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

October 20, 2020

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

SUBJECT: GRAND GULF NUCLEAR STATION – REVISED INTEGRATED INSPECTION REPORT 05000416/2020001

Dear Mr. Franssen:

On March 31, 2020, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Grand Gulf Nuclear Station. On April 7, 2020, the NRC inspectors discussed the results of this inspection with Mr. E. Larson and other members of your staff. The results of this inspection are documented in the enclosed report.

The subject inspection report was originally issued by letter, dated May 6, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20127J013). An administrative error in the report was subsequently identified; therefore, the corrected report is being reissued in its entirety. The two inspection samples documented under Reactor Safety, Section 71111.12 on page 5 of the enclosed report, were originally documented as being Maintenance Effectiveness (IP Section 03.01 samples). The revised report enclosed with this letter updates those samples to be Quality Control (IP Section 03.02) samples. No other changes to the original inspection report have been made.

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,

Jason W. Kozal

Digitally signed by Jason W. Kozal
Date: 2020.10.20 13:08:46 -05'00'

Jason W. Kozal, Chief
Reactor Project Branch C
Division of Reactor Projects

Docket No. 05000416
License No. NPF-29

Enclosure:
As stated

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GRAND GULF NUCLEAR STATION – REVISED INTEGRATED INSPECTION
REPORT 05000416/2020001 – October 20, 2020

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000416
License Number:	NPF-29
Report Number:	05000416/2020001
Enterprise Identifier:	I-2020-001-0004
Licensee:	Entergy Operations, Inc.
Facility:	Grand Gulf Nuclear Station
Location:	Port Gibson, MS
Inspection Dates:	January 1, 2020 to March 31, 2020
Inspectors:	I. Anchondo-Lopez, Reactor Inspector D. Antonangeli, Health Physicist M. Chambers, Physical Security Inspector N. Greene, PhD, Senior Health Physicist J. Melfi, Project Engineer T. Steadham, Senior Resident Inspector M. Thomas, Resident Inspector C. Young, Senior Project Engineer
Approved By:	Jason W. Kozal, Chief Reactor Projects Branch C 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 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 https://www.nrc.gov/reactors/operating/oversight.html for more information. A licensee-identified non-cited violation is documented in report Section 71153.

List of Findings and Violations

Failure to Follow Procedures with an Improper Entry into a High Radiation Area			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000416/2020001-01 Open/Closed	[H.11] - Challenge the Unknown	71124.01
The inspectors reviewed a self-revealed Green finding and associated non-cited violation of Technical Specification 5.4.1 for a failure to follow procedures, which resulted in an improper entry into a high radiation area. Specifically, on March 3, 2020, a worker received a dose rate alarm after entering a high radiation area in an overhead section of the drywell without first contacting radiation protection or receiving a briefing to be aware of the actual dose rates in the area, as required by radiation protection procedures and the radiological work permit.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000416/2016009-01	Entry into Mode of Applicability with the Oscillation Power Range Monitor Upscale Settings Incorrectly Set	71153	Closed
LER	05000416/2018008-00	Unplanned System Actuation (Diesel Generator) Caused by Inadvertently Opening the Wrong Fuse Drawer	71153	Closed
LER	05000416/2017-007-01	Engineered Safety Features System Actuations due to the Loss of Engineered Safety Features Transformer 11	71153	Closed

PLANT STATUS

Grand Gulf Nuclear Station, Unit 1, began this inspection period at 95 percent reactor power. On January 3, 2020, power was lowered to 65 percent for control rod pattern improvement. The unit was returned to 98 percent power on January 8, 2020. On January 9, 2020, power was lowered to 71 percent for a rod pattern improvement. The unit returned to rated thermal power on January 10, 2020. On February 22, 2020, the unit was shut down for refueling outage 22 and remained shut down 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." From January 1 – March 19, 2020, the inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." 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.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time the resident inspectors performed periodic site visits each week and during that time conducted plant status activities as described in IMC 2515, Appendix D; and observed risk-significant activities when warranted. In addition, resident and regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In the cases where it was determined the objectives and requirements could not be performed remotely, management elected to postpone and reschedule the inspection to a later date.

REACTOR SAFETY

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) Residual heat removal pump C while in cooldown on February 27, 2020
(2) Residual heat removal A while in shutdown cooling on March 2, 2020

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

(1) The inspectors evaluated system configurations during a complete walkdown of the reactor core isolation cooling system during the Division 3 maintenance outage on January 8, 2020.

