UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

September 8, 2005

Randall K. Edington, Vice
President-Nuclear and CNO
Nebraska Public Power District
P.O. Box 98
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000298/2005009

Dear Mr. Edington:

On September 8, 2005, the U. S. Nuclear Regulatory Commission (NRC) completed a team inspection at your Cooper Nuclear Station. The enclosed report documents the inspection findings, which were discussed with your staff as described in Section 4OA6 of this report.

This inspection examined activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. The team reviewed approximately 310 condition reports, notifications, root and apparent cause evaluations, and supporting documents. In addition, the team reviewed crosscutting aspects of NRC and licensee-identified findings and interviewed personnel regarding the safety conscious work environment.

On the basis of the sample selected for review, the team concluded that the processes and procedures of your corrective action program were generally effective; thresholds for identifying issues were appropriately low, and, in most cases, corrective actions were adequate to address conditions adverse to quality. While overall performance had improved since the closure of the Confirmatory Action Letter, and when compared to the previous problem identification and resolution assessment, poor problem evaluations and ineffective corrective actions continued to result in a significant number of self-disclosing and NRC identified violations and findings. The team concluded that a positive safety-conscious work environment exists at your facility.

The report documents three findings that were evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that violations were associated with two of these findings. The violations are being treated as noncited violations because they were of very low safety significance and because they were entered in your corrective action program consistent with Section VI.A of the Enforcement Policy. If you contest the violations or the significance of the violations, you

should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to the Regional Administrator, U. S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas, 76011; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Cooper Nuclear Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Linda Joy Smith, Chief
Engineering Branch 2
Division of Reactor Safety

Docket: 50-298
License: DPR-46

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w/Attachment: Supplemental Information

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket.:	50-298
License:	DPR 46
Report No.:	05000298/2005009
Licensee:	Nebraska Public Power District
Facility:	Cooper Nuclear Station
Location:	P.O. Box 98 Brownville, Nebraska
Dates:	June 13 through September 8, 2005
Inspectors:	G. Miller, Senior Resident Inspector, Project Branch C G. Replogle, Senior Reactor Inspector, Engineering Branch 2 S. Schwind, Senior Resident Inspector, Project Branch C A. Sanchez, Resident Inspector, Project Branch A B. Tindell, Reactor Inspector, Engineering Branch 2
Approved By:	Linda Joy Smith, Chief Engineering Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000298/2005009; 6/13/2005 - 9/8/2005; Cooper Nuclear Station; biennial baseline inspection of the identification and resolution of problems. Findings were identified in the areas of problem evaluation and effectiveness of corrective actions.

The inspection was conducted by two senior resident inspectors, a resident inspector and a reactor inspector. Two Green noncited violations and one Green finding were identified during this inspection. 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 3, dated July 2000.

Identification and Resolution of Problems

- The team reviewed approximately 310 condition reports, notifications, root and apparent cause evaluations, and other supporting documentation to assess problem identification and resolution activities. In general, performance had improved since the closure of the Confirmatory Action Letter and when compared to the previous problem identification and resolution assessment. Notwithstanding the improvements, poor problem evaluations and ineffective corrective actions continued to result in a significant number of self-disclosing and NRC identified violations and findings. Further, the licensee has not fully addressed the historical failure to incorporate important vendor information into maintenance documents, which has subsequently caused equipment failures and plant fires. In most cases, however, the corrective action program processes and procedures were generally effective; thresholds for identifying issues were appropriately low and corrective actions were adequate to address conditions adverse to quality.

  Based on the interviews conducted, the team concluded that a positive safety conscious work environment exists at the Cooper Nuclear Station. Employees felt free to raise safety concerns to their supervision, to the employee concerns program, and to the NRC. The team received a few isolated comments regarding confusion surrounding the use of a dual entry system for condition reporting. The team determined that licensee management was aware of this perception and was taking actions to address it. All the interviewees believed that potential safety issues were being addressed.

