

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 50-416
License No.: NPF-29
Report No.: 50-416/99-03
Licensee: Entergy Operations, Inc.
Facility: Grand Gulf Nuclear Station
Location: Waterloo Road
Port Gibson, Mississippi
Dates: April 5 to 8 and May 10 to 11, 1999
Inspectors: Paul C. Gage, Senior Operations Engineer, Operations Branch
Peter J. Alter, Resident Inspector, Project Branch A
Approved By: John L. Pellet, Chief, Operations Branch
Division of Reactor Safety

ATTACHMENTS:

Attachment 1: Supplemental Information
Attachment 2: Initial Material Requested

EXECUTIVE SUMMARY

Grand Gulf Nuclear Station NRC Inspection Report No. 50-416/99-03

Two NRC Region IV inspectors performed a routine core inspection of the corrective action program implementation at the Grand Gulf Nuclear Station from April 5 to-8, 1999, with in-office review from March 29 to April 2, 1999. A supplemental onsite inspection was conducted from May 10 to 11, 1999, which concluded with a briefing for representatives of the facility's staff. The inspectors used NRC Inspection Procedure 40500 to evaluate the licensee's effectiveness in identifying, evaluating, resolving, and preventing problems that could affect safe plant operations.

In general, conditions that could affect safe plant operations were being effectively identified, evaluated, and resolved. The inspectors acknowledged the apparent low threshold for entry into the program, and that management and craft personnel shared a common understanding about program expectations, capabilities, and goals. The inspectors discussed with facility management two observations related to timeliness of condition report processing, in addition to the issues regarding corrective action effectiveness.

Operations

- On the basis of the sample reviewed, the corrective action program was acceptably implemented, with senior management involvement and oversight being maintained through routine reports and meetings (Sections O7.1b.2).
- During the review of numerous condition reports and other associated corrective action documents, the inspectors observed an example of a failure to provide prompt corrective actions for conditions adverse to quality regarding the electrolytic capacitors for the emergency diesel generator governor controls. This was a Severity Level IV violation of 10 CFR Part 50, Appendix B, Criterion XVI and was being treated as a noncited violation consistent with Appendix C of the Enforcement Policy (Sections O7.1b.2).
- A second area of concern was identified involving the use of temporary or interim solutions. In some instances, temporary or interim engineering dispositions to accept-as-is material deficiencies and interim repairs were not effectively tracked by the corrective action program. The corrective action quality review group was in the process of developing a formal tracking process for these temporary or interim solutions (Section O7.1b.3).

Report Details

Summary of Plant Status

The Grand Gulf Nuclear Station operated at approximately full power during the entire inspection period.

I. Operations

07 Quality Assurance in Operations

07.1 Condition Reporting Process and Corrective Actions

a. Inspection Scope (40500)

The inspectors reviewed the effectiveness of the licensee's process for identifying, evaluating, and resolving problems that could degrade safe plant operation. The inspectors reviewed plant documents, interviewed management and working level personnel, and attended licensee meetings. The inspectors reviewed, in varying detail, condition reports, listed in the attachment to this inspection report, to ascertain the effectiveness of the licensee actions in resolving and preventing issues that degrade the quality of safe plant operations. A selected sample, which considered the risk significance of the system or components, included the standby service water system, engineered safety features 125 Vdc battery, and 125 Vdc battery charger. The condition reports were also reviewed for the disposition and evaluation of operability issues, as well as, the adequacy of the root cause analysis.

The inspectors reviewed the corrective action program interface with other lower-tier programs, such as emergency preparedness action tracking system, procedure revisions, and maintenance action items, that could result in corrective action. The inspectors evaluated the performance of the licensee's condition review group. The inspectors reviewed quality assurance audits, self assessments, and licensee response to NRC and industry generic communications.

The inspection focused on the following seven specific areas: (1) the identification and reporting threshold for adverse conditions, (2) the setting of problem resolution priorities that were commensurate with operability and safety determinations, (3) program monitoring used by the licensee to assure continued program effectiveness, (4) program measurement or trending of adverse conditions, (5) the understanding of the program by all levels of station personnel, (6) the ability to identify and resolve repetitive problems, and (7) the resolution of noncited violations.

b. Observations and Findings

b.1 Threshold of Reporting

The primary method the licensee used for the identification, evaluation, and resolution of problems was documented in Procedure 01-S-03-10, "GGNS Condition Report (CR)," Revision 3. This procedure prescribed the method for processing condition reports for the identification, documentation, notification, evaluation, correction, and reporting of conditions, events, activities and concerns that could affect, or that had the potential for adversely affecting, the safe, reliable, and efficient operation of the Grand Gulf Nuclear Station.