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (6 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) Emergency diesel generator building on February 27, 2020
(2) Fire water pump house on February 28, 2020
(3) Residual heat removal A pump room on March 4, 2020
(4) Reactor core isolation cooling room on March 4, 2020
(5) Division 1 standby service water pump room on March 5, 2020
(6) Residual heat removal B pump room on March 9, 2020

71111.07A - Heat Sink Performance

Annual Review (IP Section 03.01) (1 Sample)

The inspectors evaluated readiness and performance of:

(1) Division 3 emergency diesel generator jacket water heat exchanger A and B inspections and cleaning, Work Orders 52791443 and 52790008, on January 7, 2020

71111.08G - Inservice Inspection Activities (BWR)

BWR Inservice Inspection Activities Sample - Nondestructive Examination and Welding Activities (IP Section 03.01) (1 Sample)

(1) The inspectors verified that the reactor coolant system boundary, reactor vessel internals, risk-significant piping system boundaries, and containment boundary were appropriately monitored for degradation and that repairs and replacements were appropriately fabricated, examined, and accepted by reviewing the following activities from March 2–5, 2020:

03.01.a - Nondestructive Examination and Welding Activities.

1. Ultrasonic Examination

a. Weld 1B21G025W17, Feedwater System - Pipe-to-Flued Head circumferential weld
b. Weld 1B21G026W1, Feedwater System - Pipe-to-Flued Head circumferential weld

c. 1B21F028D, Feedwater System - Bolt/Stud ultrasonic inspection
d. 1B21G026W4, Feedwater System - Valve-to-Pipe circumferential weld
e. N02C-IR, Reactor Coolant System - Inlet Nozzle to Reactor Pressure Vessel Inner Radius Weld

Problem Identification and Resolution

The inspector reviewed 18 notifications that dealt with inservice inspections issues and found that items were entered into the corrective action program at the appropriate level and adequately addressed.

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (2 Samples)

(1) The inspectors observed and evaluated licensed operator performance in the control room during control rod sequence exchange on January 3, 2020.
(2) The inspectors observed and evaluated licensed operator performance in the control room during shutdown for Refueling Outage 22 on February 22, 2020.

71111.12 - Maintenance Effectiveness

Quality Control (IP Section 03.02) (2 Samples)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

(1) Reactor core isolation cooling 10-year overhaul inspection on March 6, 2020
(2) Reactor core isolation cooling maintenance rule review on March 25, 2020

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) Risk management for the Division 3 maintenance outage during the week of January 6, 2020
(2) Outage risk management during the week of March 9, 2020
(3) Risk management while residual heat removal A in shutdown cooling on March 6, 2020
(4) Foreign material exclusion risk to reactor core during fuel movement on March 5, 2020
(5) Yellow outage risk management during recirculation pump B seal replacement and control rod drive mechanism removal on March 15, 2020

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (3 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

(1) Reactor pressure and turbine control valve oscillations at 87 percent reactor power on January 24, 2019
(2) Scram discharge volume vent and drain valves 1C11F010 and 1C11F011 after failure to meet surveillance test procedure acceptance criteria on February 12, 2020
(3) Seismic qualification of jet pump plugs, Engineering Change 86247, on March 31, 2020

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

(1) New procedure issuance: Procedure 02-S-01-45, "Water Inventory Control," Revision 0, on February 28, 2020
(2) Engineering Change 85565 replacement of the Division 3 emergency diesel generator speed switch following its failure on March 31, 2020

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (2 Samples)

The inspectors evaluated the following post maintenance test activities to verify system operability and functionality:

(1) Division 3 emergency diesel generator post maintenance test following an extended maintenance outage on January 10, 2020
(2) Division 3 emergency diesel generator speed switch and mag pickup functional post maintenance test following replacement on January 20, 2020

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated outage-related activities from February 22, 2020, through March 31, 2020

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (3 Samples)

(1) Fire protection system testing on March 3, 2020

(2) Division 2 emergency core cooling system testing on March 26, 2020
(3) Containment electrical penetration local leak-rate test on March 4, 2020

Inservice Testing (IP Section 03.01) (1 Sample)

(1) Standby liquid control pump B quarterly inservice test on January 16, 2020

Containment Isolation Valve Testing (IP Section 03.01) (1 Sample)

(1) Suppression pool water level penetrations local leak-rate test on March 5, 2020

FLEX Testing (IP Section 03.02) (1 Sample)

(1) 1FLEXS010 480 V battery charger emergency diesel generator annual operational test on January 14, 2020

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated how the licensee identified the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assessed radiological hazards.