B. Inspector-Identified and Self-Revealing Findings

Cornerstone: Initiating Events

- Green. The team identified a finding involving the failure to meet established corrective action standards following a fire in the multi-purpose facility. The specified corrective measures were not specific, measurable, accountable, or timely, in that, not all personnel responsible for implementation of the corrective actions understood what was required and there was no mechanism to ensure

interim corrective actions were implemented on the required frequency. This finding had cross-cutting aspects associated with effectiveness of corrective actions.

This finding was more than minor because it affected the initiating events cornerstone attribute of protection against external factors such as fires. The team evaluated the safety significance of this finding using Manual Chapter 0609, "Significance Determination Process," Appendix F, and determined that the finding was of very low safety significance because it caused little degradation to fire prevention and administrative controls. This finding was entered in the licensee's corrective action program as Condition Reports 2005-4456 and 2005-4501 (Section 4OA2.e(2)(ii)).

Cornerstone: Mitigating Systems

- Green. The team identified a noncited violation of Technical Specification 3.8.2, "AC [apparent cause] Sources-Shutdown." Specifically, on November 5, 2004, the licensee performed a surveillance procedure that resulted in rendering both emergency diesel generator inoperable, which was not permitted by the technical specifications. This violation had crosscutting aspects associated problem evaluation, in that, once the problem was identified, the licensee failed to properly identify the issue as a technical specification violation.

  The finding was more than minor because it affected the mitigating systems cornerstone objective to ensure the availability of systems that respond to initiating events. Using Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," the finding was determined to be of very low safety significance because it did not increase the likelihood of a system inventory, did not degrade the licensee's ability to terminate a leak path or add inventory, did not affect the ability to recover decay heat removal capability if lost, nor did it affect the safety relief valve availability to remove heat to the suppression pool. This finding was entered in the licensee's corrective action program as Condition Report 2005-4505 (Section 4OA2.e(2)(i)).

- Green. The team identified a violation of Technical Specification 5.4.1.d for the failure to implement the station fire watch procedure. On June 16, 2005, the inspector toured the service water pump room and discovered that the fire watch was not alert or attentive to the area assigned. The fire watch was stationed in the service water pump room because the halon system had been tagged out to support maintenance in the room. This issue had human performance crosscutting aspects (procedure compliance).

  The failure to implement the fire watch procedure was more than minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. The safety

significance of this finding was evaluated using Manual Chapter 0609, “Significance Determination Process," Appendix F. The finding had very low safety significance because the inattentive fire watch constituted a low level of degradation. The fire watch was inattentive for no more than 2 hours and the probability of a fire for the exposure period was 1.5 E-6. In addition, in the event of a fire, the fire watch would have been alerted by the operational halon alarm. Other mitigating fire fighting equipment (fire extinguishers) and personnel (fire brigade) were still available. This finding was entered in the licensee’s corrective action program as Condition Report 2005-4418 (Section 4OA2.e(2)(iv)).

B. Licensee-Identified Violations

None.

REPORT DETAILS

4 OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

The team based the following conclusions, in part, on all issues that were identified in the assessment period, which ranged from September 26, 2003 (the last biennial problem identification and resolution inspection) to the end of the inspection on September 8, 2005. The issues are divided into three groups. The first group (Current Issues Since Confirmatory Action Letter) includes problems identified since the closure of Confirmatory Action Letter 4-003-01 (January 25, 2005), where at least one performance deficiency occurred during the same period. The second group (Other Current Issues) includes problems identified during the remainder of the performance period where at least one performance deficiency occurred during the same interval. The third group (Historical Issues) includes issues that were identified during the assessment period where all the performance deficiencies occurred outside the period of interest.

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed items selected across the seven cornerstones to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team performed field walkdowns of selected systems and equipment to inspect for deficiencies that should have been entered in the corrective action program. The team also observed control room operations and reviewed operator logs, plant tracking logs, and station work orders to ensure conditions adverse to quality were being entered into the corrective action program. Additionally, the team reviewed a sample of self assessments, trending reports, system health reports, and various other documents related to the corrective action program.

The team interviewed station personnel, attended condition review group and corrective action review board meetings, and evaluated corrective action documentation to determine the licensee's threshold for entering problems in their corrective action program. In addition, the team reviewed the licensee's evaluation of selected industry operating experience information, including operator event reports, NRC generic letters and information notices, and generic vendor notifications to ensure that issues applicable to Cooper Nuclear Station were appropriately addressed.

