



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
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ARLINGTON, TEXAS 76011-4125

October 29, 2009

James R. Douet, Vice President of Operations
Grand Gulf Nuclear Station
Entergy Operations, Inc.
P.O. Box 756
Port Gibson, MS 39150

Subject: GRAND GULF NUCLEAR STATION - NRC INTEGRATED INSPECTION REPORT
05000416/2009004; 07200050/2009001

Dear Mr. Douet:

On September 23, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Grand Gulf Nuclear Station. The enclosed integrated inspection report documents the inspection findings, which were discussed on October 5, 2009, with you and other members of your staff.

The inspections examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents two Green, NRC identified findings of very low safety significance. Both of these findings were determined to involve violations of NRC requirements. Additionally, five licensee-identified violations, which were determined to be of very low safety significance, are listed in this report. NRC is treating these violations as noncited violations consistent with Section VI.A.1 of the NRC Enforcement Policy because of the very low safety significance of the violations and because they are entered into your corrective action program. If you contest these noncited violations, 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, U.S. Nuclear Regulatory Commission, Region IV, 612 E. Lamar Blvd., Suite 400, Arlington, Texas, 76011-4125; the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Grand Gulf Nuclear Station facility.

In addition, if you disagree with the characterization of any finding 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 Regional Administrator, Region IV, and the NRC Resident Inspector at Grand Gulf Nuclear Station. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure, will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS).

ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Geoffrey B. Miller, Chief
Project Branch C
Division of Reactor Projects

Docket: 50-416
License: NPF-29

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NRC Inspection Report 05000416/200904
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000416, 07200050

License: NPF-29

Report: 05000416/2009004; 07200050/2009001

Licensee: Entergy Operations, Inc.

Facility: Grand Gulf Nuclear Station

Location: Waterloo Road
Port Gibson, MS

Dates: June 24 through September 23, 2009

Inspectors: R. Smith, Senior Resident Inspector
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Approved By: Geoffrey B. Miller, Chief, Project Branch C
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000416/2009004; 06/24/2009 – 09/23/2009; Grand Gulf Nuclear Station Integrated Resident and Regional Report; Maintenance Effectiveness, and Identification and Resolution of Problems.

This report covered a 3-month period of inspection by resident inspectors and announced baseline inspections by regional based inspectors. Two Green findings were identified by the inspectors. Both of these findings were considered noncited violations of NRC regulations. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. **NRC-Identified Findings and Self-Revealing Findings**

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green noncited violation of 10 CFR Part 50.65(a)(2) involving the failure to adequately monitor the performance of a maintenance rule scoped system. The licensee's maintenance rule program required evaluation of the area radiation monitoring system for classification as a maintenance rule (a)(1) system after three failures within eighteen months. The licensee had identified two functional failures of the residual heat removal heat exchanger 'A' hatch radiation monitor in June and July 2008. The inspectors identified three other instances of functional failures on components that were used in plant emergency operating procedures and emergency preparedness procedures. These failures were not included in the licensee's maintenance rule database. A total of five functional failures occurred in system components before the licensee considered evaluation of area radiation monitoring as a maintenance rule (a)(1) system in September 2009. The licensee entered this condition in the corrective action program as condition reports CR-GGN-2009-04853 and CR-GGN-2009-04857.

The finding was more than minor because it was similar to Inspection Manual Chapter 0612, Appendix E, Example 7.d, in that equipment performance problems were such that effective control of performance or condition through appropriate preventive Maintenance Under (a)(2) could not be demonstrated. In addition, it affected 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. This finding was characterized under the significance determination process as having very low safety significance because the maintenance rule aspect of the finding did not cause an actual loss of safety function of the system nor did it cause a component to be inoperable. There is no crosscutting aspect associated with this performance deficiency since the cause of this issue does not reflect current licensee performance. (Section 1R12)

- Green. The inspectors identified a Green non-cited violation of Technical Specification 5.4.1(a), for failure to ensure that operators can respond in timely manner to safe shutdown panels in the auxiliary building with a fire in the main control room. The inspectors reviewed a condition report associated with response times of operators to a fire in the protected area with Mississippi river at flood stage. The inspectors questioned the adequacy of response times for fire brigade members and the safe shutdown operator in the event of fire in the control room with the designated operators being outside the protected area. The licensee determined a time critical task would not have been completed due to the safe shutdown operator being outside the protected area. The licensee entered this condition in the corrective action program as condition report CR-GGN-2009-01416.

The inspectors determined this finding to be more than minor since it affected the external events attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheet, it was determined that the finding screened as potentially risk significant due to external events and required the regional senior reactor analyst to perform a Phase 3 evaluation. The senior reactor analyst determined the likelihood that control room abandonment occurs while the safe shutdown operator is out of the protected area is $9.78E-8$. The change in core damage frequency is lower than this value and small enough that large early release frequency is not required to be considered. Therefore the issue is (Green) of very low safety significance. The cause of this finding has a crosscutting aspect in the area of problem identification and resolution associated with corrective action program in that the licensee failed to perform an appropriate extent of condition when implementing corrective action associated with fire brigade response issue in 2008 [P.1(c)]. (Section 4OA2)

B. Licensee-Identified Violations

Violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers (condition report numbers) are listed in Section 4OA7.

REPORT DETAILS

Summary of Plant Status

Grand Gulf Nuclear Station began the inspection period at full rated thermal power. On July 17, 2009, operators reduced reactor power to 86 percent for planned control rod surveillance and planned turbine valve surveillances. The plant returned to 100 percent power on July 18, 2009. On August 14, 2009, operators reduced reactor power to 93 percent for planned control rod surveillance and returned to 100 percent power on August 15, 2009. On September 11, 2009, operators reduced power to 62 percent for a planned sequence exchange, planned control rod surveillance and control blade friction testing. The plant was returned to 100 percent power on September 13, 2009 and remained at or near full rated thermal power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity and Emergency Preparedness

1R04 Equipment Alignments (71111.04)

.1 Partial Walkdown

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- On July 7, 2009, the inspectors walked down Residual Heat Removal Loop C while Residual Heat Removal Loop B was inoperable due a scheduled system outage
- On September 1, 2009, the inspectors walked down Standby Liquid Cooling Loop A while Standby Liquid Cooling Loop B was removed from service for scheduled pump maintenance
- On September 15, 2009, the inspectors walked down the Reactor Core Isolation Cooling system after a surveillance run

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed for any discrepancies that could affect the function of the system, and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report, technical specification requirements, administrative technical specifications, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly

identified and resolved equipment alignment problems that could cause initiating events or affect the capability of mitigating systems or barriers and entered them into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of three partial system walkdown samples as defined by Inspection Procedure 71111.04-05.

b. Findings

No findings of significance were identified.

.2 Complete Walkdown

a. Inspection Scope

During the week of July 20, 2009, the inspectors performed a complete system alignment inspection of the Reactor Core Isolation Cooling System to verify the functional capability of the system. The inspectors selected this system because it was considered both safety-significant and risk-significant. The inspectors walked down the system to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, as appropriate, component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. The inspectors reviewed a sample of past and outstanding work orders to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the corrective action program database to ensure that system equipment-alignment problems were being identified and appropriately resolved. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one sample of a complete system walkdown as defined by Inspection Procedure 71111.04-05.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Fire Inspection Tours

a. Inspection Scope

The inspectors conducted fire protection walkdowns that were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Division 1 and 2 Electrical Switchgear Rooms Auxiliary Building elevation 119 feet (1A207 and 1A208)

- Division 1 and 2 Electrical Switchgear Rooms Auxiliary Building elevation 119 feet(1A219 and 1A221)
- Division 1 and 2 Electrical Switchgear Rooms Auxiliary Building elevation 139 feet (1A308 and 1A309)
- Division 1 and 2 Motor Control Center Rooms Auxiliary Building elevation 166 feet (1A407 and 1A410)
- Reactor Core Isolation Cooling Pump Room Auxiliary Building elevation 93 feet (1A104)
- Containment 161 foot elevation (1A445, 1A446 and 1A447)

The inspectors reviewed areas to assess if licensee personnel had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant; effectively maintained fire detection and suppression capability; maintained passive fire protection features in good material condition; and had implemented adequate compensatory measures for out of service, degraded or inoperable fire protection equipment, systems, or features, in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to affect equipment that could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's corrective action program. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of six quarterly fire-protection inspection samples as defined by Inspection Procedure 71111.05-05.

b. Finding

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

.1 Annual Review of Cables Located in Underground Bunkers/Manholes

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report, the flooding analysis, and plant procedures to assess seasonal susceptibilities involving internal flooding; reviewed the Updated Final Safety Analysis Report and corrective action program to determine if licensee personnel identified and corrected flooding problems; inspected underground bunkers/manholes to verify the adequacy of sump pumps, level

alarm circuits, cable splices subject to submergence, and drainage for bunkers/manholes; subject to flooding that contain cables whose failure could disable risk-significant equipment. The inspectors walked down the two areas listed below. Specific documents reviewed during this inspection are listed in the attachment.

- July 16, 2009, Division 1 Standby Service Water System Manholes
- July 20, 2009, Division 2 Standby Service Water System Manholes

These activities constitute completion of one annual review of cables located in underground bunkers/manholes inspection sample as defined by Inspection Procedure 71111.06-05.

c. Findings

No findings of significance were identified.