Instructions to Workers (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated radiological protection-related instructions to plant workers.

Contamination and Radioactive Material Control (IP Section 03.03) (3 Samples)

The inspectors evaluated licensee processes for monitoring and controlling contamination and radioactive material.

(1) The inspectors observed workers donning and doffing personal protection equipment at the contaminated drywell entry/exit point.
(2) The inspectors observed the actions of workers while performing tasks in the contaminated areas of the drywell during the refueling outage.
(3) The inspectors observed the radiation protection staff perform surveys of potentially contaminated material leaving the radiologically controlled area (RCA) and workers monitored via the personnel contamination monitors as they exited the RCA during the refueling outage.

Radiological Hazards Control and Work Coverage (IP Section 03.04) (5 Samples)

The inspectors evaluated in-plant radiological conditions during facility walkdowns and observation of radiological work activities.

(1) Radiation Work Permit (RWP) 2020-1502, "Drywell Coordinator, Safety and NRC Walkdowns/Tours in the Drywell"
(2) RWP 2020-1509, "General Decon Activities and Support for the Drywell"
(3) RWP 2020-1510, "Visually Inspect/Remove/Test/Replace Snubbers in RF-22"
(4) RWP 2020-1511, "General Maintenance in the Drywell During RF-22"
(5) RWP 2020-1915, "Emergent Work for Maintenance, Tours and Inspections"

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (5 Samples)

The inspectors evaluated licensee controls of the following High Radiation Areas and Very High Radiation Areas:

(1) Turbine Building Areas (87-foot level and 133-foot level)
(2) AUX Building Areas (128-foot level, 180-foot level, 208-foot level)
(3) Containment Areas (161-foot level, 170-foot level, 208-foot level)
(4) Offgas Charcoal Vault Area (93-foot level)
(5) Radwaste Building Reactor Water Cleanup Phase Separator Decay Tank Area (118-foot level)

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 03.06) (1 Sample)

(1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements.

71124.02 - Occupational ALARA Planning and Controls

Implementation of ALARA and Radiological Work Controls (IP Section 03.03) (4 Samples)

The inspectors evaluated the licensee’s communication of as low as is reasonably achievable (ALARA) and radiological work controls for the following work activities:

(1) RWP 2020-1502, "Drywell Coordinator, Safety and NRC Walkdowns/Tours in the Drywell"
(2) RWP 2020-1509, "General Decon Activities and Support for the Drywell"
(3) RWP 2020-1510, "Visually Inspect/Remove/Test/Replace Snubbers in RF-22"
(4) RWP 2020-1915, "Emergent Work for Maintenance, Tours and Inspections"

Radiation Worker Performance (IP Section 03.04) (1 Sample)

The inspectors evaluated radiation worker and radiation protection technician performance during:

(1) The inspectors evaluated the implementation of ALARA techniques for work activities during Refueling Outage 22.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

(1) January 1, 2019 - December 31, 2019

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

(1) January 1, 2019 - December 31, 2019

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

(1) January 1, 2019 - December 31, 2019

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (1 Sample)

(1) July 1, 2019 - December 31, 2019

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample (IP Section 02.16) (1 Sample)

(1) July 1, 2019 - December 31, 2019

71153 – Follow-up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (3 Samples)

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

(1) LER 05000416/2016-009-01, Entry into Mode of Applicability with the Oscillation Power Range Monitor Upscale Settings Incorrectly Set (ADAMS Accession No. ML17228A275). The inspection conclusions associated with this LER are documented in this report as a licensee-identified non-cited violation in the Inspection Results.

(2) LER 05000416/2017-007-01, Engineered Safety Features System Actuations due to the Loss of Engineered Safety Features Transformer 11 (ADAMS Accession No. ML18346A393). The inspectors determined that the licensee's cause evaluation associated with the issue identified that the licensee's procedures for conducting Tan-Delta cable testing had previously failed to include a requirement to perform cable shielding continuity testing. This performance deficiency was identified by the licensee as being associated with a possible missed opportunity to identify cable degradation prior to failure (not as being the direct cause of this event). The inspectors determined that the safety significance associated with this issue was not more than very low safety significance (Green). The testing of cables associated with an offsite power circuit was a nonsafety-related activity. The inspectors did not identify a violation of NRC requirements.