(2) Assessment

The team determined that, overall, the licensee maintained a healthy problem identification program. Problems were generally identified and placed into the corrective action program at an appropriate threshold. Performance had improved since the closure of Confirmatory Action Letter 4-003-01 and when compared to

the previous problem identification and resolution assessment (NRC Inspection Report 05000298/2003002). In most cases, the licensee properly identified performance trends and appropriately captured applicable industry operating experience in their program.

However, as illustrated in the examples below, NRC identified and self-disclosing issues continued to challenge the site. Some problems were not identified and entered into the corrective action program at the first opportunity and in other instances NRC involvement was required to ensure adverse conditions were appropriately addressed under the corrective action program. Further, in several cases, the historical failure to incorporate vendor information into plant maintenance work documents has culminated in more recent equipment failures and plant fires. The licensee has not completely addressed this generic concern.

Current Issues Since Confirmatory Action Letter

Example 1: The NRC identified a negative trend with respect to plant fires, which the licensee failed to identify despite numerous opportunities. The relatively high number of fires is inconsistent with the licensee's fire initiation frequencies contained in the Cooper Nuclear Station individual plant evaluation of external events. Fire is a significant contributor to plant risk (NRC Inspection Report 05000298/2005003).

Other Current Issues

Example 2: The NRC identified that the licensee failed to identify a technical specification violation while performing a surveillance procedure that rendered both emergency diesel generators inoperable. The licensee missed three opportunities to identify that the diesels were inoperable and that performing the surveillance would create a condition prohibited by technical specifications (see Section 4OA2.e(2)(i) of this report).

Example 3: The NRC identified two precursor events, one in September 2004 and one in October 2004, directly related to the November 20, 2004, service water strainer plugging event, representing missed opportunities to correct a problem before it became a consequential event (see NRC Inspection Report 05000298/2005002).

Example 4: The NRC identified that temporary shielding had been installed in contact with residual heat removal system components resulting in the shutdown cooling mode of the residual heat removal system being declared inoperable. The licensee missed several opportunities to identify and evaluate the improperly installed shielding (NRC Inspection Report 05000298/2004004).

Example 5: The NRC identified that the licensee failed to promptly identify a condition adverse to quality when plant temperatures were outside the specifications in the Updated Safety Analysis Report (NRC Inspection Report 05000298/2004005).

Historical Issues

Example 6: An oil leak and fire resulted from a failure of the licensee to establish an adequate operating procedure for the turbine oil purification and transfer system during main turbine lube oil vapor extractor maintenance. The licensee missed a number of opportunities to identify the procedure error and prevent the subsequent fire (self-disclosing, NRC Inspection Report 05000298/2003007).

Example 7: The licensee experienced lowering condenser vacuum on three separate occasions as a result of an improperly installed (backwards) valve position indication on a condensate storage tank outlet valve, with missed opportunities to identify the error both during and following the maintenance activity (self-disclosing, NRC Inspection Report 05000298/2003006).

Example 8: The licensee failed to perform scheduled inspections of a wooden support tower, supporting the main generator output lines, and missed an opportunity to identify problems that eventually led to a fire on the tower and a plant scram. The cause of the fire was inadequate grounding of tower insulators and poor materiel condition of the wood (self-disclosing, NRC Inspection Report 05000298/2003007).

Example 9: A fire in the reactor protection system Motor Generator Set B resulted from a failure to incorporate vendor recommendations to periodically disassemble, clean and inspect the motor as part of routine maintenance activities (self-disclosing, NRC Inspection Report 05000298/2005002).

Example 10: In July 2004, Service Air Compressor B failed as a result of a lack of vendor recommended preventative maintenance for the compressor motor windings (self-disclosing, NRC Inspection Report 05000298/2004004).

Example 11: On May 2, 2004, an unplanned power reduction occurred when a limit switch on Reactor Feed Pump B failed as a result of a failure to incorporate industry recommendations in the preventative maintenance program (self-disclosing, NRC Inspection Report 05000298/2004004).

