



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

November 5, 2019

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

SUBJECT: GRAND GULF NUCLEAR STATION – DESIGN BASIS ASSURANCE
INSPECTION (PROGRAMS) INSPECTION REPORT 05000416/2019010

Dear Mr. Larson:

On September 26, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Grand Gulf Nuclear Station and discussed the results of this inspection with Mr. Robert Franssen, General Manager Plant Operations, and other members of your staff. The results of this inspection are documented in the enclosed report.

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

If you contest the violations or significance or severity of the violations documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement; and the NRC Resident Inspector at Grand Gulf Nuclear Station.

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

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Vincent G. Gaddy, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 05000416
License No. NPF-29

Enclosure:
As stated

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SUBJECT: GRAND GULF NUCLEAR STATION – DESIGN BASIS ASSURANCE
INSPECTION (PROGRAMS) INSPECTION REPORT 05000416/2019010 –
November 5, 2019

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000416

License Number: NPF-29

Report Number: 05000416/2019010

Enterprise Identifier: I-2019-010-0017

Licensee: Entergy Operations, Inc.

Facility: Grand Gulf Nuclear Station

Location: Port Gibson, MS

Inspection Dates: September 8, 2019 to September 26, 2019

Inspectors: W. Cullum, Reactor Inspector
R. Kopriva, Senior Reactor Inspector
D. Reinert, Reactor Inspector

Approved By: Vincent G. Gaddy, Chief
Engineering Branch 1
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a design basis assurance inspection (programs) 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

Failure to Include Beta Radiation Effects on Total Integrated Dose to Conax Connectors			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2019010-01 Open/Closed	[H.3] - Change Management	71111.21N
The inspectors identified a Green finding and associated non-cited violation of Title 10 of the <i>Code of Federal Regulations</i> (10 CFR) 50.49 (e)(4), "Radiation," for the licensee's failure to include beta radiation effects in the environmental qualification of Conax connectors used on the containment level probes.			

Failure to Use Calibrated Measuring and Test Equipment to Monitor Warehouse Temperature and Humidity for Safety-Related Components			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2019010-02 Open/Closed	[H.5] - Work Management	71111.21N
The inspectors identified a Green finding and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment," for the licensee's failure to use calibrated temperature and humidity instruments in warehouses that contained safety-related components. The licensee also failed to account for instrument uncertainty in limits associated with warehouse temperature and humidity.			

Failure to Identify and Correct Warehouse Temperature and Humidity Exceeding Limitations			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2019010-03 Open/Closed	[H.8] - Procedure Adherence	71111.21N
The inspectors identified a Green finding and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify and correct exceeding temperature and humidity limits for site warehouses where safety-related components are stored.			

Additional Tracking Items

None.

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.

REACTOR SAFETY

71111.21N - Design Bases Assurance Inspection (Programs)

The inspectors evaluated the 10 CFR 50.49 environmental qualification program implementation through the sampling of the following components:

Select Sample Components to Review - Risk Significant/Low Design (Inside/Outside Containment) (IP Section 02.01) (7 Samples)

- (1) 1B21N095A, reactor vessel level (automatic depressurization system-A) transmitter
- (2) 1P53F505, containment outboard isolation valve F001 solenoid
- (3) 1P41F014A, standby service water inlet to residual heat removal heat exchanger A motor-operated valve actuator
- (4) 1E31N031A, main steam line pipe tunnel ambient temperature element
- (5) 1E12C002A, residual heat removal pump A motor
- (6) 52-153128, motor control center for residual heat removal heat exchanger A bypass valve 1E12F048A
- (7) 1L21P112-A, electrical panel for 125 Volt direct current panel board 1DA2

Select Sample Components to Review - Primary Containment (Inside Containment) (IP Section 02.01) (3 Samples)

- (1) 1E30N095A, containment water level accident range probe
- (2) 1B21N101A1, main steam line inboard isolation valve position switch
- (3) 1B21F041A-Seal, main steam safety relief valve conduit seal

INSPECTION RESULTS

Failure to Include Beta Radiation Effects on Total Integrated Dose to Conax Connectors			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2019010-01 Open/Closed	[H.3] - Change Management	71111.21N
The inspectors identified a Green finding and associated non-cited violation of 10 CFR 50.49 (e)(4), "Radiation," for the licensee's failure to include beta radiation effects in the environmental qualification of Conax connectors used on the containment level probes.			