The inspectors found that there was a clear understanding of the requirements for initiating a condition report among all levels of plant staff (see Section b.5), and that the condition review group consistently applied the guidelines for condition report initiation given in Attachments II and III of Procedure 01-S-03-10. The inspectors reviewed 12 condition reports classified "below scope" by the condition review group during this screening process and, in each case, this classification was consistent with those guidelines. Examples of condition reports classified as below scope include:

CR-GGN-1999-0042, nonsafety-related valve handwheel fell off actuator, refastened by maintenance trouble ticket.

CR-GGN-1999-0094, yellow pull string from electrical conduit found tied off inside 4160 Vac breaker cubicle.

CR-GGN-1999-0368, main generator undervoltage relay target dropped and was reset following a loss of incoming 500 kV feeder line.

Based on a review of the work management system for the identification of system or component deficiencies, the inspectors found that equipment problems were adequately identified as maintenance action items. These maintenance action items were reviewed twice daily at work planning meetings attended by all plant work disciplines. The inspectors observed that if a material problem was not already documented by a condition report, but fell within the scope of the corrective action program, that a individual familiar with the issue was assigned to initiate a condition report.

Similarly, the inspectors determined that the emergency preparedness group adequately documented classroom and team training issues within the emergency preparedness action tracking system. Based on a sample of 50 emergency preparedness action tracking system issues identified during quarterly training drills and 10 training issues that were documented as condition reports, the inspectors found that the criteria used by the emergency preparedness group were within the guidelines in Attachments II and III of Procedure 01-S-03-10. Those emergency preparedness training issues not entered into the corrective action program were resolved by enhancements to emergency preparedness procedures, changes to training materials and action items for emergency response facility owners.

The inspectors found the licensee's corrective action process guidance to be effectively designed and implemented, with an appropriate threshold for identifying adverse conditions. There was a willingness on the part of licensee personnel to write condition reports for any nonconforming or questionable issue or event.

b.2 Priority of Resolution

The licensee's priority setting for condition reports was delineated in Procedure 01-S-03-10, "GGNS Condition Report (CR)," Revision 3, which included three classifications: significant, nonsignificant, and below scope. Significant classifications, designated by Category A, B, or C, were associated with the more important issues at the station, and required a root-cause determination to be documented for each condition report. The initial classification of condition reports and organizational responsibility for action were assigned at daily condition review group meetings.

Information contained within the condition report system data base revealed over 800 open condition reports, and that approximately 90 percent of initiated condition reports had received a non-significant classification rating, as assigned by the condition review group. These nonsignificant condition reports required only an apparent cause determination to be performed. The inspectors verified that higher significance items required a root-cause assessment to be completed in accordance with approved Procedure 01-S-17-38, "Root Cause Evaluation Process," Revision 4. Extensions of corrective actions were granted approval by the condition review group. Data provided by licensee representatives revealed that approximately 10 percent of the open corrective actions had at least one extension granted, and approximately 20 percent of the "significant" category condition reports had at least three extensions.

Out of approximately 60 condition reports reviewed, the inspectors found the reviews performed by the condition review group to be thorough and timely, and no improper operability or reportability determinations were identified by the inspectors. The selected sample included 25 significant condition reports. The inspectors ascertained that the licensee's activity determinations, assignment, prioritization, operability and reportability determinations, were appropriate.

The inspectors noted that licensee personnel reviewed industry information according to approved Procedure 09-S-03-10, "Industry Operating Experience Review Program," Revision 3. From a review of three condition reports associated with industry-related information, the inspectors observed that Condition Report CR-GGN-1998-0743, initiated June 24, 1998, had documented information pertaining to a service alert concerning the shelf life of the safety-related emergency diesel generator governor controls. The service alert documented that the shelf life of the governor controls was indefinite provided the controls were fully powered once every 12 to 18 months for a 24-hour period, thereby, maintaining the integrity of the electrolytic capacitors.

