively addressed. The inspectors also reviewed audit reports to assess the effectiveness of assessments in specific areas. Overall, the inspectors concluded that the licensee had an adequate departmental self-assessment and audit process.

Assessment

71152B

## Use of Operating Experience

The inspectors reviewed a variety of sources of operating experience including Part 21 notifications and other vendor correspondence, NRC generic communications, and publications from various industry groups. The inspectors determined that the station is adequately screening and addressing issues identified through operational experience that applies to the station, and this information is being evaluated in a timely manner once it is being received. However, the inspectors did note some recent performance challenges in the area, including four more-than-minor performance issues directly associated with the station's use of operating experience. Specifically, the inspectors noted the following recent performance challenges:

- NCV 05000416/2022002-02, "Failure to Establish Testing Program as Required by Appendix B, Criterion XI, 'Test Control"
- NCV 05000416/2022002-06, "Failure to Perform Appropriate Preventive Maintenance"
- NCV 05000416/2022001-03, "Failure to Identify a Condition Adverse to Quality Associated with the Division 3 Diesel Generator Ring Gear"
- NCV 05000416/2022004-03, "Failure to Periodically Calibrate Radiation monitors as Required by 10 CFR 20.150(c)"

In each case, the performance deficiencies were assigned P.5, Operating Experience, crosscutting aspects.

## Assessment

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## Safety Conscious Work Environment

The inspectors conducted safety conscious work environment focus group interviews with approximately 61 individuals from various departments and organizations across the site including: non-licensed and licensed operators; mechanical, electrical and instrumentation and control maintenance; engineering; security; radiation protection; and chemistry personnel. The inspectors also observed interactions between employees during routine management review committee and plan-of-the-day meetings, interviewed the Employee Concerns Program lead, and reviewed the results of the latest safety culture surveys and any

case files that may relate to safety conscious work environment. Based upon all these interviews, observations, and document reviews, the inspectors concluded that the station has an adequate safety conscious work environment where feel free to raise safety concerns without fear of relation.

### Assessment

71152B

## **Corrective Actions to Preclude Repetition**

The NRC previously performed Inspection Procedure 95002, "Supplemental Inspection Response to Action matrix Column 3 (Degraded Performance) Inputs," in response to degraded performance that led to the Grand Gulf facility being moved into Column 3 of the Action Matrix for the Unplanned Scrams per 7000 Critical Hours performance indicator crossing into the Yellow threshold. On November 18, 2021, following the inspection, the NRC issued NRC Supplemental Inspection Report 05000416/2021040, which documented corrective actions to preclude repetition (CAPRs) that the licensee had completed and planned. Planned CAPRs 1, 2, and 8, as described in the section, "Objective 4: Ensure that planned corrective actions to preclude repetition direct timely and effective actions to address and preclude repetition of significant individual and corrective performance issues," required additional NRC follow-up to verify completion. Planned CAPR 1 included the following:

<u>CAPR 1:</u> Revise Procedure EN-HU-104, Technical Task Risk & Rigor, to require creation of a detailed table listing risk parameters (setpoints, settings, dimensions) being revised for engineering changes (ECs) with high consequence generation or multiple train (common mode) or single train safety-related system risk. Table is to list the old parameter, new, and basis for acceptability. This table would then be presented for mitigating actions such as independent third-party review (ITPR), Engineering Quality Review Team (EQRT), and challenge board.

This licensee developed this corrective action to address the root cause of Entergy engineering leadership (Corporate Projects and Site Engineering) not ensuring critical assumptions in the turbine control system modification were documented or validated for turbine shaft movement during operation where a reduction in margin was present in accordance with Procedure EN-DC-DC-115, roles and responsibilities were not well communicated across organizations, and leadership behaviors were lacking to promote sufficient challenge to achieve an acceptable result to prevent an unplanned scram.

The inspectors reviewed Revisions 11 and 12 of EN-HU-104, Technical Task Risk & Rigor, reviewed the licensee's effectiveness reviews, and performed some sampling of modification documents to assess completion of CAPR 1. The inspectors did not identify any concerns with the licensee's implementation of CAPR 1 and determined that CAPR 1, as documented in Inspection Report 05000416/2021040, is closed.

Planned CAPR 2 included the following:

<u>CAPR 2:</u> Implement an EC based on engineering analysis which incorporates design features to reduce and control the effects of vibration on the actuator assembly. Incorporate findings into an engineering change package and process in accordance with Procedure EN-DC-115.

The licensee developed this corrective action to address the root cause of vibrations in the high-pressure control valve actuators for the main turbine generator control valves, which led

to an unplanned scram on August 8, 2020. Engineering changes EC87853, EC87974, and EC89459 were implemented by the licensee to reduce vibrations in the high-pressure turbine stop and control valves. These engineering changes changed the hydraulic actuator portion of the high-pressure turbine stop and control valve to a smaller more compact design and added additional support to the valves and actuators. The coupler connecting the highpressure control valve and hydraulic actuators was also revised. CR-GGN-2020-08779, CA-10 documents the completion of these engineering changes. Final verification of the corrective action was recorded in effectiveness review LO-GLO-2021-00032-CA-1, which records and compares the vibrations of the hydraulic actuators for the high-pressure turbine stop and control valves after the engineering changes to the vibrations observed on August 8, 2020, which led to an unplanned scram.

The inspectors reviewed the engineering changes, condition reports, and effectiveness review associated with CAPR 2. The inspectors did not identify any concerns with the licensee's implementation of CAPR 2 and determined that CAPR 2, as documented in Inspection Report 05000416/2021040, is closed.