Description: The inspectors reviewed EQDP-EQ34.2, Revision 2, Conax electrical conductor seal assemblies while inspecting the environmental qualification of the containment level probes. The Conax connections are used as a junction between the conduit and the containment level probe. The EQDP states that the Conax connectors are sealed assemblies; therefore, they are not susceptible to beta radiation. When the inspectors questioned this assumption, the licensee found that the connectors are susceptible to beta radiation. During subsequent document reviews, the licensee found that the beta radiation was accounted for in the analysis leading up to the Extended Power Uprate (EPU). However, during a revision for the EPU, the beta analysis was removed from the environmental qualification document. The effects of beta radiation resulting from the power uprate had not been analyzed.

Title 10 CFR 50.49, "Environmental Qualification of Electric Equipment Important to Safety For Nuclear Power Plants," Section (e)(4), Radiation, states: "The radiation environment must be based on the type of radiation, the total dose expected during normal operation over the installed life of the equipment, and the radiation environment associated with the most severe design basis accident during or following which the equipment is required to remain functional, including the radiation resulting from recirculating fluids for equipment located near the recirculating lines and including dose-rate effects."

Therefore, the inspectors concluded that the licensee failed to evaluate the effects of radiation on environmentally qualified components. Specifically, the licensee did not evaluate the effects of beta radiation after a severe accident on the Conax connectors associated with the containment water level probes.

Corrective Actions: The licensee documented this issue in their corrective action program. A finite beta radiation dose analysis was performed on the Conax connectors and concluded that any increase in dose resulting from beta radiation associated with the EPU remained bounded by the environmental qualification testing on the component.

Corrective Action References: CR-GGN-2019-07619

Performance Assessment:

Performance Deficiency: The licensee's failure to account for all radiation effects on environmentally qualified components was a performance deficiency. Specifically, the licensee failed to account for beta radiation effects on the total integrated dose following an accident for the Conax connectors on the containment water level probes.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, without the proper radiation dose evaluation, replacement components may not have proper qualification or the components may be used in an unacceptable location in the plant. Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," example 3.j., discusses using a nonconservative parameter as an input to an accident analysis calculation. The example would not be minor if, "The engineering calculation error results in a condition where there is now a reasonable doubt on the operability of a system or component, or if significant programmatic deficiencies were identified with the issue that could lead to worse errors if uncorrected." In this case, the lack of beta radiation analysis called into question the operability of the containment water level probes. The licensee performed an operability determination and found them to be

operable. However, since the operability was called into question, the performance deficiency is more than minor.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Utilizing Exhibit 2, "Mitigating Systems Screening Questions," 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 structure, system, or component (SSC) and the SSC maintained its operability or functionality.

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.

Enforcement:

Violation: 10 CFR 50.49 (e)(4), "Radiation," states: "The radiation environment must be based on the type of radiation, the total dose expected during normal operation over the installed life of the equipment, and the radiation environment associated with the most severe design basis accident during or following which the equipment is required to remain functional, including the radiation resulting from recirculating fluids for equipment located near the recirculating lines and including dose-rate effects."

Contrary to the above, from April 2, 2013, to September 17, 2019, the licensee did not properly evaluate the radiation environment based on the type of radiation associated with the most severe design basis accident during or following which the equipment is required to remain functional. Specifically, the licensee did not consider the effects of beta radiation for the total integrated dose received to the Conax connections on the containment level probes.