.2 Annual Review of for Internal Flooding

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report, the flooding analysis, and plant procedures to assess seasonal susceptibilities involving internal flooding; reviewed the Updated Final Safety Analysis Report and corrective action program to determine if licensee personnel identified and corrected flooding problems; inspected underground bunkers/manholes to verify the adequacy of sump pumps, level alarm circuits, cable splices subject to submergence, and drainage for bunkers/manholes; verified that operator actions for coping with flooding can reasonably achieve the desired outcomes; and walked down the three areas listed below to verify the adequacy of equipment seals located below the flood line, floor and wall penetration seals, watertight door seals, common drain lines and sumps, sump pumps, level alarms, and control circuits, and temporary or removable flood barriers. Specific documents reviewed during this inspection are listed in the attachment.

- Division I Battery Room
- Division I Switchgear Room
- Division II Switchgear Room

This inspection activity represents a Review of Operating Experience Smart Sample FY2007-002, related to issues associated with conduit/hydrostatic seals. The inspectors reviewed actions that were entered into the corrective action program. The inspectors reviewed the licensee's inspection maintenance processes, which ensures hydrostatic seals are installed and maintained as designed, and whether hydrostatic seals are within the scope and being tracked by the maintenance rule.

These activities constitute completion of one flood protection measures inspection sample as defined by Inspection Procedure 71111.06-05.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

The inspectors reviewed licensee programs, verified performance against industry standards, and reviewed critical operating parameters and maintenance records for divisions 1 and 2 diesel generator jacket water coolers and lube oil coolers, and the high-pressure core spray diesel generator jacket water coolers. The inspectors verified that performance tests were satisfactorily conducted for heat exchangers/heat sinks and reviewed for problems or errors. The licensee utilized the periodic maintenance method outlined in Electric Power Research Institute (EPRI) Report NP 7552, "Heat Exchanger Performance Monitoring Guidelines." The licensee properly utilized biofouling controls; the licensee's heat exchanger inspections adequately assessed the state of cleanliness of their tubes; and the heat exchanger was correctly categorized under 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one heat sink inspection sample as defined by Inspection Procedure 71111.07-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Quarterly Operation Requalification Inspection (71111.11Q)

a. Inspection Scope

On August 26, 2009, the inspectors observed a crew of licensed operators in the plant's simulator to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- Licensed operator performance
- Crew's clarity and formality of communications
- Crew's ability to take timely actions in the conservative direction
- Crew's prioritization, interpretation, and verification of annunciator alarms
- Crew's correct use and implementation of abnormal and emergency procedures
- Control board manipulations
- Oversight and direction from supervisors

- Crew's ability to identify and implement appropriate technical specification actions and emergency plan actions and notifications

The inspectors compared the crew's performance in these areas to pre-established operator action expectations and successful critical task completion requirements. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one quarterly licensed-operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

.2 Biennial Inspection (71111.11B)

a. Inspection Scope

To assess the performance effectiveness of the licensed operator requalification program, the inspectors conducted personnel interviews, reviewed both the operating tests and written examinations, and observed ongoing operating test activities.

The inspectors interviewed approximately twelve licensee personnel, consisting of licensed operators and instructors, to determine their understanding of the policies and practices for administering requalification examinations. The inspectors reviewed operator performance on the written examinations and operating tests. These reviews included observations of portions of the operating tests by the inspectors. The operating tests observed included ten job performance measures and four scenarios that were administered during the current biennial requalification cycle. These observations allowed the inspectors to assess the licensee's effectiveness in conducting the operating test to ensure operator mastery of the training program content. The inspectors also reviewed medical records of 15 licensed operators for conformance to license conditions and the licensee's system for tracking qualifications and records of license reactivation for two operators.

The results of these examinations were reviewed to determine the effectiveness of the licensee's appraisal of operator performance and to determine if feedback of performance analyses into the requalification-training program was being accomplished. The inspectors interviewed members of the training department and reviewed minutes of training review group meetings to assess the responsiveness of the licensed operator requalification program to incorporate the lessons learned from both plant and industry events. Examination results were also assessed to determine if they were consistent with the guidance contained in NUREG 1021, "Operator Licensing Examination Standards for Power Reactors", Revision 9, Supplement 1, and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process."

In addition to the above, the inspectors reviewed examination security measures, simulator fidelity and existing logs of simulator deficiencies.

The inspectors completed one inspection sample of the biennial licensed operator requalification program as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk significant systems:

- Safety-related motor control center and load center stab/bus connection adequacy
- Area radiation monitoring system (D21)

The inspectors reviewed events such as where ineffective equipment maintenance has resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- Implementing appropriate work practices
- Identifying and addressing common cause failures
- Scoping of systems in accordance with 10 CFR 50.65(b)
- Characterizing system reliability issues for performance
- Charging unavailability for performance
- Trending key parameters for condition monitoring
- Ensuring proper classification in accordance with 10 CFR 50.65(a)(1) or (a)(2)
- Verifying appropriate performance criteria for structures, systems, and components classified as having an adequate demonstration of performance through preventive maintenance, as described in 10 CFR 50.65(a)(2), or as requiring the establishment of appropriate and adequate goals and corrective actions for systems classified as not having adequate performance, as described in 10 CFR 50.65(a)(1)

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified that maintenance effectiveness issues were entered into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

Additionally, this inspection activity represents a Review of Operating Experience Smart Sample FY2009-01, related to issues associated with inspections of electrical connections for motor control centers, circuit breakers, and interfaces. The inspectors searched the licensee's corrective action database for issues involving inadequate stab/bus connections. The inspectors also reviewed the licensee's inspection and maintenance processes, which ensure that motor control center and load center electrical connections, are adequate.

These activities constitute completion of two quarterly maintenance effectiveness samples as defined in Inspection Procedure 71111.12-05.

b. Findings

Introduction. The inspectors identified a Green noncited violation of 10 CFR 50.65(a)(2) involving the failure to adequately monitor the performance of a maintenance rule scoped system.

Description. On September 22, 2009, the inspectors identified three instances where functional failures of area radiation monitoring system components were not properly evaluated under the maintenance rule. The licensee had previously reported two separate failures of the residual heat removal heat exchanger 'A' hatch radiation monitor in June and July 2008. The licensee's program required an evaluation of the area radiation monitoring system for classification as a maintenance rule (a)(1) system if three functional failures occurred within eighteen months. The inspectors identified a condition report from April 2008 that revealed a failure of the control room area radiation monitor. This component is used in emergency preparedness procedures but it was not included in the maintenance rule database. The inspectors also identified condition reports from January and July 2009 that revealed a failure of the reactor core isolation cooling room radiation monitor. This component is relied upon in plant emergency operating procedures and emergency preparedness procedures but was also not included in the maintenance rule database. These failures were neither evaluated for impact on the maintenance rule, nor as a repeat functional failure of maintenance rule components.

The inspectors determined that a condition report from November 2006 identified components and systems that had not been properly included in the maintenance rule database. The licensee found that two subsystems of area radiation monitoring were required by emergency operating Procedure, 05-S-01-EP-4 "Auxiliary Building Control," Revision 26, and added those components to the database. The licensee did not identify three subsystems in their review that were also required by Procedure 05-S-01-EP-4; as a result, these components were not added to the database. Subsequently, in July 2007, a condition report identified that several additional subsystems, including the control room area radiation monitor, were required by emergency preparedness Procedure, 10-S-01-1 "Activation of the Emergency Plan," Revision 119, and needed to be added to the licensee's preventive maintenance program. This condition report did not evaluate the need to place these components in the maintenance rule database.

The licensee did not identify the three failures that would have required the evaluation for classification of the area radiation monitoring system as a Maintenance Rule (a)(1) System. Had the control room area radiation monitor and the reactor core isolation

cooling room radiation monitor been properly included in the maintenance rule database, the licensee would have evaluated the system for classification as Maintenance Rule (a)(1).

Analysis. The inspectors determined that the finding is a performance deficiency in that the licensee failed to apply goals and increase the monitoring of systems impacted by repetitive component failures. The finding was more than minor because it was similar to Inspection Manual Chapter 0612, Appendix E, Example 7.d, in that equipment performance problems were such that effective control of performance or condition through appropriate preventive maintenance under (a)(2) could not be demonstrated. In addition, it affected 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. This finding was characterized under the significance determination process as having very low safety significance because the maintenance rule aspect of the finding did not cause an actual loss of safety function of the system nor did it cause a component to be inoperable. There is no crosscutting aspect associated with this performance deficiency since the cause of this issue occurred over two years ago and does not reflect current licensee performance.

