UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 E. LAMAR BLVD., SUITE400
ARLINGTON, TEXAS 76011-4125

July 24, 2008

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 05000416/200803; 072-00050/2008001

Dear Mr. Douet:

On June 21, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Grand Gulf Nuclear Station. The enclosed report documents the inspection results, which were discussed on June 30, 2008, with Jeremy G. Browning and other members of your staff.

The inspection 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 four NRC identified and self-revealing findings of very low safety significance (Green). Three of these findings were determined to involve violations of NRC requirements. Additionally, one licensee-identified violation, which was determined to be of very low safety significance, is listed in this report. However, because of the very low safety significance and because they were entered into your corrective action program, the NRC is treating these findings as noncited violations consistent with Section VI.A of the NRC Enforcement Policy.

If you contest the violation or the significance of a noncited violation, 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 a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission-Region IV, 612 E. Lamar Blvd, Suite 400, Arlington, TX 76011-4125; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Grand Gulf Nuclear Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), 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 No. 50-416
License No. NPF-29

Enclosure:
Inspection Report 05000416/2008003
w/Attachment: Supplemental Information

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SUNSI Review Completed: _____ ADAMS: □ Yes □ No Initials: _____
□ Publicly Available □ Non-Publicly Available □ Sensitive □ Non-Sensitive
R:_REACTORS\GG\2008\GG2008-03RP-RLS.doc ML 082050602

RIV:RI:DRP/C	SRI:DRP/C	C:SPE:DRP/C	C:DRS/EB1	C:DRS/PSB1
AJBarrett	RLSmith	WCWalker	RLBywater	MPShannon
E- GBMiller for	***E- GBMiller for***	***/RA/ GBMiller for***	***/RA/***	***/RA/***
7/23/08	7/22/08	7/ /08	7/21/08	7/22/08

C:DRS/OB	C:DRS/EB2	C:DRS/PSB2	C:DRP/C	
RLantz	NFOKeefe	GEWerner	GBMiller	
/RA/	***/RA/***	**/RA/ LTRicketson for**	***/RA/***	
7/21/08	7/21/08	7/22/08	7/ /08	

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U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets:	50-416
Licenses:	NPF-29
Report:	05000416/2008003
Licensee:	Entergy Operations, Inc.
Facility:	Grand Gulf Nuclear Station
Location:	Waterloo Road Port Gibson, MS
Dates:	April 1 through June 21, 2008
Inspectors:	R. Smith, Senior Resident Inspector A. Barrett, Resident Inspector D. Bollock, Project Engineer I. Anchondo, NSPDP P. Elkmann, Senior Emergency Preparedness Inspector G. Guerra, CHP, Health Physicist N. O'Keefe, Senior Reactor Inspector
Approved By:	Geoffrey B. Miller, Chief, Project Branch C Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000416/2008003; 4/1/2008 - 6/21/2008; Grand Gulf Nuclear Station; Fire Protection, Postmaintenance Testing, and Event Followup.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Four Green findings were identified by the inspectors. Three of these findings were considered noncited violations of NRC regulations. The significance of most findings is indicated by their color (Green, White, Yellow, 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 and Self-Revealing Findings

Cornerstone: Barrier Integrity

- Green. The inspectors identified a Green noncited violation of Technical Specification 5.4.1(a) involving the failure of operators to follow a safety-related off-normal event procedure resulting in a loss of decay heat removal to the spent fuel pool. The operators elected to remove cooling to the fuel pool cooling heat exchangers to minimize the temperature rise on the component cooling water system during a partial loss of the plant service water system. This action was not specified in the off-normal event procedure. The off-normal event procedure only permitted the isolation of component cooling water flow to the fuel pool cooling heat exchangers for degraded component cooling water flow or pressure. This resulted in the spent fuel pool losing decay heat removal for approximately 3 hours and 22 minutes. The licensee entered this issue in their corrective action program as Condition Report CR-GGN-2008-02147.

  The finding is more than minor since it affects the human performance attribute of the barrier integrity cornerstone and affects the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, inspectors determined that the finding has very low safety significance (Green) since it did not preclude operators from restoring spent fuel pool cooling to ensure the Fuel Barrier Cornerstone. The cause of this finding has a crosscutting aspect in the area of human performance associated with decision making in that operators did not use a systematic decision making process when faced with unexpected plant conditions [H.1(a)] (Section 4OA3).

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green noncited violation of Facility Operating License Condition 2.C(41) involving the failure to ensure that fire barriers protecting safety-related areas were functional. The inspectors identified an 8-foot length of structural steel in the east stairwell wall, which is shared by the Division I safeguards

switchgear room, that did not have the required fireproofing to maintain an adequate fire barrier. The missing passive fire protection reduced the fire rating of the wall by allowing heat to transfer through the unprotected steel, thus degrading the fire containment capability assumed in the fire hazards analysis. The licensee entered this issue into their corrective action program as Condition Report CR-GGN-2008-01849.

The finding was more than minor since it was associated with the protection against external factors attribute of the reactor safety 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. Using Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," the inspectors determined that the finding impacted the fire confinement category. The inspectors assigned a high degradation rating due to the fact that the required fireproofing was missing. The inspectors used the supplemental screening process for fire confinement findings and concluded that the finding was of very low safety significance (Green) due to the fact that the degraded barrier would have provided a minimum of 20 minutes fire endurance protection and there were no fire ignition sources or combustible materials in the area that would subject the barrier to direct flame impingement (Section 1R05).

- Green. The inspectors reviewed a self-revealing Green noncited violation of Technical Specification 5.4.1(a) involving the failure to follow a system operating instruction. While shutting down the Division III diesel generator, operators failed to place the outside air fan in automatic alignment resulting in the Division III diesel generator being nonfunctional. On May 5, 2008, operators had shutdown the Division III diesel generator, but they failed to recognize that the outside air fan was not running when they depressed the shutdown pushbutton for the outside air fan per the system operating instruction. The licensee entered this issue into the corrective action program as Condition Report CR-GGN-2008-02265

  The finding is more than minor since it affects configuration control attribute of the Mitigating System Cornerstone objective, in that it affected the availability, reliability and capability of an onsite power source that supplies a bus that provides power to mitigating systems that respond to initiating events to prevent undesirable consequences. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, inspectors determined that the finding has very low safety significance (Green) since it did not represent a loss of a safety function that exceeded the Technical Specification allowed outage time. The cause of this finding has a crosscutting aspect in the area of human performance associated with work practices in that the operating crew did not use the proper human performance techniques of self checking while securing the outside air fan for the Division III diesel generator [H.4(a)] (Section 1R19).

Cornerstone: Initiating Events

- Green. The inspectors reviewed a self-revealing Green finding involving ineffective corrective actions that resulted in an unplanned down power caused by an animal intrusion. The plant experienced a loss of the balance of plant Transformer 23 with a loss of power to the plant service water pumps. Operators reduced reactor power to 47 percent. The control room dispatched operators to the river via a boat due to high

river level and discovered a dead raccoon in the vicinity of the transformer. The inspectors noted that two previous reactor scrams had been caused by raccoons, and an injured raccoon had previously been found at the base of Transformer 23. The inspectors concluded that the flooding conditions which have been routinely experienced at the site and the occurrence of raccoon events at the site could have been used to anticipate and mitigate the unplanned down power. The licensee entered this issue into their corrective action program as Condition Report CR-GGN-2008-02089.

The finding was more than minor because it was associated with the initiating events cornerstone attribute of equipment performance and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Using the Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the inspectors concluded that a Phase 2 evaluation was required because the finding impacted both the Initiating Event and Mitigating Systems Cornerstone. The inspectors performed a Phase 2 analysis using Appendix A “Determining the Significance of Reactor Inspection Findings for At-Power Situations,” of Manual Chapter 0609, “Significance Determination Process,” and the Phase 2 Worksheets for Grand Gulf Nuclear Station. The inspectors determined there was an increase in likelihood of a transient without the power conversion system but there was no reduction in remaining capability. Because the exposure time of the finding was less than 30 days, the result of the Phase 2 analysis was that the finding had very low safety significance (Green). The cause of this finding has a crosscutting aspect in the area of problem identification and resolution associated with operating experience in that the licensee failed to implement proper corrective actions to prevent animals from causing a plant transient [P.2(b)] (Section 4OA3).