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

Failure to Use Calibrated Measuring and Test Equipment to Monitor Warehouse Temperature and Humidity for Safety-Related Components

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2019010-02 Open/Closed	[H.5] - Work Management	71111.21N

The inspectors identified a Green finding and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment," for the licensee's failure to use calibrated temperature and humidity instruments in warehouses that contained safety-related components. The licensee also failed to account for instrument uncertainty in limits associated with warehouse temperature and humidity.

Description: The inspectors performed a walkdown of the site warehouses and observed that the licensee had two temperature/humidity instruments located side by side. One of the instruments did not have calibration stickers. The inspectors questioned why there were two instruments. The licensee stated that the calibrated instruments were new and had been installed in May 2019. The inspectors questioned the old instruments and when they were last calibrated. Upon review, the licensee determined that the instruments were installed in

the warehouse when the plant started commercial operation and were last calibrated on January 6, 2006. Prior to 2006, the instruments were calibrated using a preventative maintenance activity annually. In 2006 the preventative maintenance activity was cancelled and the instruments have not been calibrated since. The instruments were never considered to be part of the licensee's measuring and test equipment (M&TE) program.

The licensee proactively identified the need for updated instruments with alert and alarm capability. As a result, the new temperature instruments were installed May 2019. When the new instruments were obtained, the licensee put them in the M&TE program. However, the licensee failed to account for the instrument uncertainty in setting the alert and alarm functions. As a result, the temperature and humidity in the warehouses could go out of specification without the licensee being aware.

Title 10 CFR Part 50, Appendix B, Criterion XII, states: "Measures shall be established to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits."

Therefore, the inspectors determined that the licensee failed to establish measures to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits. Specifically, the licensee failed to calibrate temperature and humidity indicators in warehouses where safety-related equipment is stored. Additionally, the site did not account for instrument uncertainty when identifying limits outside of specification for the warehouses.

Corrective Actions: The licensee has entered this issue into their corrective action program. The licensee is evaluating the incorporation of instrument uncertainty into their alarm setpoints.

Corrective Action References: CR-GGN-2019-06773

Performance Assessment:

Performance Deficiency: The licensee's failure to establish measures to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits is a performance deficiency. Specifically, the licensee failed to use calibrated instruments to monitor temperature and humidity parameters in site warehouses where safety-related components were stored. Additionally, the licensee failed to account for instrument uncertainty when setting limits for warehouse temperature and humidity.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to have calibrated monitoring equipment had the potential to incorrectly identify the temperature and humidity setpoints in the warehouse which could affect the qualified life of stored safety-related parts.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Utilizing Exhibit 2, "Mitigating Systems Screening Questions," 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 structure, system, or component (SSC) and the SSC maintained its operability or functionality.

Cross-Cutting Aspect: H.5 - Work Management: The organization implements a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority. The work process includes the identification and management of risk commensurate to the work and the need for coordination with different groups or job activities.

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, Criterion XII, Control of Measuring and Test Equipment, states: "Measures shall be established to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits."

Contrary to the above, from January 6, 2006, to May 2019, measures were not established to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits. Specifically, temperature and humidity instruments used to monitor environmental conditions for safety-related components in site warehouses at Grand Gulf Nuclear Station were not calibrated. The licensee also failed to account for instrument uncertainty in setting limits associated with warehouse temperature and humidity.

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

Failure to Identify and Correct Warehouse Temperature and Humidity Exceeding Limitations			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000416/2019010-03 Open/Closed	[H.8] - Procedure Adherence	71111.21N
The inspectors identified a Green finding and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify and correct exceeding temperature and humidity limits for site warehouses where safety-related components are stored.			
<u>Description:</u> Inspectors reviewed Procedure EN-MP-125, Revision 12, titled, "Control of Materials." Section 5.4 of the procedure states: "Level-A relative humidity is maintained at or below maximum storage humidity of 70% or within prescribed limit for the most sensitive item stored." Section 5.4 also directs plant personnel to write a condition report for "Temperature or humidity limits that exceed allowed tolerance for any period (temperature 10 degrees F or 10% humidity)."			