Enforcement. Title 10 CFR 50.65(a)(1) requires, in part, that licensees “shall monitor the performance or condition of systems, structures and components within the scope of the rule against licensee-established goals in a manner sufficient to provide reasonable assurance that the systems, structures and components are capable of fulfilling their intended safety functions.” Title 10 CFR 50.65(a)(2) requires, in part, “monitoring as specified in paragraph (a)(1) of this section is not required where it has been demonstrated that the performance or condition of a structure, system, or component is being effectively controlled through the performance of appropriate preventive maintenance, such that the structure, system, or component remains capable of performing its intended function.” Contrary to the above, the licensee failed to demonstrate that the performance or condition of a maintenance rule scoped system had been effectively controlled through the performance of appropriate preventive maintenance. Specifically, the licensee failed to properly evaluate the repetitive failures of system components which demonstrated that the performance of the systems were not being effectively controlled and goal setting and monitoring was required. However, because this inspection finding was characterized by the significance determination process as having very low risk significance (Green) and has been entered in the licensee’s corrective action program as condition reports CR-GGN-2009-04853 and CR-GGN-2009-04857, this violation is being treated as a noncited violation, consistent with Section IV.A.1 of the NRC Enforcement Policy: NCV 05000416/2009004-01, Failure to Monitor Performance of a Maintenance Rule Scoped System.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed licensee personnel's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Division 2 diesel generator and residual heat removal loop B work the week of July 6, 2009
- Standby gas treatment B work week with emergent severe weather requiring entry into a yellow risk condition the week of August 3, 2009
- Standby liquid control system B, Standby Service Water division 2 ventilation, work and instrument air permanent modification work requiring yellow risk entry the week of August 31, 2009
- Instrument air spool piece installation and repairing one of the offsite 500 KV lines both requiring yellow risk entry the week of September 14, 2009

The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that licensee personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When licensee personnel performed emergent work, the inspectors verified that the licensee personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four maintenance risk assessments and emergent work control inspection samples as defined by Inspection Procedure 71111.13-05.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- Division 1 diesel generator elevated vibration at the right bank turbocharger reported during surveillance testing, CR-GGN-2009-03054 and CR-GGN-2009-02089
- Standby service water to plant service water crosstie isolation valve over thrust condition, CR-GGN-2009-03725
- Standby liquid control B gearbox oil viscosity issue, CR-GGN-2009-03949

- Grand Gulf Nuclear Station calculations for Division I, II and III safety related batteries, CR-GGN-2009-04168
- Division 2 standby service water degraded pump house ventilation air flow, CR-GGN-2009-04302

The inspectors selected these potential operability issues based on the risk-significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that technical specification operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the technical specifications and Updated Final Safety Analysis Report to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of five operability evaluations inspection samples as defined in Inspection Procedure 71111.15-05

b. Findings

No findings of significance were identified

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following postmaintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- For Division 2 diesel generator tachometer replacement
- For Residual Heat Removal loop B outage
- For Standby Service Water loop B Fan C outage
- For Standby Liquid Control pump B outage
- For Division 2 standby service water ventilation outage

The inspectors selected these activities based upon the structure, system, or component's ability to affect risk. The inspectors evaluated these activities for the

following (as applicable):

- The effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed
- Acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate

The inspectors evaluated the activities against the technical specifications, the Updated Final Safety Analysis Report, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with postmaintenance tests to determine whether the licensee was identifying problems and entering them in the corrective action program and that the problems were being corrected commensurate with their importance to safety. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of five postmaintenance testing inspection samples as defined in Inspection Procedure 71111.19 05.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report, procedure requirements, and technical specifications to ensure that the six surveillance activities listed below demonstrated that the systems, structures, and/or components tested were capable of performing their intended safety functions. The inspectors either witnessed or reviewed test data to verify that the significant surveillance test attributes were adequate to address the following:

- Preconditioning
- Evaluation of testing impact on the plant
- Acceptance criteria
- Test equipment
- Procedures
- Test data
- Testing frequency and method demonstrated technical specification operability

- Test equipment removal
- Restoration of plant systems
- Fulfillment of ASME Code requirements
- Updating of performance indicator data
- Reference setting data
- Annunciators and alarms setpoints.

The inspectors also verified that licensee personnel identified and implemented any needed corrective actions associated with the surveillance testing.

- August 4, 2009, Test of Division 2 Residual Heat Removal B Leak Detection Isolation Switches
- August 21, 2009, High Pressure Core Spray Quarterly Valve Inservice Test
- August 22, 2009, High Pressure Core Spray Diesel Generator Functional Test
- August 25, 2009, Average Power Range Monitor Channel C Calibration
- August 26, 2009, Reactor Coolant Leakage, following the back seating of reactor pressure vessel head vent valve B21-F005. This back seating was necessary due to increase unidentified leakage in the containment which had been trending up since mid-July 2009
- September 23, 2009, local leak rate testing of containment isolation valves P48-F009 and P48-F010 standby liquid control test tank drain valves

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of six surveillance testing inspection samples as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation (71114.01)

a. Inspection Scope

The inspectors reviewed the objectives and scenario for the 2009 biennial emergency plan exercise to determine if the exercise would acceptably test major elements of the emergency plan. The scenario simulated a fire in the Division III switchgear room

escalating to a loss of power to vital plant equipment, fission product barrier failures, core damage and a radiological release to the environment via containment venting to demonstrate the licensee personnel's capability to implement their emergency plan.

The inspectors evaluated exercise performance by focusing on the risk-significant activities of event classification, offsite notification, recognition of offsite dose consequences, and development of protective action recommendations, in the Control Room Simulator and the following dedicated emergency response facilities:

- Technical Support Center
- Operations Support Center
- Emergency Operations Facility

The inspectors also assessed recognition of, and response to, abnormal and emergency plant conditions, the transfer of decision making authority and emergency function responsibilities between facilities, onsite and offsite communications, protection of emergency workers, emergency repair evaluation and capability, and the overall implementation of the emergency plan to protect public health and safety and the environment. The inspectors reviewed the current revision of the facility emergency plan, emergency plan implementing procedures associated with operation of the licensee's emergency response facilities, procedures for the performance of associated emergency functions, and other documents as listed in the attachment to this report.

The inspectors compared the observed exercise performance with the requirements in the facility emergency plan, 10 CFR 50.47(b), 10 CFR Part 50, Appendix E, and with the guidance in the emergency plan implementing procedures and other federal guidance.

The inspectors attended the post exercise critiques in each emergency response facility to evaluate the initial licensee self-assessment of exercise performance. The inspectors also attended a subsequent formal presentation of critique items to plant management. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.01-05.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors performed an in-office review of the Grand Gulf Nuclear Station Emergency Plan, Revision 61, and Emergency Plan Implementing Procedure 10-S-01-1, "Activation of the Emergency Plan," Revision 119. These revisions included position title changes, facility name changes, updated the population distribution in accordance with the current evacuation time estimate study, updated classification descriptions to include the security component, revised the potassium iodide protective action recommendations, clarified termination criteria, and implemented other minor administrative changes.

This revision was compared to its previous revision, to the criteria of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, and to the standards in 10 CFR 50.47(b) to determine if the revision adequately implemented the requirements of 10 CFR 50.54(q). This review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two samples of emergency action level and emergency plan changes as defined in Inspection Procedure 71114.04-05.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on July 15, 2009, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the simulator control room and the emergency operations facility to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the corrective action program. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the attachment.

These activities constitute completion of one sample of an emergency preparedness drill evaluation as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational and Public Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

a. Inspection Scope

This area was inspected to assess licensee personnel's performance in implementing physical and administrative controls for airborne radioactivity areas, radiation areas, high radiation areas, and worker adherence to these controls. The inspectors used the requirements in 10 CFR Part 20, the technical specifications, and the licensee's procedures required by technical specifications as criteria for determining compliance. During the inspection, the inspectors interviewed the radiation protection manager, radiation protection supervisors, and radiation workers. The inspectors performed independent radiation dose rate measurements and reviewed the following items:

- Performance indicator events and associated documentation packages reported by the licensee in the Occupational Radiation Safety Cornerstone
- Controls (surveys, posting, and barricades) of three radiation, high radiation, or airborne radioactivity areas
- Radiation work permits procedures, engineering controls, and air sampler locations
- Conformity of electronic personal dosimeter alarm set points with survey indications and plant policy; workers' knowledge of required actions when their electronic personnel dosimeter noticeably malfunctions or alarm
- Barrier integrity and performance of engineering controls in two airborne radioactivity areas
- Adequacy of the licensee's internal dose assessment for any actual internal exposure greater than 50 millirem committed effective dose equivalent
- Physical and programmatic controls for highly activated or contaminated materials (non-fuel) stored within spent fuel and other storage pools
- Self-assessments, audits, licensee event reports, and special reports related to the access control program since the last inspection
- Corrective action documents related to access controls
- Licensee actions in cases of repetitive deficiencies or significant individual deficiencies
- Radiation work permit briefings and worker instructions
- Adequacy of radiological controls, such as required surveys, radiation protection job coverage, and contamination control during job performance

- Dosimetry placement in high radiation work areas with significant dose rate gradients
- Changes in licensee procedural controls of high dose rate - high radiation areas and very high radiation areas
- Controls for special areas that have the potential to become very high radiation areas during certain plant operations
- Posting and locking of entrances to all accessible high dose rate - high radiation areas and very high radiation areas
- Radiation worker and radiation protection technician performance with respect to radiation protection work requirements

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of 21 samples of access control to radiologically significant areas as defined in Inspection Procedure 71121.01-05.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

40A1 Performance Indicator Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the data submitted by the licensee for the second Quarter 2009 performance indicators for any obvious inconsistencies prior to its public release in accordance with Inspection Manual Chapter 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings of significance were identified.