Planned CAPR 8 included the following:

CAPR 8: Complete a permanent design change for the generator bushing primary water flow low trip setpoint to ensure that the proper margin to the trip setpoint is maintained.

This licensee developed this corrective action to address the root cause of Entergy engineering leadership (Corporate Projects and Site Engineering) making changes to the design of the primary water bushing flow instrumentation loop without fully evaluating the impacts of the changes to the instrumentation feedback quality and existing operating margins to a generator trip.

The inspectors reviewed condition report CR-GGN-2020-11199 and engineering changes EC-0000088547, "Generator Bushing Primary Water Low Flow Alarm Setpoint Change Increase to 31.5 GPM," Revision 000, and EC-0000088574, "Raise Primary Water Tank Low Level Alarm Setpoint from 85% to 90% Per MPR Analysis To Help Prevent Hydrogen Entrainment Into Primary Water Flow," Revision 000. The inspectors did not identify any concerns with the licensee's implementation of CAPR 8 and determined that CAPR 8, as documented in Inspection Report 05000416/2021040, is closed.

Failures				
Cornerstone	Significance	Cross-Cutting	Report	
		Aspect	Section	
Mitigating	Green	[P.4] - Trending	71152B	
Systems	NCV 05000416/2024010-01			
	Open/Closed			
The inspectors identified a Green, non-cited violation of 10 CFR 50.65(a)(2), for the				
licensee's failure to adequately demonstrate that the performance or condition of a structure,				
system, or component is being effectively controlled through the performance of appropriate				
preventive maintenance, such that the structure, system, or component remains capable of				

Failure to Adequately Evaluate Control Room Air Conditioning Compressor B Eurotional

control room air conditioning B compressor failures within the maintenance rule program, and as a result, the site failed to adequately justify keeping the compressor in (a)(2) status. <u>Description</u>: Grand Gulf Nuclear Station experienced four maintenance rule functional failures of the safety-related control room air conditioning compressor B between June 7, 2020, and October 7, 2020. On October 28, 2020, the station performed a 10 CFR 50.65(a)(1) evaluation for the control room air conditioning B subsystem. However, the station failed to adequately consider all the functional failures, which resulted in an inadequate justification for keeping the control room air conditioning B subsystem in (a)(2) status.

The control room air conditioning system consists of two independent, redundant subsystems that provide cooling and heating of recirculated control room air. Each subsystem consists of heating coils, cooling coils, fans, chillers, compressors, ductwork, dampers, and instrumentation and controls to provide for control room temperature control.

During an 18-week period in 2020, the control room air conditioning B subsystem experienced the following functional failures:

- On June 7, 2020, control room air conditioning B tripped due to a failed pressure switch (CR-GGN-2020-7074); this was determined to be a maintenance rule functional failure.
- On July 17, 2020, control room air conditioning B tripped due to an apparent failed compressor (CR-GGN-2020-8197); this was determined to be a maintenance preventable functional failure.
- On July 24, 2020, control room air conditioning B tripped due to a motor protection signal due to a potential compressor failure (CR-GGN-2020-8349); this was determined to be a maintenance preventable functional failure.
- On October 7, 2020, control room air conditioning B tripped due to degraded wiring to the fan motor (CR-GGN-2020-10442); this was determined to be a maintenance preventable functional failure.

Per the maintenance rule monitoring plan for control room air conditioning B, if control room air conditioning B exceeds two functional failures per rolling 18 months per train, the subsystem must be evaluated for (a)(1) status. Station procedure EN-DC-205, "Maintenance Rule Monitoring", Revision 7, Section 5.2.2.b, requires that the system engineer review each potential functional failure event to ensure to monitoring requirements of 10CFR50.65(a)(1) or the requirements of 10CFR50.65(a)(2) are being met.

The (a)(1) evaluation associated with CR-GGN-2020-10955 assessed only the functional failures from June 7, July 17, and October 7, omitting the July 24 failure. The (a)(1) evaluation concluded with keeping the control room air conditioning B system in (a)(2) status.

On May 25, 2022, the NRC identified that the July 24 failure was not screened to determine the cause. This was captured by the station in the corrective action program as CR-GGN-2022-05829. This condition report included a maintenance rule screening for the functional failure; however, since nearly 2 years had elapsed since the functional failure, the total number of control room air conditioning B functional failures in the rolling 18-month

period had dropped below the maintenance rule threshold for an (a)(1) evaluation.

On June 6, 2022, the licensee documented CR-GGN-2022-06157 and included a maintenance rule (a)(1) evaluation after the July 24, 2020, control room air conditioning B failure was rescreened and determined to be a maintenance rule functional failure (as documented in CR-GGN-2022-05783). Although the evaluation associated with CR-GGN-2022-06157 briefly acknowledged the June 7, 2020, failure, this evaluation focused on the three other failures and similarly determined that the compressor had operated reliably since October 2020 and that the train should remain classified in (a)(2) status.

The inspectors noted that procedure EN-DC-206, "Maintenance Rule (a)(1) Process," Revisions 3, 4, 5, and 6 include language stating that for each contributing event or cause the evaluation discusses how the item represents acceptable or unacceptable performance and then rolls up the discussion into an evaluation of overall performance of the structure, system, or component. Additionally, the procedure states, "Unacceptable performance should lead to (a)(1) classification."

