



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

August 10, 2021

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 – INTEGRATED INSPECTION
REPORT 05000416/2021002**

Dear Mr. Franssen:

On June 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Grand Gulf Nuclear Station. On July 15, 2021, the NRC inspectors discussed the results of this inspection with Mr. B. Wertz, General Manager, Plant Operations, and other members of your staff. The results of this inspection are documented in the enclosed report.

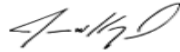
One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violation or the significance of the violation 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 <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,



Signed by Kozal, Jason
on 08/09/21

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

Docket No. 05000416
License No. NPF-29

Enclosure:
As stated

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GRAND GULF NUCLEAR STATION – INTEGRATED INSPECTION
 REPORT 05000416/2021002 – DATED AUGUST 10, 2021

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 05000416

License Number: NPF-29

Report Number: 05000416/2021002

Enterprise Identifier: I-2021-002-0035

Licensee: Entergy Operations, Inc.

Facility: Grand Gulf Nuclear Station

Location: Port Gibson, MS

Inspection Dates: April 1, 2021, to June 30, 2021

Inspectors: R. Kumana, Senior Resident Inspector
J. Mateychick, Senior Reactor Inspector
J. O'Donnell, Senior Health Physicist
D. Reinert, Reactor Inspector
E. Simpson, Health Physicist
T. Steadham, Senior Resident Inspector
F. Thomas, Reactor Inspector
M. Thomas, Resident Inspector
R. Alexander, Senior Emergency Preparedness Inspector
S. Hedger, Emergency Preparedness Inspector

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.

List of Findings and Violations

Inappropriate Use of Scaling Factor Applied to Standby Service Water Flow Balance Results			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2021002-01 Open/Closed	[H.3] - Change Management	71111.17T
The inspectors identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” involving the licensee’s failure to verify the adequacy of design of the safety-related standby service water system. Specifically, the licensee inappropriately credited a scaling factor to compare tested heat exchanger flows to calculated acceptance criteria.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000416/2019-003-01	Secondary Containment Personnel Door Failure Due to Broken Hinges	71153	Closed
LER	05000416/2019-006-01	Failure to Meet Technical Specification 5.5.7 for B Train Standby Gas Charcoal Filter Media Efficiency	71153	Closed
LER	05000416/2020-001-00	Residual Heat Removal System Inadvertent Actuation Due to Human Error	71153	Closed

PLANT STATUS

Grand Gulf Nuclear Station, Unit 1, began the inspection period at rated thermal power. On April 20, 2021, the unit was shut down for Planned Outage 23-01 to repair a condenser tube leak. On May 1, 2021, the unit was restarted and reached rated thermal power on May 3, 2021. The unit remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

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 and regional 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, increasing the amount of time on site as local COVID-19 conditions permitted. As part of their onsite activities, resident inspectors conducted plant status activities as described in IMC 2515, Appendix D; observed risk-significant activities; and completed on site portions of IPs. 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 some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

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

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal high temperatures for the following systems:
 - 500 kV switchyard equipment
 - 34.5 kV switchyard equipment
 - Emergency diesel generators

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

- (1) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems from impending severe weather from tropical disturbance number 4 on June 19, 2021.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (3 Samples)

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

- (1) Standby service water train A while the standby service water train B was unavailable on April 7, 2021
- (2) Residual heat removal system A while the residual heat removal system B was out of service on April 8, 2021
- (3) High-pressure core spray while reactor core isolation cooling was out of service on May 28, 2021

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 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) Condensate storage tank/refueling water storage tank pit and yard area on April 6, 2021
- (2) Upper control room on April 16, 2021
- (3) Standby diesel generator breezeway on May 13, 2021
- (4) Main control room on June 4, 2021

71111.06 - Flood Protection Measures

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

The inspectors evaluated internal flooding mitigation protections in the:

- (1) Residual heat removal pump B room following a maintenance outage on April 30, 2021

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 Planned Outage 23-01 shutdown activities on April 20, 2021.
- (2) The inspectors observed and evaluated licensed operator performance in the control room during Planned Outage 23-01 startup activities on May 2, 2021.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples)

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

- (1) Division 2 emergency diesel generator low lube oil pressure caused by missing rocker arm shaft plugs on May 20, 2021
- (2) Residual heat removal B after exceeding its allowed maintenance rule unavailability hours on June 7, 2021

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (4 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) Yellow risk for maintenance activities during the week of April 6, 2021
- (2) Yellow shutdown risk during planned outage on April 30, 2021
- (3) Yellow risk during the week of May 11, 2021, when Division 2 diesel was tagged out for maintenance
- (4) Yellow risk while Division 1 standby service water was out of service on June 10, 2021

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (5 Samples)

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

- (1) Condition Report CR-GGNS-2021-02394, reactor core isolation cooling turbine lube oil contains a high water content on April 26, 2021
- (2) Condition Report CR-GGNS-2021-02713, operability evaluation for degraded standby service water A pipe supports on April 30, 2021
- (3) Condition Report CR-GGNS-2021-02018, Division 2 emergency diesel generator low lube oil pressures on May 17, 2021
- (4) Condition Report CR-GGNS-2021-04084, reactor protection system (with failed turbine control valve accumulator bladders) operability on June 10, 2021
- (5) Condition Report CR-GGNS-2021-04471, reactor core isolation cooling steam admission valve limit switch out of spec on June 10, 2021

71111.17T - Evaluations of Changes, Tests, and Experiments

Sample Selection (IP Section 02.01) (41 Samples)

The inspectors reviewed the following evaluations, screenings, and/or applicability determinations for 10 CFR 50.59 from May 17, 2021, to May 21, 2021.