B. Licensee-Identified Violations

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

REPORT DETAILS

Summary of Plant Status

Grand Gulf Nuclear Station (GGNS) began the inspection period at full rated thermal power. On April 21, 2008, operators reduced power to 78 percent power due to a drifting control rod. The plant inserted the control rod and returned to full rated power on April 22, 2008. On April 29, 2008, the plant experienced a loss of the balance of plant (BOP) Transformer 23 and resultant loss of the electrical Bus 28AG which supplies power to the plant service water (PSW) pumps. The operating crew reduced reactor power to 47 percent in response to the partial loss of PSW. The plant recovered the BOP Transformer 23 and returned to full rated power on May 1, 2008. On June 7, 2008, operators reduced power to 70 percent for planned control rod sequence exchange and other planned maintenance activities. The plant performed the control rod sequence exchange and returned to full rated power on June 8, 2008. The plant remained at or near full rated thermal power for the remainder of the inspection period.

1. REACTOR SAFETY

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

1R01 Adverse Weather Protection (71111.01)

.1 Readiness of Offsite and Alternate AC Power Systems

a. Inspection Scope

The inspectors reviewed the licensee's procedures affecting the communications protocols between the transmission system operator (TSO) and the plant to verify that the appropriate information was being exchanged when issues arose that could impact the offsite power system. Examples of aspects considered in the inspectors' review included:

- The coordination between the TSO and the plant during off-normal or emergency events affecting the plant
- The explanations of the events
- The estimates of when the offsite power system would be returned to a normal state
- The notifications from the TSO to the plant when the offsite power system was returned to normal

During the inspection, the inspectors verified that procedures were in place that addressed measures to monitor, maintain availability and reliability of both offsite AC power systems and the onsite alternative AC power system prior to and during adverse weather conditions. Specifically, the inspectors ensured the procedures addressed:

- The actions to be taken when notified by the TSO that the posttrip voltage of the offsite power system at the plant will not be acceptable to assure the continued operation of the safety-related loads without transferring to the onsite power supply

- The compensatory actions identified to be performed if it is not possible to predict the posttrip voltage at the plant for the current grid conditions

- The required re-assessment of plant risk based on maintenance activities which could affect grid reliability or the ability of the transmission system to provide offsite power

- The required communications between the plant and the TSO when changes at the plant could impact the transmission system or when the capability of the transmission system to provide adequate offsite power is challenged

Specific documents reviewed during this inspection are listed in the attachment. The inspectors also reviewed corrective action program (CAP) items to verify that the licensee was identifying grid reliability issues at an appropriate threshold and entering them into their CAP in accordance with station corrective action procedures.

This inspection constitutes one sample of the readiness of offsite and alternate AC power systems as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

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

- April 22, 2008, the inspectors walked down the standby fresh air system Train B following a system maintenance outage

- May 1, 2008, the inspectors walked down the instrument air system while the plant air compressor system was out of service for planned maintenance

- June 2, 2008, the inspectors walked down the standby gas treatment Train B while Train A was out of service for planned maintenance

- June 17-18, 2008, the inspectors walked down the residual heat removal (RHR) Train A system following its return to service from planned maintenance

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted

to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report (UFSAR), Technical Specification (TS) requirements, Administrative TS, outstanding work orders, condition reports (CRs), 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 impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the attachment.

These activities constituted four partial system walkdown samples as defined by Inspection Procedure 71111.04-05.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

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

- Division III switchgear room (Room OC204) and control building stairwell (Room OC201)
- RHR Train C pump and penetration rooms (Room 1A118)
- Division I and II switchgear rooms (Rooms OC202 and OC203)
- Division III diesel generator room (Room 1D304)
- Standby service water Train A pump house and valve room (Rooms 1M110 and 1M112)

The inspectors reviewed areas to assess if the licensee 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 impact equipment which 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 CAP.

These activities constituted five quarterly fire protection inspection samples as defined by Inspection Procedure 71111.05-05.

b. Findings

Introduction. The inspectors identified a Green noncited violation of Facility Operating License Condition 2.C(41) involving the failure to ensure that fire barriers protecting safety-related areas were functional.

Description. On April 14, 2008, the inspectors performed a quarterly fire protection inspection of several areas of the control building. The inspectors focused on areas surrounding the safeguards switchgear room and associated stairwells. The inspection identified an 8-foot length of structural steel in the east stairwell wall, which is shared by the Division I safeguards switchgear room, that did not have the required fireproofing to maintain an adequate fire barrier. The fire protection plan and associated fire preplans identify the wall between the stairwell and the switchgear room wall as a 3-hour fire barrier. The missing passive fire protection reduced the fire rating of the wall by allowing heat to transfer through the unprotected steel, thus degrading the fire containment capability assumed in the fire hazards analysis. After the discovery, the inspectors notified the control room, and plant operators initiated a continuous fire watch for the stairwell area per the technical requirements manual. The inspectors determined that the structural steel fireproofing had not been installed during plant construction.

On May 30, 2008, the plant implemented corrective action to add fireproofing to the structural steel beam and exited the continuous fire watch.

Analysis. The performance deficiency involved the failure to ensure that fire barriers were designed and installed to protect safety-related areas and maintain the 3-hour fire rating design. The finding was more than minor since it was associated with the protection against external factors attribute of the reactor safety 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. Using Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," the inspectors determined that the finding impacted the fire confinement category. The inspectors assigned a high degradation rating due to the fact that the required fireproofing was missing. The inspectors used the supplemental screening process for fire confinement findings and concluded that the finding was of very low safety significance (Green) due to the fact that the degraded barrier would have provided a minimum of 20 minutes fire endurance protection and

there were no fire ignition sources or combustible materials in the area that would subject the barrier to direct flame impingement.

Enforcement. GGNS Facility Operating License Condition 2.C.(41) states, in part, that the plant "shall implement and maintain in effect all provisions of the Fire Protection Program" as described in the UFSAR. The fire protection program requires fire barriers to meet the required fire rating or have a suitable engineering justification for a degraded fire barrier. Contrary to this, the fire barrier failed to meet the required fire rating and did not have an associated engineering evaluation. Because the finding was of very low safety significance and was documented in the licensee's CAP as CR-GGN-2008-01849, this finding is being treated as a noncited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy:
NCV 05000416/2008003-01; Inadequate Fireproofing on Fire Barrier Protecting the Safeguards Switchgear Room.

1R06 Flooding (71111.06)

.1 Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures for licensee commitments. The specific documents reviewed are listed in the attachment. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following plant area(s) to assess the adequacy of watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments:

- Control Building - Control Room
- Control Building - Safeguards Switchgear Area

This inspection constitutes one internal flooding sample as defined in Inspection Procedure 71111.06-05.

b. Findings

No findings of significance were identified.

1R07 Annual Heat Sink Performance (71111.07)

.1 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the licensee's chemical cleaning of the RHR heat exchangers to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria, the correlation of scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing conditions.

This inspection constitutes one sample as defined in Inspection Procedure 71111.07-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On April 28, 2008, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification examinations 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
- Ability to take timely actions in the conservative direction
- Prioritization, interpretation, and verification of annunciator alarms
- Correct use and implementation of abnormal and emergency procedures
- Control board manipulations
- Oversight and direction from supervisors
- Ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements.