The inspectors determined the licensee's evaluations did not adequately consider all four maintenance rule functional failures, including three maintenance preventable functional failures. The failure to adequately assess all relevant control room air conditioning B subsystem functional failures on multiple occasions resulted in inadequate justifications for keeping the subsystem in maintenance rule program (a)(2) status. Specifically, the licensee did not demonstrate that the control room air conditioning B subsystem had been effectively controlled through appropriate preventive maintenance and was performing acceptably.

Corrective Actions: The station wrote a condition report to capture the issue and is reviewing its maintenance rule implementation since 2020.

Corrective Action References: CR-GGN-2024-03249 Performance Assessment:

Performance Deficiency: The licensee's failure to adequately evaluate all maintenance rule functional failures of the control room air conditioning system compressor B in accordance with the requirements of 10 CFR 50.65(a)(2) was a performance deficiency. Specifically, the licensee failed to adequately assess all relevant compressor B failures during 2020 and 2022 evaluations and adequately justify not moving the control room air conditioning compressor B to (a)(1) status in accordance with the requirements of 10 CFR 50.65(a)(2).

Screening: The inspectors determined the performance deficiency was more-than-minor because it was associated with the Equipment Performance 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, similar to example 8.g of IMC 0612, Appendix E, "Examples of Minor Issues," the inspectors determined that the significance was more-than-minor because the Mitigating Systems cornerstone objectives were adversely affected because, when all maintenance rule functional failures were considered, performance indicated that the SSC was not being effectively controlled through appropriate preventive maintenance and that the SSC was not moved to 10 CFR 50.65(a)(1).

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using Exhibit 2 of Inspection Manual Chapter 0609, Appendix A, the inspectors determined this finding is not a deficiency affecting the design or qualification of a mitigating SSC; the finding does not represent a loss of the probabilistic risk assessment function of a single or multi-train technical specification system for greater than its technical specification allowed outage time; the finding does not represent a loss of the probabilistic risk assessment function of two separate technical specification systems for greater than 24 hours or a probabilistic risk assessment system and/or function for greater than 24 hours; and the finding does not represent a loss of the probabilistic risk assessment system and/or function for greater than 24 hours; and the finding does not represent a loss of the probabilistic risk assessment function of one or more non-technical specification trains of equipment designated as risk-significant in accordance with the licensee's maintenance rule program for greater than 3 days. Therefore, the inspectors determined the finding was of very low safety significance (Green).

Cross-Cutting Aspect: P.4 - Trending: The organization periodically analyzes information from the corrective action program and other assessments in the aggregate to identify programmatic and common cause issues. Specifically, the licensee failed to trend all failures of the control room air conditioning B compressor and adequately evaluate for any programmatic or common cause issues, even after additional prompting by inspectors in 2022.

### Enforcement:

Violation: Title 10 CFR 50.65(a)(1) requires, in part, that holders of an operating license shall monitor the performance of systems and components against licensee established goals, in a manner sufficient to provide reasonable assurance that such structures, systems, and components are capable of fulfilling their intended safety functions.

10 CFR 50.65(a)(2) states, in part, that monitoring as specified in 10 CFR 50.65(a)(1) is not required where it has been demonstrated that the performance of a system is being effectively controlled through the performance of appropriate preventive maintenance, such that the system remains capable of performing its intended function.

Contrary to the above, from July 14, 2020, to May 25, 2022, the licensee failed to demonstrate that the performance of a system was being effectively controlled through the performance of appropriate preventive maintenance, such that the system remains capable of performing its intended function. Specifically, the licensee failed to adequately evaluate all control room air conditioning system compressor B functional failures and demonstrate that monitoring as specified in 10 CFR 50.65(a)(1) was not required.

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

Failure to Properly Evaluate Feedwater Isolation Check Valve Leakage Impacting Technical Specifications 3.6.1.3 and 3.0.4

Cornerstone	Significance	Cross-Cutting	Report
		Aspect	Section
Barrier Integrity	Green	[H.11] -	71152B
	NCV 05000416/2024010-02	Challenge the	
	Open/Closed	Unknown	

The inspectors identified a Green finding and associated non-cited violation of Technical Specification 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," for the licensee's failure to ensure each PCIV was operable following failed leakage rate tests during a refueling outage. A violation of Technical Specification 3.0.4 was also identified for making a mode change without meeting the requirements to do so as a result of not meeting Technical Specification 3.6.1.3. Specifically, following leak rate testing failures of feedwater isolation check valve 1B21F032B, the valve was not repaired, an adequate operability evaluation was not completed, and the station operated almost 2 years in this condition.

<u>Description</u>: During the 2022 refueling outage the licensee performed testing on the feedwater check valves, including feedwater B outboard isolation check valve 1B21F032B (also referred to in licensee documents as B21-F032B and F032B). Feedwater check valve 1B21F032B, a primary containment isolation valve, prevents significant loss of inventory and offers immediate isolation should a break occur in the feedwater line. Additionally, the valve prevents the transport of radioactive material through the feedwater leakage pathway following a severe accident involving core damage and prior to the operation of the feedwater leakage control system. The leakage rate test limit for each feedwater line is limited to 1 gpm (gallon per minute) of water leakage.

On March 17, 2022, the licensee documented in CR-GGN-2022-02956 that feedwater check valve 1B21F032B had failed its leak rate testing. Specifically, the measured leakage was 4550 milliliters per minute (ml/min); the allowable leakage was 3,785 ml/min (less than 1 gallon per minute (gpm)). The licensee's evaluation of operability determined that the valve could not fulfill its safety function as a PCIV and was inoperable. The evaluation stated, "If repairs are not made, [the] valve will not meet the requirements for maximum pathway leakage <1 gpm."