- (1) Engineering Change EC-89233, Evaluate Change of Capillary Fill Fluid from Distilled Water to PMX-200 for 1P41N004A SSW Basin Level Transmitter, Revision 0 (Screening)
- (2) Engineering Change EC-89113, Engineering to Provide Input and Determination of Seismic Qualification Applicability for Standby Gas Treatment RCS Damper Actuator Capacitors, Revision 0 (Screening)
- (3) Engineering Change EC-88589, Structural Review for the Spent Fuel Pool Berm Resulting from the Installation of a Simplified Channel Dimensional Measurement System, Revision 0 (Screening)
- (4) Engineering Change EC-88009, Install Sight Glass 1E12D006B for RHR B Venting Downstream of Vent Valves, Revision 0 (Screening)
- (5) Engineering Change EC-87450, Remove Division 2 Emergency Diesel Generator (EDG) Vibration Trip Switches and Cap/Plug Associated Tubing, Revision 0 (Screening)
- (6) Engineering Change EC-85678, Update EQDP-EQ34.2 and GGNS-NE-11-00001 to Update Beta Dose Analysis, Revision 0 (Screening)
- (7) Engineering Change EC-85364, Update UFSAR from Results of 2019 Offsite Grid Studies per ENS-DC-199, Revision 0 (Screening)
- (8) Engineering Change EC-83903, Equivalency for 1P81D015A/B Fuel Oil Strainers CR-GGNS-2019-06400, Revision 0 (Screening)
- (9) Engineering Change EC-82026, Update SSW Design Basis Calculations, Revision 0 (Screening)
- (10) Engineering Evaluation 2018-002-00, Cycle 22 Core Operating Limits Report (Evaluation)
- (11) Engineering Evaluation 2018-003-00, Cycle 22 Fuel Reload/COLR, Revision 1 (Evaluation)
- (12) Engineering Evaluation 2020-002-00, Cycle 23 Fuel Reload/COLR (Evaluation)
- (13) Engineering Change EC-52551, Removal of the Following Motor Control Centers from the EQ Program: 15B11, 15B21, 16B11 AND 16B41, Revision 0 (Screening)
- (14) Engineering Change EC-74325, General Electric QCR305C002 Contactor Seismic Qualification and Equivalency Evaluation, Revision 0 (Screening)
- (15) Engineering Change EC-75750, Use of Spare Contactor for Breaker 52-125203, Revision 0 (Screening)
- (16) Engineering Change EC-79428, Design Equivalent Change MCC Breaker 52-152142, Revision 0 (Screening)
- (17) Engineering Change EC-84298, Replacement of Transformer BOP 13 Feeder Cables, Revision 0 (Screening)
- (18) Engineering Change EC-85658, RF22 Temporary Power for the Flush/Hydrotest Skid from LCC 12BE1 Disconnect Switch 89-12105, Revision 0 (Screening)
- (19) Engineering Change EC-86928, Replace 1N43N039 Hartman and Braun 15220 Transmitter with an Equivalent Rosemount 1151 Pressure Transmitter, Revision 0 (Screening)
- (20) Engineering Change EC-88331, Remove Klockner-Moeller MCC Components Installed in Spare Buckets, Revision 0 (Screening)
- (21) Engineering Evaluation 2019-006-00, Circulating Water Pump Motor Digital Relay Upgrade (Evaluation)
- (22) Engineering Evaluation 2019-004-00, Condensate Pump and Condensate Booster Pump Low Flow Trip (Evaluation)
- (23) Engineering Evaluation 2020-003-00, Disable the Turbine Trip due to Turbine Thrust Wear Bearing (Evaluation)

- (24) Engineering Change 74055, Revise Engineering Report GGNS-NE-16-00004, for Incorrect SLC Initiation Temperature for the Suppression Pool for CR-GGNS-2017-8784, CR-GGNS-2019-01582, and EN-SA-G-001 (Screening)
- (25) Engineering Change 87667, Buried Pipe Excavation and Backfill for Inspection of CO2 Pipe from the CO2 Storage Tank 10' of Exposed Piping Required to Determine the Coating Integrity (License Renewal) (Screening)
- (26) Engineering Change 79003, Installation of In-Line Feedwater Debris Strainers (FWDS) (Evaluation)
- (27) Engineering Change 86535, Fitness for Service Evaluation for Condensate Storage Tank CR-GGNS-2020-02244 and CR-GGNS-2020-02272 (Screening)
- (28) Engineering Change 86851, Appendix R Update to Address Non-Cited Violations from the 2017 NRC Triennial Fire Protection Inspection (Screening)
- (29) Engineering Change 84955, Update Jet Pump Flaw Handbook, LPCI Coupling Handbook and Core Spray Handbook for Safety Communications SC09-03, Revision 1, SC11-07, SC12-20, SC13-08, and SC14-02
- (30) Engineering Change 87826, Update Jet Pump Flaw Handbook for CR-GGNS-2020-07485 and CR-GGNS-2020-04517, CA-22 for Structural Integrity Corrective Action Report 20-016 (Screening)
- (31) Engineering Change 82588, Child EC Elimination of Single Point Vulnerabilities Associated with Reactor Recirculation Pumps - A (Screening)
- (32) Engineering Change 83384, SGTS "A" Power Monitoring Modification (Child EC to EC 77973)
- (33) Engineering Change 77973, Standby Gas Treatment System Loss of Power Detection
- (34) Engineering Evaluation 2019-003-00, Standby Gas Treatment System Loss of Power Detection (Evaluation)
- (35) Engineering Evaluation 2018-004-00, Compensatory Actions for Sand Bagging Control Building, Diesel Generator, and SSW Pumphouse Doors for CR-GGNS-2018-04101, CA-1 (Evaluation)
- (36) Engineering Evaluation 2019-005-00, Reactor Feed Pump Low Suction Trip Hardening / EC 81856 (Evaluation)
- (37) Process Applicability Determination Form for Procedure 05-1-02-I-4, Loss of ESF AC Power / Loss of Offsite power / Station Blackout, Revision 54 (Screening)
- (38) Process Applicability Determination Form for Procedure 05-1-02-V-19, Loss of 125 Vdc Power, Revision 2 (Screening)
- (39) Process Applicability Determination Form for Procedure 05-1-02-V-21, Reactor Pressure Control Malfunctions (Screening)
- (40) Process Applicability Determination Form for Procedure 05-1-02-I-1, Reactor Scram (Screening)
- (41) Process Applicability Determination Form for Procedure 05-1-02II-I-1, Inadequate Decay Heat Removal (Screening)

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Engineering Change EC-83472, emergency diesel generator 1 and 2 sub-cover replacement on May 19, 2021

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (5 Samples)

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

- (1) Work Order 52927076, residual heat removal B pump test following a maintenance outage on April 29, 2021
- (2) Work Order 559460, reactor core isolation cooling steam admission valve repair/replacement on May 5, 2021
- (3) Work Order 559490, replace oil in reactor core isolation cooling turbine on May 14, 2021
- (4) Work Order 52962554, Division 2 emergency diesel generator post-maintenance test following rocker arm plug replacement on May 20, 2021
- (5) Work Order 532908, inspect and replace reactor core isolation cooling room cooler belts on June 24, 2021