.2 Safety System Functional Failures

a. Inspection Scope

The inspectors sampled licensee submittals for the Safety System Functional Failures performance indicator for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during

those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73" definitions and guidance were used. The inspectors reviewed the licensee's operator narrative logs, operability assessments, maintenance rule records, maintenance work orders, condition reports, event reports and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none was identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one safety system functional failures sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.3 Mitigating Systems Performance Index - Emergency AC Power System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Emergency ac Power System performance indicator for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, mitigating systems performance index derivation reports, condition reports, event reports and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one mitigating systems performance index emergency ac power system sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.4 Mitigating Systems Performance Index - High Pressure Injection Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - High Pressure Injection Systems performance indicator for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, condition reports, mitigating systems performance index derivation reports, event reports and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none was identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one mitigating systems performance index high-pressure injection system sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.5 Mitigating Systems Performance Index - Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Heat Removal System performance indicator for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, condition reports, event reports, mitigating systems performance index derivation reports, and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one mitigating systems performance index heat removal system sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.6 Mitigating Systems Performance Index - Residual Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Residual Heat Removal System performance indicator for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, condition reports, mitigating systems performance index derivation reports, event reports and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one mitigating systems performance index residual heat removal system sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.7 Mitigating Systems Performance Index - Cooling Water Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Cooling Water Systems performance indicator for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, condition reports, mitigating systems performance index derivation reports, event reports and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data

collected or transmitted for this indicator and none was identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one mitigating systems performance index cooling water system sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.8 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors sampled licensee submittals for the Reactor Coolant System Specific Activity performance for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's reactor coolant system chemistry samples, technical specification requirements, condition reports, event reports and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze a reactor coolant system sample. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one reactor coolant system specific activity sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.9 Reactor Coolant System Leakage

a. Inspection Scope

The inspectors sampled licensee submittals for the Reactor Coolant System Leakage performance indicator for the period from the third quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator logs, reactor coolant system leakage tracking data, condition reports, event reports and NRC integrated inspection reports for the period of July 2008 through June 2009 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's condition report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents

reviewed are described in the attachment to this report.

These activities constitute completion of one reactor coolant system leakage sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.10 Drill/Exercise Performance (EP01)

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill and Exercise Performance, performance indicator for the period from the third quarter 2008 to the second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the Nuclear Energy Institute guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator; assessments of performance indicator opportunities during predesignated control room simulator training sessions, performance during the 2009 biennial exercise, and performance during other drills. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one sample of the drill/exercise performance as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.11 Emergency Response Organization Drill Participation (EP02)

a. Inspection Scope

The inspectors sampled licensee submittals for the Emergency Response Organization Drill Participation performance indicator for the period from the third quarter 2008 to the second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the Nuclear Energy Institute guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator, rosters of personnel assigned to key emergency response organization positions, and

exercise participation records. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one sample of the emergency response organization drill participation as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.12 Alert and Notification System (EP03)

a. Inspection Scope

The inspectors sampled licensee submittals for the Alert and Notification System performance indicator for the period from the third quarter 2008 to the second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the Nuclear Energy Institute guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator and the results of periodic alert notification system operability tests. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one sample of the alert and notification system as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.13 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors sampled licensee submittals for the Occupational Radiological Occurrences performance indicator for the fourth quarter 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's assessment of the performance indicator for occupational radiation safety to determine if indicator-related data was adequately assessed and reported. To assess the adequacy of the licensee's performance indicator data collection and analyses, the inspectors discussed with radiation protection staff, the scope and breadth of its data review, and the results of those reviews. The inspectors independently reviewed electronic dosimetry dose rate and accumulated dose alarm and dose reports and the dose assignments for any intakes that occurred during the period reviewed to determine if there were potentially

unrecognized occurrences. The inspectors also conducted walkdowns of numerous locked high and very high radiation area entrances to determine the adequacy of the controls in place for these areas.

These activities constitute completion of one sample of the occupational radiological occurrences as defined by IP 71151-05.

b. Findings

No findings of significance were identified.

.14 Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences

a. Inspection Scope

The inspectors sampled licensee submittals for the Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences performance indicator for the 2008 through second quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's issue report database and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have affected offsite dose.

These activities constitute completion of one sample of the radiological effluent technical specifications/offsite dose calculation manual radiological effluent occurrences as defined by IP 71151-05.

b. Findings

No findings of significance were identified.

40A2 Identification and Resolution of Problems (71152)

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Physical Protection

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. The inspectors reviewed attributes that included: the complete and

accurate identification of the problem; the timely correction, commensurate with the safety significance; the evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews; and the classification, prioritization, focus, and timeliness of corrective actions. Minor issues entered into the licensee's corrective action program because of the inspectors' observations are included in the attached list of documents reviewed.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings of significance were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. The inspectors accomplished this through review of the station's daily corrective action documents.

The inspectors performed these daily reviews as part of their daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings of significance were identified.

.3 Selected Issue Follow-up Inspection; Fire Brigade Manning and Safe Shutdown Operator

a. Inspection Scope

The inspectors reviewed condition reports and corrective actions associated with the failure to maintain required staffing available to respond to a fire. The inspectors reviewed a condition report that identified that requirements for a five-person fire brigade be available onsite at all times and not assigned duties that conflict with the duties of the fire brigade per approved Fire Protection Program to ensure (1) complete and accurate identification of the problem in a timely manner; (2) consideration of extent of condition; (3) classification and prioritization of the resolution of the problem; (4) identification of root and contributing causes of the problem; (5) identification of corrective actions; and (6) completion of corrective actions in a timely manner.

These activities constitute completion of one in-depth problem identification and resolution sample as defined in Inspection Procedure 71152-05.

c. Findings

Introduction. The inspectors identified a Green non-cited violation of Technical Specification 5.4.1(a) for failure to ensure that operators can respond in timely manner to safe shutdown panels in the auxiliary building following a fire in the main control room.

Description. In March of 2009, the inspectors reviewed a condition report associated with a finding dealing with response times of operators to a fire in the protective area with Mississippi River at flood stage. The inspectors questioned the assistant operations manager about the adequacy of response times for fire brigade members and the safe shutdown operator in the event of fire in the control room. Specifically, the inspectors inquired if there were any required actions in the event of control room evacuation that were time sensitive for performance. The licensee initiated a condition report and conducted a review of plant procedures to determine if any operator actions for the safe shutdown operator were time sensitive.

The operations staff determined that Off Normal Event Procedure, 05-1-02-II-1, "Shutdown from the Remote Shutdown Panel," Revision 34, Step 1.7, was a time critical step that needed to be performed within 13 minutes. Specifically, an engineering analysis in 2005 required modification of the procedure to dispatch operators to realign switches that separate control room circuits from the remote shutdown circuits. The purpose of this time critical evolution was for operators to perform a reactor vessel depressurization and injection with a low-pressure injection pump prior to reactor water level going below the top of active fuel. The safe shutdown operator would be required to transfer control of the containment spray Valve 1E12-F028A to prevent diverting flow away from the core. Based on this re-evaluation of required actions, as of June 11, 2009, operations revised the conduct of operations procedures prohibiting the safe shutdown operator from leaving the protected area.

The inspectors then asked operations to perform a review of shift logs and emergency response duties, within the last six months, to determine how frequently the safe shutdown operator was assigned the outside rounds position. The outside rounds position requires an operator to exit the protected area for approximately one hour a day to perform checks on equipment outside the protective area such as the switchyard, plant service water pumps at the river and metrological tower. Operations review of plant logs from January 1, 2009, to June 11, 2009, determined that the safe shutdown operator was assigned the outside rounds position approximately five times a month.

During the triennial fire inspection in March of 2008, the licensee was issued a noncited violation for an issue with response times to a fire in the protected area with Mississippi River at flood stage and the ability of fire brigade members to respond in a timely manner. The licensee entered this issue into their corrective action program and revised procedures to not allow fire brigade members to go to the radial wells in a boat during flood stage. However, they failed to perform an adequate extent of condition for the finding to incorporate other potential issues within their procedures dealing with timely response.

Analysis. The inspectors determined that the failure to respond to the safe shutdown panels in the auxiliary building in timely manner is a performance deficiency. The inspectors determined this finding to be more than minor since it affected the external events attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheet, it was determined that the finding screened as potentially risk significant due to external events and required the regional senior reactor analyst to perform a Phase 3 evaluation. The senior reactor analyst determined the likelihood that control room abandonment occurs while the safe shutdown operator is out of the protected area is $9.78E-8$. The change in core damage frequency is lower than this value and small enough that large early release frequency is not required to be considered. Therefore the issue is (Green) of very low safety significance. The cause of this finding has a crosscutting aspect in the area of problem identification and resolution associated with corrective action program in that the licensee failed to perform an appropriate extent of condition when implementing corrective action associated with fire brigade response issue in 2008 [P.1(c)].

Enforcement. Technical Specification 5.4.1(a) requires written procedures to be implemented as recommended by Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Section 6.p recommends procedures for fire in control room or forced evacuation of control room. Section 1.7, of Procedure 05-1-02-II-10 implemented this requirement and required operators to take actions in timely manner to prevent a reactor water level from decreasing below top of active fuel. Contrary to the above, the safe shutdown operator was assigned duties that took the individual outside the protected area. These duties did not allow the individual to arrive in timely manner at the alternate shutdown panels in the auxiliary building to perform actions to prevent the core from becoming uncovered in the event of a fire in the main control room. Because the finding was of very low safety significance and has been entered into the corrective action program as condition report CR-GGN-2009-01416, this violation is being treated as a noncited violation, consistent with section VI.A of the NRC Enforcement Policy, NCV 05000416/2009004-02, Failure to Maintain Operator Response Times to Fires.