Example 12: An unplanned power reduction occurred on February 14, 2004, because of an unexpected trip of Reactor Recirculation Motor Generator A. The licensee had failed to incorporate vendor recommended preventative maintenance following a modification of the motor generator field brushes in March 2003 (self-disclosing, NRC Inspection Report 05000298/2004003).

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed condition reports, notifications, and operability evaluations to assess the licensee's ability to evaluate the importance of adverse conditions. The team

reviewed a sample of condition reports, apparent cause analyses and root cause analyses to ascertain whether the licensee properly considered the full extent of causes and conditions, generic implications, common causes, and previous occurrences. The team also attended various meetings to assess the threshold of prioritization and evaluation of issues identified.

In addition, the team reviewed licensee evaluations of selected industry operating experience reports, including licensee event reports, NRC Generic Letters, Bulletins and Information Notices, and generic vendor notifications to assess whether issues applicable to Cooper Nuclear Station were appropriately addressed.

The team performed a historical review of condition reports and notifications written over the last 5 years that addressed the emergency diesel generators and the feedwater level control system.

(2) Assessment

The team concluded that problems were generally prioritized and evaluated in accordance with the licensee's corrective action program guidance and NRC requirements. The team found that for the sample of root cause reports reviewed, the licensee was generally self critical and thorough in evaluating the causes of significant conditions adverse to quality.

Notwithstanding the above, issues related to poor problem evaluation and prioritization still challenged the licensee, as self-disclosing and NRC identified problems continued to surface. In the past three problem identification and resolution inspection reports, the NRC has documented issues with the licensee staff's performance of operability determinations. Though the team noted significant improvement in this area, there continued to be problems involving the timeliness and thoroughness of operability determinations. The team also identified some prioritization concerns where in some cases corrective actions, while effective, were not timely.

Current Issues Since Confirmatory Action Letter

Example 1: The NRC identified that the licensee failed to meet timeliness goals and documentation requirements for evaluating the operability of the service water discharge strainers following a high differential pressure condition (NRC Inspection Report 05000298/2005002).

Example 2: The NRC identified that the licensee had not taken prompt corrective measures to address a condition adverse to quality, a clogged emergency diesel generator fuel injector fuel drain line. The clog was causing a fuel injector pump leak.

Further, a second clog on a different emergency diesel generator drain line developed before the licensee took any corrective measures to address the first leak. The team noted that the licensee's initial operability evaluation was poor and that additional documentation was required to properly support operability (see Section 4OA2.e(2)(v) of this report).

Other Current Issues

Example 3: The NRC identified that the licensee failed to properly evaluate an instance where both emergency diesel generators were rendered inoperable. Plant operators secured both fuel oil transfer pumps at the same time. The licensee erroneously concluded that the instance was not a violation of technical specifications (see Section 4OA2.e(2)(i) of this report).

Example 4: The NRC identified that the licensee failed to evaluate operability, in accordance with plant procedural requirements, when operators placed the diesel fuel oil system in an abnormal configuration. The abnormal configuration was a compensatory measure for a degraded condition in the fuel oil storage tank cross-tie valves (NRC Inspection Report 05000298/2004003).

Example 5: The NRC identified that corrective actions in response to an operator training deficiency were not timely. Consequently, an operator inappropriately rendered the high pressure coolant injection system inoperable following a reactor scram in November 2003 (05000298/2004002).

Historical Issues

Example 6: The licensee had inappropriately utilized nonsafety-related components in the service water discharge strainers which contributed to the failure of one strainer on May 30, 2004. In addition, the extent of condition evaluation for a previous 2003 design control violation, concerning nonsafety components in these same strainers, was inadequate in that it failed to uncover this problem (self-disclosing, see Section 4OA2.e(2)(iii) of this report).

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed plant records, primarily condition reports and notifications, to verify that corrective actions related to the issues were identified and implemented, including corrective actions to address common cause or generic concerns. The team sampled specific technical issues to evaluate the adequacy of the licensee's operability determinations.

Additionally, the team reviewed a sample of condition reports and notifications that addressed past NRC identified violations, for each affected cornerstone, to ensure that the corrective actions adequately addressed the issues as described in the inspection reports. The team also reviewed a sample of corrective actions closed to other condition reports, notifications, work orders, or tracking programs to ensure that corrective actions were still appropriate and timely.