This inspection constitutes one quarterly licensed operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

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

- Neutron Monitoring System (C51)
- Standby Gas Treatment System (T48)

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) of the maintenance rule
- Characterizing system reliability issues for performance
- Charging unavailability for performance
- Trending key parameters for condition monitoring
- Ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or reclassification
- Verifying appropriate performance criteria for systems, structures, and components/functions classified as (a)(2) or appropriate and adequate goals and corrective actions for systems classified as (a)(1)

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the attachment.

This inspection constitutes two quarterly maintenance effectiveness samples as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings of significance were identified.

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

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee'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:

- Safeguards switchgear room ventilation system train non-functional during power supply replacement on April 14, 2008
- Riley temperature switch replacement on the reactor water cleanup system on April 23, 2008
- High pressure core spray diesel generator out of service due to overheating electric motor-driven fuel oil pump May 5, 2008
- Loss of the 500 KV transmission line from Baxter Wilson to Grand Gulf on June 13, 2008

These activities were selected based on their potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. 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 TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

These activities constituted four samples as defined by Inspection Procedure 71111.13-05.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- CR-GGN-2008-1677 & 1681, Division III diesel generator kilowatt meter difference between local and remote indicators and high cylinder temperatures during the 24 hour surveillance run
- CR-GGN-2008-2051, Recirculation Pump 'A' Seal Cavity 2 had elevated temperatures with seal staging flows and pressures oscillating
- CR-GGN-2008-2285, failure of the 208-foot elevation airlock door to maintain containment integrity
- CR-GGN-2008-2819 & 2820, failure of the RHR A pump breaker to close and the failure of Valve 1E12-F024A failing to stroke open in its required time

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 TS 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 TS and USAR 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. Documents reviewed are listed in the attachment.

This inspection constitutes four samples as defined in Inspection Procedure 71111.15-05

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Modification

a. Inspection Scope

The inspectors reviewed the following temporary modification:

- Belzona Super Metal patch on condenser stub tube leak

The inspectors compared the temporary configuration changes and associated 10 CFR 50.59 screening and evaluation information against the design basis, the UFSAR, and the TSs, as applicable, to verify that the modification did not affect the operability or availability of the affected system. The inspectors also compared the licensee's information to operating experience information to ensure that lessons learned from other utilities had been incorporated into the licensee's decision to implement the temporary modification. The inspectors, as applicable, performed field verifications to ensure that the modifications were installed as directed; the modifications operated as expected; modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. Lastly, the inspectors discussed the temporary modification with operations, engineering, and training personnel to ensure that the individuals were aware of how extended operation with the temporary modification in place could impact overall plant performance. Documents reviewed are listed in the attachment.

This inspection constitutes one sample as defined in Inspection Procedure 71111.18-05.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

.1 Postmaintenance Testing

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:

- Standby fresh air fan wheel replacement and retest
- Division III diesel generator fuel injector replacement and retest
- Replacement of four inlet and outlet scram valve diaphragms and retest

- RHR Train A pump quarterly functional test surveillance following RHR Train A system outage

- Leak rate testing of the 208-foot elevation containment airlock following maintenance

These activities were selected based upon the SSC's ability to impact 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, tests were performed as written in accordance with properly reviewed and approved procedures, equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion), and test documentation was properly evaluated. The inspectors evaluated the activities against TS, the UFSAR, 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 CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the attachment.

This inspection constitutes five samples as defined in Inspection Procedure 71111.19.

b. Findings

Introduction. The inspectors reviewed a self-revealing Green NCV of TS 5.4.1(a) involving the failure of operators to follow the system operating instruction. While shutting down the Division III diesel generator, operators failed to place the outside air fan in automatic alignment resulting in the Division III diesel generator being nonfunctional.

Description. On May 8, 2008, the inspectors were performing a postmaintenance inspection of the Division III diesel generator, when the operating crew recognized that the outside air Fan 1X77C002 did not start as expected on diesel generator start. The operating crew initiated troubleshooting activities to determine the cause of the tripped fan. They found through the review of plant display system that the outside air fan had tripped off during the Division III diesel generator run on May 5, 2008, at 10:07 a.m. The operating crew on May 5, 2008, had shutdown the Division III diesel generator at 11:17 a.m. per system operating instruction but they failed to recognize that the outside air fan was not running when the shutdown pushbutton for the outside air fan was depressed per the system operating instruction and, therefore, had not restored the outside air fan to proper automatic alignment.

The cause of the outside air fan trip was attributed to a blown control power fuse in the fan operating circuit. This resulted from excessive cycling of the control circuit from fast to slow speed due to a malfunctioning of the temperature control switch that provides the speed control function to the fan. The testing done by the site found the switch setpoint had drifted low and the dead band was reduced from a nominal $6^{o}F$ to approximately $2^{o}F$.

Maintenance technicians replaced the control power fuse and the temperature switch to restore operability to the diesel generator. They also performed an extent of condition for the Division I and II diesel generators and found that the current dead bands for their outside air fans were within the limits of specified calculations. Planned long term corrective actions include replacement of all temperature switches of this type.

Analysis. The performance deficiency associated with this finding was a failure of operators to properly implement the system operating instruction during the shutdown of the Division III diesel generator. The finding is more than minor since it affects configuration control attribute of the Mitigating System Cornerstone objective, in that it affected the availability, reliability and capability of an onsite power source that supplies a bus that provides power to mitigating systems that respond to initiating events to prevent undesirable consequences. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, inspectors determined that the finding has very low safety significance (Green) since it did not represent a loss of a safety function that exceeded the TS allowed outage time. The cause of this finding has a crosscutting aspect in the area of human performance associated with work practices in that the operating crew did not use the proper human performance techniques of self checking while securing the outside air fan for the Division III diesel generator [H.4(a)].

Enforcement. TS 5.4.1(a) requires written procedures to be implemented as recommended by Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Section 4.w of Regulatory Guide 1.33 recommends procedures governing operation of site emergency diesel generators. Procedure 04-1-01-P81-1, "High Pressure Core Spray Diesel Generator," Section 4.2.2, Step h, requires the outside air fan for the Division III diesel generator be returned to automatic lineup during shutdown of the diesel generator. Contrary to the above, operators failed to verify that the outside air fan was in automatic alignment during diesel shutdown, causing the Division III diesel generator to be nonfunctional. Because this violation was of very low safety significance and was entered into the licensee's CAP as CR-GGN-2008-02265, this violation is being treated as an NCV consistent with Section VI.A.1 of the NRC Enforcement Policy: NCV 05000416/2008003-02, "Failure to Recognize the Division III Diesel Generator being Non-Functional."

1R22 Surveillance Testing (71111.22)

.1 Routine Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- 06-OP-1P81-R-0001, High Pressure Core Spray Diesel Generator 18 Month Functional Test – 24 Hour Rated Load Test

- 06-IC-1B21-R-0036, Reactor Vessel Water Level - Level 3 and 8 Electronics Time Response Test

- 06-OP-1E51-Q-0003, Reactor Core Isolation Cooling Quarterly Pump Operability Verification Inservice Test

- 06-OP-1000-D-0001, Reactor Coolant System Leak Detection Inspection Surveillance

The inspectors observed in-plant activities and reviewed procedures and associated records to determine whether: any preconditioning occurred; effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing; acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis; plant equipment calibration was correct, accurate, and properly documented; as left setpoints were within required ranges; the calibration frequency was in accordance with TS, the USAR, procedures, and applicable commitments; measuring and test equipment calibration was current; test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied; test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used; test data and results were accurate, complete, within limits, and valid; where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers Code, and reference values were consistent with the system design basis; test equipment was removed after testing; where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable; where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure; where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished; prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test; equipment was returned to a position or status required to support the performance of the safety functions; and all problems identified during the testing were appropriately documented and dispositioned in the CAP. Documents reviewed are listed in the attachment.

This inspection constitutes two routine surveillance testing samples, one inservice testing sample, and one reactor coolant system leak detection sample as defined in Inspection Procedure 71111.22.

b. Findings

No findings of significance were identified.