71111.20 - Refueling and Other Outage Activities

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

- (1) The inspectors evaluated Planned Outage 23-01 activities from April 20, 2021, to May 2, 2021.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

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

- (1) Work Order 52901053, Division 2 standby diesel generator test on April 26, 2021
- (2) Work Orders 52969847 and 52969851, neutron monitoring functional surveillance prior to startup on May 3, 2021
- (3) Work Order 52960058, control rod scram time testing on May 5, 2021
- (4) Procedure 06-OP-1000-D-0001, daily unidentified leakage surveillance review on May 20, 2021

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) Work Order 52848945, standby diesel generator 12 fuel oil check valve in-service radiography test on May 7, 2021

71114.01 - Exercise Evaluation

Inspection Review (IP Section 02.01-02.11) (1 Sample)

- (1) The inspectors evaluated the biennial emergency plan exercise conducted on March 16 and 17, 2021. The exercise scenario simulated a turbine trip resulting in a high power anticipated transient without a reactor scram, a recirculation line break in the drywell with reactor water cleanup failing to isolate, a subsequent reactor core

isolation cooling system line break, failure of the standby gas treatment system resulting in a release to the environment, and demonstration of extensive damage mitigation strategies consistent with 10 CFR 50.155(b)(2). The licensee completed its critique process for the exercise on April 1, 2021, and the inspectors subsequently evaluated the effectiveness of the critique process to identify performance weaknesses and deficiencies to ensure they were entered into the corrective action program for resolution.

This documents completion of this inspection sample which was documented as a partial sample in Inspection Report 05000416/2021001 (ADAMS Accession No. ML21123A300).

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the following recent changes and evaluations associated with the Emergency Plan/Emergency Action Levels, as implemented by the licensee's 10 CFR 50.54(q) emergency plan change process:
 - EP Compensatory Action 21-001, SU5.1 Amplifying Information (dated 1/8/2021 and 1/17/2021)
 - Evaluation of Emergency Response Readiness During the Public Health Emergency (CR-GGNS-2020-12193, dated 1/26/2021)
 - Relocation of the Joint Information Center (dated 1/30/2021)

These evaluations and reviews do not constitute NRC approval.

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 identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assesses radiological hazards.

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

The inspectors evaluated instructions to workers including radiation work permits (RWP) used to access high radiation areas.

- (1) The inspectors reviewed the following:

Radiation Work Packages

- RWP 2021-1006, "Radwaste Shipping and Processing," Revision 1
- RWP 2021-1056, "Radwaste Shipping and Processing of the Condensate Purification System and Reactor Water Cleanup Liners," Revision 0

Electronic Alarming Dosimeter Alarms

- One dose rate alarm – a worker received an unanticipated dose rate alarm of 803 mrem per hour on a radiation work permit set-point of 300 mrem per hour while working in 147-foot elevation of the reactor drywell. Dose appeared to have been a result of self-reading dosimeter malfunction (CR-GGNS-2020-02586)
- One dose rate alarm – a worker received an unanticipated dose rate alarm of 521 mrem per hour on a RWP set-point of 500 mrem per hour while on the 161-foot elevation of the containment reactor water cleanup backwash recovery tank room (CR-GGNS-2020-02676)
- One accumulated dose alarm – an engineer received an accumulated dose alarm of 15 mrem on a RWP set-point of 15 mrem while retrieving foreign material from inside condenser A (CR-GGNS-2020-05075)
- One dose rate alarm – a worker received an unanticipated dose rate alarm of 126 mrem per hour on a RWP set-point of 100 mrem per hour while on the 113-foot elevation turbine building while shutting down a condenser leak detection device (CR-GGNS-2020-01273)

Pre-Job Briefings and Labeling of Containers

- Pre-job briefing for Work Order 504862-01, "Load Cask/Set Up Liner in Dewatering Area – 136-foot elevation Radwaste," RWP 2021-1056
- Pre-job briefing for Work Order 00533956-02, "1D21N048C: Replace In-Containment Radiation Detector;" RWP 2021-1006
- Auxiliary building 185-foot elevation, one tagged yellow bag of dry active waste, local power range monitor cables, cold ends
- Radwaste building 136-foot elevation, used cesium-137 source stored in one tagged pink bag

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) Observed a receipt survey and transport vehicle release for a Type A shipment under RWP 2021-1006, "Radwaste Shipping and Processing"
- (2) Observed licensee conduct surveys of potentially contaminated packages/equipment from the radiologically controlled area for release offsite under RWP 2021-1056, "Radwaste Shipping and Processing of CPS and RWCU Liners"
- (3) Evaluated the licensee's physical and programmatic controls for highly activated and contaminated nonfuel materials stored within the spent fuel pool

Radiological Hazards Control and Work Coverage (IP Section 03.04) (2 Samples)

The inspectors evaluated in-plant radiological conditions during facility walkdowns and observation of radiological work activities, to include those with airborne radioactivity of the potential for airborne radioactivity, for the following:

- (1) Placement of the reactor water cleanup B filter material liner into low specific activity transportation cask for shipment, Work Order 00504862-01, "Load Cask/Set Up Liner in Dewatering Area – 136' Elevation Radwaste"
- (2) Receipt inspection of a radioactive source from Palisades, Work Order 533956-02, "1D21N048C: (RP Support) Obtain Source from Palisades"

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (4 Samples)

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

- (1) Grand Gulf preheater and recombiner B, 93-foot elevation, Room 1T110, Door 1T108
- (2) Grand Gulf condenser retubing area, 87-foot elevation, Room 1T101, Door 1T103
- (3) Grand Gulf tunnel room/pipe chase, 87-foot elevation, Room 1T107, Door 1T122
- (4) Grand Gulf radwaste building, 136-foot elevation, reverse osmosis skid room, Door OR317

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.

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

Permanent Ventilation Systems (IP Section 03.01) (1 Sample)

The inspectors evaluated the configuration of the following permanently installed ventilation systems:

- (1) Unit 1 control room standby fresh air system (Z51)

Temporary Ventilation Systems (IP Section 03.02) (1 Sample)

The inspectors evaluated the configuration of the following temporary ventilation systems:

- (1) Unit 1 hot machine shop - decontamination room HEPA system

Use of Respiratory Protection Devices (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated the licensee's use of respiratory protection devices.