The inspectors noted that for governor controls, which had been placed in service, the periodic testing of the emergency diesel generator provided the necessary power-up specified by the service alert. Licensee representatives stated that the stored electrolytic capacitors were obtained in 1995, but, to date, they had never been fully powered, nor had a test procedure been developed to fully power the stored capacitors.

Criterion XVI of Appendix B, 10 CFR Part 50, states, in part, "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected." The delay of almost a year since notification, and a 4-year period since purchase, was untimely in providing resolution for maintaining the integrity of the stored electrolytic capacitors, as addressed by Condition Report CR-GGN-1998-0743. This was a Severity Level IV violation of 10 CFR Part 50, Appendix B, Criterion XVI, and was being treated as a noncited violation (50-416/9903-01), consistent with Appendix C of the NRC enforcement policy.

The inspectors found that a number of assigned due dates for corrective actions had extensions granted during the past 12-month period. Specifically, approximately 20 percent of the significant condition reports had at least three extensions. The extended condition reports primarily addressed long term corrective action processes, such as updating less significant or minor calculations, drawings, and data base information. Recently, the condition review group had expected more in-depth justifications before granting extension approval.

b.3 Effectiveness of Program

Based upon the review of 75 condition reports, the inspectors found that root-cause determinations were adequately performed, and the developed corrective actions adequately addressed the identified problems or issues. In one case, Condition Report CR-GGN-1998-1442, the general plant manager chartered a significant event review team to perform a detailed incident investigation and root-cause analysis into the reactor core isolation cooling system turbine overspeed and failure to trip following a turbine oil system modification. The resultant root-cause determination generated corrective actions, which improved the preventive maintenance program and prevented overspeed failure recurrence for the reactor core isolation cooling system and the system turbine trip throttle valve. The reactor core isolation cooling system turbine overspeed and failure to trip issue was dispositioned in NRC Inspection Report 50-416/99-08.

The inspectors reviewed Condition Report CR-GGN-1998-1329 and the licensee's corrective actions for resolving the issue of temporary or interim solutions for plant problems awaiting final engineering disposition and repair. The original condition report involved the loss-of-control of a temporary solution for loose grating in primary containment directly above the suppression pool, as discussed in NRC Inspection Report 50-416/98-13. The temporary or interim fix of securing the grating with stainless

steel cables was not reinstalled following work, which required removal of the grating. As a result of the event, the affected grating had been labeled to identify the requirements for replacing the temporary hold down cables. The licensee planned to implement the permanent modification to the grating hold down clips during the upcoming refueling outage.

The plant safety review committee added a corrective action to Condition Report CR-GGN-1998-1329 to have the corrective action quality review group determine how many of these "temporary solutions" were in-place in the plant. After a review of more than 100 open condition reports awaiting engineering resolution, the corrective action quality review group identified 68 other condition reports that involved some form of interim engineering disposition to accept-as-is a temporary repair or replacement awaiting a final engineering resolution or permanent modification to the affected system or component. The inspectors noted that 23 of these condition reports were for steam valves and system leaks that were temporarily repaired with industrial sealant. The licensee had plans to repair the affected components during the next refueling outage. Five involved accept-as-is determinations of minor material discrepancies on the standby diesel generators awaiting permanent repairs during the next extended diesel system outage. Three involved accept-as-is nonconforming pump impellers in: drywell sump pumps (CR-GGN-1998-0617), a fuel pool cooling pump (CR-GGN-1998-0186), and standby service water Pump A (CR-GGN-1997-1326). The inspectors verified that an adequate interim operability determination had been completed for each of these temporary or interim fixes.

The standby service water Pump A condition report (CR-GGN-1997-1326) documented the issue of nonconforming in-stock replacement impellers for the safety-related standby service water pumps. These pumps provide cooling water for various safeguard heat loads including engineered safety features switchgear room coolers, emergency diesel generators, and residual heat removal heat exchangers. As described in the engineering disposition of this condition report (Engineering Request 97/0717-00, dated November 25, 1997), an interim engineering disposition was in-place to accept-as-is the nonconforming pump impeller already installed in standby service water Pump A until the next scheduled pump inspection in 2002, or during the next available opportunity of significant pump maintenance activity. No such opportunity had occurred since the 1997 report. The engineering request appropriately reviewed the identified condition, and screening evaluation determined that a formal 10 CFR 50.59 evaluation was not required.