On March 29, 2022, the licensee documented in CR-GGN-2022-03621 that the in-service inspection VT-3 exam of feedwater check valve 1B21F032B was "rejectable due to unacceptable condition of valve seating surface per [non-destructive examination] procedure CEP-NDE-0903." Initially, the licensee's evaluation of operability determined that the valve could not "fulfill its safety function as a PCIV," and the valve was screened as inoperable.

On March 31, 2022, the licensee completed a past operability evaluation associated with the March 17, 2022, failure documented in CR-GGN-2022-02956. The evaluation determined, "Per program document SEP-APJ-003 and engineering report GGNS-94-0039, the allowable leakage rate for a PCIV is 1 gpm (3,785 ml/min), or a combined 9 gpm (34,065 ml/min) for all nine PCIVs associated with Technical Specification 3.6.1.3.9."

On April 2, 2022, the licensee documented in CR-GGN-2022-03797 that feedwater check valve 1B21F032B had failed its post-work leakage rate test. Specifically, the leakage was measured at 7,350 ml/min; the allowable leakage was 3,785 ml/min. However, the licensee determined the valve was operable based on the similar language developed for the past operability evaluation associated with CR-GGN-2022-2956.

On April 16, 2022, the licensee documented CR-GGN-2022-04486 to determine the cause of the failures noted in CR-GGN-2022-2956 and CR-GGN-2022-3446 and determined that the direct cause of the failure was valve seat wear. The evaluation stated, "The seat is eroded through the stellite into the base metal."

The inspectors reviewed these condition reports, evaluations, and design and licensing bases information. Specifically, the inspectors noted that Section 6.3.3(c), "Operability Determination," of SEP-APJ-003, "Primary Containment Leakage Rate Testing (Appendix J) Program," Revision 13, subpart (1) states, "If leakage rate from test is greater than one or more of the following limits, as applicable, declare component/valve INOPERABLE." Subpart (i) documents one of the limits and includes a 1 gpm limit for the subject 1B21F032B valve. Subpart (i) states, "Penetration 10 (valves 1B21F032B and 1B21F065B) maximum pathway leakage greater than 1 gpm per Engineering report No. GGNS-94-0039."

The inspectors also noted that Section 8.2, "Conclusions," of engineering report No. GGNS-94-0039, Revision 4 states, "The leakage limit per feedwater penetration is 1 gpm for containment isolation. Specifically, this limit applies to the outboard containment isolation valves (B21-F032A/B) and the motor operated isolation valves...For feedwater line B, one (1) gpm of leakage is allowed past B21-F032B and B21-F065B." This is further reinforced by Section 8.3, "Recommendations," which states, "The feedwater penetration needs to be tested at less than 1 gpm per penetration specifically for the outboard feedwater check valves (B21-F032A/B) and the motor operated isolation valves (B21-F065A/B)."

Additionally, the inspectors noted that the Updated Final Safety Analysis Section 6.2.4.3.1.1.1, "Feedwater Line," states, "The leakage rate test limit for each feedwater line is limited to 1 gpm of water leakage...the outboard containment isolation positive closing check valve[s] are each limited to 1 gpm water leakage. These leakage rate limits ensure functionality of the feedwater leakage control system." Next, the inspectors noted that Updated Final Safety Analysis Report Table 6.2-49, "Primary Reactor Containment Penetration and Containment Isolation Valve Leakage Rate Test List," includes four outboard isolation barriers for penetration 10, including B21F032B (the subject valve), B21F065B-A, B21F063B, and B21F030B. The table also includes the following note associated with the 1B21F032B subject valve:

Refer to Subsection 6.2.4.3.1.1.1 for a description of these penetration lineups...Valves F032 and F065 are functionally tested with water at 1.10 Pa of 13.31 psig. Pa is the containment pressure with the feedwater piping filled with water. Valves F032 and F065 are each limited to 1 gpm water leakage limits [to] ensure functionality of the feedwater leakage control system.

Additionally, the inspectors reviewed letter GIN-98-00605, "Feedwater Isolation Valve Testing," from W.B. Brice to R.D. Ingram, dated March 9, 1998, which provides a summary of the licensing history of the feedwater check valves. It notes, "The leakage limit specified for B21-F032A/B and B21-F065A/B valves were established to provide definitive operability criteria for the support function of these valves to FWLCS."

Considering all of the above, the inspectors determined that the licensee inappropriately determined the feedwater isolation check valve was operable while it could not meet leakage requirements and was materially degraded. The inspectors noted that Technical Specification 3.6.1.3 requires each PCIV to be operable in MODES 1, 2, and 3. When one or more

penetration flow paths with leakage rate not within limit except for purge valve leakage, the licensee is required to restore leakage rate to within limit within 4 hours or be in MODE 3 within 12 hours and MODE 4 within 36 hours in accordance with Condition E. With the feedwater isolation check valve not meeting leakage requirements on April 30, 2022, the station entered the mode of applicability on its way to exiting the 2022 refueling outage. The station later exited the mode of applicability on July 13, 2022, due to a scram caused by a failure of turbine high pressure control valves—the station started up again and entered the mode of applicability on December 16, 2023, the station exited the mode of applicability on July 20, 2022. On December 16, 2023, the station exited the mode of applicability until March 2, 2024, when the reactor was shut down for a scheduled refueling outage. A violation of Technical Specification 3.0.4 was also identified for making a mode change without meeting the requirements to do so as a result of not meeting Technical Specification 3.6.1.3.