The inspectors reviewed warehouse temperature and humidity data. The inspectors noted several instances in September of 2018 where humidity peaked above 80 percent and requested to see condition reports documenting these events. The licensee stated that no condition reports were written in September of 2018 to document excessive humidity in Level A storage. However, site personnel confirmed that in the month of September 2018 humidity in Level A storage exceeded 80 percent 14 times.

The inspectors also reviewed CR-GGN-2019-06773, which was written on August 20, 2019. The body of the condition report reads, in part: "A review of corrective actions since 2016 indicated that there were 7 different condition reports written to identify temperature and humidity levels that either exceeded or approached a high out of spec levels in both the level A and the modified level B storage areas. Each instance was addressed individually but no actions were taken to put us in a preventative position." The inspectors viewed this as a missed opportunity by the site to review the warehouse data and potentially identify further instances of exceeding temperature and humidity limits that were not previously documented in a condition report.

Title 10 CFR Part 50, Appendix B, Criterion XVI states, in part: "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

Therefore, the inspectors determined that the licensee did not identify and correct conditions adverse to quality. Specifically, the licensee did not identify when Level A warehouse storage exceeded temperature and humidity limits for safety-related components.

Corrective Actions: The licensee has entered this issue into their corrective action program. The licensee confirmed that in September 2018 alone, the Level A storage exceeded the humidity limit 14 times and no condition reports were found to document these instances. The licensee recommended an action to put all Level A storage items on hold pending evaluation of temperature and humidity data.

Corrective Action References: CR-GGN-2019-07871

Performance Assessment:

Performance Deficiency: The licensee's failure to identify and correct a condition adverse to quality was a performance deficiency. Specifically, the licensee failed to identify and correct exceeding warehouse temperature and humidity limits where safety-related components were stored.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, the failure to identify and correct the temperature and humidity of the Level A storage area where setpoints were exceeded could potentially have an effect on the qualified storage life of the safety-related components.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." Utilizing Exhibit 2, "Mitigating Systems Screening Questions," 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 structure, system, or component (SSC) and the SSC maintained its operability or functionality.

Cross-Cutting Aspect: H.8 - Procedure Adherence: Individuals follow processes, procedures, and work instructions.

Enforcement:

Violation: Title 10 CFR Part 50, Appendix B, Criterion XVI, required, in part, that "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected."

Contrary to the above, the licensee did not establish measures to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. Specifically, the licensee did not identify and correct exceeding temperature and humidity limits for warehouses containing safety-related components.