The licensee staff traced the incorrect pump impeller problem to changes made in the standby service water system pumps as a result of plant startup testing in 1982. When the standby service water Pump A impeller was replaced in 1996, an engineering determination was made to accept-as-is an "incorrect" impeller, based on a successful flow balance test of the system. The in-stock impellers, for which Condition Report CR-GGN-1997-1326 was written, were similar to the "incorrect" impeller already installed in standby service water Pump A. The licensee staff corrected their

procurement documentation and received correct replacement impellers for the standby service water pumps onsite, in August 1998. These impellers satisfied the original design configuration of the system based on the start up testing data. The safety significance of this temporary condition was minimal, since the system met, or exceeded its design requirements.

NRC Inspection Report 50-416/97-02 documented design control issues related to the standby service water system, which included the need to update alarm response procedures, a heat rejection calculation, and the Final Safety Analysis Report. The report addressed deficiencies associated with the standby service water pump performance curve, surveillance test acceptance limits, and test instrumentation errors. These issues were subsequently reviewed and closed, as documented in NRC Inspection Report 50-416/99-02, since the in-place impellers were acceptable. However, the inspectors noted that no work order had been written for the planned replacement of the pump impeller in 2002 because the corrective action program (specifically, Condition Report-CR-GGN-1997-1326) was being used as the method for tracking the completion of this action.

The inspectors interviewed members of the work planning group and determined that once engineering has developed a permanent solution for these discrepancies, the work planners could track the resulting work packages and provide closeout documentation for the condition reports once permanent repairs were completed. However, the licensee was aware that no specific programmatic guidance was in place to track these interim engineering determinations and ensure that they were reviewed when permanent repairs were not completed before the interim determinations had lapsed. The inspectors found that, in the past, the outage scope review team had depended on informal communications among themselves, design engineering, and the corrective action quality review group to ensure that these temporary or interim determinations were resolved or extended prior to the end of each refueling outage. The inspectors noted that lack of adequate control of temporary solutions was identified in a previous violation issued in NRC Inspection Report 50-416/98-13 for failure to install temporary restraining cables on containment floor grating. This issue was subsequently closed in NRC Inspection Report 50-416/99-05.

On the basis of a review of condition reports and the corresponding procedures governing the corrective action program, root cause determinations were adequately performed, and the developed corrective actions adequately addressed the corresponding identified problem for the associated condition report. Licensee representatives acknowledged that a formalized method for the control of temporary or interim solutions was needed. The plant safety review committee had assigned the corrective action quality review group the responsibility for developing a formal tracking process for these interim engineering dispositions of temporary solutions within the corrective action program.

b.4 Program Measurement

The licensee's trending processes were delineated in Procedure QAP 2.10, "GGNS Quality Program's Trend Program," Revision 18. The licensee's performance monitoring and trending group compiled and issued trended data with established criteria to provide a measure of the corrective action program. The compiled results were provided formally in a quarterly trend report for senior plant management. The inspectors observed that the reports contained information drawn from documents associated with condition reports, NRC violations, licensee event reports, reportable safeguards event reports, quality activity monitoring reports, work orders, and preventative maintenance tasks. While the quarterly report provided information on diverse plant areas, it primarily focused on human performance. The inspectors observed that a trend of "event free days" was utilized by plant staff as a performance indicator for personnel errors or breakdown in work control processes. This indicator contained monthly data trended over rolling averages of both 180 days and 365 days.

Monthly reviews by line management were conducted to determine possible emergent trends and provide feedback opportunities to assess the effectiveness of previous actions. The quarterly trend report provided color coded windows to display improving, stable, or declining trends in 10 key organizational areas, including chemistry, emergency planning, engineering support, maintenance, materials, operations, radiation protection, security, training, and organization administration. Each was evaluated separately and summarily for administrative controls, configuration controls, equipment deficiencies, and work practices. Four colors (green, white, yellow, and red) were utilized to represent conditions for goal, acceptable, trend watch, and adverse trend. The staff then determined why the significant trend change was occurring. Depending whether a cause was known for the occurrence of a significant trend change, the respective plant management personnel were notified and a condition report was initiated. The inspectors considered this process effective in providing an early notification to plant management of significant trend changes.