In the 2005 end-of-cycle performance assessment (NRC Inspection Report 05000298/2005001), the NRC identified substantive cross-cutting issues in the areas of human performance and corrective actions. The team evaluated the licensee's actions to address the substantive cross-cutting issues.

(2) Assessment

In most cases, the licensee's corrective actions were generally effective at addressing the conditions adverse to quality. The team noted cases where corrective actions did not completely solve the problem they were intended to address, but, overall, performance had improved when compared to the previous problem identification and resolution assessment.

With respect to the cross-cutting issues in human performance and corrective actions, the licensee's subsequent self assessments, audits, and third-party assessments were critical and thorough. While the licensee has observed some improvement in their performance indicators, findings continued to be identified in both of these areas.

Current Issues Since Confirmatory Action Letter Closure

Example 1: The NRC identified that corrective actions for two emergency diesel generator fuel injector pump leaks did not address the stated apparent cause (see Section 4OA2.e(2)(v) of this report).

Example 2: The NRC identified that the corrective actions for a fire in the multi-purpose facility did not meet the licensee's own standards stated in their corrective action program procedures. In addition to ill-defined actions, the interim corrective actions were not formalized and were not being performed periodically as required (see Section 4OA2.e(2)(ii) of this report).

Other Current Issues

Example 3: The failure of the licensee to take prompt measures to address an unposted locked high radiation area resulted in two inappropriate entries, about two hours apart. The corrective measures for the first instance were not prompt and did not prevent the second occurrence (self-disclosing, NRC Inspection Report 05000298/2005002).

Example 4: The NRC identified that the licensee failed to correct a condition adverse to quality related to inadvertent safety-related relay actuations following a trip of a running service water pump. Although the condition had been entered in the corrective action program, no corrective actions had been implemented (NRC Inspection Report 05000298/2004003).

Example 5: The NRC identified that the licensee failed to take adequate corrective actions for degraded conditions in the diesel fuel oil transfer system. Corrective actions taken by the licensee following a clogging of the diesel fuel oil inlet strainer in February and November 2003 and did not prevent a third clogging event in March 2004. The corrective actions taken only addressed symptoms of the failure and not the cause (NRC Inspection Reports 05000298/2003007 and 05000298/2004003).

Example 6: The licensee's corrective measures in response to recommendations contained in the July 15, 2004, Confirmatory Action Letter Closure Assessment were not fully effective, as the plant continued to experience equipment failures. Examples of these failures included: 1) failure of Reactor Protection System Motor Generator Set B in February, 2005; 2) failure of Screen Wash Pump A in April, 2005; and 3) other service water reliability issues (self-disclosing, NRC Inspection Report 05000298/2005002).

Historical Issues

Example 7: In May 2003, Cooper Nuclear Station exceeded technical specification heatup and cooldown rate limits as a result of stratification of reactor coolant in the reactor vessel following a reactor scram. Corrective actions for that event failed to prevent recurrence of the condition following a scram in November 2003 (NRC Inspection Report 05000298/2004002).

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

The team interviewed 34 individuals from the licensee's staff, representing a cross section of functional organizations and supervisory and nonsupervisory personnel. These interviews assessed whether conditions existed that would challenge the establishment of a safety conscious work environment.

(2) Assessment

Based on the interviews conducted, the team concluded that a positive safety conscious work environment exists at the Cooper Nuclear Station. Employees felt free to raise safety concerns to their supervision, to the employee concerns program, and to the NRC. The team received a few isolated comments regarding confusion surrounding the use of a dual entry system for condition reporting. The team determined that licensee management was aware of this perception and was taking actions to address it. All the interviewees believed that potential safety issues were being addressed.

e. Specific Issues Identified During This Inspection

(1) Inspection Scope

During the reviews described in Sections 4OA2 a.(1), 4OA2 b.(1), 4OA2 c.(1), 4OA2 d.(1) above, the team identified the following findings.