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

EXIT MEETINGS AND DEBRIEFS

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

- On September 26, 2019, the inspectors presented the design basis assurance inspection (programs) inspection results to Mr. Robert Franssen, General Manager, Plant Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N	Calculations	GGNS-NE-11-000001	GGNS Environmental Qualification (EQ) Outliers Resolution	0
		M5.8.23-2	Supplement 2 to M5.8.23, Rev. 1, Equipment Environmental Qualification	0
	Corrective Action Documents	Condition Reports (CR-GGN-)	2018-01378, 2019-00126, 2019-06532, 2019-01038, 2019-07297, 2019-06773, 2015-04610, 2017-09085, 2019-00249, 2019-02111	
	Corrective Action Documents Resulting from Inspection	Condition Reports (CR-GGNS-)	2019-07389, 2019-07390, 2019-07437, 2019-07438, 2019-07472, 2019-07473, 2019-07619, 2019-07800, 2019-07835, 2019-07864, 2019-07871, 2019-07901	
	Drawings	A-0631	Units 1 & 2 Control Building Fire Protection Plans	010
		A-0632	Unit 1 Auxiliary Bldg. Fire Protection	5
		A-0633	Unit 1 Auxiliary Bldg. Fire Protection Plan at EL. 119'-0"	006
		A-0634	Unit 1 Aux. & Diesel Gen. Bldg. and SSW Pump House-Fire Protection	5
		A-0635	Unit 1 Aux & Diesel Gen. Bldg. Fire Protection	5
		A-0636	Unit 1 Auxiliary Bldg. Fire Protection Plan at EL. 185'-0"	4
		A-0637	Unit 1 Auxiliary Bldg. Fire Protection Plan at EL. 208'-10"	4
		A-KG0630	Control Building Fire Protection Plan	A
	Engineering Changes	0000033128	Issue Revised Calc EC-Q1B21-90025 to Justify Deferral of MSIV Limit Switch Replacement PM's to RF19	0
		EC# 0000051119	FLEX M41 VENT CHILD EC 3 - CONTAINMENT PENETRATIONS	000
		EC# 0000051122	FLEX UCP VALVE MODIFICATION CHILD EC 1 - CTMT PENETRATIONS	000
		EC# 0000070732	Insert Blind Fitting Outboard of Penetration #73 to Eliminate Diving to Perform LLRT for Containment Penetration #73 Ref: CR-GGN-2017-2989	000
	Miscellaneous	460000286	Instruction and Maintenance Manual for Limitorque Type HBC	07/16/2007
		460000466	Klockner-Moeller Industrial Motor Control	11/1976

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		460001972	Model 1153 Series B & D Alphaline Pressure Transmitters for Nuclear Service	02/01/1991
		4600022507	ASCO Valves Installation and Maintenance Instructions	0
		E100.0	Technical Specification for Environmental Safety Related Parameter	7
		EA740-20014	Maintenance and Surveillance Instructions for EA740-Series Limit Switches	C
		EQ02.1	Limitorque Motor-Operated Valve Actuators, with RH Insulated AC Motors	4
		EQ02.2	Limitorque Motor-Operated Valve Actuators with AC and DC Motors, AC with B or H Insulation Class and DC with B Insulation Class	4
		EQ05.2	NAMCO EA 740 Limit Switches	4
		EQ08.1	PYCO Temperature Elements	2
		EQ35.1	General Purpose Lubrication	2
		EQDP-EQ04.12	Okonite 1kV Power and Control Cable	1
		EQDP-EQ04.16	Environmental Qualification Documentation Package, Rockbestos SIS Wire	1
		EQDP-EQ04.2	Samuel Moore I&C Cable	1
		EQDP-EQ06.3	ASCO NP Series Solenoid Valves	4
		EQDP-EQ09.4	Rosemount Pressure Transmitters, Model 1153 Series D	3
		EQDP-EQ09.9	Fluid Components, Inc. Wide Range Suppression Pool Level Monitoring Instruments	2
		EQDP-EQ12.1	Environmental Qualification Documentation Package, 125 VDC Distribution Panels	2
		EQDP-EQ19.1	Raychem Sealing Products	3
		EQDP-EQ32.1	Environmental Qualification Documentation Package, 480 VAC Motor Control Centers	3
		EQDP-EQ34.1	Environmental Qualification Documentation Package, Patel Electrical connectors and Conduit Seals.	3
		EQDP-EQ34.2	Conax Electrical Conductor Seal Assemblies (ESCAs)	2
		EQDP_EQ15.2	Environmental Qualification Documentation Package, General Electric ECCS Pump Motors	4
		GNRI-	Safety Evaluation Report Related to the License Renewal of	04/2016