Self-Contained Breathing Apparatus for Emergency Use (IP Section 03.04) (1 Sample)

- (1) The inspectors evaluated the licensee's use and maintenance of self-contained breathing apparatuses.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 03.02) (1 Sample)

- (1) April 1, 2020, through March 31, 2021

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 03.03) (1 Sample)

- (1) April 1, 2020, through March 31, 2021

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 03.04) (1 Sample)

- (1) April 1, 2020, through March 31, 2021

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 03.15) (1 Sample)

- (1) January 1, 2020, through March 31, 2021

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample (IP Section 03.16) (1 Sample)

- (1) January 1, 2020, through March 31, 2021

71152 - Problem Identification and Resolution

Semiannual Trend Review (IP Section 02.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program for potential adverse trends in negative behaviors in operations that might be indicative of a more significant safety issue.

Annual Follow-up of Selected Issues (IP Section 02.03) (3 Samples)

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

- (1) Condition Report CR-GGNS-2020-08262, the inspectors questioned accuracy of unidentified leakage reading on May 20, 2021
- (2) Condition Report CR-GGNS-2021-02018, Division 2 emergency diesel generator rocker shaft plugs not installed on May 24, 2021
- (3) Condition Report CR-GGNS-2020-11193, minor violation for failing to correct a condition adverse to quality in the high-pressure core spray pump room on June 22, 2021

71153 - Followup 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 05000416/2019-003-01, Secondary Containment Personnel Door Failure Due to Broken Hinges (ADAMS Accession No. ML20064F750). The inspectors determined that it was not reasonable to foresee or correct the cause discussed in the LER; therefore, no performance deficiency was identified. The inspectors did not identify a violation of NRC requirements.
- (2) LER 05000416/2019-006-01, Failure to Meet Technical Specification 5.5.7 for B Train Standby Gas Treatment Charcoal Filter Media Efficiency (ADAMS Accession No. ML21049A273). The inspectors determined that the issues described in this LER were appropriately dispositioned as NCV 05000416/2019004-05 (ADAMS Accession No. ML20044F733) and NCV 05000416/2020002-03 (ADAMS Accession No. ML20219A414). No additional performance deficiencies or violations were identified as a result of this review.
- (3) LER 05000416/2020-001-00, Residual Heat Removal System Inadvertent Actuation Due to Human Error (ADAMS Accession No. ML20167A150). The inspectors determined that the issues described in this LER were appropriately dispositioned as NCV 05000416/2020002-04 (ADAMS Accession No. ML20219A414). No additional performance deficiencies or violations were identified as a result of this review.

INSPECTION RESULTS

Inappropriate Use of Scaling Factor Applied to Standby Service Water Flow Balance Results			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2021002-01 Open/Closed	[H.3] - Change Management	71111.17T
<p>The inspectors identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," involving the licensee's failure to verify the adequacy of design of the safety-related standby service water system. Specifically, the licensee inappropriately credited a scaling factor to compare tested heat exchanger flows to calculated acceptance criteria.</p> <p><u>Description:</u> The inspectors reviewed Engineering Change 82026. The purpose of the change was to update several calculations involving the standby service water (SSW) system to more accurately represent the SSW flow conditions. Safety-related Calculation MC-Q1P41-97020, "Determination of Minimum Allowable SSW Flows (LOCA Lineup) to Safety Related Heat Exchangers" was revised to document and reference the basis for the SSW component design flows. When reviewing the revised calculation, the licensee noted that the minimum required flow values for several components served by the SSW system had increased. The licensee updated their flow rate testing procedures to incorporate the higher minimum flow rate acceptance criteria.</p> <p>The inspectors reviewed the licensee's Process Applicability Determination (PAD) for Engineering Change 82026, dated August 20, 2019. The PAD discussed that the most recent as-left tested flow rates to six heat exchangers did not meet the new acceptance criteria. The licensee justified that this was acceptable because the previous flow balance</p>			

tests were performed below the maximum SSW basin level and that the tested heat exchanger flows would require scaling to ensure that the values being compared were consistent with the calculated criteria. The licensee then concluded that the “scaled” tested flows exceeded the new minimum acceptance criteria.

The inspectors reviewed the SSW system flow balance testing records from the previous flow balance tests conducted for the A and B SSW trains, conducted in 2018 and 2016 respectively. The inspectors identified that both flow balance tests had been conducted with the SSW basin levels at the same elevation as was assumed in the design calculation. Thus, there was no reason the tested flow values documented in the August 20, 2019, PAD should have needed scaling to equate to the calculated acceptance criteria.

Corrective Actions: The inspectors reviewed the most recent SSW flow balance test results from April 2020 and noted that although the as-found flow values for multiple heat exchangers did not meet the minimum acceptance criteria, the licensee had made adjustments to throttle valve positions as the time of the tests, and had re-measured the flow rates to ensure that the as-left values met the current acceptance criteria. The licensee also initiated Condition Report CR-GGNS-2021-04199 to remove the inappropriate scaling factor from the flow balance test procedures.

Corrective Action References: CR-GGNS-2021-04041 and CR-GGNS-2021-04199

Performance Assessment:

Performance Deficiency: The failure to verify the adequacy of design of the SSW system by ensuring that flow rates to heat exchangers meet minimum design basis acceptance criteria is a performance deficiency.

Screening: The inspectors determined the performance deficiency was 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. Specifically, by inappropriately crediting a scaling factor to compare tested heat exchanger flows to calculated acceptance criteria, the licensee did not recognize that the as-left SSW flow values to six heat exchangers did not demonstrate the capability of the SSW system to meet its design basis heat removal requirements.

Significance: The inspectors assessed the significance of the finding using Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” The inspectors determined the finding was of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a mitigating system, structure, or component where operability or probabilistic risk assessment functionality was maintained.

Cross-Cutting Aspect: H.3 - Change Management: Leaders use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. Specifically, the licensee did not use a systematic process for planning, coordinating, and evaluating safety impacts related to the change.

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” requires, in part, Measures shall be established to assure that applicable regulatory requirements and the design basis, as defined in § 50.2 and as specified in the license application, for those

structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions. The design control measures shall provide for verifying or checking the adequacy of design, such as, by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program.