(2) Findings and Observations

(i) Technical Specification 3.8.2 "AC [apparent cause] Sources-Shutdown" Violation

Introduction. The team identified a Green noncited violation for failure to follow Technical Specification 3.8.2. Specifically, on November 5, 2004, the licensee performed a surveillance procedure that required declaring both emergency diesel generators inoperable, but failed to do so. As a result, the licensee violated Condition B.4 of Technical Specification 3.8.2, which required that one of the diesel generators be restored to service immediately.

Description. On December 30, 2004, reactor operators reviewed Surveillance Procedure 6.1DG.401, "Diesel Generator Fuel Oil Transfer Pump IST Flow Test (Division 1)," Revision 18, and noted that the procedure had been revised in May 2004 to direct placing the hand switches for both emergency diesel generator fuel oil transfer pumps to the "off" position. The operators determined that this situation would require declaring both diesel generators inoperable since neither diesel fuel oil transfer pump would be available to start automatically. Licensee staff performed a review and discovered that the surveillance procedure had been performed three times since May 2004, and the diesel generators had not been declared inoperable on any of these occasions. The licensee concluded that although the diesel generators had not been declared inoperable, no violation of technical specifications had occurred since the hand switches for the fuel oil transfer pumps were restored to their normal position within the allowed outage time of the applicable Technical Specification Action Statements on all three occasions.

The inspectors noted that during one performance of the surveillance procedure on November 5, 2004, Cooper Nuclear Station was shutdown (Mode 4). In Mode 4, Condition B.4 of Technical Specification 3.8.2 applied, which required that one diesel generator be restored to service immediately. The inspectors concluded that in performing the surveillance, the operators had placed the plant in a configuration that was not allowed in accordance with Condition B.4 of Technical Specification 3.8.2.

Analysis. The performance deficiency associated with this finding was a failure of operators to control the operability of equipment, resulting in a violation of Technical Specification 3.8.2. This finding was more than minor because it was associated with the configuration control attribute of the mitigating systems cornerstone and affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. Using Manual Chapter 0609,

Appendix G, “Shutdown Operations Significance Determination Process,” the finding was determined to be of very low safety significance. Although the finding affected the availability of the onsite class 1E electrical power system, it did not increase the likelihood of a reactor coolant system inventory loss, did not degrade the licensee’s ability to terminate a reactor coolant system leak path or add reactor coolant system inventory, did not affect the ability to recover decay heat removal capability if lost, and it did not affect the safety relief valve availability to remove heat to the suppression pool.

This finding had problem identification and resolution cross-cutting aspects based on the fact that the operators failed to identify that performing this particular surveillance procedure made both emergency diesel generators inoperable, and would, under shutdown conditions, create a condition prohibited by technical specifications.

Enforcement. Technical Specification 3.8.2 required that immediate action be taken to restore one emergency diesel generator to operable status. Contrary to the above, on November 5, 2004, while the reactor was in Mode 4, a surveillance was performed that rendered both emergency diesel generators inoperable for approximately 30 minutes. Because the finding is of very low safety significance and has been entered into the corrective action program as Condition Report CR-CNS-2005-4505, this finding is being treated as a noncited violation, consistent with Section VI.A of the Enforcement Policy. (NCV 05000298/2005009-01)

(ii) Inadequate Corrective Actions for Multi-Purpose Facility Fire

Introduction. A Green finding was identified regarding the failure to establish corrective actions in accordance with licensee standards for a fire in the multi-purpose facility. This issue had crosscutting aspects in the area of effectiveness of corrective actions.

Description. On March 14, 2005, a fire was detected in the multi-purpose facility, which is a machine shop and storage facility located within the radiologically controlled area and inside the protected area. The details of the event, including operator response, were discussed in NRC Integrated Inspection Report 05000298/2005003.

The licensee documented this event in Condition Report CR-CNS-2005-02995 and performed a root-cause analysis, which determined that the fire was caused by a high pressure mercury vapor lamp that had been operated to its end-of-life and burst upon failure. Hot filament particles from the lamp fell into a trash bin and ignited it. Condition Report CR-CNS-2005-02995 stated that the root cause was the inappropriate use of an open light fixture that could not contain the hot filament debris and the failure to use Type “O” lamps over an area that regularly contains combustible material. Type “O” lamps are less susceptible to catastrophic failure. Administrative Procedure 0.5.EVAL, “Preparation of Condition Reports,” Revision 8, states that all corrective actions

identified in an evaluation should directly correlate to the associated concerns they are designed to correct. This standard was not met in that there was not a corrective action assigned as a result of Condition Report CR-CNS-2005-02995 to specifically address the root cause by modifying the type of light fixture used or to require the use of Type "O" lamps.