Emergency Preparedness

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

.2 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

The inspector performed an in-office review of Revisions 115, 116, and 117 to Grand Gulf Nuclear Station Emergency Plan Implementing Procedure 10-S-01-1, "Activation of the Emergency Plan," submitted October 23, 2006, October 1, 2007, and March 21, 2008, respectively. These revisions implemented the methodology of Nuclear Energy Institute Report 99-01, "Methodology for Development of Emergency Action Levels," Revision 4, added examples of natural phenomena and accident conditions with potential to affect a loaded fuel storage cask confinement boundary, and added Attachment IV, "EAL Contingency Planning."

The revisions were compared to their previous revisions, 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, to the criteria of Nuclear Energy Institute Report 99-01, Revision 4, and to the standards in 10 CFR 50.47(b) to determine if the revisions 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 the licensee's changes; therefore, these revisions are subject to future inspection.

This inspection constitutes one sample 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 June 12, 2008, 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 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 CAP. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the attachment.

This inspection constitutes one sample as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

a. Inspection Scope

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

- PI events and associated documentation packages reported by the licensee in the Occupational Radiation Safety Cornerstone
- Controls (surveys, posting, and barricades) of 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 alarms
- Physical and programmatic controls for highly activated or contaminated materials (nonfuel) 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
- 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
- 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

  The inspector completed 11 of the required 21 samples.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning And Controls (71121.02)

a. Inspection Scope

The inspector assessed licensee performance with respect to maintaining individual and collective radiation exposures as low as is reasonably achievable (ALARA). The inspector used the requirements in 10 CFR Part 20 and the licensee's procedures required by TS as criteria for determining compliance. The inspector interviewed licensee personnel and reviewed:

- Current 3-year rolling average collective exposure
- Maintenance work activities scheduled during the inspection period and associated work activity exposure estimates which were likely to result in the highest personnel collective exposures
- Site-specific trends in collective exposures, plant historical data, and source-term measurements
- Site-specific ALARA procedures
- Work activities of highest exposure significance
- ALARA work activity evaluations, exposure estimates, and exposure mitigation requirements
- Intended versus actual work activity doses and the reasons for any inconsistencies
- Integration of ALARA requirements into work procedure and radiation work permit documents
- Shielding requests and dose/benefit analyses
- Postjob (work activity) reviews
- Assumptions and basis for the current annual collective exposure estimate, the methodology for estimating work activity exposures, the intended dose outcome, and the accuracy of dose rate and man-hour estimates

- Method for adjusting exposure estimates, or re-planning work, when unexpected changes in scope or emergent work were encountered
- Use of engineering controls to achieve dose reductions and dose reduction benefits afforded by shielding
- Workers' use of the low dose waiting areas
- First-line job supervisors' contribution to ensuring work activities are conducted in a dose efficient manner
- Records detailing the historical trends and current status of tracked plant source terms and contingency plans for expected changes in the source term due to changes in plant fuel performance issues or changes in plant primary chemistry
- Radiation worker and radiation protection technician performance during work activities in radiation areas, airborne radioactivity areas, or high radiation areas
- Declared pregnant workers during the current assessment period, monitoring controls, and the exposure results
- Self-assessments, audits, and special reports related to the ALARA program since the last inspection
- Resolution through the corrective action process of problems identified through postjob reviews and post-outage ALARA report critiques
- Corrective action documents related to the ALARA program and follow-up activities, such as initial problem identification, characterization, and tracking
- Effectiveness of self-assessment activities with respect to identifying and addressing repetitive deficiencies or significant individual deficiencies

The inspector completed 15 of the required 15 samples and 7 of the optional samples.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Cornerstone: Occupational Radiation Safety

Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspector reviewed licensee documents from October 1, 2007, through March 31, 2008. The review included corrective action documentation that identified

occurrences in locked high radiation areas (as defined in the licensee's TS), very high radiation areas (as defined in 10 CFR 20.1003), and unplanned personnel exposures (as defined in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Indicator Guideline," Revision 5). Additional records reviewed included ALARA records and whole body counts of selected individual exposures. The inspector interviewed licensee personnel that were accountable for collecting and evaluating the PI data. In addition, the inspector toured plant areas to verify that high radiation, locked high radiation, and very high radiation areas were properly controlled. PI definitions and guidance contained in NEI 99-02, Revision 5, were used to verify the basis in reporting for each data element.

The inspector completed the required sample (1) in this cornerstone.

b. Findings

No findings of significance were identified.

.2 Cornerstone: Public Radiation Safety

Radiological Effluent TS/Offsite Dose Calculation Manual Radiological Effluent Occurrences

a. Inspection Scope

The inspector reviewed licensee documents from October 1, 2007, through March 31, 2008. Licensee records reviewed included corrective action documentation that identified occurrences for liquid or gaseous effluent releases that exceeded PI thresholds and those reported to the NRC. The inspector interviewed licensee personnel that were accountable for collecting and evaluating the PI data. PI definitions and guidance contained in NEI 99-02, Revision 5, were used to verify the basis in reporting for each data element.

The inspector completed the required sample (1) in this cornerstone.

b. Findings

No findings of significance were identified.

4OA2 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 Items Entered into the CAP

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 CAP at

an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: the complete and accurate identification of the problem; that timeliness was commensurate with the safety significance; that evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result 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 and 2of this report.

b. Findings

No findings of significance were identified.

.2 Daily CAP Reviews

a. 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 CAP. This review was accomplished through inspection of the station's daily CR packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings of significance were identified.

.3 Semi-Annual Trend Review

a. Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the 6-month period of November 2007 through May 2008, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside the normal CAP in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

This review constituted a single semi-annual trend inspection sample.

b. Findings

No findings of significance were identified.

4OA3 Followup of Events and Notices of Enforcement Discretion (71153)

.1 Fuel Handling Mast Impacts the North Wall of the Transfer Canal

a. Inspection Scope

On April 6, 2008, while moving a fuel bundle to load a dry fuel cask the fuel handling mast impacted the north wall of the transfer canal. The mast was visibly dented such that the up and down travel was affected. The inspectors reviewed the plant's response to this event and ensured the fuel bundle did not impact the wall. The licensee elected to place the fuel bundle that was on the mast during the event back in the spent fuel pool and would not place it into a dry cast during this loading campaign. The site conducted a stand down of refueling operations and an investigation to determine the cause of the event. The site management team placed additional administrative controls in place prior to resuming refueling operations to prevent recurrence. Documents reviewed in this inspection are listed in the attachment.

This inspection constitutes one sample as defined in Inspection Procedure 71153-05.

b. Findings

No findings of significance were identified.

.2 Control Rod Drifting into the Core Resulting in a Plant Down power

a. Inspection Scope

The inspectors reviewed the licensee's response to a drifting control rod and subsequent downpower. On April 21, 2008, instrumentation and control maintenance technicians had completed replacing control rod drive transponder cards and had reset the rod control system. Control Rod 12-37 CJ drifted into the core from position 48 to position 40. The operating crew acknowledged rod drift alarm and entered their control rod/drive malfunctions off-normal event procedure (ONEP). Per procedure, the crew attempted to insert the control rod to 00 position but the rod control system had locked up. The crew then reduced power with recirculation flow to 78 percent power. After the rod control system was reset the crew was able to drive the control rod to position 00. The plant investigated the event and found that a wire in the connector for Control Rod 12-37 CJ

had come in contact with the wire jacket closing the circuit causing the control rod to insert. The licensee corrected the wiring problem with the individual connector and implemented procedure changes to prevent recurrence while replacing future transponder cards.

This inspection constitutes one sample as defined in Inspection Procedure 71153-05

b. Findings

No findings of significance were identified.