Contrary to the above the licensee’s design control measures did not provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program. Specifically, between August 20, 2019, and April 2020, the licensee did not check the adequacy of design of the SSW system to verify components served by the SSW system received adequate cooling water flow rates to meet the design basis of the system.

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

Minor Violation	71152
<p>Minor Violation: On August 20, 2020, during an internal flooding inspection in the high-pressure core spray (HPCS) pump room, the NRC identified trash and debris, such as foam insulation and zip ties, on the floor that could affect the room’s floor drains and flood mitigation functions. The licensee documented the observation in their corrective action program for resolution via Condition Report CR-GGNS-2020-09159. The inspectors identified this same debris remained in the room in the same location during routine plant tours on November 5, 2020, and June 1, 2021. The inspectors determined that the failure to maintain housekeeping standards was not in accordance with Station Procedure 02-S-01-34, Revision 53, Attachment II, “Auxiliary Building Generic Checks,” and had not been promptly corrected since originally identified on August 20, 2020. The licensee’s failure to promptly correct a condition adverse to quality was a performance deficiency. Specifically, following multiple NRC identifications of the same trash and debris in the same location of the HPCS pump room, the licensee’s failure to take prompt corrective action to remove the trash and debris to ensure the HPCS pump room floor drains remained open and unobstructed in accordance with Station Procedure 02-S-01-34, Revision 53, Attachment II, “Auxiliary Building Generic Checks,” was a minor violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action.”</p> <p>Screening: The inspectors determined the failure to promptly correct a condition adverse to quality was a performance deficiency. The performance deficiency constitutes a minor violation because failing to correct the condition adverse to quality did not adversely affect the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of the HPCS system to respond to an initiating event to prevent undesirable consequences (IMC 0612, Appendix B). Each time the NRC identified trash and debris in the HPCS room, the licensee agreed that the trash and debris needed to be removed and removed some, but not all, of the identified debris.</p> <p>Enforcement: The licensee removed the trash and debris from the HPCS room and restored compliance. The licensee entered this issue into their corrective action program as Condition Report CR-GGNS-2021-04280. This failure to comply with 10 CFR Part 50, Appendix B, Criterion XVI, constitutes a minor violation that is not subject to enforcement action in accordance with the NRC’s Enforcement Policy.</p>	

Through a review of recent issues documented in the licensee's corrective action program, the inspectors were concerned that there may exist a trend of complacent behaviors in the operations department at Grand Gulf Nuclear Station. The inspectors were concerned that if these complacent behaviors in the operations department were not corrected, then the safety performance of the plant could degrade. The following examples demonstrate where complacent behaviors in the operations department have resulted in vulnerabilities and challenges to plant operations as well as previously documented violations of NRC requirements.

Procedure Use and Adherence

- Operators logged Division 3 equipment as protected in the narrative logs when the Division 3 equipment had not been protected
- Operators did not initially recognize a nonconforming condition per Station Procedure EN-LI-102, "Corrective Action Program," associated with missing Raychem splice information associated with the "C" inboard main steam isolation valve
- Operators experience difficulties installing a suction pressure gauge as per procedure during a standby liquid control B functional test

Awareness of Plant Status

- Operators were unaware of the status of additional monitoring equipment, such that, required additional monitoring was not being completed when it should have been
- Operators' knowledge of adverse condition monitoring plans and operational decision-making issues was less than adequate when questioned by the inspectors
- Operators did not reset a sealed in annunciator in the main control room when the actual condition was cleared for an extended period of time

Ownership

- Operators were slow to write condition reports on NRC concerns about complacent operator behavior such that the NRC had to continue to raise the same concern to multiple operations shifts
- Operators were complacent with removing high-pressure core spray pump room trash that had been identified by the NRC multiple times, which resulted in a minor violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action"
- Operations did not drive or demand adequate troubleshooting practices from the Fix-It Now organization, which was the subject of a previously identified semiannual trend from the fourth quarter 2020

EXIT MEETINGS AND DEBRIEFS

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

- On April 15, 2021, the inspectors presented the emergency preparedness exercise inspection results to Mr. R. Franssen, Site Vice President, and other members of the licensee staff.
- On June 2, 2021, the inspectors presented the evaluations of changes, tests, and experiments inspection results to Mr. R. Franssen, Site Vice President, and other members of the licensee staff.

- On June 17, 2021, the inspectors presented the occupational radiation safety inspection results to Mr. B. Wertz, General Manager, Plant Operations, and other members of the licensee staff.
- On July 15, 2021, the inspectors presented the integrated inspection results to Mr. B. Wertz, General Manager, Plant Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Procedures	EN-FAP-EP-010	Severe Weather Response	8
		EN-FAP-WM-016	Seasonal Reliability	3
71111.04	Corrective Action Documents	CR-GGNS-	2021-02713, 2021-02748	
	Procedures	04-1-01-E12-1	Residual Heat Removal System	159
		04-1-01-E22-1	High-Pressure Core Spray System	130
		04-1-01-P41-1	Standby Service Water System	152
71111.05	Corrective Action Documents	CR-GGNS-	2021-02666	
	Procedures	EN-DC-161	Control of Combustibles	23
71111.06	Corrective Action Documents	CR-GGNS-	2021-03345	
	Miscellaneous	GGNS-91-0045	Engineering Report for IPE Internal Flooding Analysis Notebook	0
		M1575	Internal Flood Areas and Boundaries Resulting from Pipe Failures	0
		M195.0-48	Internal Flooding in the Auxiliary Building	1
71111.12	Corrective Action Documents	CR-GGNS-	2021-00977, 2021-01769, 2021-01849, 2021-02018, 2021-02093, 2021-03608, 2021-03876	
	Procedures	17-S-06-25	Tracking Equipment Run Time	105
		EN-DC-203	Maintenance Rule Program	4
		EN-DC-204	Maintenance Rule Scope and Basis	4
		EN-DC-205	Maintenance Rule Monitoring	7
		EN-DC-206	Maintenance Rule (a)(1) Process	4
	Work Orders	WO	559455	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
71111.13	Corrective Action Documents	CR-GGNS-	2021-03345		
	Procedures	EN-OP-119	Protected Equipment Postings	13	
71111.15	Corrective Action Documents	CR-GGNS-	2013-02758, 2020-09577, 2021-02018, 2021-02394, 2021-02713, 2021-03202, 2021-03285, 2021-04084, 2021-04471		
	Drawings	M-1117A	P & I Diagram Control Fluid System	20	
		M-1117E	P & I Diagram Control Fluid System	10	
		M-1117F	P & I Diagram Control Fluid System	13	
	Engineering Changes	EC-72779	Turbine Control Protection System Safety	0	
EC-72780		Turbine Control Protection System Non-Safety	0		
71111.17T	Calculations	SEP-S-2013-002	Distributed Ligament Length (DLL) Evaluation of Grand Gulf Circumferential Welds	1	
	Corrective Action Documents		2012-08750, 2018-00117, 2018-09052, 2018-13054, 2018-13090, 2018-03137, 2018-04315, 2018-04702, 2018-08532, 2018-08858, 2018-08862, 2018-08889, 2018-08890, 2018-08893, 2018-08894, 2018-09038, 2018-09041, 2018-12716, 2018-12754, 2018-12896, 2018-12957, 2018-12983, 2018-12990, 2018-13006, 2018-13009, 2018-13015, 2018-13028, 2018-13029, 2018-13054, 2018-13062, 2018-13090, 2018-13094, 2019-00281, 2019-01185, 2019-01306, 2019-01977, 2019-02458, 2019-03259, 2019-09717, 2019-10082, 2019-10517, 2019-10518, 2019-10519, 2019-10523, 2020-02351, 2021-02092, 2021-02266, 2021-02267, 2021-02268		
	Corrective Action Documents Resulting from Inspection	CR-GGNS-	2021-03923, 2021-03945, 2021-03982, 2021-03983, 2021-03987		
	Drawings	E-1017		One Line Meter & Relay Diagram 480V Bus 15BA1, 15BA2, 15BA3, 15BA4	012
		E019		One Line Meter & Relay Diagram 480 V, Bus 15BA5 & 16BB5	9
		E1018		One Line Meter & Relay Diagram 480 V, Bus 16BB1, 16BB2, 16BB3, 16BB4	11
		J-1336-000		T48 Standby Gas Treatment System Index	20