Corrective Actions: The licensee entered the condition into the corrective action program as CR-GGN-2024-03247. The 1B21F032B feedwater isolation check valve was repaired during the spring 2024 outage and the post-work leak rate testing was completed satisfactorily.

Corrective Action References: CR-GGN-2024-02931 and CR-GGN-2024-03247 Performance Assessment:

Performance Deficiency: The licensee failed to adequately evaluate the feedwater isolation check valve B21F032B excessive leakage and returned the valve to service without effecting repairs or providing adequate basis for continued operability. As a result, the station operated an entire cycle from spring 2022 to spring 2024 with the valve in an inoperable state contrary to the requirements of Technical Specification 3.6.1.3 and, as a result, Technical Specification 3.0.4.

Screening: The inspectors determined the performance deficiency was more-than-minor because it was associated with the RCS Equipment and Barrier Performance attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the feedwater isolation check valve B21F032B, a primary containment isolation valve, was excessively leaking and in a materially degraded state for almost 2 years, which adversely impacted feedwater leakage control system assumptions and degraded the valve's ability to prevent the transport of radioactive material through the feedwater leakage pathway following a severe accident.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Using Exhibit 3, "Barrier Integrity Screening Questions," the inspectors determined that the finding represents an actual open pathway in the physical integrity of reactor containment (valves, airlocks, etc.), which requires use of IMC 0609, Appendix H, "Containment Integrity Significance Determination Process," and a phase 2 analysis. This issue was determined to be a Type B finding because it has no direct impact on the likelihood of core damage but has potentially important implications for containment integrity. Utilizing Table 7.2, "Phase 2 Risk Significance - Type B Findings at Power," for a BWR Mark III containment, the risk significance is Green because leakage from the wetwell to the environment was not greater than 1,000 percent containment volume per day through the isolation valve. Cross-Cutting Aspect: H.11 - Challenge the Unknown: Individuals stop when faced with uncertain conditions. Risks are evaluated and managed before proceeding. Specifically, leaders did not reinforce expectations that individuals take the time to do the job right the first time, seek guidance when unsure, and stop if an unexpected condition or equipment response is encountered, which resulted in the inadequate operability assessment. Enforcement:

Violation: Technical Specification 3.6.1.3, requires, in part, that each PCIV be operable in MODES 1, 2, and 3. When one or more penetration flow paths with leakage rate not within limit except for purge valve leakage, the licensee is required to restore leakage rate to within limit within 4 hours in accordance with Condition C. When the required action and associated completion time of Condition A, B, C, or D is not met in MODES 1, 2, or 3, the licensee is required to be in MODE 3 within 12 hours and MODE 4 within 36 hours in accordance with Condition E. Contrary to the above, from April 30, 2022, to July 13, 2022; from August 20, 2022, to December 17, 2023; and from January 2, 2024, to March 2, 2024, a PCIV was not operable in MODES 1, 2, and 3, leakage rate was not restored to within limits within 4 hours in accordance with Condition C, and the licensee was not in MODE 3 within 12 hours and MODE 4 within 36 hours in accordance with Condition E. Specifically, feedwater check valve 1B21F032B failed its post-work leak rate test with leakage measured at 7,350 ml/min, exceeding the allowable leakage rate of 3,785 ml/min, yet the licensee started up and operated for an entire operating cycle with the valve in a failed state.

Technical Specification 3.0.4 requires, in part, that when an LCO is not met, entry into a MODE or other specified condition in the applicability shall only be made when the associated actions to be entered permit continued operation in the mode or other specified condition in the applicability for an unlimited period of time; after performance of a risk assessment addressing inoperable systems and components; or when an allowance is stated in the individual value, parameter, or other specification. Contrary to the above, on April 30, 2022, on August 20, 2022, and January 2, 2024, when an LCO was not met, entry into a MODE or other specified condition in the applicability was made when the associated actions to be entered did not permit continued operation in the MODE or other specified condition in the applicability for an unlimited period of time, the performance of a risk assessment addressing inoperable systems and components was not performed, and an allowance was not stated in the individual value, parameter, or other specification. Specifically, feedwater check valve 1B21F032B failed its post-work leak rate test with leakage measured at 7,350 ml/min. exceeding the allowable leakage rate of 3,785 ml/min, LCO 3.6.1.3 was not met, yet the licensee started up and operated for approximately an entire operating cycle with the valve in a failed state.

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

Licensee-Identified Non-Cited Violation71152BThis violation of very low safety significance was identified by the licensee and has been<br/>entered into the licensee corrective action program and is being treated as a non-cited<br/>violation, consistent with Section 2.3.2 of the Enforcement Policy.

Violation: Technical Specification 5.7.1 requires each high radiation area (HRA), as defined in 10 CFR 20, in which the intensity of radiation is greater than 100 millirem per hour (mR/hr) but less than 1,000 mR/hr, shall be barricaded and conspicuously posted as an HRA.

Contrary to the above, on May 6, 2024, an HRA, as defined in 10 CFR 20, in which the intensity of radiation is greater than 100 mR/hr but less than 1,000 mR/hr, was not barricaded and conspicuously posted as an HRA. Specifically, a radiation protection supervisor reviewed survey GGN-2405-00050 and noted increased radiological conditions of 100mR/hr general area dose rates near a leaking pump within the surge tank room. Confirmatory survey GGN-2405-00165 was completed and indicated dose rates of 500 mR/hr on contact and 250 mR/hour at a foot at the leaking pump, but the area had not been previously barricaded or conspicuously posted as an HRA.