40A3 Event Follow-up (71153)

.1 Average Power Range Meter Fluctuations due to Reactor Recirculation System Bi-Stable Flow Condition

a. Inspection Scope

On September 15, 2009, all Average Power Range Meter flux levels increased from approximately 99 percent to about 108 percent for approximately one second and returned to normal levels causing the Average Power Range Meter upscale alarm and Control Rod Withdrawal Block annunciators to alarm in the control room. Average Power Range Meter levels fluctuated two more times that day at lower magnitudes. The licensee conducted a troubleshooting session, during which they examined other plant data including core flow and local power range meter indications, and evaluated the power excursions as being due to reactor recirculation system bi-stable flow conditions. The licensee also referred to vendor studies that were consistent with the licensee's conclusions. The inspectors reviewed the licensee's data and conclusions and evaluated

the response to the event. Documents reviewed in this inspection are listed in the attachment.

b. Findings

No findings of significance were identified.

.2 Containment and Drywell Pressure Increase Caused by Trip of all Containment Cooling

a. Inspection Scope

On September 11, 2009, all containment cooling was lost because of an inadvertent smoke detector signal with no direct control room indication or alarm. The operating crew noticed a slow increasing trend of containment and drywell pressure while performing control room rounds. The inspectors responded to the control and observed the operating crews response to the event. The shift manager directed operators and instrument and control technicians to the containment to look for an air leak and or a steam leak. The operations crew trended containment pressure and drywell pressure and they trended a rising containment temperature. The control room staff investigated instrument and service air usage and determined that there was no major air leak and was in progress of investigating the rising temperature in containment. When the operators dispatched to containment, they reported a significant reduction of noise in containment due to no containment cooling units running. The operating crew determined that the only cause of a trip of all containment coolers would be from smoke detectors. Maintenance personnel determined which smoke detector circuit was causing the inadvertent trip signal. The faulty relay was removed, containment coolers were restarted, and containment parameters began returning to normal. The inspectors reviewed the work orders associated with the repair of the smoke detection system in the containment and the operation assessment of the event. Documents reviewed in this inspection are listed in the attachment.

b. Findings

No findings of significance were identified.

.3 (Closed) Licensee Event Report 05000416/2009-001-00, "Containment Isolation Valve Placed in Service After Maintenance Without Administrative Controls Due to Human Performance Error"

On February 25, 2009, maintenance was completed on two residual heat removal primary containment isolation valves. The primary containment isolation valves were returned to service before the required Technical Specification 5.5.6 In-service Testing Program stroke time tests were performed to confirm operability. The primary containment isolation valves should have been placed under administrative controls or isolated per Technical Specification 3.6.1.3 Required Action A.1 within 4 hours. Technical Specification 3.6.1.3 required Action E.1, which requires entry into Mode 3 within 12 hours if A.1 is not met. Neither primary containment isolation valves was tested within the combined 16-hour required action completion times of Technical Specification 3.6.1.3. A condition prohibited by technical specification existed for both valves.

The cause of this event was failure to correctly follow procedure and inadequate work order verification. Control Room personnel did not follow station procedure for entering separate Limiting Conditions for Operation when prepared for multiple components within the same technical specification. One limiting conditions for operations was entered for both primary containment isolation valves and the residual heat removal 'A' system. Both Control Room and Outage Control Center personnel misinterpreted the work order tasks as cancelled resulting in the retest being marked not applicable. There is no safety consequence associated with this event.

Corrective actions included a standing order to ensure retest and technical specification and limiting conditions for operations requirements are reviewed by additional crew senior reactor operators during limiting conditions for operations and tagging activities. Documents reviewed as part of this inspection are listed in the attachment. The enforcement aspects of this finding were discussed in NRC Inspection Report 05000416/2009002 in Section 1R19. This LER is closed.

.4 (Closed) Licensee Event Report 05000416/2009-002-00, "Grand Gulf Emergency Diesel Generator Actuation Caused by a Degraded DC Control Battery"

On May 5, 2009 at 11:27 p.m. Central Daylight Time, Grand Gulf Nuclear Station was in Mode 1 operating at approximately 100 percent power when a valid Engineered Safety Feature actuation of the Division 1 emergency diesel generator and standby service water A occurred. The actuation occurred due to a degraded voltage condition on engineered safety feature transformer 12, which, initiated a load shed and sequence on the 15AA bus, which required the emergency diesel generator to start and supply ac power to the bus. The cause of the engineered safety feature actuation was a 90 percent bus under voltage condition that lasted for greater than nine seconds due to feeder breaker 5X01 and main breaker 5X22 failing to open and clear a fault on over current in the required 3 to 5 cycles. The feeder breaker and main breaker did not open due to low dc control voltage which was caused by a degraded 48 Vdc battery bank. The battery bank (24 cells) was inspected and found to have visual cell damage in one cell. Additional cell testing was performed on the battery bank and two of the tested cells were found to have unsatisfactory results.

Corrective actions included replacing the degraded 48 Vdc battery bank with a new 48 Vdc battery bank on May 11, 2009, and performing breaker maintenance and testing on breakers 5X01 and 5X22. Documents reviewed as part of this inspection are listed in the attachment. No findings of significance were identified. This LER is closed.

.5 (Closed) Licensee Event Report 05000416/2009-003-00; "Special Nuclear Material Inventory Discrepancy"

During performance of the 2009 annual special nuclear material physical inventory, the licensee identified discrepancy between the special nuclear material database and the physical inventory was discovered regarding the location of one un-irradiated local power range detector. The detector contained less than 1 gram of special nuclear material. Inspectors reviewed the licensee event report; NRC Event Notification 45223 issued pursuant to 10 CFR 20.2201, and the licensee's corrective action document (CR-GGN-2009-3729), which documented this event and its causes. The licensee investigation determined that the detector was shipped with other radioactive material during the 2005 spent fuel pool cleanup campaign. Documents reviewed as part of this

inspection are listed in the attachment. The enforcement aspects of this finding were discussed in Section 4OA7 of this report. This LER is closed.

4OA5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors performed observations of security force personnel and activities to ensure that the activities were consistent with Grand Gulf Nuclear Station security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspectors' observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

.2 Operation of an Independent Spent Fuel Storage Installation at Operating Plants (60855.1)

a. Inspection Scope

On August 5, 2009, enforcement discretion was issued to Holtec International (ML092180140). The Enforcement Discretion was associated with a violation of the requirements of 10 CFR 72.48(c)(2), where Holtec deleted the requirements to perform a helium leak test of the multi-purpose canister at the fabrication facility without obtaining a certificate of compliance amendment. Holtec had performed the 10 CFR 72.48 Evaluation 762 that deleted the requirement to perform the helium leak test on January 25, 2006.

At the time of the issuance of the enforcement discretion, the licensee was in the process of beginning a dry fuel loading campaign and had five unloaded multi-purpose canisters at the site that had been fabricated by Holtec since its deletion of the helium leak test requirement. One of the multi-purpose canisters had been immersed in the spent fuel pool in preparation to begin loading operations. In response to the enforcement discretion, Holtec dispatched personnel to the site to perform the helium leak tests of the unloaded multi-purpose canisters. Between August 16 and 20, 2009, the leak tests were performed using Procedure 20-S-03-215, "Holtec International Multi-Purpose Canisters Shell Field Helium Leak Testing," Revision 0. Between August 18 and 20, 2009, the resident inspectors observed portions of the helium leak test activities on multi-purpose Canisters 224 and 225. After completion of the testing, the component completion records for multi-purpose Canisters 224, 225, 226 and 227 were reviewed by regional staff. Included with the component completion records was the documentation of the leak tests that had been performed using Procedure 20-S-03-215. The

certification records of the helium leak test individuals that were responsible for performing the leak tests were also reviewed by the regional staff. The fifth cask had been contaminated from the immersion in the spent fuel pool and would be leak tested before use. The license was controlling the release of the multi-purpose canisters for loading activities based on the acceptable results of the helium leak tests. The observations and documentation of the four canisters that were helium leak tested were determined to be satisfactory.

b. Findings

No findings of significance were identified.

40A6 Meetings

Exit Meeting Summary

On July 16, 2009, the inspectors conducted a telephonic exit meeting to present the results of the in-office inspection of changes to the licensee's emergency plan and emergency action levels to Ms. M. Wilson, Manager, Emergency Preparedness, and other members of the licensee's staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On August 21, 2009, the inspectors briefed Mr. R. Douet, Vice President Operations, and other members on the licensee's staff of the results of the licensed operator requalification program inspection. The licensee representatives acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

In addition, on August 21, 2009, the inspectors presented the inspection results to Mr. R. Douet, Vice President Operations, and other members of his staff who acknowledged the findings. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

On September 18, 2009, the inspectors conducted a telephonic exit meeting to present the results of the onsite emergency preparedness inspection results to Mr. M. Krupa, Director, Nuclear Safety Assurance and other members of the licensee's staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On October 5, 2009, the inspectors presented the inspection results to Mr. R. Douet, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

40A7 Licensee-Identified Violations

The following violations of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as NCVs.

- Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," states, in part, that "activities affecting quality shall be prescribed by documented procedures and shall be accomplished in accordance with those procedures." Contrary to this, no documented procedures were in place to ensure the operability of safety related ventilation systems that provides cooling for the standby service water pump houses. On January 15, 2009, it was determined by the engineering staff that the ventilation flow rates for the safety related standby service water pump rooms were significantly degraded to almost half of normal flow rate for cooling and higher than normal flow rate for recirculation flow that is required during colder weather. The site determined that on August 20, 2009, the reason for the degraded flow was due to the ventilation screens being severely clogged and several dampers being broken in the open direction. It was determined by system engineering that no procedures or preventive maintenance schedules were in place to inspect, clean and restore degraded conditions in the ventilation system for the standby service water pump houses. This issue was documented in the licensee's corrective action program as condition report CR-GGN-2009-00199. This finding is of very low safety significance because although the ventilation flow rates were degraded operability of the standby service water pumps were maintained such that they could perform their safety function for their required mission time.
- Title of 10 CFR Part 50 Appendix B, Criterion V, "Instructions, Procedures and Drawings," states, in part, that "activities affecting quality shall be prescribed by documented instructions and shall be accomplished in accordance with those instructions." Section 5.4[2] of Procedure EN-OP-104, "Operability Determinations," Revision 3, required operability evaluations to provide a technical basis for each item in the detailed problem statements per Step 5 of Attachment 9.5 of the procedure. Contrary to the above, on August 21, 2009 plant engineers failed to provide a technical basis for the operability determination they performed by not considering external events such as earthquakes, high winds and tornados when determining operability of the standby services ventilation system which was in a degraded condition. Operations accepted the initial operability provided by engineering but the subsequent shift manager required the design engineering to perform new evaluation taking into account external events. The new operability determination was performed and determined that the standby service water system remained operable. This issue was documented in the licensee's corrective action program as condition report CR-GGN-2009-04302. This finding was of very low safety significance since it did not result in a loss of operability of the standby service water system.
- Title 10 of CFR Part 50, Appendix B, Criterion V, [Instructions, Procedures and Drawings,] states, in part, that "activities affecting quality shall be prescribed by documented procedures and shall be accomplished in accordance with those procedures." On September 16, 2009, plant operations management failed to implement section 6.1.1 of Procedure 02-1-S-17, "Control of Limiting Conditions for Operation." The procedure states that the shift supervisor will initiate limiting conditions for operation whenever plant conditions warrant. Contrary to this, a limiting condition for operation was not entered prior to removing the inspection hatches on the standby gas treatment system. The reason for not entering the limiting conditions for operation action statement was due to maintenance supervisor assuming that worked started on September 14, 2009, that required entry into the limiting conditions for operation action statement, which operations entered that day, was never exited by operations when

work was completed on September 14, 2009. Therefore, when work was recommenced on September 16, 2009, the maintenance department personnel never informed the control room. The maintenance personnel also failed to follow Procedure EN-AD-102, "Procedure Adherence and Level of Use," Revision 5, Step 5.2.5 [3] that requires personnel to verify all prerequisites are still satisfied after stopping work for greater than shift. This issue was documented in the licensee's corrective action program as condition report CR-GGN-2009-04754. This finding is of very low safety significance because it did not represent a degradation of the radiological barrier function provided for the control room, it did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere, it did not represent an open pathway in containment, and did not impact the hydrogen igniters in containment.

- Title 10 of the Code of Federal Regulations Part 74.19 requires, in part, that each licensee to keep records of inventory (including location and unique identity), transfer and disposal of all special nuclear material regardless of its origin or method of acquisition and to conduct an annual physical inventory of all special nuclear material in its possession. Contrary to the above, on July 22, 2009, during the performance of the 2009 annual special nuclear material physical inventory, a discrepancy between the special nuclear material database and the physical inventory was determined. Specifically, the licensee failed to keep adequate records and inventory of a local power range monitor containing special nuclear material from 2005-2009. Inadequate records and inventory of the local power range monitor resulted in its shipment to a disposal facility in 2005. However, the inventory stated the location of the local power range monitor as the spent fuel pool. This error was discovered when a new engineer performed the 2009 physical inventory. This finding was documented in the licensee's corrective action program as condition report CR-GGNS-2009-03729.
- Title 10 of the Code of Federal Regulations, Part 50.47(b)(10) requires the licensee develop and have in place guidelines for the choice of protective actions during an emergency that are consistent with federal guidance. Contrary to this, prior to September 11, 2009, the licensee did not develop and have in place guidelines for the choice of protective actions during an emergency that were consistent with federal guidance. Specifically, the licensee's guidelines for extending existing protective action recommendations into additional emergency planning zone sectors under conditions of changing wind vectors were not consistent with the guidance contained in EPA 400-R-92-001. Procedure 10-S-01-12, "Radiological Assessment and Protective Action Recommendation," Revision 40, contains the licensee's guidelines for extending existing protective action recommendations. The licensee's practices result in unnecessary recommendations for protective actions in areas where valid dose projections show federal protective action guides are not exceeded, and may expose members of the public to unjustified risks. This issue is documented in the licensee's corrective action program as condition reports CR-GGN-2009-3902 and CR-HQN-0757. This finding is of very low safety significance because it is not a risk significant planning standard functional failure or degraded function because the licensee would issue protective action recommendations to offsite authorities in accordance with federal guidance for all areas of the emergency planning zone where protective action guides are exceeded.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

D. Barfield, Director, Engineering
J. Browning, General Manager, Plant Operations
J. Caery, Training Manager
M. Causey, Maintenance Rule Engineer
G. Giles, Manager, Corrective Actions and Assessments
R. Douet, Vice President, Operations
B. Edwards, Minority Owner Specialist
H. Farris, Assistant Operations Manager
D. Fearn, Simulator Support Superintendent
E. Harris, Manager, Quality Assurance
K. Higginbotham, Manager, Operations
J. Houston, Manager, Maintenance
D. Jones, Manager, Design Engineering
M. Krupa, Director, Nuclear Safety and Assurance
M. McAdory, Senior Operations Instructor
C. Perino, Licensing Manager
W. Renz, Director, Emergency Preparedness
M. Rohrer, Manager, Component Engineering
J. Shew, Manager, System Engineering
R. Sumrall, Operations Training Manager
W. Trichell, Manager, Radiation Protection
D. Tucker, Emergency Preparedness Planner
R. VanDenacker, Emergency Preparedness Planner
M. Wilson, Manager, Emergency Preparedness
R. Wilson, Manager, Planning, Scheduling and Outages
D. Wilson, Supervisor, Design Engineering
M. Withrow, Supervisor, Reactor Engineering
E. Wright, ALARA Specialist, Radiation Protection

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000416/2009004-01 NCV Failure to Monitor Performance of a Maintenance Rule Scoped System (Section 1R12)

05000416/2009004-02 NCV Failure to Maintain Operator Response Times to Fires (Section 4OA2.3)

Closed

05000416/2009-001-00 LER Containment Isolation Valve Placed in Service After Maintenance Without Administrative controls Due to Human Performance Error (Section 4OA3.3)

05000416/2009-002-00 LER Grand Gulf Emergency Diesel Generator Actuation Caused by a Degrading DC Control Battery (Section 4OA3.4)

05000416/2009-003-00 LER Special Nuclear Material Inventory Discrepancy (Section 4OA3.5)

LIST OF DOCUMENTS REVIEWED

Section 1RO4: Equipment Alignment

CONDITION REPORT

CR-GGN-2009-03643	CR-GGN-2009-03005	CR-GGN-2009-01893
CR-GGN-2009-00933	CR-GGN-2007-04321	CR-GGN-2007-04719
CR-GGN-2008-02085	CR-GGN-2008-06169	CR-GGN-2009-00339
CR-GGN-2008-06109		

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
04-1-01-C41-1	Standby Liquid Control System	116
04-1-01-E12-1	Residual Heat Removal System	134
04-1-01-E51-1	Reactor Core Isolation Cooling System	126
04-1-01-E51-1	Reactor Core Isolation Cooling System	127
EN-LI-100	Process Applicability Determination	8

WORK ORDERS

WO 184377

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
Drawing M-1083A	P&ID Reactor Core Isolation and Cooling	33
Drawing M-1083B	P&ID Reactor Core Isolation and Cooling	36
EC 15696		
GFIG-OPS-E5100	RCIC System Water Side	
GFIG-OPS-E5100	RCIC System Steam Side	

Section 1RO5: Fire Protection

CONDITION REPORT

CR-GGN-2009-04794	CR-GGN-2009-05048	
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DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
06-OP-SP64-M-0047	Fire Extinguisher Bulk Change Out – 5 Year	107
06-OP-SP64-M-0047	Unit 1 Fire Hose Station Check, Fire Extinguisher Inspections and B5b Lockers Inventory Checks	109

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
07-S-12-143	Big Beam Emergency Light Inspection, Battery Capacity Verification, and Functional Test	0
07-S-14-12	Fire Extinguisher Maintenance Check Auxiliary Building	033

WORK ORDER

WO51669161 WO51801486 WO51640714 01

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
Drawing E-1625	Lighting & Communication Plan Auxiliary & Containment Bldg., ELEV. 114 feet 6 inches, 119 feet and 120 feet 10 inches Unit 1	18
Fire Pre-Plan A-03	RCIC Pump Room – 1A104	1
Fire Pre-Plan A-13	Electrical SWGR Room 1A207, Electrical SWGR Room 1A208	
Fire Pre-Plan A-16	Electrical SWGR Room 1A219, Electrical SWGR Room 1A221	
Fire Pre-Plan A-24	Electrical SWGR Room 1A308	
Fire Pre-Plan A-25	Electrical SWGR Room 1A309	
Fire Pre-Plan A-32	Motor Control Center Room 1A407	
Fire Pre-Plan A-33	Motor Control Center Room 1A410	
Fire Pre-Plan A-34	Containment Cooler Area and Walkways 1A445, 1A446, and 1A447	