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		M-1102A	P&I Diagram, Standby Gas Treatment System, Unit 1	025
		M-1102B	P&I Diagram, Standby Gas Treatment System, Unit 1	6
	Engineering Changes	EC 52551	Removal of the following Motor Control Centers from the EQ Program: 15B11, 15B21, 16B11 and 16B41	0
		EC 74055	Revise Engineering Report GGNS-NE-16-00004, for Incorrect SLC Initiation Temperature for the Suppression Pool for CR-GGNS-2017-8784, CR-GGNS-2019-1582, and EN-SA-G-001 Revision	0
		EC 74325	General Electric QCR305C002 Contactor Seismic Qualification and Equivalency Evaluation	0
		EC 75750	Use of Spare Contactor for Breaker 52-125203	0
		EC 77973	Standby Gas Treatment System Loss of Power Detection	0
		EC 79003	Installation of In-Line Feedwater Debris Strainers (FWDS)	0
		EC 79428	Design Equivalent Change MCC Breaker 52-152142	0
		EC 82026	Update SSW Design Basis Calculations	0
		EC 82588	Child EC Elimination of Single Point Vulnerabilities Associated with Reactor Recirculation Pumps - A	0
		EC 83384	SGTS "A" Power Monitoring Modification (Child EC to EC 77973)	0
		EC 83903	Equivalency for 1P81D015A/B Fuel Oil Strainers CR-GGN-2019-06400	0
		EC 84298	Replacement of Transformer BOP 13 Feeder Cables	0
		EC 84955	Update Jet Pump Flaw Handbook, LPCI Coupling Handbook and Core Spray Handbook for Safety Communications SC09-03, Rev. 1, SC11-07, SC12-20, SC13-08, and SC14-02	0
		EC 85364	Update UFSAR from Results of 2019 Offsite Grid Studies per ENS-DC-199	0
		EC 85658	RF22 Temporary Power for the Flush/Hydrotest Skid from LCC 12BE1 Disconnect Switch 89-12105	0
		EC 85678	Update EQDP-EQ34.2 and GGNS-NE-11-00001 to Update Beta Dose Analysis	0
		EC 86535	Fitness for Service Evaluation for Condensate Storage Tank CR-GGNS-2020-02244 and CR-GGNS-2020-2272	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		EC 86851	Appendix R Update to Address Non-Cited Violations from the 2017 NRC Triennial Fire Protection Inspection	0
		EC 86928	Replace 1N43N039 Hartmann and Braun 15220 Transmitter with an Equivalent Rosemount 1151 Pressure Transmitter	0
		EC 87450	Remove Division 2 Emergency Diesel Generator (EDG) Vibration Trip Switches and Cap/Plug Associated Tubing	0
		EC 87667	Buried Pipe Excavation and Backfill for Inspection of CO2 Pipe from the CO2 Storage Tank 10' of Exposed Piping Required to Determine the Coating Integrity (License Renewal)	0
		EC 87826	Update Jet Pump Flaw Handbook for CR-GGNS-2020-07485 and CR-GGNS-2020-04517, CA-22 for Structural Integrity Corrective Action Report 20-016	0
		EC 88009	Install Sight Glass 1E12D006B for RHR B Venting Downstream of Vent Valves	0
		EC 88331	Remove Klockner-Moeller MCC Components Installed in Spare Buckets	0
		EC 88589	Structural Review for the Spent Fuel Pool Berm Resulting from the Installation of a Simplified Channel Dimensional Measurement System	0
		EC 89113	Engineering to Provide Input and Determination of Seismic Qualification Applicability for Standby Gas Treatment RCS Damper Actuator Capacitors	0
		EC 89233	Evaluate Change of Capillary Fill Fluid from Distilled Water to PMX-200 for 1P41N004A SSW Basin Level Transmitter	0
	Engineering Evaluations	2018-002-00	Cycle 22 COLR	0
		2018-003-00	Cycle 22 Fuel Reload/COLR Revision 1	0
		2018-004-00	Compensatory Actions for Sand Bagging Control Building, Diesel Generator, and SSW Pumphouse Doors for CR-GGN-2018-04101, CA-1	0
		2019-001-00	EC 790003, "Installation of In-Line Feedwater Debris Strainers (FWDSs)	0
		2019-003-00	Continuous Backfill System for Reactor Core Isolation Cooling (RCIC) Steam Header Leak Detectors 1E31N083A	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
			and 1E31N083B / EC 81050		
		2019-004-00	Condensate Pump and Condensate Booster Pump Low Flow Trip SPV Elimination	0	
		2019-005-00	Reactor Feed Pump Low Suction Trip Hardening / EC 81856	0	
		2019-006-00	Circulating Water Pump Motor Digital Relay Upgrade	0	
		2020-002-00	Cycle 23 Fuel Reload /COLR	0	
		2020-003-00	Disable the Turbine Trip due to Turbine Thrust Wear Bearing	0	
	Miscellaneous			Process Applicability Determination Form for Procedure 05-1-02-I-4, Revision 54	0
				Process Applicability Determination Form for Procedure 05-1-02-I-1, Revision 134	0
				Process Applicability Determination Form for Procedure 05-1-02-III-1, Revision 49	
		GGNS-NE-10-00003		GGNS EPU Appendix R - Fire Protection	4
		GGNS-NE-16-00004		Time Critical Operator Actions for Grand Gulf Nuclear Station	1 & 2
		M-J3.24-Q1B13-GE-NE-B13-1962-2-8.0		Jet Pump Assembly Welds Flaw Evaluation Handbook for Grand Gulf	2