The licensee promptly posted and controlled (locked) the surge tank room door as an HRA, performed extent of condition reviews of all radioactive waste pump rooms, and reviewed technician qualifications.

Significance/Severity: Green. The failure to post and barricade an HRA is more-than-minor because it is associated with the Program & Process attribute of the Occupational Radiation Safety cornerstone and adversely impacted the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Specifically, the changing dose rates in the room increased above the radiation area postings without adequate controls in place. The significance of the finding was assessed using IMC 0609, Appendix C, "Occupational Radiation Safety SDP." The finding was determined to be of very low safety significance (Green) because the finding was not: (1) related to as low as is reasonably achievable (ALARA) planning, (2) did not involve an overexposure, (3) did not involve a substantial potential for overexposure, and (4) the ability to assess dose was not compromised.

Corrective Action References: CR-GGN-2024-03014 and CR-GGN-2024-03248

## **Minor Violation**

71152B

# Failure to Identify and Correct Conditions Adverse to Quality

Minor Violation: The inspectors identified six examples of the licensee failing to identify and correct conditions adverse to quality. Specifically, 10 CFR 50, Appendix B, Criterion XVI, requires, in part, that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

Contrary to the above, until May 15, 2024, the licensee did not ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances were promptly identified and corrected. Specifically, the inspectors identified four examples of fire doors' (associated with doors 1A201, 1A318, 1A401A, and 1A401B) self-closing mechanisms not functioning. The station documented condition report CR-GGN-2024-03180 to capture the issue.

Contrary to the above, from June 26, 2018, to May 16, 2024, the licensee did not ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances were promptly identified and corrected. Specifically, the inspectors noted that the licensee took some corrective actions to revise the preventive maintenance strategy for fire door 1A401B after the door fell off its hinges, but the licensee's corrective actions did not quantifiably address door hinge misalignment. The station documented condition report CR-GGN-2024-03250 to capture the issue.

Contrary to the above, from June 30, 2021, until May 16, 2024, the licensee did not ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances were promptly identified and corrected. Specifically, the inspectors identified that the licensee failed to complete a corrective action as outlined in the corrective action plan. Specifically, to address drywell unidentified leakage, the licensee created a corrective action to verify the design of drywell leakage monitoring at all BWR 6s. Although the licensee took actions to verify the design of drywell leakage monitoring at BWR 6s within the Entergy fleet, the station did not fully complete the action and validate information associated with non-Entergy BWR 6s. The station documented condition report CR-GGN-2024-03401 to capture the issue.

Screening: The inspectors determined the performance deficiency was minor. The inspectors determined the examples of the performance deficiency did not adversely affect a cornerstone objective, would not lead to a more significant safety concern if left uncorrected, and could not reasonably be viewed as a precursor to a significant event.

Enforcement: These failures to comply with 10 CFR Part 50, Appendix B, Criterion XVI constitute a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

71152B

The inspectors noted a few observations that provide insight into some individuals' thresholds for identifying concerns. Specifically, station employees from operations, engineering, chemistry, and maintenance indicated during interviews that some issues may not be making it into the corrective action program or that they did not believe some low-level issues needed to be captured in the corrective action program. Specifically, some individuals specifically noted that adding oil to pumps, housekeeping, and lightbulb issues could be fixed without a corresponding condition report; individuals noted that documenting perceived low-level issues would increase the corrective action program backlog. Similarly, some individuals indicated that some issues discussed in morning meetings or with vendors may not be tracked within the condition reporting system.

Additionally, some individuals indicated that the burden to resolve issues falls to the condition report initiator, even when the condition report initiator may not be the right knowledgeable individual to correct the condition—this has caused some people to think twice about documenting concerns in the corrective action program.

Finally, some individuals have the impression that the station is documenting more condition reports than any other station in the country. The inspectors noted that the annual totals and month-to-month totals have been steadily declining since a steeper decline from 2018 to 2019. This is true when comparing outage years, which tend to have more condition reports written, and when comparing non-outage years, which typically have less condition reports initiated.

Each of these perspectives provides insights that may indicate an opportunity for the station to ensure personnel condition reporting thresholds are meeting station expectations consistent with EN-LI-102, "Corrective Action Program," Section 5.2.5(a), which states, "Employees and contractors are required to initiate condition reports. If there is any doubt, employees should initiate the condition report."

Observation: Evaluation of Issues	71152B
The inspectors noted a few observations associated with performance improvement	nt review
group (PRG) activities. Specifically, EN-FAP-LI-001, "Performance Improvement R	eview
Group (PRG) Process," Section 3.2.d states, "It is expected that PRG members re-	view the
package in advance and are prepared for discussions." The inspectors attended P	RG
meetings during the inspection and noted that some individuals indicated they had	not
reviewed causal products in advance of the April 30, 2024, meeting. The inspector	s were
unable to conclude that Section 3.2.d of procedure EN-FAP-LI-001 applied to the r	noted
individuals-the individuals' meeting responsibilities were not clear. However, the i	nspectors
highlighted this observation since it may provide insight into the quality of PRG rev	iews.

Additionally, the inspectors noted that there was a wide variance in causal product scores during PRG causal product quality reviews. Considering that the reviewers are using the same rubrics to complete their reviews, the inspectors noted that the variance in scores could be indicative of inconsistencies in the quality of reviews or that the scoring guidance is too vague.