Additional aspects measured by the licensee were assessment of overall plant performance (event free operation), open corrective actions, and the number of condition reports initiated each month. Data provided at the monthly focus meetings included the number of overdue or late corrective actions associated with each of the organizational groups. Although extensions to corrective actions of a condition report required approval by the condition review group, the inspectors noted that no direct indication existed to provide a measure of the number of extensions granted, nor whether it was associated with a significant condition report. The licensee trended data for the open condition reports as to their age, as distributed over eight different time intervals ranging from less than 6 months to greater than 3 years. Licensee reports further documented the total number of significant condition reports initiated; however, no linkage existed which associated the age of condition reports and their associated significance classification. Examples reviewed by the inspectors revealed that the immediate corrective actions were commensurate with safety.

The inspectors reviewed the licensee's self-assessment activities related to the corrective action program. The reviewed self assessments and audits were the "Grand Gulf Corrective Action Program Assessment," performed July 20 to 24, 1998, and the "Effectiveness of Corrective Action," performed September 16 through October 2, 1998. Examples of findings from the former included lack of aggressive ownership of the condition report and corrective action process, operability determination weaknesses (such as untimely and insufficient documented bases), multiple extensions of root cause investigations, and late closures of corrective actions. The inspectors noted that the self-assessment findings involving multiple extensions of root cause investigations and late closure of corrective actions were related to the NRC findings and observations regarding corrective action timeliness.

The inspectors determined that the objectives, criteria, and assessment activities were clearly stated. The self-assessment and audit team members had an appropriate mix of talent and came from different disciplines and areas, including, for the assessment, personnel from areas outside Grand Gulf Station. Based on the recommendations made in the self-assessments and the condition reports written during the self assessment and audit, the inspectors concluded that the assessment and audit process was thoroughly performed and that the findings were appropriately self critical.

The inspectors reviewed the licensee's trending methods and found them to be appropriate for identifying trends. The inspectors considered the use of regular focus meetings and quarterly reports to be an effective method to assure that changes to trended activities are quickly identified. From the inspectors review of plant performance reports, an improving trend in the number of personnel errors was annotated during the previous 6 months. A review of the quarterly reports covering the last 12 months indicated a gradual, but steady, increasing trend in the number of open condition reports and corrective actions, specifically, condition reports, which had been opened for greater than a 3-year period.

b.5 Program Understanding

The inspectors interviewed approximately 15 members of the plant staff to determine the depth of understanding of the corrective action program. Personnel interviewed were in the instrument and controls, mechanical and electrical maintenance departments, work planning, and operations departments. These interviews included managers, first-line supervisors, craft workers, and operators. The inspectors determined that there was a clear understanding of what issues should be documented by a condition report and when some other form of resolution would suffice. The inspectors observed that, in general, this decision was made jointly by the worker and the first-line supervisor when the problem or condition was first reported.

b.6 Repetitive Problems

The inspectors observed that those data searches for similar conditions were implemented by the quality assurance review group for each condition report, with each key search code used identified. The inspectors found that the results were adequately documented, and that a corrective action was assigned to evaluate the necessary actions, where appropriate, for validated repeat occurrences. Identified repeat occurrences were assigned a specific code to provide the means for tracking repeat conditions within the condition report data base.

The inspectors noted that each condition report was reviewed for generic implications as addressed within the corrective action program approved procedure. However, these reviews, performed by individual subject matter experts, did not typically report generic component issues across system boundaries. For example, the three pump impeller nonconformance condition reports (see Section b.3) did not cross reference to each other and were not noted for generic implications in the most recent condition report on the drywell sump pump impeller (CR-GGN-1998-0617). However, the inspectors determined that common causes existed. Two occurrences documented equipment changes during the plant's initial startup phase without the supporting document update for the fuel pool cooling and standby service water pump impellers. Similarly, the drywell pump had two different size impellers ordered under the same stock code. The inspectors noted that the opportunity to capture the generic implications of these pump impeller problems was missed since the associated condition reports addressed each as individual or isolated cases, with only an apparent cause to be determined for each.