(3) LER 05000416/2018-008-00, Unplanned System Actuation (Diesel Generator) Caused by Inadvertently Opening the Wrong Fuse Drawer (ADAMS Accession No. ML18187A402). The inspection conclusions associated with this LER are documented in this report as a minor violation in the Inspection Results.

INSPECTION RESULTS

Failure to Follow Procedures with an Improper Entry into a High Radiation Area			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000416/2020001-01 Open/Closed	[H.11] - Challenge the Unknown	71124.01

The inspectors reviewed a self-revealed Green non-cited violation of Technical Specification 5.4.1 for a failure to follow procedures, which resulted in an improper entry into a high radiation area. Specifically, on March 3, 2020, a worker received a dose rate alarm after entering a high radiation area in an overhead section of the drywell without first contacting radiation protection or receiving a briefing to be aware of the actual dose rates in the area, as required by radiation protection procedures and the radiological work permit.

Description: On March 3, 2020, the licensee briefed two workers for entry into the drywell to identify some snubber components. The briefing informed the workers that they would enter a maximum general area dose rate of 20 millirem per hour on their job travel path and work area. However, one of the workers climbed into a normally inaccessible overhead piping area of the drywell to identify the serial number on a snubber, causing his self-reading dosimeter (SRD) to alarm unexpectedly. His SRD recorded a maximum dose rate of 802 millirem per hour; the dose rate alarm set-point was 300 millirem per hour. The individual was signed onto Task 1 of radiation work permit (RWP) 2020-1510. Task 1 was a high radiation area task, but the worker had not been briefed for entry into the specific overhead area within the high radiation area. Once the worker identified the alarm, the individual climbed down from the overhead area, informed his co-worker, and they both exited the RCA to contact radiation protection (RP).

The RAD Worker Instructions section of RWP 2020-1510, Task 1, included the following statements:

- Be aware of and stay away from Hot spots/pipes
- Contact RP [radiation protection] for High Radiation Area entry requirements
- Contact RP prior to work in normally inaccessible area for current radiological conditions and protective requirements

Procedure EN-RP-101, “Access Control for Radiologically Controlled Areas,” Revision 14, Section 5.4, required a brief of personnel entering high radiation areas on the radiological conditions, and access was allowed only after dose rates in the area were determined and entry personnel were made aware of them.

Procedure EN-RP-100, “Radiation Worker Expectations,” Revision 12, Section 5.3 [4], stated that “No entry to areas above seven [7] feet is permitted without prior permission from [radiation protection] RP.” The overhead piping area entered was above 7 feet from the floor level and was normally inaccessible and not typically surveyed. Also, in this procedure,

Section 5.3 [19] stated, in part, that to enter a high radiation area, the radiation worker must be briefed and sign on the appropriate RWP. Section 5.4 [1] stated, in part, "Compliance with an RWP is a legal requirement. Failure to comply could result in NRC violation."

As allowed by procedure, the overhead area the worker entered had not been surveyed or posted by RP prior to his entry, as there were no work plans for this area and it was deemed inaccessible. After the dose rate alarm, a follow-up survey identified dose rates in the overhead piping area, near the snubber, as approximately 3500 millirem per hour on contact and 800 millirem per hour at 30 cm. The RP staff then posted the overhead as an area with elevated dose rates. The licensee believes the individual utilized a nearby ladder to access the overhead area. The ladder was not posted as "Contact RP prior to working or climbing above 7 feet" or controlled, as required by licensee Procedure EN-RP-108, "Radiation Protection Posting."

Corrective Actions: The licensee assessed this issue and implemented multiple immediate corrective actions. Some of the actions taken included:

- All involved parties were interviewed and coached
- The individual was restricted from the RCA and placed in the licensee's performance management process
- The occurrence was placed in the Site Outage Status Report to inform all licensee staff of the requirements to follow RWP instructions and licensee procedures

Corrective Action References: This issue was placed into the corrective action program as Condition Report CR-GGN-2020-02586.