## EXIT MEETINGS AND DEBRIEFS

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

- On May 16, 2024, the inspectors presented the biennial problem identification and resolution inspection results to Brad Kapellas, Site Vice President, and other members of the licensee staff.
- On June 26, 2024, the inspectors presented the updated biennial problem identification and resolution inspection results to Wesley Marshall, acting Director of Regulatory Assurance and Performance Improvement, and other members of the licensee staff.

## **DOCUMENTS REVIEWED**

Inspection	Туре	Designation	Description or Title	Revision or
Procedure				Date
71152B	Calculations	MC-Q1E22-24001	Determination of HPCS injection to the vessel with the	Revision 000
			Minimum Flow Valve 1E22F012 Open	
71152B	Corrective Action	CR-GGN-	2017-01616; 2017-06705; 2018-09645; 2019-01100;	
	Documents		2019-02676; 2019-02717; 2019-07084; 2019-07088;	
			2019-07477; 2020-00888; 2020-08197; 2020-08349;	
			2020-08779; 2020-09257; 2020-09991; 2020-10442;	
			2020-10955; 2020-11199; 2021-00133; 2021-01929;	
			2021-03154; 2021-03320; 2021-06911; 2021-07210;	
			2021-08294; 2022-00934; 2022-01277; 2022-01290;	
			2022-01579; 2022-01580; 2022-01582; 2022-01688;	
			2022-01934; 2022-02023; 2022-02077; 2022-02167;	
			2022-02216; 2022-02230; 2022-02263; 2022-02375;	
			2022-02392; 2022-02421; 2022-02433; 2022-02460;	
			2022-02631; 2022-02635; 2022-02795; 2022-02833;	
			2022-02926; 2022-02956; 2022-03039; 2022-03061;	
			2022-03219; 2022-03221; 2022-03251; 2022-03299;	
			2022-03360; 2022-03362; 2022-03367; 2022-03428;	
			2022-03446; 2022-03621; 2022-03797; 2022-03802;	
			2022-03989; 2022-04073; 2022-04089; 2022-04109;	
			2022-04322; 2022-04486; 2022-04667; 2022-04670;	
			2022-04673; 2022-04731; 2022-04887; 2022-04970;	
			2022-04975; 2022-05083; 2022-05378; 2022-05490;	
			2022-05503; 2022-05548; 2022-05829; 2022-05861;	
			2022-05862; 2022-05864; 2022-06042; 2022-06066;	
			2022-06069; 2022-06073; 2022-06091; 2022-06157;	
			2022-06358; 2022-06437; 2022-06449; 2022-06452;	
			2022-06493; 2022-06/31; 2022-06816; 2022-06956;	
			2022-06961; 2022-0/150; 2022-0/194; 2022-07203;	
			2022-07743; 2022-07998; 2022-08076; 2022-08251;	
			2022-08328; 2022-08333; 2022-08535; 2022-08690;	
			2022-09040; 2022-09059; 2022-09257; 2022-09264;	
			2022-09353; 2022-09370; 2022-09372; 2022-09405;	

Inspection	Туре	Designation	Description or Title	Revision or
Procedure			•	Date
			2022-09831; 2022-09968; 2022-09970; 2022-09990;	
			2022-10039; 2022-10318; 2022-10468; 2022-10595;	
			2022-10629; 2022-10692; 2022-10318; 2022-11007;	
			2022-11085; 2022-11323; 2022-11392; 2022-11452;	
			2023-00359: 2023-00505: 2023-00721: 2023-00840:	
			2023-00841: 2023-00843: 2023-00933: 2023-00954:	
			2023-01076; 2023-01083; 2023-01217; 2023-01300;	
			2023-01578: 2023-02137: 2023-02371: 2023-02372:	
			2023-02557; 2023-02605; 2023-02606; 2023-02632;	
			2023-02659: 2023-06816: 2023-13172: 2023-13417:	
			2023-13561: 2023-13584: 2023-13713: 2023-13778:	
			2023-13805: 2023-13832: 2023-13838: 2023-14060:	
			2023-14194; 2023-14352; 2023-14593; 2023-14957;	
			2023-15295: 2023-15570: 2023-15571: 2023-15572:	
			2023-15573: 2023-15770: 2023-15772: 2023-15774:	
			2023-15775: 2023-15792: 2023-15848: 2023-16047:	
			2023-16405; 2023-16642; 2023-16780; 2023-16860;	
			2023-16861; 2023-16904; 2023-16906; 2023-16944;	
			2023-16945; 2023-16946; 2023-16947; 2023-16948;	
			2023-16949; 2023-16950; 2023-16951; 2023-16981;	
			2023-16987; 2023-17315; 2023-17333; 2023-17340;	
			2023-17341; 2023-17380; 2023-17560; 2024-00114;	
			2024-00149; 2024-00174; 2024-00270; 2024-00431;	
			2024-00432; 2024-00433; 2024-00434; 2024-00436;	
			2024-00437; 2024-00438; 2024-00439; 2024-00440;	
			2024-00612; 2024-00790; 2024-01155; 2024-01171;	
			2024-01256; 2024-01466; 2024-01476; 2024-01963;	
			2024-02049; 2024-02051; 2024-02121; 2024-02124;	
			2024-02140; 2024-02144; 2024-02182; 2024-02189;	
			2024-02311; 2024-02813; 2024-02844; 2024-03192	
71152B	Corrective Action	CR-HQN-	2019-01479; 2022-00576; 2022-01377; 2022-03612;	
	Documents		2022-03651	
71152B	Corrective Action	NOE-HQN-	2020-00077; 2023-00155; 2023-00181; 2023-00183;	
	Documents		2023-00290; 2023-00291; 2023-00319; 2023-00387;	