.3 Loss of the Balance of Plant Transformer 23 Resulting in Plant Down Power

a. Inspection Scope

The inspectors reviewed the licensee's response to a loss of the BOP Transformer 23 with a resultant loss of the electrical Bus 28AG which supplies power to the PSW pumps on April 29, 2008. The operating crew entered the loss of PSW ONEP and reduced reactor power to 47 percent by lowering recirculation flow and inserting control rods. The control room dispatched operators to the river and discovered a dead raccoon in the vicinity of the transformer. The site investigation determined the ground detection unit for the bus under voltage lockouts had tripped, and concluded that the raccoon had caused a phase to ground short on the transformer. The operating crew recovered the BOP 23 transformer and restored the PSW pumps and returned the plant to 100 percent power.

This inspection constitutes one sample as defined in Inspection Procedure 71153-05.

b. Findings

.1 Ineffective Corrective Actions that Resulted in an Unplanned Down Power

Introduction. The inspectors reviewed a self-revealing Green finding involving ineffective corrective actions that resulted in an unplanned down power caused by an animal intrusion.

Description. On April 29, 2008, the plant experienced a loss of the BOP Transformer 23 with a resultant loss of the electrical Bus 28AG which supplies power to the PSW pumps. Operators entered the loss of PSW ONEP and reduced reactor power to 47 percent by lowering recirculation flow and inserting control rods. The control room dispatched operators to the river and discovered a dead raccoon in the vicinity of the transformer. The site investigation determined the ground detection unit for the bus under voltage lockouts had tripped, and concluded that the raccoon had caused a phase to ground short on the transformer. The operators recovered the BOP transformer, restored the PSW pumps, and returned the plant to 100 percent power.

The inspectors performed a follow up review of CRs related to other animal intrusions at GGNS. The inspectors found the following:

- On June 22, 2002, the site experienced an automatic reactor scram as a result of turbine trip and a loss of power to engineered safety features Busses 16 and 17. Division II and III diesel generator started and energized the 16 and 17 buses. The event was caused by ground fault on the secondary side of Service Transformer 21. The ground fault was caused by a raccoon.

- On February 11, 2005, the site experienced an automatic reactor scram as a result of low reactor water level caused by a breaker tripping due to a ground fault on the secondary side of Service Transformer 11. The ground fault was caused by a raccoon. A finding related to this event is described in NRC Inspection Report 05000416/2006004 (ADAMS ML063100676).

- On June 6, 2006, site personnel found a live raccoon near the base of BOP Transformer 23. When the raccoon was removed from the area it was noted that the animal had burn marks and nose disfigurement and both hind legs were damaged from contact with the transformer.

The BOP Transformer 23 is on a platform which is approximately 24 feet above the ground level; this is to ensure that seasonal flooding of the Mississippi River will not affect equipment operation. Following the June 6, 2006, animal intrusion, corrective actions were taken to remove 4 feet 7 inches from the bottom of the platform access ladder. In addition, animal intrusion guards were placed around the wooden electrical poles near the transformer platform. Both of these corrective actions were implemented without consideration for high river water level. In the Spring of 2008, the Mississippi River increased above the animal intrusion guards installed in 2006, thus providing a pathway for the raccoon to access the platform. The inspectors concluded that the flooding conditions routinely experienced at the site could have been anticipated by the licensee to mitigate the unplanned down power. Plant personnel failed to implement effective corrective actions to mitigate the loss of the BOP transformer by adding animal deterrents that would be ineffective during flooding events.

Since the event of April 29, 2008, the site has taken additional corrective actions. Additional animal intrusion guards were added above the flood water level and the platform access ladder was removed. Metal sheets have been added to the side of the switchgear house to prevent animals from crawling along the ledge of the switchgear building onto the transformer platform.

Analysis. The performance deficiency involved the failure to implement effective corrective actions to prevent animals from causing plant transients. Specifically, the licensee failed to take corrective actions to prevent recurrence contrary to Section 5.9(a) of Procedure EN-4-102, “Corrective Action Process.” The finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of equipment performance and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Using the Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the inspectors concluded that a Phase 2 evaluation was required because the finding impacted both the Initiating Event and Mitigating Systems Cornerstone. The inspectors performed a Phase 2 analysis using Appendix A "Determining the Significance of Reactor Inspection Findings for At-Power Situations," of Manual Chapter 0609, "Significance Determination Process," and the Phase 2 Worksheets for GGNS. The inspectors determined there was an increase in

likelihood of a transient without the power conversion system but there was no reduction in remaining capability. Because the exposure time of the finding was less than 30 days, the results of the Phase 2 analysis were that the finding had very low safety significance (Green). This issue was entered into the licensee's CAP as CR-GGN-2008-02089. The cause of this finding has a crosscutting aspect in the area of problem identification and resolution associated with operating experience in that the licensee failed to implement proper corrective actions to prevent animals from causing a plant transient [P.2(b)].

Enforcement. No violation of NRC requirements occurred. Finding (FIN) 0500416/2008003-03, "Ineffective Corrective Actions in Response to Plant Transients Resulting from Animal Intrusions."

.2 Failure to Follow a Safety-Related ONEP

Introduction. The inspectors identified a Green noncited violation of TS 5.4.1(a) involving the failure to follow a safety-related ONEP resulting in a loss of decay heat removal to the spent fuel pool.

Description. On April 30, 2008, the inspectors performed a post event review of an unplanned down power from the previous evening. The event was caused by a loss of the BOP Transformer 23 and a resultant partial loss of the PSW pumps. Operators entered the loss of component cooling water (CCW) ONEP due to increasing CCW temperatures. The crew elected to remove cooling to the fuel pool cooling heat exchangers to minimize the temperature rise on the CCW system. This action was not specified in the ONEP and resulted in the spent fuel pool losing decay heat removal for approximately 3 hours and 22 minutes. The ONEP only permitted the isolation of CCW flow to the fuel pool cooling heat exchangers for degraded CCW flow/pressure. The operators entered the inadequate decay heat removal ONEP and monitored spent fuel pool temperatures.

The plant management team acknowledged that the operating crew failed to follow the procedure. The procedure was later revised to allow the operating crews to take appropriate actions to mitigate a loss of CCW under similar circumstances in the future.

Analysis. The performance deficiency associated with this finding was the failure to properly implement the loss of CCW ONEP. The finding is more than minor since it affects the human performance attribute of the Barrier Integrity Cornerstone and affects the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, inspectors determined that the finding has very low safety significance (Green) since it did not preclude operators from restoring spent fuel pool cooling to ensure the Fuel Barrier Cornerstone. The cause of this finding has a crosscutting aspect in the area of human performance associated with decision making in that operators did not use a systematic decision making process when faced with unexpected plant conditions [H.1(a)].

Enforcement. TS 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.i of Regulatory Guide 1.33 recommends procedures for responding to a loss of component cooling systems. Section 3.1 of 05-1-02-V-1, "Loss of Component Cooling

Water," requires the removal of fuel pool cooling heat exchangers from service only if there is a reduction in CCW system flow or pressure. Contrary to the above, operators isolated CCW flow to the fuel pool cooling heat exchangers due to increasing temperatures in the CCW system without degraded flow or pressure in the system. Because this violation was of very low safety significance and was entered into the licensee's CAP as CR-GGN-2008-02147, this violation is being treated as an NCV consistent with Section VI.A.1 of the NRC Enforcement Policy:
NCV 05000416/2008003-04, "Failure to Follow Procedures Causing a Loss of Decay Heat Removal to the Spent Fuel Pool."

4OA5 Other Activities

.1 (Closed) Hydrogen Igniter Backup Power Verification (TI 2515/174)

a. Inspection Scope

The inspectors performed an inspection focusing on the use of the portable generator as a backup power supply and associated equipment, procedures, and training. The inspectors assessed the location of the temporary connection to verify the ability to reliably provide power to the igniters consistent with commitments. The inspectors determined that the equipment necessary to provide backup power to the hydrogen igniters was available, and the portable power supply and temporary connections that were selected performed the following:

- The power supply can be transported from its storage location to the access location for providing power to the igniters using readily available equipment.
- Fittings, cables, and power conditioning equipment necessary to provide power to the igniters are readily available and compatible with identified connection points on the power supply and in the internal power distribution system.
- Unnecessary portions of the internal power distribution system can be separated from portions necessary to provide power to the igniters from the portable power supply.
- The movement of the power supply and connection of necessary fittings and cables to provide backup power to the igniters can be completed within 3 hours.
- The rating of the portable power supply is adequate to continuously power at least one train of igniters and the operating time is consistent with commitments.