Licensee personnel had documented five plant transients over the past 8 months. The initiating conditions for the recent transients included: an instrument air leak repair requiring drywell entry (September 1998), a trip of Circulating Water Pump A (October 1998), a leak in the condenser water box (November 1998), a shutdown for inspection and replacement of several engineered safety feature electrical switchgear current transformers (December 1998), and a manual actuation of the reactor protection system due to a loss-of-condenser vacuum (February 1999). Individual condition reports were initiated and addressed the cause and effect of each isolated transient. As part of the corrective action program, plant personnel reviewed the reports for the specific condition, but did not consider the more generic impact on the balance-of-plant related events.

Although the individual significance of each condition was minor, considering the impact on the reactor, the inspectors considered any transient placed the plant in an abnormal configuration resulting in unnecessary challenges to safety systems and plant operators. The inspectors noted that three of the recent events were associated with the main condenser and a corresponding support system. The inspectors noted that although each condition report adequately addressed each isolated condition, opportunities were missed regarding the potential generic impact, in that, assessment of these recent plant transients had not been integrated to consider common causal factors for each event in relation to the other events or the overall impact on system (e.g., condensate) reliability.

The inspectors observed that the established corrective action program relied on the skill of the craft in the condition review group to accomplish the correlation of individual reports where generic oversight would be appropriate.

The inspectors found that problems with a repetitive specific cause were included in the quarterly report to senior management, as part of the program oversight as referenced in Section 07.1b.4. Repeat issues identified in the quarterly reports included failures of control terminals, insufficient control of loose parts during maintenance activities, failure to remove rubber dams or line plugs, and failures of crane and hoist equipment. Documented data searches for key words, similar conditions, and other key search codes were implemented by the quality assurance review group for each condition report, with identified repetitive problems included in the quarterly report to senior management. However, a more detailed generic impact review would likely preclude corrective actions being limited in scope as in the previously addressed similar events associated with the drywell sump pump impeller, as well as multiple transients involving the main condenser system and other plant support equipment.

b.7 Notice Of Violation/Noncited Violation Followup

The licensee had a total of 13 noncited violations from previous NRC inspections that covered the period of May 1998 through February 1999. The inspectors reviewed four of these noncited violations, that were not previously reviewed by the NRC, to determine if the violations were entered into the corrective action program and if they were resolved or being resolved in a timely manner commensurate with their significance.

Violation 50-416/9816-01 (addressed by CR-GGN-1997-0397), noncited Violations 50-416/9805-03 (addressed by CR-GGN-1998-0328), and 9815-02 (addressed by Condition Report CR-GGN-1998-0746) were found to be entered into the corrective action program and that the derived corrective actions adequately addressed the violations.

One example of the previously mentioned untimely closure of condition reports dealt with the response to a noncited violation documented in NRC Inspection Report 50-416/98-08. The inspectors noted that Condition Report CR-GGN-1997-0718, initiated on June 19, 1997, addressed Licensee Event Report 97-002 regarding the condition which rendered all six safety relief valves inoperable when both test switches were concurrently taken to the test position during the daily performance of technical specification rounds. The inspectors noted that compliance was immediately restored. The inspectors observed that the condition report required a full root cause analysis to be performed, and the corrective action review board performed their review on June 24, 1997. The root cause determination, completed on July 15, 1997, identified contributing causes as inadequate design and verbal communication. The inspectors considered these causes appropriate. The operability determination was performed in a timely manner upon initiation of the condition report in accordance with the original documentation.

The inspectors observed that the corrective action review board assigned an initial root-cause determination to be completed by July 31, 1997, and that the recommended action included routing the root-cause assessment to all designated areas by September 30, 1997. The inspectors noted that an extension was subsequently granted on October 14, 1997, 3 months past the original due date, to the new designated completion date of December 31, 1997. The inspectors observed that an in-progress licensed operator requalification class was used as part of the justification for extending the closure of the condition report. Licensee representatives stated that part of the time delay was attributed to monitoring and evaluating the effectiveness of the corrective actions, which involved a design change to reduce the sensitivity to static buildup in the vicinity of the safety relief valve test switches. The design modification was implemented on October 15, 1997 as documented in Condition Report CR-GGN-1996-0606. The monitoring period for providing the evaluation of the effectiveness of the repair actions was not documented in the referenced condition report as a corrective action which implied an indefinite closure time.