Performance Assessment:

Performance Deficiency: A radiation worker failed to follow procedures and made an improper entry into a high radiation area.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the program and process attribute of the Occupational Radiation Safety Cornerstone and adversely affected 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 failure to follow requirements involving radiological controls had the potential to increase the individual's dose. In addition, the inspectors reviewed NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," to inform the more-than-minor determination. Although Example 6.g was similar, there were no current examples that appropriately fit the consequences of this occurrence. The failure to follow procedural requirements and making an improper entry into the overhead area, within the high radiation area, resulted in an exposure of roughly 40 times the general area dose rates for which the individual was briefed.

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

Cross-Cutting Aspect: H.11 - Challenge the Unknown: Individuals stop when faced with uncertain conditions. Risks are evaluated and managed before proceeding. Specifically, the worker failed to stop and assess the radiological conditions he may enter prior to entering the overhead area in the drywell with elevated dose rates, resulting in a dose rate alarm. Licensee procedures require workers to adhere to RWP requirements, which required RP approval to enter the overhead area. This enables RP to establish area dose rates and controls, as overhead areas are not routinely surveyed or accessible.

Enforcement:

Violation: Technical Specification 5.4.1 requires, in part, that procedures be written, implemented, and established for those areas recommended in Regulatory Guide 1.33, Appendix A, Revision 2, 1978. Section 7(e) of this appendix requires RP procedures. Procedure EN-RP-100, "Radiation Worker Expectations," Revision 12, Section 5.3 [4], stated that no entry to areas above 7 feet was permitted without prior permission from RP.

Contrary to the above, on March 3, 2020, an individual failed to receive permission from RP prior to entering an area above 7 feet, resulting in an improper entry into a high radiation area and a dose rate alarm of 802 millirem per hour.

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 Violation	71153

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

Violation: Technical Specification 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," required Action L, requires that thermal power be reduced to less than 16.8 percent rated thermal power within 4 hours if action has not been initiated to implement the manual backup stability protection (BSP) regions defined in the Core Operating Limits Report (COLR) in accordance with required Actions J.1 and K.1 after one or more required channels of the oscillation power range monitor (OPRM) upscale function has been inoperable for longer than 12 hours.

Contrary to the above, on March 27, 2016, the licensee failed to reduce thermal power to less than 16.8 percent rated thermal power within 4 hours when action had not been initiated to implement the manual BSP regions defined in the COLR in accordance with required Actions J.1 and K.1 after one or more required channels of the OPRM upscale function had been inoperable for longer than 12 hours. Specifically, the unit was operated at or above 16.8 percent rated thermal power without the OPRM function being calibrated to the appropriate setpoints as required by technical specifications.

Significance/Severity: Green. The performance deficiency associated with this non-cited violation was determined to be more than minor because it was associated with the design control 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 (i.e., core damage). Specifically, the failure to calibrate the OPRM function to the appropriate setpoints resulted in an RPS function being in an inoperable condition while operating on a mode or condition of applicability. The finding was determined to be of very low safety significance (Green) in

accordance with Inspection Manual Chapter 0609, Appendix A, Exhibit 2.C, because the finding did not affect a single RPS trip signal to initiate a reactor scram nor the function of other redundant trips or diverse methods of reactor shutdown.

Corrective Action References: Condition Report CR-GGN-2016-08765

Minor Violation	71153

Minor Violation: On May 11, 2018, while performing the Division 1 emergency diesel generator functional test portion of Division 1 loss of power (LOP)/loss of coolant accident (LOCA) surveillance testing with the plant in Mode 5, a maintenance technician inadvertently opened the incorrect fuse drawer associated with the 15AA (Division 1) safety electrical bus. This action resulted in an undervoltage condition on the 15AA bus and an unplanned automatic start of the Division 1 emergency diesel generator. Neither the Division 1 emergency diesel generator nor the associated Division 1 standby service water subsystem were required to be operable in this mode of operation. This issue was entered into the licensee's corrective action program as Condition Report CR-GGN-2018-05485.

Technical Specification 5.4.1.a requires that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Section 8.b of Appendix A to Regulatory Guide 1.33 requires implementing procedures for each surveillance test listed in the technical specifications. The licensee established Procedure 06-OP-1P75-R-0003, Attachment IV, "SDG 11, Functional Test – Test No. 6 – Div 1 LOP/LOCA Test," Revision 138, to meet the Regulatory Guide 1.33 requirement. Step 5.8.15 of this procedure stated to "RACK OUT line PT for Bus 15AA feeder Breaker 152-1514 ESF 11 PT, in front of Cubicle M2 of Bus 15AA."