	Procedures	04-1-01-N19-1		System Operating Instruction - Condensate System	80
		04-1-02-1H13-P680-1A-D1		Alarm Response Instruction - CNDS [Condensate] PMP [Pump] RECIRC FLO LO	240
		05-1-02-I-1		Reactor Scram	134
		05-1-02-I-4		Loss of ESF AC Power / Loss of Offsite power / Station Blackout	54
		05-1-02-III-1		Inadequate Decay Heat Removal	49
		05-1-02-V-19		Loss of 125VDC	2
		05-1-02-V-21		Reactor Pressure Control Malfunctions	9
		17-S-06-22		SSW A Performance	18
17-S-06-23			SSW B Performance	21	
EN-DC-147			Engineering Reports	8	
EN-DC-149			Acceptance of Vendor Documents	15	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		EN-LI-100	Process Applicability Determination	30
		EN-LI-101	10 CFR 50.59 Evaluations	20
		EN-OP-102	Protective and Caution Tagging	24
		EN-OP-102-01	Protective and Caution Tagging Forms & Checklist	14
		EN-OP-102-01	Protective an Caution Tagging Forms & Checklist	14
		EN-OP-115-07	Configuration Control	4
71111.18	Engineering Changes	EC-83472		
	Miscellaneous	Vendor Manual 460000451	Delaval Parts Manual Volume II	
71111.19	Miscellaneous	EQ15.1	Environmental Qualification Data Report for Reliance Fan Motors	4
		ER 96/0737-00-01	Dedication Information for V-Belts	4
		Procurement Engineering Evaluation 00143087	Commercial Grade Dedication for V-Belts	
		Purchase Order 10255339	V-Belts	06/21/2019
		Receipt Inspection 00059369	Commercial Grade Dedication for V-Belts	06/28/2019
	Procedures	04-1-01-E12-1	Residual Heat Removal System	159
		06-OP-1E51-Q-0003-01	RCIC System Quarterly Pump Operability Verification	146
		06-OP-1P75-M-0002	Standby Diesel Generator 12 Functional Test	144
	Work Orders	WO	532908, 559455, 559460, 559490, 52596278, 52927076, 52962554	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
71111.22	Corrective Action Documents	CR-GGNS-	2020-08262, 2021-02018, 2021-03643		
	Drawings	J-1256-039	Logic Diagram P45 Drywell Floor Drain Sump and Pumps	7	
		J-1356-007	Loop Diagram P45 Drywell Floor and Equipment Drains Sump Level Transmitters	2	
		J-1356-008	Drywell Floor and Equipment Drain Sump Level Recorders	1	
		M-1070B	Standby Diesel Generator System	39	
		M-1070D	Standby Diesel Generator System	19	
		M-1090B	P & I Diagram Leak Detection System	39	
		M-1094A	P & I Diagram Floor & Equipment Drains System	27	
		M-1098G	P & I Diagram Embedded & Suspended Dr. Drywell & Diesel Gen. Bldg. -Unit 1 & Cont. Bldg. & Rad. Well Swgr. House	9	
	Procedures	06-OP-1000-D-0001	Daily Operating Logs	170	
		06-OP-1P75-M-0002	Standby Diesel Generator 12 Functional Test	144	
		06-RE-SC11-V-0402	Control Rod Scram Testing	123	
		ER-GG-2001-0190-000	Faulty Operation of the Drywell Equipment Drain Sump Level Control Switches	0	
		SEP-GGNS-IST-1	GGNS Inservice Testing Bases Document	7	
	Work Orders	WO	52770598, 52848945, 52901053, 52960058, 52964795, 52969847, 52969851		
	71114.01	Corrective Action Documents	CR-GGNS-	2020-11586, 2021-00221, 2021-02109, 2021-02119, 2021-02198, 2021-02230, 2021-02238, 2021-02239, 2021-02299, 2021-02315, 2021-02346, 2021-02349, 2021-02353, 2021-02384, 2021-02400, 2021-02401, 2021-02403	
			WTGGN-2021-00001	CA-36, CA-38, CA-39, CA-40, CA-41, CA-44, CA-45, CA-46	
Corrective Action Documents Resulting from Inspection		CR-GGNS-	2021-02919, 2021-02920		
Miscellaneous			Grand Gulf Nuclear Station March 16-17, 2021 Exercise	04/01/2021	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Debrief (presentation)	
	Procedures	EN-EP-308	Emergency Planning Critiques	6
71114.04	Corrective Action Documents	CR-GGNS-	2020-12193, 2021-00133, 2021-00807	
	Corrective Action Documents Resulting from Inspection	CR-GGNS-	2021-02917	
	Miscellaneous		10 CFR 50.54(q)(3) Screening - EP Compensatory Action 21-001	01/08/2021
			10 CFR 50.54(q)(3) Screening - EP Compensatory Action 21-001, Rev 1	01/17/2021
			10 CFR 50.54(q)(3) Evaluation - EP Compensatory Measure 21-001, Rev. 1, EAL SU5.1 Amplifying Information	01/17/2021
			10 CFR 50.54(q)(3) Evaluation - EP Compensatory Measure 21-001, EAL SU5.1 Amplifying Information	01/08/2021
			GGNS Forced Outage Work List (FOWL)	03/17/2021
			10 CFR 50.54(q)(3) Screening - Relocation of Joint Information Center	01/30/2021
			10 CFR 50.54(q)(3) Evaluation - Relocation of Joint Information Center	01/30/2021
			10 CFR 50.54(q)(2) Evaluation - Review of Enforcement Guidance Memorandum 20-02 Item 3 - 2020 Annual Medical Drill	01/26/2021
	Procedures	Compensatory Action 21-001	EAL SU5.1 Amplifying Information	01/08/2021
		Compensatory Measure 21-001, Revision 1	EAL SU5.1 Amplifying Information	01/17/2021