The inspectors determined that appropriate procedures have been established to govern the provisions of backup power to the igniters. They insured that procedures addressed the decision to provide backup power to the igniters and the steps required to provide the backup power. They determined that the procedures included cautions against actuation of the igniters after indications of severe core damage are present.

The inspectors determined that a suitable training program has been established to train selected staff in the actions necessary to provide backup power to the igniters and that the training provides appropriate guidelines for initiation of the backup power to the igniters. The inspectors also determined that maintenance and testing schedules that

are consistent with vendor recommendations have been established for portable and permanently installed equipment. The inspectors walked down the associated power supply and connection points and determined that the capability of the power supply to provide the required power with the necessary properties, the capability to physically connect the power supply to the internal power distribution system, and the capability of the internal power distribution system to power the igniters.

This inspection constitutes one sample as defined in Inspection Procedure 2515/174-05.

b. Findings

No findings of significance were identified.

.2 (Closed) Unresolved Item (URI) 05000416/2007008-02, Verify Continued Operability of RHR Heat Exchanger B due to Fouling

a. Inspection Scope

A URI was identified to assess the continued capability of RHR heat Exchanger B to perform its safety functions due to ongoing biological micro-fouling on the standby service water side of the tubes. This heat exchanger was determined to have active fouling with a conservative projection showing that there might be little positive thermal performance margin just prior to the scheduled cleaning in November 2008. This heat exchanger was not tested for thermal performance in more than 2 years to confirm that the trend was unchanged and that positive margin would continue to exist through the scheduled cleaning date.

In response to the URI, the licensee verbally committed to cleaning and/or testing the heat exchanger prior to the onset of warm weather to ensure that the component remained capable of removing the design basis heat load. On April 17-18, 2008, the licensee performed a new type of chemical cleaning using two sodium hypochlorite soak and high-velocity flush cycles. A biopenetrant was used to improve the effectiveness of the hypochlorite. The licensee planned to follow this with a second chemical cleaning of this type in mid-summer, and a mechanical cleaning in November as scheduled.

The inspector reviewed Engineering Report GGNS-EP-08-00002, “Summary of Sodium Hypochlorite Flush on RHR B Heat Exchangers per STI-0801,” Revision 0, as well as CRs 2008-0096 and 2008-1404.

The inspector noted that the new cleaning method used did not include a post-cleaning verification that the cleaning was effective. Licensee management decided not to take the train out of service to visually inspect the heat exchanger, and decided not to perform a thermal performance test. Therefore, there was no evidence available that the cleaning had improved thermal performance or removed any of the material fouling the heat exchanger tubes.

However, the licensee did have experience using this method to improve flow rates in room coolers experiencing similar fouling. Sodium hypochlorite is known to be effective in treating biological fouling, which was the major constituent of the foulant in heat exchangers cooled by standby service water at GGNS. Therefore, some improvement in thermal performance should be expected by this activity. Since the worst-case

projections showed that there would be some small positive margin without cleaning, and some improvement was expected for each of two cleanings, the inspector concluded that there was reasonable assurance that this component would remain capable of removing its design basis heat load. This item is closed.

.3 Spent Fuel Cask Crane Inspection

a. Inspection Scope

The Grand Gulf spent fuel cask crane was inspected on October 9-13, 2006, as part of the licensee's dry fuel storage pre-operational testing program. The inspection found that the crane had not been inspected, tested, or maintained in accordance with the ASME Code B30.2. Prior to dry fuel loading in December 2006, the licensee had corrected all of the deficiencies.

On May 8, 2008, the NRC began a follow-up inspection to verify that the corrective actions taken in 2006 to bring the crane back into compliance with the ASME code had been incorporated into the station's inspection and maintenance programs. The inspection will complete at the end of August 2008 and the results will be documented in the third quarter resident inspector's integrated inspection report.

b. Findings

No findings of significance were identified.

.4 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

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

- Tours of operations within the Central and Secondary Security Alarm Stations
- Tours of selected security towers/security officer response posts
- Direct observation of personnel entry screening operations within the plant's Main Access Facility
- Security force shift turnover activities

These quarterly resident inspector 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.

4OA6 Management Meetings

.1 Exit Meeting Summary

On April 22, 2008, the inspector conducted a telephonic exit meeting to present the results of the in-office inspection of changes to the licensee's emergency action levels to Ms. M. A. Wilson, Manager, Emergency Preparedness, who acknowledged the findings. The inspector confirmed that no proprietary, sensitive, or personal information were examined during the inspection.

On May 15, 2008, the inspector presented the occupational radiation safety inspection results to Mr. R. Collins and other members of his staff who acknowledged the findings. The inspector confirmed that proprietary information was not provided or examined during the inspection.

On June 19, 2008, the inspector presented the results of the heat exchanger URI closeout to Mr. M. Larson, Acting Manager, Licensing, and other members of his staff who acknowledged the findings. The inspector confirmed that proprietary information was not provided or examined during the inspection.

On June 30, 2008, the inspectors presented the inspection results to Mr. Jeremy G. Browning, 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.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as an NCV.

- TS 3.6.1.2 states two primary containment airlocks shall be operable. Contrary to this requirement, on May 10, 2008, the 208-foot elevation airlock inner containment door was partially open and a plant instrument and controls technician was able to open the outer door at the same time. This resulted in a momentary breach of containment for approximately 2 minutes. The reason both doors were able to open at the same time was a result of the following issues: high door closure rate due to air in the hydraulic lines, twisted/damaged lower hinge pin, and worker not complying with procedural requirements to manually assist the door closed. Upon discovery of this TS violation, the Limiting Condition for Operation required actions were taken within the required time frame to close at least one containment air lock door within 1 hour. Due to the licensee being able to restore containment integrity within the required action time, the exposure time being of short duration and the licensee entering this into its CAP as CR-GGN-2008-2317, the finding is considered to have very low safety significance.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

D. Barfield, Director, Engineering
R. Benson, Supervisor, Radiation Protection
J. Browning, General Manager, Plant Operations
M. Causey, Senior Lead Technical Specialist
R. Collins, Manager, Corrective Actions and Assessments
D. Coulter, Licensing Specialist, Plant Licensing
D. Cupstid, Superintendent, Nuclear and Industrial Safety
T. Curtis, Supervisor, Radiation Protection
P. Different, Senior Lead Engineer, Reactor Engineering
R. Douet, Vice President, Operations
B. Edwards, Minority Owner Specialist
R. Gardner, Manger, Maintenance
E. Harris, Manager, Quality Assurance
R. Jackson, Licensing Specialist, Plant Licensing
D. Jones, Manager, System Engineering
M. Krupa, Director, Nuclear Safety and Assurance
G. Lantz, Supervisor, Design Engineering
M. Larson, Acting Manager, Plant Licensing
M. McAdory, Senior Operations Instructor
D. McDirmid, Maintenance Rule Engineer
J. Owens, Licensing Specialist, Plant Licensing
W. Parman, Manager, Component Engineering
M. Rohrer, Manager, Planning, Scheduling and Outages
F. Rosser, Supervisor, Radiation Protection
T. Tankersley, Manager, Training
T. Thornton, Manager, Design Engineering
M. Wilson, Manager, Emergency Preparedness
F. Wilson, Manager, Operations
R. Wilson, Superintendent, Radiation Protection
D. Wilson, Supervisor, Design Engineering
P. Worthington, Supervisor, Engineering
E. Wright, Health Physics Specialist