Contrary to the above, on May 11, 2018, the licensee failed to rack out line potential transformer (PT) for bus 15AA feeder breaker 152-1514 ESF 11 PT, in front of Cubicle M2 of bus 15AA. Specifically, a maintenance technician opened the fuse drawer for the bus 15AA PT fuse instead of the line PT fuse drawer.

Screening: The inspectors determined the performance deficiency was minor because it could not be reasonably viewed as a precursor to a significant event; if left uncorrected, it would not have the potential to lead to a more significant safety concern; and it did not adversely affect the associated cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the issue was determined to be similar to Example 4.b of Inspection Manual Chapter 0612, Appendix E.

Enforcement: The licensee has taken actions to restore compliance. This failure to comply with Technical Specification 5.4 constitutes a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

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

- On March 5, 2020, the inspectors presented the inservice inspection results to Mr. E. Larson, Site Vice President, and other members of the licensee staff.

- On March 5, 2020, the inspectors presented the radiation safety inspection results to Mr. E. Larson, Site Vice President, and other members of the licensee staff.
- On April 7, 2020, the inspectors presented the integrated inspection results to Mr. E. Larson, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Corrective Action Documents	CR-GGN-	2018-06005, 2018-06546, 2018-06784, 2018-09566	
	Drawings	E-0740-005	Motor Operated Valves Wiring Diagrams	5
		E-1185-002	Reactor Core Isolation Cooling System RCIC Injection Shutoff MOV F013-A	10
		KA762E421D	Process Diagram Reactor Core Isolation Cooling System	A
		M-1065	P&I Diagram Condensate & Refueling Water Storage & Transfer System Unit 1	53
		M-1083A	P&I Diagram Reactor Core Isolation Cooling System - Unit 1	43
		M-1083B	P&I Diagram Reactor Core Isolation Cooling System - Unit 1	41
		M-1086	High Pressure Core Spray System Unit 1	35
	Engineering Changes	EC-GGN-0000079071	Admin Change to Update Drawing E0740-005	0
	Miscellaneous		Clearance 1C22-1 Tagout E22-006-1E22C001	
			GGNS UFSAR Chapters 4, 5, 6	
		ES-18	Motor Operated Valve - Wiring and Limit Switch Control	4
	Procedures	04-1-01-E51-1	Reactor Core Isolation Cooling System	142
		04-1-01-P81-1	High Pressure Core Spray Diesel Generator	81
		SDC-E51	Reactor Core Isolation Cooling System	3
	Work Orders	WO	00503748, 00507876	
71111.05	Corrective Action Documents	CR-GGN-	2020-02580	
	Drawings	E1809	Smoke Detector SP65N6251 RHR A 93 ft West	
	Fire Plans	A-04	Fire Pre-Plan	2
71111.07A	Corrective Action Documents	CR-GGN-	2020-0119, 2020-0123, 2020-0124, 2020-0125, 2020-0138	
	Drawings	M-1061B	P&I Diagram Standby Service Water System Unit 1	53
	Miscellaneous	AECM-90/0007	Grand Gulf Nuclear Station Response to Generic Letter 89-13	
		CCE 2006-0002	Generic Letter 89-13 Commitment Change	
	Procedures	EN-DC-316	Heat Exchanger Performance and Condition Monitoring	11
		EN-DC-340	Microbiologically Influenced Corrosion (MIC) Monitoring	5