Section 1RO6: Flood Protection Measures

CONDITION REPORT

CR-HQN-2009-00296 CR-GGN-2009-00965 CR-GGN-2009-01028
CR-GGN-2009-00400 CR-GGN-2009-00565 CR-GGN-2007-01462

WORK ORDER

WO04173 WO151145 WO169771 WO139287

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
Drawing E0660	Site Raceway Plan	31
Drawing E0663	Enlarged Site Raceway Plan	17
Drawing E0665	Electrical Manhole Detail	12
Drawing E0688	Raceway Plan Control Building Elevation, 111 Feet Area 25A	42
Drawing M-0800 A & B	Wall & Floor Penetration Details	12
Drawing M-0800D	Electrical Penetration Closures Notes and Details	17
Drawing M-1800	Wall & Floor Penetration Schedule Turbine Building EL 113 feet	11
Drawing M-K50800C	Wall & Floor Penetration Closure	A
Standard No.: ES-02	Water Seals for Class 1E Equipment	
Updated Final Safety Report Section 2.4.10	Flooding Protection Requirements	

Section 1RO7: Heat Sink Performance

CONDITION REPORT

CR-GGN-2009-01583 CR-GGN-2008-01267

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
17-S-03-29	GL-89-13 Thermal Performance Data Collection and Analysis	4
EN-DC-316	Heat Exchanger Program	0
EN-EP-S-039-G	Testing Standard for Safety-Related Heat Exchangers Cooled by Standby Service Water	1
EN-DC-316	Heat Exchanger Program	0

WORK ORDER

00111528	00114253	00114203	0011425	50305362
50305391	00142576	00161723	00161724	00161726

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
CCE 2006-002	Commitment Change Evaluation Form	May 2, 2006

Section 1R11: Licensed Operator Requalification Program

CONDITION REPORT

2007-03984	2007-05676	2008-01126	2009-00528	2009-00601
2009-04306				

JOB PERFORMANCE MEASURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
GJPM-OPS-B3315	Shifting Reactor Recirc Pumps to Fast Speed	0
GJPM-OPS-C11015	Pump Suction Filter Rotation	3
GJPM-OPS-E5105	Start RCIC for RPV Pressure Control	0
GJPM-OPS-EAL01	Emergency Event Classification JPM – Fuel Failure (Alert)	2
GJPM-OPS-EOP13	Defeat Containment Vent Path Isolation Interlocks	1
GJPM-OPS-EOP21	De-energizing Scram Solenoids	0

PROCEDURES

<u>MANUAL</u>	<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
NUCLEAR MANAGEMENT MANUAL	EN-NS-112	Medical Program	5
PLANT OPERATIONS MANUAL	14-S-02-17	Training Section Instruction, Administration of Annual Exam	6
PLANT OPERATIONS MANUAL	02-S-01-39	Operations Section Procedure, Maintaining Watch Standing Proficiency	2

TRAINING FEEDBACK

<u>TITLE</u>	<u>DATE</u>
2007 LOR Cycle 5 Facilitative Critique	
2007 LOR Cycle 4 Facilitative Critique	
2008 LOR Cycle 2 Training Feedback Summary	January 30, 2008
2008 LOR Cycle 4 Training Feedback Summary (annual Examinations)	July 22, 2008
2008 LOR Cycle 5 Training Feedback Summary (Prior to Outage Training)	December 1, 2008
2008 LOR Cycle 6 Training Feedback Summary	December 4, 2008
GGN 2009-86 Training Evaluation Action Request (TEAR)	

OTHER

<u>TITLE</u>	<u>REVISION</u>
GSMS-LOR-AEX16, Control Rod Drift EHC Leak ATWS	09
Medical Record Review, Sampled 15 medical records for licensed operators, no discrepancies noted	
Simulator Crew Performance Evaluation for GSMS-LOR-AX02 GSMS-LOR-AEX02, DG 12 Air System Failure ESF 21 Lockout ATWS	08
Simulator Crew Performance Evaluation for GSMS-LOR-AX16	
Simulator Scenarios, GSMS-LOR-AEX18, TCV D Fails Open; EHC Leak; Scram; LOCA	10
Simulator Scenarios, GSMS-LOR-AEX24, , Stuck Open SRV; Reactor Feed Pump Trip; FW Line Break in Turbine Building; ATWS	8
Turnover and Simulator Differences 2009 Cycle 4 Simulator Training	01

SIMULATOR FIDELITY

<u>TITLE</u>	<u>REVISION</u>
ANSI 3.5 Simulator Steady State Test #1	7
ANSI 3.5 Simulator Steady State Test #3	7
GGNS-TT-02, Simulator Transient Test	5
GGNS-TT-07, Simulator Transient Test	6

Section 1R12: Maintenance Effectiveness

CONDITION REPORT

CR-GGN-2002-01234	CR-GGN-2002-01751	CR-GGN-2004-00655
CR-GGN-2004-01025	CR-GGN-2004-01070	CR-GGN-2006-04512
CR-GGN-2007-03609	CR-GGN-2008-01820	CR-GGN-2008-01820
CR-GGN-2008-02200	CR-GGN-2008-02621	CR-GGN-2008-03031
CR-GGN-2008-03663-	CR-GGN-2008-07027	CR-GGN-2009-00347
CR-GGN-2009-01720	CR-GGN-2009-01933	CR-GGN-2009-03597
CR-GGN-2009-03877	CR-GGN-2009-04465	CR-GGN-2009-04478
CR-GGN-2009-04572	CR-GGN-2009-04853	CR-GGN-2009-04857
CR-GGN-2009-05041		

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
05-S-01-EP-4	Auxiliary Building Control	26

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
06-EL-1B33-O-0001	Recirculation Pump Motor Circuit Breaker Inspection and Maintenance	105
06-EL-1L11-R-0001	125 Volt Battery Bank Physical Condition Check	102
06-EL-1R20-O-0005	Breaker Inspection and Preventative Maintenance	103
06-EL-1R20-R-0001	Breaker Overcurrent Trip Functional Test	106
07-S-12-120	Inspection and Cleaning of 4160 Volt and 6900 Volt Switchgear	4
07-S-12-136	Inspection and Cleaning of 480 Volt MCCS	1
07-S-12-145	ITE 5HK350 4.16 KV Breaker Overhaul Instructions	0
07-S-12-147	ITE K600S Breaker Overhaul Instructions	000
07-S-12-39	General Cleaning and Inspection of Non-Rotating Electrical Equipment	008
07-S-12-42	Inspection and Testing of ITE 5 KV Power Circuit Breakers	5
07-S-12-50	Inspection and Calibration of 480V ITE K600S-K1600S Breakers	009
10-S-01-1	Activation of the Emergency Plan	119
EN-DC-203	Maintenance Rule Program	1
EN-DC-204	Maintenance Rule Scope and Basis	1
EN-DC-205	Maintenance Rule Monitoring	2
EN-DC-206	Maintenance Rule (a)(1) Process	1
EN-DC-207	Maintenance Rule Periodic Assessment	1
GGNS UFSAR Ch 7.5	Safety Related Display Instrumentation	10
NUREG 1.97	Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident	2

WORK ORDER

147298	150960	154119	157597	173158
200585	201289	202527		

Section 1R13: Maintenance Risk Assessment and Emergent Work Controls

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
01-S-18-6	Risk Assessment of Maintenance Activities	005
EN-WM-101	On-Line Emergent Work Addition/Deletion Approval Forms for the Week of July 6, 2009	5
EN-WM-101	On-Line Emergent Work Addition/Deletion Approval Forms for the Week of August 31, 2009	5
EN-WM-101	On-Line Emergent Work Addition/Deletion Approval Forms for the Week of September 14, 2009	5

Section 1R15: Operability Evaluations

CONDITION REPORT

CR-GGN-2009-02089	CR-GGN-2009-03054	CR-GGN-2009-03725
CR-GGN-2009-03949	CR-GGN-2009-04168	CR-CNS-2009-05168
CR-RBS-2009-03519	CR-GGN-2009-00296	CR-GGN-2009-4302

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
Calculation No: NPE- C11F322/P41F125/P41F189		5
EC 16340		
Engineering Calculation Number EC-Q1L21-90020	Sizing of 125 Vdc Battery C and Associated Battery Charger	1
Engineering Calculation Number EC-Q1L21-90032	Sizing of 125 Vdc Division I Battery and Chargers	2
Engineering Calculation Number EC-Q1L21-90047	Sizing of 125 Vdc Division II Battery and Chargers	2
Technical Specification 3.8.6	Battery Cell Parameters, Amendments 120 and 142	

Section 1R19: Postmaintenance Testing

CONDITION REPORT

CR-GGN-2009-03452
CR-GGN-2009-03464

CR-GGN-2009-03450
CR-GGN-2009-04519

CR-GGN-2009-03463

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
04-1-01-C41-1	Standby Liquid Control System	116
06-OP-1E12-Q-0006	LPCI/RHR Subsystem B MOV Functional Test	110
06-OP-1E12-Q-0024	LPCI/RHR Subsystem B Quarterly Functional Test	112
06-OP-1P41-M-0005	Surveillance Procedure Data Package Cover Sheet Safety Related	112
06-OP-1P75-M-0002	Standby Diesel Generator 12 Functional Test	128
07-S-14-386	ECCS Jockey Pump Coupling Maintenance	1
07-S-14-58	Oil Change on Pumps with Trico Oilers	006
07-S-53-P75-4	Div II Standby Diesel Tachometer Calibration	003
17-S-06-10	Rectangular Duct/Grill Traverse Data Sheet for Y47 SSW Ventilation System Division 2	0