NRC Personnel

W. Walker, Senior Project Engineer, Reactor Project Branch C
M. Runyan, Senior Reactor Analyst, Region IV

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None

Opened and Closed

05000416/2008003-01	NCV	Inadequate Fireproofing on Fire Barrier Protecting the Safeguards Switchgear Room (Section 1R05)
05000416/2008003-02	NCV	Failure to Recognize the Division III Diesel Generator being Non-Functional (Section 1R19)
05000416/2008003-03	FIN	Ineffective Corrective Actions in Response to Plant Transients Resulting from Animal Intrusions (Section 4OA3)
05000416/2008003-04	NCV	Failure to Follow Procedures Causing a Loss of Decay Heat Removal to the Spent Fuel Pool (Section 4OA3)
TI 2515/174	TI	Hydrogen Igniter Backup Power Verification (Section 4OA5)

Closed

005000416/2007008-02	URI	Verify Continued Operability of RHR Heat Exchanger B Due to Fouling (Section 4OA5)

Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Condition Reports

CR-GGN-2008-02769

Procedures

NUMBER	TITLE	REVISION
05-1-02-I-4	Off Normal Event Procedure Loss of AC Power	035
06-OP-1R20-W-0001	Plant AC And DC Electrical Power Distribution	106

ENS-DC-199	Off Site Power Supply Design Requirements	2
ENS-DC-201	ENS Transmission Grid Monitoring	2
	ESI Transmission System Operation Center Operating Procedure; Nuclear Online Monitoring 1.1; 08/28/06	
	ESI Transmission System Operation Center Operating Procedure; Contingencies Near Nuclear Plants 3.1; 08/28/06	

Other

GLP-OPS-GEN84, General Training 2008 Cycle 4, Revision 04

Section 1R04: Equipment Alignment

Condition Reports

CR-GGN-2008-01931 CR-GGN-2008-01878 CR-GGN-2008-01865
CR-GGN-2007-03921

Procedures

NUMBER	TITLE	REVISION
04-1-01-Z51-1	System Operating Instruction - Control Room HVAC System	42
04-1-01-P53-1	System Operating Instruction - Instrument Air System	64
04-1-01-T48-1	System Operating Instruction - Standby Gas Treatment System	30
04-1-01-E12-1	System Operating Instruction - Residual Heat Removal System	129

Drawings

M-0049, Piping and Instrumentation Diagram - Control Room HVAC System, Revision 41
M-1067A-G, Piping and Instrumentation Diagrams - Instrument Air System, Revision 60
M-1102A, Piping and Instrumentation Diagrams - Standby Gas Treatment System, Revision 22

Other

ER-2005-0190 EC-3488

Section 1R05: Fire Protection

Condition Report

CR-GGN-2008-01849

Procedures

NUMBER	TITLE	REVISION
10-S-03-8	Fire Protection Procedure Fire Watch Program	9
10-S-03-8	Fire Protection Procedure Fire Watch Program	10

Other

Fire Preplan A-11, Rooms 1A118 and 1A116, Area 10 Auxiliary Building RHR C Pump Room and Piping Penetration Room

Fire Preplan C-06, Rooms OC210 and OC209, Area 25 Control Building Div III Switchgear and Battery Rooms

Fire Pre-Plan SSW-01

Fire Pre-Plan DG-04

Scaffold Request Number 16-9983

Scaffold Request Number 16-9927

GGNS-FP-08-00002, Evaluate the Use of Cameras and Video Monitors as Tools to Support Compensatory TRM Hourly and Continuous Fire Watches

Section 1R06: Flooding

Condition Reports

CR-GGN-2008-02034 CR-GGN-2008-02227

Other

NRC Information Notice 2003-08, Potential Flooding Through Unsealed Concrete Floor Cracks
Calculation CC-0Y13-93003, In-Leakage Analysis Due to External Flooding
Calculation C-H010.3, Safety Evaluation Report Item for Auxiliary Building – Unit One
Calculation U-099.1, Safety Evaluation Report Item for Diesel Generator Building – Unit One

Section 1R07: Heat Sink Performance

Procedures

NUMBER	TITLE	REVISION
STI-0801	Sodium Hypochlorite Flush of the 'B' RHR Heat Exchanger	0
04-1-01-P41-1	Standby Service Water System	125

Work Order

WO137762

Other

EC-6841

P&ID M-1061A

MSDS – Sodium Hypochlorite

MSDS – Nalco 73551

Calculation MC-Q1P41-97035, SSW Heat Exchanger Thermal Performance Instrument Uncertainty, Revision 5

EN-EP-S-039-G, Testing Standard for Safety Related Heat Exchangers Cooled by Standby Service Water, Revision 0

Section 1R11: Licensed Operator Requalification Program

Other

GSMS-LOR-WEX05, E51F063 Control Fuse Failure/16AB Overcurrent Trip/Loss of ST11 and ST21/LOCA/Degraded ECCS, Revision 12

Section 1R12: Maintenance Effectiveness

Condition Reports

CR-GGN-2006-02761	CR-GGN-2006-02781	CR-GGN-2006-02991
CR-GGN-2006-03078	CR-GGN-2006-04379	CR-GGN-2006-04381
CR-GGN-2006-04600	CR-GGN-2007-01422	CR-GGN-2007-02074
CR-GGN-2007-02076	CR-GGN-2007-02077	CR-GGN-2007-02090
CR-GGN-2007-03454	CR-GGN-2007-05673	CR-GGN-2007-00800
CR-GGN-2008-00705	CR-GGN-2008-02206	CR-GGN-2008-02219
CR-GGN-2008-02452	CR-GGN-2008-02519	CR-GGN-2008-02875

Procedures

NUMBER	TITLE	REVISION
EN-DC-205	Maintenance Rule Monitoring	1

Other

Functions Listing for C51 Neutron Monitoring System

GG UFSAR Table 7.5-1, Safety-Related Display Instrumentation, Revision 2

GG UFSAR Table 7.5-2, Post-Accident Monitoring Instrumentation, Revision 10

GLP-OPS-T4801, Standby Gas Treatment (SGTS) - T48, Revision 6

Listing of Maintenance Rule Program Functions Standby Gas Treatment (SGTS/T48) System

Maintenance Rule Failure Database for C51 Neutron Monitoring System

Rolling 18 Month Unavailability - SGTS A

Rolling 18 Month Unavailability - SGTS B

Standby Gas Treatment (T48/SGTS) System, Review of Potential Maintenance Rule Functional Failure Events

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Condition Reports

CR-GGN-2008-01833	CR-GGN-2008-01992	CR-GGN-2008-02171
CR-GGN-2008-02765	CR-GGN-2008-02769	

Procedures

NUMBER	TITLE	REVISION
EN-WM-101	On-line Work Management Process	3
01-S-18-6	Risk Assessment of Maintenance Activities	5

Work Orders

WO86226	WO150725	WO150738
WO130010	WO150727	
WO51011727	WO150703	

Other

EC-7644

Section 1R15: Operability Evaluations

Condition Reports

CR-GGN-2008-02051	CR-GGN-2008-2285	CR-GGN-2008-02815
CR-GGN-2008-02817	CR-GGN=2008-02819	CR-GGN-2008-02820

Section 1R18: Plant Modifications

Condition Reports

CR-GGN-2008-02503

Procedures

NUMBER	TITLE	REVISION
EN-ME-S-001	Engineering Standard - Leak Repair Evaluations	2
EN-DC-136	Nuclear Management Manual	3