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Program	
		EN-EP-S-039-G	Testing Standard for Safety Related Heat Exchangers Cooled by Standby Service Water	2
	Work Orders	WO	52790008, 52791443	
71111.08G	Corrective Action Documents	CR-GGN-	2018-00329, 2018-01546, 2018-02542, 2018-03080, 2018-03129, 2018-03984, 2018-05620, 2018-05668, 2018-06215, 2019-00266, 2019-01400, 2019-02395, 2019-03087, 2019-09428, 2019-10463, 2020-02183, 2020-02270,	
	Corrective Action Documents Resulting from Inspection	CR-GGN-	2020-02578, 2020-02602	
	Drawings	767E977	Recirc Loop Piping	2
		FW-11-07	Feedwater WTR Loop B	10
		HL-1328J	Feedwater CTMT to Reactor Pressure Vessel - Unit 1	6
		RR-11-06	Recirc Loop A	10
		RR-11-11	Recirc Loop B	10
		RR-11-4	Recirc Loop A	10
	Miscellaneous	SEP-ISI-GGN-001	Program Section for ASME Section XI, Division 1 GGNS Inservice Inspection Program	10
	Procedures	CEP-NDE-0404	Manual Ultrasonic Examination of Ferritic Piping Welds (Section XI)	8
		CEP-NDE-0407	Straight Beam Ultrasonic Examination of Bolts and Studs (ASME XI)	6
		CEP-NDE-0423	Manual Ultrasonic Examination of Austenitic Piping Welds (ASME XI)	8
		CEP-NDE-0903	VT-3 Examination	6
		WDI-STD-006	Manual Ultrasonic Procedure for Examination of Nozzle Inner Corner Radius Areas in Accordance with ASME Section XI, Including Appendix VIII	10
		WDI-STD-1107	Generic Procedure for the Manual Ultrasonic Examination of Reactor Pressure Vessel Welds in Accordance with PDI-UT-6	3
71111.11Q	Procedures	EN-RE-215	Reactivity Maneuver Plan	7

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.12	Miscellaneous		CR-GGN-2017-12314 MRFF	
			CR-GGN-2019-1476 MRFF Evaluation	
			CR-GGN-2019-1597 MRFF Evaluation	
	Procedures	EN-DC-203	Maintenance Rule Program	4
		EN-DC-204	Maintenance Rule Scope and Basis	4
		EN-DC-205	Maintenance Rule Monitoring	7
	Work Orders	WO	82842039-01	
71111.13	Corrective Action Documents	CR-GGN-	2020-02571, 2020-02611	
	Procedures	01-S-18-6	Risk Assessment of Maintenance Activities	21
		EN-OP-119	Protected Equipment Postings	12
71111.15	Calculations	C-EC86247-N1F14E021-8.0-001	Structural/Seismic Analysis for the LaSalle Jet Pump Plug	0
	Corrective Action Documents	CR-GGN-	2020-00076, 2020-00901	
	Engineering Changes	EC-86427	Seismic Qualification of Jet Pump Plugs	0
	Procedures	07-1-34-B13-D006-3	Jet Pump Plug Installation and Removal	1
	Work Orders	WO	00530093	
71111.18	Engineering Changes	EC 85565	Replace 1P81K001 Div III EDG Speedswitch (SSA-1)	0
	Miscellaneous		IEE-344 - 2013	
		00200225	Procurement Engineering Evaluation	
		E100.0	Technical Specification for Environmental Safety Related Parameter	8
	Procedures	02-S-01-45	Water Inventory Control	0
		EN-DC-115	Engineering Change Process	27
	Work Orders	WO	00537942	
71111.19	Procedures	06-OP-1P81-M-0002	HPCS Diesel Generator 13 Functional Test	136
	Work Orders	WO	00537942-04, 52856327-04	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.20	Drawings	M-0002	General Arrangement Plan at EL. 113'-0", 111'-0", 119'-0", 120'-10", & 114'-6", Units 1 & 2	5
		M-0003	General Arrangement Plan at EL. 133'-0", 148'-0", 139'-0", 135'-4", & 147'-7"	6
		M-0004	General Arrangement Plan at EL. 166'-0", 161'-10", & 170'-0"	7
71111.22	Drawings	M-1082	P&I Diagram Standby Liquid Control System Unit 1	29
	Miscellaneous	Attachment 4	Suppression Pool Level Instrument 1E30-LT-N003B	
	Procedures	04-1-05-E50-1 R3	Suppression Pool Water Level Penetrations	
		04-1-05-M61-2, Att 1	LLRT Alignment Instructions for Electrical Penetrations	0
		04-1-07-E30-1 R27	Suppression Pool Makeup System	
		06-OP-1C41-Q-0001	Standby Liquid Control Functional Test	131
		06-OP-1M61-V-0002, Att I	Using Graftel Model 9623-7 Leak Rate Monitor	13
		EN-WM-105	FLEX Portable Diesel Generator 1FLEXS010	06/21/2011
		O4-S-03-P64-20	Transformer Deluge Functional and Full Flow Test	6
	Work Orders	WO	509598-03, 52782437-01, 52842248-01, 52842631-01, 52872563, 5291252-01	
71124.01	Corrective Action Documents	CR-GGN-	2019-06666; 2019-07844; 2019-07852; 2019-07933; 2019-08263; 2019-08334; 2019-08335; 2019-08336; 2019-09421; 2019-09535; 2020-01891; 2020-02586; 2020-02676; 2020-02688	
	Miscellaneous		Non-Nuclear Material Inventory	02/11/2020
		GIN-2020-00005	2020 National Source Tracking System Reconciliation for NRC License NPF-29	01/08/2020
		WO 52881814	Leak Test of Sealed Sources	11/21/2019
	Procedures	EN-RP-100	Radiation Worker Expectations	12
		EN-RP-101	Access Control for Radiologically Controlled Areas	15
		EN-RP-102	Conduct of Radiation Protection	5
		EN-RP-106	Radiological Survey Documentation	7
		EN-RP-108	Radiation Protection Posting	22
		EN-RP-121	Radioactive Material Control	16