Based upon the review of noncited and cited violations, the inspectors found that, in general, condition reports were initiated to document the conditions associated with each respective violation, and adequately addressed by the corrective actions. One example of untimely closure of condition reports was identified regarding the safety relief valve test switches.

c. Conclusions

On the basis of the sample reviewed, the corrective action program was acceptably implemented, with senior management involvement and oversight being maintained through routine reports and meetings. During the review of numerous condition reports and other associated corrective action documents, the inspectors observed an example of a failure to provide prompt corrective actions for conditions adverse to quality regarding the electrolytic capacitors for the emergency diesel generator governor controls. This was a Severity Level IV violation of 10 CFR Part 50, Appendix B, Criterion XVI and was being treated as a noncited violation consistent with Appendix C of the Enforcement Policy.

One condition report regarding the test switches associated with the safety relief valves was not closed in a timely manner. However, initial corrective actions to restore compliance were prompt. Other examples involving the inadequacy or lack of timeliness of corrective actions were noted in NRC Inspection Report 50-416/99-02, as well as licensee self assessments.

A second area of concern was identified involving the use of temporary or interim solutions. In some cases, temporary or interim engineering dispositions to accept-as-is material deficiencies and interim repairs were not effectively tracked by the corrective action program. The corrective action quality review group was in the process of developing a formal tracking process for these temporary or interim solutions.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors discussed the progress of the inspection on a daily basis and presented the inspection results to members of licensee management at the conclusion of the onsite inspection on April 8, 1999. A supplemental onsite inspection was conducted from May 10 to 11, 1999, which concluded with a brief for representatives of the facility's staff. Inoffice inspection of supplemental information was performed through June 28, 1999. Following the inoffice inspection, an exit was conducted telephonically on July 22, 1999, with your staff. The licensee's representatives acknowledged the findings presented.

The inspectors asked the licensee staff and management whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

D. Bost, Manager, Maintenance
C. Bottemiller, Superintendent, Operating Events
C. Brooks, Senior Licensing Engineer
R. Carroll, Superintendent, Operations
R. Courtney, Supervisor, Quality Programs Review
D. Cupstid, Operations Superintendent
L. Daughtery, Technical Coordinator
C. Holifield, Senior Licensing Engineer
E. Hughes, Supervisor, Computer Engineering
W. Hughey, Nuclear Safety and Regulatory Affairs
D. Janecek, Director, Training and Engineering Programs
M. Jones, Technical Specialist IV
C. Lambert, Director, Design Engineering
S. Marrs, Coordinator, Root Cause Assessment
W. Mosby, Coordinator, Employee Concerns
M. Remfirce, Manager, Engineering Programs
J. Roberts, Director, Quality
J. Robertson, Acting Manager, Planning and Scheduling
C. Townsend, Coordinator, Operations
J. Venable, General Manager

NRC

J. Pellet, Chief, Operations Branch

INSPECTION PROCEDURES USED

IP 40500 Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems

ITEMS OPENED AND CLOSED

OPEN

50-416/9903-01 NCV Failure to provide prompt corrective actions for the emergency diesel generator governor controls.

CLOSED

50-416/9903-01 NCV Failure to provide prompt corrective actions for the emergency diesel generator governor controls.

DOCUMENTS REVIEWED

Procedures

Procedure	Title	Revision
01-S-03-10	GGNS Condition Report	3
01-S-18-5	Maintenance Action Item Classification	0
01-S-18-1	Work Planning and Coordination	2
01-S-06-44	Operability Assessment	102
01-S-17-38	Root Cause Evaluation Process	4
09-S-03-10	Industry Operating Experience Review Program	3
QAP 2.10	GGNS Quality Program's Trend Program	18
06-OP-1P41-Q-004	Standby Service Water Loop A Valve and Pump Operability Test	105
17-S-06-22	SSW A Performance	5
17-S-06-23	SSW B Performance	6
01-S-06-03	Control of Temporary Alterations	28
01-S-16-1	Plant Change Implementation	104
NPEAP 801	Processing of Material Nonconformance Reports	16