WORK ORDER

WO184196	WO51676649	WO51676999	WO51696854	WO51677000
WO51676998	WO51676647	WO51676648	WO151505	WO00156913
WO52190833	WO00204618			

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
EC 13316		
EC 16870		
E12-027-1E12C002B	Clearance	
02-S-01-28	Diesel Generator Start Information Sheet for After Maintenance SO1 Run	002
02-S-01-28	Diesel Generator Start Information Sheet for 06- OP-1P75-M-0002	July 7, 2009
C41-011-1C41C001B	Clearance	

Section 1R22: Surveillance Testing

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
06-OP-1E22-Q-0002	HPCS Quarterly Valve Test	109
06-OP-1P81-M-0002	HPCS Diesel Generator 13 Functional Test	122
04-S-03-P81-1	HPCS Diesel Generator Prelube	23
EN-OP-116	Infrequently Performed Tests or Evolutions	002
02-S-01-28	Diesel Generator Start Log	002
06-IC-1C51-SA-0001	Average Power Range Monitor Calibration - Channel C	110
06-ME-1M61-V-0001	Low Flow Air Test Local Leak Test	110

WORK ORDER

WO181383	WO181381	WO50287461	WO50289837	WO00203588
WO520302266	WO51694608	WO51694607		

OTHER

<u>NUMBER</u>	<u>TITLE</u>
ECT 13835-01-00	
EC 16674	
	IPTe for Backseating Drywell MOVs B21F005 and B33F019 Work Instruction for Backseating of 1B21F005, Revision 0

Section 1EP1: Exercise Evaluation

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Event Report for NOUE	November 17, 2008
GIN 2008-0313	Annual Site Medical Drill for 2008	November 11, 2008
GIN 2009-0010	U.S. DHS Medical Drill Report 2008-11-20	January 7, 2009
GIN 2009-0185	MS-1 Drill for River Regional Medical Center and Vicksburg Fire Department	July 21, 2009
GIN 2009-0202	Quarterly Off-hours Unannounced VIP2000 Test	August 8, 2009

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EPIP 10-S-01-33	Emergency Operations Facility Operations	19
EPIP 10-S-01-12	Radiological Assessment and Protective Action Recommendation	40
EPIP 10-S-01-29	Operations Support Center Operation	23
EPIP 10-S-04-4	Performance Indicators	7 and 8

CONDITION REPORT

CR-GGN-2008-03002 CR-GGN-2008-06584 CR-GGN-2008-06789 CR-GGN-2009-01309
CR-GGN-2009-01742 CR-GGN-2009-02600 CR-GGN-2009-02866 CR-GGN-2009-03902
CR-GGN-2009-04130 CR-GGN-2009-01298 CR-GGN-2009-03687

CR-HQN-2009-00757

MISCELLANEOUS

DRILL EVALUATION REPORTS

February 6, 2008 April 16, 2008 April 23, 2008 May 14, 2008 June 9, 2008
June 12, 2008 July 17, 2008 July 23, 2008 August 12, 2008 August 27, 2008
August 28, 2008 November 20, 2008 March 9, 2009 June 2, 2009 June 3, 2009
July 13, 2009 July 15, 2009 September 2, 2009

Section 1EP4: Emergency Action Level and Emergency Plan Changes

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
	Grand Gulf Nuclear Station Emergency Plan	61
EPIP 10-S-01-1	Activation of the Emergency Plan	119

Section 1EP6: Drill Evaluation

CONDITION REPORT

CR-GGN-2009-03609 CR-GGN-2009-03610 CR-GGN-2009-03611

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
10-S-01-12	Radiological Assessment and Protective Action Recommendations	040

OTHER

<u>TITLE</u>	<u>DATE</u>
Emergency Notification Form, One through Nine for GGNS Dress Rehearsal	July 15, 2009
Emergency Facility Log EOF, GGNS Dress Rehearsal	July 15, 2009
Grand Gulf Nuclear Station 2009 Dress Rehearsal Exercise	July 15, 2009

Section 20S1: Access Controls to Radiologically Significant Areas

CONDITION REPORT

GGN-2008-4993	GGN-2008-5304	GGN-2008-5388	GGN-2008-5788	GGN-2008-6563
GGN-2008-6951	GGN-2009-1188	GGN-2009-1500	GGN-2009-1998	GGN-2009-3481
GGN-2009-3914	HQN-09-351			

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EN-RP-100	Radworker Expectations	3
EN-RP-101	Access Control for Radiologically Controlled Areas	4
EN-RP-121	Radioactive Material Control	4
EN-RP-143	Source Control	4
EN-RP-203	Dose Assessment	3
EN-RP-311	Electronic Alarming Dosimeters	0

RADIATION WORK PERMITS

<u>RWP#</u>	<u>RWP DESCRIPTION</u>
20081514	LLRT, Pressure Test and DW bypass test work (HRA)
20091051	Maintenance in TIP Boxess (HRA)
20091070	Leak Repair of G33Boo1B Bottom Head Flange (LHRA)

Section 40A1: Performance Indicator Verification

CONDITION REPORT

2008-03640	2008-03751	2008-04121	2008-04505	2008-04833
2008-04887	2008-05210	2008-05211	2008-05434	2008-05722
2008-05868	2008-05945	2008-06109	2008-06117	2008-06456
2008-06723	2008-06772	2008-06772	2009-00132	2009-00194
2009-00218	2009-00564	2009-00811	2009-00846	2009-00962

CONDITION REPORT

2009-01036	2009-01037	2009-01106	2009-01140	2009-01156
2009-01708	2009-02000	2009-02013	2009-02848	2009-02863
2009-03005	2009-03177	2009-03363	2008-04454	2008-05038
2008-04496	2009-01042	2008-05459	2008-05150	2009-01223
2008-05958	2008-05589	2009-02232	2008-06708	2008-06086
2009-03062	2008-06988	2008-06710	2009-00948	2009-00478
2009-00125	2009-01078	2009-00933	2009-00543	2009-01364
2009-02778	2009-03112			

PROCEDURES

	<u>NUMBER</u>	<u>TITLE</u>
EN-LI-114		Performance Indicator Process

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
	Barrier Integrity Cornerstone, Reactor Coolant System Activity (RCSA)	July 2008 – June 2009
Engineering Report Number, GGNS-SA-06-002	GGNS MSPI Basis Document and Supporting Information Documentation	04
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	5
NEI 99-02	Regulatory Assessment Performance indicator Guideline	5
	Operations Total Drywell Leakage Data	July 1, 2008 – June 30, 2009
	Reactor Coolant System Leakage	1 st Quarter 2009
	Reactor Coolant System Leakage	2 nd Quarter 2009
	Reactor Coolant System Leakage	3 rd Quarter 2008
	Reactor Coolant System Leakage	4 th Quarter 2008
	Reactor Coolant System Specific Activity	1 st Quarter 2009
	Reactor Coolant System Specific Activity	2 nd Quarter 2009
	Reactor Coolant System Specific Activity	3 rd Quarter 2008
	Reactor Coolant System Specific Activity	4 th Quarter 2008

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
	Safety System Unavailability/Safety System Functional Failures	1 st Quarter 2009
	Safety System Unavailability/Safety System Functional Failures	2 nd Quarter 2009
	Safety System Unavailability/Safety System Functional Failures	3 rd Quarter 2008
	Safety System Unavailability/Safety System Functional Failures	4 th Quarter 2008
	Various Operator Logs	July 1, 2008 through June 30, 2009

Section 40A2: Identification and Resolution of Problems

CONDITION REPORT

CR-GGN-2008-01616 CR-GGN-2009-01416

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
05-1-02-II-1	Shutdown from the Remote Shutdown Panel,	34

Section 40A3: Event Follow-Up

CONDITION REPORT

CR-GGN-2001-00108 CR-GGN-2004-00111 CR-GGN-2009-04713
CR-GGN-2009-04659

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
9.35	Pilgrim Nuclear Power Station: Recirculation System Bi-stable Vortexing Evaluation	04
EN-OP-117	Operations Assessments	00

OTHER

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
LER 05000416/2009- 001-00	Containment Isolation Valve Placed in Service after Maintenance without Administrative Controls Due to Human Performance Error	
	GGN KT Problem Analysis report on APRM fluctuation	September 15, 2009
LER 05000416/2009- 002-00	Grand Gulf Emergency Diesel Generator Actuation Caused by a Degraded DC Control Battery	
	NEI POSITION STATEMENT Guidance to Licensees on Complying with the Licensed Power Limit	
	NRC Regulatory Issue Summary 2007-21, Adherence to Licensed Power Limits	1
	Training presentation Bi-Stable Recirculation Flow by G. A. Watford	
EN-OP-117, Attachment 9.2	Transient Snap Shot Assessment Documentation Form, Loss of Containment Cooling Event	September 11, 2009

Section 40A5: Other Activities

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
20-S-03-215	Holtec International MPC Shell Field Helium Leak Testing	0

OTHER

<u>TITLE</u>	<u>REVISION</u>
Component Completion Record (CCR) for MPC 224, 225, 226, 227	1
Leak Test Specialists, Inc. Certification Record	6 & 7

Section 40A7: Licensee-Identified Violations

CONDITION REPORT

CR-GGN-2009-00199	CR-GGN-2009-04302	CR-GGN-2009-04478
CR-GGN-2009-04754	CR-GGN-2009-04853	CR-GGN-2009-04857

DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
EN-HU-102	Human Performance Tools	05
EN AD-102	Procedure Adherence And Level of Use	05