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		EN-RP-131	Air Sampling	17
		EN-RP-143	Source Control	14
	Radiation Surveys	Air Sampling (GGN-AS-)	010520-0017, 112019-0261, 112019-0262, 120419-0333, 122619-0421,	
		GGN-1912-00010	133' Turbine Building Truck Bay	12/01/2019
		GGN-2002-00931	139' AUX Steam Tunnel Lower Level	02/27/2020
		GGN-2002-00980	114' Drywell Entire Elevation	02/28/2020
		GGN-2002-01052	147' Drywell	02/29/2020
		GGN-2003-00091	161' Drywell Entire Elevation	03/01/2020
		GGN-2003-00213	147' Drywell Post-Alarm Survey	03/03/2020
		GGN-2003-00253	139' AUX Steam Tunnel Lower Level	03/03/2020
	Radiation Work Permits (RWPs)	2020-1502	Drywell Coordinator, Safety and NRC Walkdowns / Tours in the Drywell	0
		2020-1509	General Decon Activities and Support for the Drywell	0
		2020-1510	Visually Inspect/Remove/Test/Replace Snubbers in RF-22	0
		2020-1915	Emergent Work for Maintenance, Tours, and Inspections (Normal and Low Risk Only)	0
	Self-Assessments	LO-GLO-2020-00005	Pre-NRC Radiological Hazard Assessment and Exposure Controls (71124.01)	01/24/2020
71124.02	Corrective Action Documents	CR-GGN-	2019-03675, 2019-04131, 2019-10146, 2019-10399	
	Miscellaneous		RF-21 Lessons Learned	02/06/2020
		LO-GLO-2018-00176	Pre-NRC Inspection: Occupational ALARA Planning and Controls Assessment (IP 71124.02)	12/03/2019
	Procedures	EN-FAP-RP-013	Radiation Protection Outage Preparation and Execution	0
		EN-RP-105	Radiological Work Permits	19
		EN-RP-110	ALARA Program	14
		EN-RP-110-03	Collective Radiation Exposure (CRE) Reduction Guidelines	4
		EN-RP-110-06	Outage Dose Estimating and Tracking	1
	Radiation Work Permits (RWPs)	2020-1502	Drywell Coordinator, Safety and NRC Walkdowns/Tours in the Drywell	0
		2020-1509	General Decon Activities and Support for the Drywell	0
		2020-1510	Visually Inspect/Remove/Test/Replace Snubbers in RF-22	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2020-1915	Emergent Work for Maintenance, Tours, and Inspections (Normal and Low Risk Only)	0
71153	Corrective Action Documents	CR-GGN-	2016-08765, 2017-12299, 2017-12314, 2018-05485	
	Procedures	06-IC-1C51-R-0077A	Average Power Range Monitor Calibration Channel A	100
		06-OP-1P75-R-0003, Attachment IV	SDG 11, Functional Test – Test No. 6 – Div 1 LOP/LOCA Test	138
		EN-DC-159	System and Component Monitoring	9
		EN-DC-205	Maintenance Rule Monitoring	7
		EN-DC-310	Predictive Maintenance Program	8
		EN-DC-324	Preventive Maintenance Program	18
		EN-DC-335	PM Basis Template	8
		EN-DC-346	Cable Reliability Program	6
		EN-MA-138	VLF Tan Delta and Withstand Testing Of Electrical Power Cables	4
	Work Orders	WO	0033200501, 0033200601	