Inspection	Туре	Designation	Description or Title	Revision or
Procedure		-		Date
			2023-00410; 2023-00413; 2023-00438	
71152B	Corrective Action	CR-GGN-	2024-02882; 2024-02884; 2024-02919; 2024-02931;	
	Documents		2024-02967; 2024-03014; 2024-03036; 2024-03180;	
	Resulting from		2024-03190; 2024-03200; 2024-03247; 2024-03248;	
	Inspection		2024-03249; 2024-03250; 2024-03251; 2024-03252;	
			2024-03253; 2024-03263; 2024-03264; 2024-03266;	
			2024-03267; 2024-03401	
71152B	Drawings	DWG-A0012	General Floor Plan at Elevation 133'-0", 136'-0", 139'-0",	Revision 016
			144'-3", and 148'-0"	
71152B	Drawings	DWG-M0003	Plan at Elevation 133'-0", 148'-0", 139'-0", 135'-4", and	Revision 008
			147'-7"	
71152B	Engineering	EC-0000087660	Adding Time Delay for Primary Water Flowpath Trip	Revision 000
	Changes		Signals	
71152B	Engineering	EC-0000088547	Generator Bushing Primary Water Low Flow Alarm	Revision 000
	Changes		Setpoint Change Increase to 31.5 GPM	
71152B	Engineering	EC-0000088566	Clarification of Damping Values for EC 87660	Revision 000
	Changes			
71152B	Engineering	EC-0000088574	Raise Primary Water Tank Low Level Alarm Setpoint	Revision 000
	Changes		from 85% to 90% Per MPR Analysis To Help Prevent	
			Hydrogen Entrainment Into Primary Water Flow	
71152B	Miscellaneous		PMOS template for GGN Accesses Station Doors and	0
			Hatches	
71152B	Miscellaneous		Grand Gulf Nuclear Station Nuclear Safety Culture	
			Assessment May 2021	
71152B	Miscellaneous		Quality Assurance Program Manual	47
71152B	Miscellaneous	04-1-01-P75-1	Standby Diesel Generator System	Revision 117
71152B	Miscellaneous	06-OP-1T48-M-0003	Secondary Containment Integrity Check	Revision 115
71152B	Miscellaneous	Action Request (AR)	Preventative Maintenance Change Request Form	10/26/18
		18015615	(PMCR) to update PMOS template to perform a physical	
			and visual inspection of door seals.	
71152B	Miscellaneous	DPRM/APRM/HQPRM		
		Report Grand Gulf		
		Nuclear Station		
		Operations 4th		

Inspection	Туре	Designation	Description or Title	Revision or
Procedure				Date
		Quarter 2023 DPRM		
71152B	Miscellaneous	Engineering Report No. GGNS-04-0039	Evaluation of Changes to GGNS Feedwater Isolation Valve Leak Testing Methodology	4
		ETR-	4-2022-119; 6-2022-383; 8-2022-658; 11-2022-988; 12-	
			2022-1144; 2-2023-1429; 2-2023-1524; 3-2023-1558; 3-	
			2023-1707; 4-2023-1783; 5-2023-1865; 6-2023-2007; 8-	
			2023-2311; 10-2023-2728; 10-2023-2768; 12-2023-	
			2998; 2-2024-3383	
71152B	Miscellaneous	GIN-98-00605	Feedwater Isolation Valve Testing	
71152B	Miscellaneous	LO-GLO-2020-00060		
71152B	Miscellaneous	QA-10-2022-GGNS- 01	Maintenance, Projects and Maintenance Support	07/18/2023
71152B	Miscellaneous	QA-12/18-2023-	Combined Operations and Technical Specifications	09/28/2023
		GGNS-01	Quality Assurance Audit Report	
71152B	Miscellaneous	QA-3-2023-GGNS-01	Corrective Action Program Quality Assurance Audit	08/16/2023
			Report	
71152B	Miscellaneous	QA-9-2023-GGNS-01	Fire Protection Program (Appendix R)	02/23/2023
71152B	Miscellaneous	QS-2022-GGNS-001	Quality Assurance Surveillance Report	03/29/2022
71152B	Miscellaneous	QS-2022-GGNS-004	Corrective Action Program (CAP) Surveillance	04/26/2022
71152B	Miscellaneous	QS-2022-GGNS-007	Quality Assurance Surveillance Report	08/20/2022
71152B	Miscellaneous	QS-2022-GGNS-010	Quality Assurance Surveillance Report	12/15/2022
71152B	Miscellaneous	Standing Order 21- 001	EAL SU5.1 Amplifying Information	01/07/2021
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71152B	Procedures	EN-HU-104	Technical Task Risk & Rigor	11
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71152B	Procedures	EN-OE-100	Operating Experience Program	36
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			00550604; 00569485-01; 00576109; 00586622;	
			00590551; 00592171-03; 00592172-03; 52908109-01;	
			52912525-01; 52917226-01; 52931041; 52935190;	
			52936492; 52937683; 53010925-01; 53013936;	
			53014465-01; 53016704-06; 53017226-01; 53017684-	
			01; 53020477-01; 53022780-01; 53027819-01;	
			53028529; 53030270-01; 53032677-01; 54006311;	
			54008098-01: 54085501-01: 54092839: 54092848:	
			54096188-01: 54096842: 54105846-01: 54113910:	
			54121042; 54125339-01; 54128338; 54131543	