71124.01	Corrective Action Documents	CR-GGNS-	2020-02676, 2020-02965, 2020-03305, 2020-05075, 2020-05363, 2020-11169, 2020-11534, 2020-11576, 2020-12096, 2021-01273, 2021-01532	
	Corrective Action Documents	CR-GGNS-	2021-05679	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Resulting from Inspection			
	Miscellaneous	EN-RP-143, Attachments 4 and 5	Sealed Source Leak Test and Inventory Worksheet	05/13/2021
	Procedures	EN-RP-100	Radiation Worker Expectations	13
		EN-RP-101	Access Control for Radiological Controlled Areas	15
		EN-RP-104	Personnel Contamination Events	11
		EN-RP-202	Personnel Monitoring	14
	Radiation Surveys	GGN-2003-00574	139 Aux Steam Tunnel Lower Level	03/07/2020
		GGN-2003-00626	139 Aux Steam Tunnel Lower Level	03/08/2020
		GGN-2105-00320	Vehicle Survey	05/20/2021
		GGN-2106-00172	Liner Survey Form	06/15/2021
		GN-2004-00897	93 Aux South Piping Penetration Room	04/18/2020
	Radiation Work Permits (RWPs)	2021-1006	Radwaste Shipping and Processing	1
		2021-1056	Radwaste Shipping and Processing of CPS and RWCU Liners	0
	Self-Assessments	GAP Assessment for OBJ. 4 71124.01 SA	Gap Assessment of Objective 4 for 71124.01 Self Assessment Completed in February 2020	05/12/2021
	Work Orders	00504862	Load Cask/Set Up Liner in Dewatering Area - 136' Radwaste	1
		00533956	1D21N048C: Replace In-Containment Radiation Detector	06/15/2020
71124.03	ALARA Plans	2020-1532	1B33F067A Repair Option #2 (Replace Disc/Stem Assembly with fit-up to seats, no seat lapping)	03/28/2020
	Calculations	XC-Q1111-98017	LOCA Dose Analysis with Revised Source Terms	7
	Corrective Action Documents	CR-GGNS-	2020-03162, 2020-03956, 2020-04333, 2020-04372, 2020-04881, 2020-04966, 2020-09462, 2020-12273	
	Corrective Action Documents Resulting from Inspection	CR-GGNS-	2021-04632, 2021-04633	
	Drawings	M-0049	Updated Final Safety Analysis Report, Figure No. 9.4-001	47
	Engineering Changes	ER-GG-2001-0315-000	Removal of Charcoal Filters from Control Room Stand-by Fresh Air Units in 0C302 and 0C303	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Miscellaneous		Monthly SCBA and Face Piece Inspection Log	03/09/2021
		2020-1532/1B33F067A Work	TEDE-ALARA Evaluation	03/11/2020
		2020-1610	TEDE-ALARA Evaluation Screening Worksheet 1G33F055 and 1G33F056 Cut Out and Replace	11/19/2019
		415928-0	Laboratory Report, Compressed Air/Gas Quality Testing	04/08/2021
	Procedures	06-ME-1Z51-R-0006	In-Place Testing of Control Room Emergency Filtration System	110
		06-TE-SZ51-R-0002	Control Room Envelope Habitability Assessment	1
		08-S-07-101	Operation and Maintenance of SCBA Fill Systems	0
		EN-RP-310	Operation and Initial Setup of the Eberline AMS-4 Continuous Air Monitor	4
		EN-RP-317-02	Calibration of Portable Air Samplers	2
		EN-RP-404	Operation and Maintenance of HEPA Vacuum Cleaners and HEPA Ventilation Units	9
		EN-RP-504	Breathing Air	4
	Radiation Surveys	GGN-2003-01604	Cut Out G33F055 and G33FO56	03/22/2020
		GGN-2003-01925	B33FO67A Work	03/29/2020
		GGN-2104-00384	Weekly Hot Machine Shop Survey	04/25/2021
		GGN-AS-032320-0834	20201610/1-1G33F055 and 1G33F056 Cut Out and Replace (WO: 504577)	03/23/2020
		GGN-AS-032920-0973	20201532/3-1B33F067A Recirc Pump Discharge Valve Work and Support	03/29/2020
		GGN-AS-040920-1147	20201511/4-General Maintenance in the Drywell During RF22	04/09/2020
		GGN-AS-040920-1153	20201500/1-RP Drywell Rover Coverage	04/09/2020
	Radiation Work Permits (RWPs)	2020-1511	General Maintenance in the Drywell During RF22	2
		2020-1532	1B33F067A Recirc Pump Discharge Valve Work and Support	1
	Self-Assessments	LO-GLO-2019-00192	In Plant Airborne Radioactivity Control and Mitigation Inspection Assessment (IP 71124.03)	12/04/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		QA-14-15-2019-GGNS-1	Quality Assurance Audit Report - Combined Radiation Protection and Radwaste	10/21/2021
	Work Orders	52839493	In Place Filter Testing of Control Room Emergency Filtration System	02/21/2020
71151	Corrective Action Documents	CR-GGNS-	2020-00013, 2020-02558, 2020-03322, 2020-06706, 2020-07489, 2020-07518, 2020-08503, 2020-11191, 2020-11892, 2021-00870, 2021-01444, 2021-02013, 2021-03356	
		CR-GGNS-	2021-03750	
	Miscellaneous	2020	Annual Radioactive Effluent Release Report	
71152	Corrective Action Documents	CR-GGNS-	2020-08262, 2020-09159, 2020-11193, 2021-02018, 2021-03202, 2021-03876, 2021-04280	
71153	Miscellaneous	05000416/2019-003-01	Licensee Event Report	
		05000416/2019-006-01	Licensee Event Report	
		05000416/2020-001-00	Licensee Event Report	