Condition Identifiers

070063	070064	071175	071698	071989	072168	072191
072515	072516	072517	072803	072966	073048	073123
074009	074703	075460	075669	075939	075949	

Condition Reports

CR-GGN-1996-0234	CR-GGN-1996-0273	CR-GGN-1996-0286	CR-GGN-1996-0633
CR-GGN-1997-0006	CR-GGN-1997-0073	CR-GGN-1997-0376	CR-GGN-1997-0397
CR-GGN-1997-0486	CR-GGN-1997-0718	CR-GGN-1997-1326	CR-GGN-1998-0060
CR-GGN-1998-0083	CR-GGN-1998-0147	CR-GGN-1998-0189	CR-GGN-1998-0328
CR-GGN-1998-0337	CR-GGN-1998-0344	CR-GGN-1998-0381	CR-GGN-1998-0391
CR-GGN-1998-0402	CR-GGN-1998-0454	CR-GGN-1998-0514	CR-GGN-1998-0602
CR-GGN-1998-0617	CR-GGN-1998-0619	CR-GGN-1998-0646	CR-GGN-1998-0647
CR-GGN-1998-0659	CR-GGN-1998-0663	CR-GGN-1998-0664	CR-GGN-1998-0666
CR-GGN-1998-0667	CR-GGN-1998-0670	CR-GGN-1998-0675	CR-GGN-1998-0676
CR-GGN-1998-0677	CR-GGN-1998-0678	CR-GGN-1998-0681	CR-GGN-1998-0688
CR-GGN-1998-0692	CR-GGN-1998-0716	CR-GGN-1998-0743	CR-GGN-1998-0746
CR-GGN-1998-0751	CR-GGN-1998-0756	CR-GGN-1998-0762	CR-GGN-1998-0767
CR-GGN-1998-0781	CR-GGN-1998-0783	CR-GGN-1998-0788	CR-GGN-1998-0791
CR-GGN-1998-0797	CR-GGN-1998-0797	CR-GGN-1998-0817	CR-GGN-1998-0818
CR-GGN-1998-0831	CR-GGN-1998-0868	CR-GGN-1998-0871	CR-GGN-1998-0875
CR-GGN-1998-0882	CR-GGN-1998-0910	CR-GGN-1998-0937	CR-GGN-1998-0946
CR-GGN-1998-0947	CR-GGN-1998-0952	CR-GGN-1998-0954	CR-GGN-1998-1065
CR-GGN-1998-1216	CR-GGN-1998-1326	CR-GGN-1998-1398	CR-GGN-1998-1420
CR-GGN-1998-1442	CR-GGN-1999-0009	CR-GGN-1999-0013	CR-GGN-1999-0042
CR-GGN-1999-0050	CR-GGN-1999-0069	CR-GGN-1999-0094	CR-GGN-1999-0152
CR-GGN-1999-0188	CR-GGN-1999-0220	CR-GGN-1999-0251	CR-GGN-1999-0362

ATTACHMENT 2

INITIAL MATERIAL REQUESTED

Initial material requested for the 40500 inspection at Grand Gulf:

1. Index of all corrective action documents (e.g., CR's, and CI's) for the last 12 months.
2. All corrective action documents in response or related to plant transients, the equipment malfunctions that initiated them or that were previously written on the same equipment, for the last 12 months.
3. All corrective action documents related to external operating experience, especially vendor information not included in plant procedures and documents, for the last 12 months.
4. All major corrective action documents (i.e., those that subsume or roll-up one or more smaller issues), for the last 12 months.
5. All corrective action documents associated with:
 - a. Control room air conditioning and fresh air systems,
 - b. Emergency response organization and effectiveness,
 - c. Division III emergency diesel generator oil leaks,
 - d. Maintenance rule implementation, preventable functional failures, and baseline inspection results,
 - e. Floor grating inside containment, and
 - f. Operator workarounds.
6. All corrective action documents associated with non-escalated no response required or non-cited violations, for the last 12 months.
7. All corrective action program assessments for the last 12 months.
8. All corrective action program tracking and effectiveness internal reports or metrics, for the last 12 months.
9. Description of any informal systems, especially used by operations, for issues below the threshold of the formal corrective action system (e.g., CR's and CI's) and the content of those systems.
10. All procedures governing or applying to the corrective action program.