Other

EC-8100

Section 1R19: Postmaintenance Testing

Condition Reports

CR-GGN-2008-01878	CR-GGN-2008-02265	CR-GGN-2008-02281
CR-GGN-2008-02312		

Procedures

NUMBER	TITLE	REVISION
06-OP-S-Z51-M-0002	Control room Standby Fresh Air Unit 'B' Blower Test	107
06-RE-SC11-V-0402	Control Rod Scram Testing	116
17-S-02-702	Reactivity Control Planning and Approval Form; Cycle 16 A2-2 to B2-2 Sequence Exchange, June 7, 2008	003
06-RE-SC11-V-0402	Control Rod Scram Testing-Individual Scram-Manual Analysis Method	116
06-OP-1P81-M-0002	HPCS Diesel Generator 13 Functional Test	118
02-S-01-28	Diesel Generator Start Information Sheet	002
04-1-01-P81-1	High Pressure Core Spray Diesel Generator	62

Work Orders

WO13882701	WO 13887201	WO15245001
WO15241601	WO51651643	WO62029

Section 1R22: Surveillance Testing

Condition Report

CR-GGN-2007-5120

Procedures

NUMBER	TITLE	REVISION
06-OP-1000-D-0001	Daily Operating Logs	123
06-OP-1E51-Q-0003	RCIC System Quarterly Pump Operability Verification	123
06-OP-1P81-R-0001	HPCS Diesel Generator 18 Month Functional Test	114
06-IC-1B21-R-0036	Reactor Vessel Water Level-Level 3 and 8 (RPS)	102

Work Orders

WO51546975	WO51558146	WO51566215
WO127969		

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Procedures

NUMBER	TITLE	REVISION
05-1-02-VI-2	Off-Normal Event Procedure: Hurricane, Tornados, and Severe Weather	109

Section 1EP6: Drill Evaluation

Condition Reports

CR-GGN-2008-02799	CR-GGN-2008-02801	CR-GGN-2008-02803
CR-GGN-2008-02805	CR-GGN-2008-02806	CR-GGN-2008-02807
CR-GGN-2008-02808	CR-GGN-2008-02814	

Other

Second Quarter Emergency Preparedness Drill; June 12, 2008

Section 2OS1: Access Control to Radiologically Significant Areas
Section 2OS2: As Low As Reasonably Achievable Planning and Controls

Condition Reports

GGN-2007-1104	GGN-2007-1141	GGN-2007-1183	GGN-2007-1442
GGN-2007-1582	GGN-2007-3361	GGN-2007-4934	GGN-2007-5243
GGN-2007-5343	GGN-2007-5367	GGN-2007-5421	GGN-2007-5569
GGN-2007-5612	GGN-2007-5887	GGN-2008-0177	GGN-2008-0616
GGN-2008-0697	GGN-2008-0735	GGN-2008-1182	GGN-2008-1380
GGN-2008-1756	GGN-2008-1971		

Procedures

NUMBER	TITLE	REVISION
EN-RP-101	"Access Control for Radiologically Controlled Areas"	3
EN-RP-102	"Radiological Control"	2
EN-RP-110	"ALARA Program"	5
EN-LI-114	"Performance Indicator Process"	3
08-S-01-28	"Use and Control of Temporary Shielding"	12

Work Orders

RWP 2008-1058, Revision 2, RWP TERMINATION & POST-JOB ALARA REVIEW
RWP 2008-1068, Revision 1, RWP TERMINATION & POST-JOB ALARA REVIEW

Audits and Self-Assessments

Quality Assurance Audit Report QA-15-2007-GGNS-1/QA-14-2007-GGNS-2

Other

Dose Reduction Plan

Section 4OA2: Problem Identification and Resolution

Condition Reports

CR-GGN-2007-05215	CR-GGN-2007-05253	CR-GGN-2007-05257
CR-GGN-2007-05263	CR-GGN-2007-05264	CR-GGN-2007-05281
CR-GGN-2007-05435	CR-GGN-2007-05539	CR-GGN-2007-05790
CR-GGN-2007-05923	CR-GGN-2008-00109	CR-GGN-2008-00139
CR-GGN-2008-00140	CR-GGN-2008-00567	CR-GGN-2008-01199

CR-GGN-2008-01201	CR-GGN-2008-01203	CR-GGN-2008-01232
CR-GGN-2008-01270	CR-GGN-2008-01296	CR-GGN-2008-01320
CR-GGN-2008-01421	CR-GGN-2008-01545	CR-GGN-2008-01633
CR-GGN-2008-01680	CR-GGN-2008-01681	CR-GGN-2008-01694
CR-GGN-2008-01702	CR-GGN-2008-01804	CR-GGN-2008-01858
CR-GGN-2008-01909	CR-GGN-2008-02023	CR-GGN-2008-02078
CR-GGN-2008-02085	CR-GGN-2008-02097	CR-GGN-2008-02220

Other

GGNS 4th Quarter 2007 Trend Report
GGNS 1st Quarter 2008 Trend Report

Section 4OA3: Followup of Events and Notices of Enforcement Discretion

Condition Reports

CR-GGN-2008-01713	CR-GGN-2008-01944	CR-GGN-2008-01952
CR-GGN-2008-02089	CR-GGN-2008-02147	

Procedures

NUMBER	TITLE	REVISION
05-1-02-III-3	Reduction in Recirculation System Flow Rate	106
05-1-02-IV-1	Control Rod/Drive Malfunctions	110
05-1-02-III-1	Inadequate Decay Heat Removal	030
05-1-02-V-11	Loss of Plant Service Water	028
05-1-02-V-1	Loss of Component Cooling Water	019

Section 4OA5: Other Activities

Condition Reports

CR-GGN-2008-01963	CR-GGN-2008-02157	CR-GGN-2008-02162
CR-GGN-2008-02571	CR-GGN-2008-0096	CR-GGN-2008-1404

Procedures

NUMBER	TITLE	REVISION
05-S-01-STRATEGY	Emergency Procedure Alternate Strategy	3
06-OP-1E61-R-0009	Hydrogen Ignition System Heatup Test (System A)	104
06-OP-1E61-R-0009	Hydrogen Ignition System Heatup Test (System B)	104
06-OP-1E61-R-0009	Hydrogen Ignition System Heatup Test (System A and B)	104

GGNS-EP-08-00002	Summary of Sodium Hypochlorite Flush on RHR B Heat Exchangers per STI-0801	0

Other

Allmand MAXI-LITE Operator's Manual

Calculation EC-Q1R28-90037, Revision 4

Calculation EC-Q1R28-90039, Revision 4

Calculation 15026-42Q, Hydrogen Igniter Voltage Drop, Revision 0

Completed CBT Training List for B5BH2

Drawing E-1186-46, E61 Combustible Gas Control System Hydrogen Ignition Controls, Revision 3

EC 7059, Connection of Alternate Power Source to Hydrogen Igniter Strings

EN-DC-115, Engineering Change Development, Revision 5

EN-DC-134, Use of Temporary Generator for H2 Igniters at GGNS, Revision 1

EN-DC-141, Engineering Evaluation, Revision 4

EN-LI-100-ATT-9.1, Process Applicability Determination Form, Revision 6

ER-GG-2003-0018-003, DFS Pad Fire & Explosion Hazard Restrictions

GCBT-OPS-B5BH2, Emergency Procedure Alternate Strategy Training

Night Orders for Monday, April 28, 2008, in reference to training for Hydrogen Igniter Alternate Power

Night Orders for Tuesday, May 20, 2008, in reference to relocation of the Hydrogen Igniter Alternate Power Supply

Section 4OA7: Licensee-Identified Violations

Condition Reports

CR-GGN-2008-02285 CR-GGN-2008-02300 CR-GGN-2008-02317

LIST OF ACRONYMS USED

ALARA	as-low-as-is-reasonably-achievable
ASME	American Society of Mechanical Engineers
BOP	balance of plant
CAP	corrective action program
CCW	component cooling water
CR	condition report
GGNS	Grand Gulf Nuclear Station
NCV	noncited violation
NEI	Nuclear Energy Institute
ONEP	off-normal event procedure
PI	performance indicator
PSW	plant service water
RHR	residual heat removal
SSC	systems, structures, and components
TS	Technical Specification
TSO	transmission system operator
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item