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2016/00039	Grand Gulf Nuclear Station, Unit 1	
		NUREG 0831	Safety Evaluation Report Related to the operation of Grand Gulf Nuclear Station, Units 1 and 2	09/1981
		NUREG--0831-Supp-6	Safety Evaluation Report related to the operation of Grand Gulf Nuclear Station, Units 1 and 2 Docket Nos. 50-416 and 50-417	08/1984
		NUREG-0831-SUP-N2	Safety Evaluation Report Related to the Operation of Grand Gulf Nuclear Station Units 1 and 2, Docket Nos. 50-416 and 50-417	06/1982
		NUREG-0831-SUP-N3	Safety Evaluation Report Relating to the Operation of Grand Gulf Nuclear Station, Units 1 and 2, Docket Nos. 50-416 and 50-417	07/1982
		NUREG-0831-SUP-N4	Safety Evaluation Report Related to the Operation of Grand Gulf Nuclear Station Units 1 and 2, Docket Nos. 50-416 and 50-417	05/1983
		NUREG-0831-SUP-N5	Safety Evaluation Report Related to the Operation of Grand Gulf Nuclear Station, Units 1 and 2, Docket Nos. 50-416 and 50-417	08/1984
		SERI-88-0007	Grand Gulf Nuclear Station Engineering Report for Justifying Equipment Deletions from ES-19	6
		Vendor Manual 460000159	Instructions for Low Pressure Core Spray Motor, Residual Heat Removal Motor, High Pressure Core Spray Pump Motor	09/25/1996
		VM# 460000251	Operation Maintenance and Instruction Manual for Delta Switchboard Company	11/03/1994
	Procedures	01-S-06-57	Environmental Qualification (NUREG 0588/10CFR50.49)	0
		05-S-01-SAP-1	Severe Accident	6
		06-OP-1000-D-0001	Daily Operating Logs	161
		07-S-01-227	Maintenance Procedure Equipment Qualification Program Safety Related	9
		07-S-12-62	Inspection and Cleaning of Limitorque Actuators and Associated Breaker Compartments	20
		07-S-12-62	Inspection and Cleaning of Limitorque Actuators and	21

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Associated Breaker Compartments	
		07-S-12-95	Electrical Maintenance of Limitorque Actuators Safety Related	7
		EDP-EQ-23	Equipment Qualification Assessment Reports (EQAR)	03
		EDP-EQ-24	Environmental Qualification Thermal Aging Program (EQTAP)	301
		EN-DC-115	Engineering Change Process	26
		EN-DC-141	Design Inputs	17
		EN-DC-164	Environmental Qualification (EQ) Program	5
		EN-DC-210	Environmental Qualification Master List Control	4
		EN-DC-313-02	Procurement Engineering – Technical Evaluation of Replacement Parts	3
		EN-MP-111	Inventory Control	14
		EN-MP-112	Shelf Life Program	7
		EN-MP-120	Material Receipt	14
		EN-MP-125	Control of Material	12
		EN-MP-140	In-Storage Maintenance Process	2
		SEP-EQ-RBS-001	Environmental Qualification Review	0
	Self-Assessments	LO-GLO-2017-00132	Environmental Qualification (EQ) Program Self-Assessment.	02/07/2019
		QA-8-2019-GGNS-1	Engineering Programs Audit Notification/Audit Plan Memorandum	02/28/2019
	Work Orders	Work Orders (WO-GGN-)	52883658, 52627121, 52634059, 52712380, 52730530, 52743923, 52761204, 52776280, 52791603, 52808821, 52838621, 52853399, 52867788, 00457488, 52677676, 51015241, 52400388, 52606899, 52693718, 52710872, 52731015, 52743046, 52752552, 52758949, 52762380, 52774299, 52807775, 52827334, 52837353, 52853408, 52867683, 52884894, 00483308, 00378185, 00516310, 52400391, 52488333, 52557967, 52583375, 52593825, 52606899, 52618805, 52671847, 52678711, 52694942, 52735448, 52751211, 52751216, 52752552, 52765417, 52779203, 52784350, 52784351, 52789054, 52797858,	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			52799256, 52805263, 52819264, 52814640, 52815823, 52827337, 52827471, 52833156, 52840238, 52844734, 52859376, 52873625	