Additionally, interim corrective actions for this event included an evaluation of all lighting in the plant that could suffer similar failures and implementation of "Interim actions, consistent with the manufacturer's recommendations and good practices." On June 20, 2005, the team requested information regarding what the manufacturer's recommendations and good practices specifically were and what actions were to be implemented by the licensee staff. The licensee was unable to provide this information without conducting several hours of research, including a telephone call to one of the lamp manufacturers. During a tour of the control room, the team questioned several operators regarding actions they were required to implement with respect to these corrective actions. Only one individual was aware of the actions that the Operations Department was required to take. Administrative Procedure 0.5.EVAL states that corrective actions should be "SMART" - **S**pecific, **M**easurable, **A**ccountable, **R**easonable, and **T**imely. This interim corrective action did not meet the licensee's standards since it was not specific regarding what was to be accomplished and who was responsible for implementation.

An additional corrective action required that all susceptible lighting be periodically cycled until all areas of the plant had been relamped. This was to be performed on a frequency no less than monthly and more frequently for areas of high risk. This corrective action was assigned on May 2, 2005, and work to relamp the plant did not start until June 16, 2005. There was no formal mechanism to ensure this activity would occur or to document completion. The licensee was able to provide a copy of an e-mail indicating that all the susceptible lighting systems had been cycled only once in the 3 months following the fire. The team concluded this corrective action did not meet the licensee's standards since it was not specific in terms of which lights should be cycled and how often, it was not measurable since there was no documentation to show completion, no one was held accountable for completion, and performing the activity only once in 3 months was not timely.

Analysis. The licensee's failure to meet their own standards for corrective actions was a performance deficiency since it was reasonably within their ability to meet these standards and should have been prevented. This finding affects the Initiating Events Cornerstone and is more than minor since it affected the cornerstone attribute of protection against external factors such as fires. The safety significance of this finding was evaluated using Manual Chapter 0609, "Significance Determination Process," Appendix F. The finding was categorized under "Fire Prevention and Administrative Controls" and was assigned a degradation rating of low since the rate of failures of high pressure mercury lamps is low. This resulted in a safety significance of very low significance (Green).

This finding also had cross-cutting aspects associated with problem identification and resolution based on the fact that although the licensee's analysis was technically sound, the corrective actions lacked the formality and rigor to ensure they would address the condition and that they would be accomplished as intended.

Enforcement. No violation of NRC requirements occurred. FIN 05000298/2005009-02.

(iii) Service Water Strainer Design Control

Introduction. The team identified an unresolved item concerning the use of non-safety related components in the service water discharge strainers. This issue had crosscutting aspects in the area of problem evaluation, as the licensee had previously identified a similar problem with nonsafety-related components but the extent of condition evaluation failed to identify this problem.

Description. The service water system is a safety-related system that provides cooling water to several essential heat exchangers, including those in the residual heat removal system and emergency diesel generators. To prevent clogging of these heat exchangers, the service water system has traveling screens that prevent debris greater than 3/8-inch diameter from proceeding through the system. The system is also equipped with a discharge strainer in each division to further filter debris that is greater than 1/8-inch in diameter. The strainer is designed to remove debris during normal, accident, and transient conditions. The differential pressure across the strainer is limited to 15 psid. The strainer is equipped with an automatic backwash feature activated either on a timed cycle, by high differential pressure, or in a continuous mode of operation. If the automatic backwash feature is lost, operators can manually backwash the filter to remove debris from the strainer. The entire strainer assembly is classified as essential since its failure could result in a failure of the service water system.

On January 6, 2003, Notification 10218375 documented that nonessential components were installed in the discharge strainer control panels. Condition Report CR-CNS-2004-00047 was opened based on Notification 10218375 to perform an apparent cause determination for this condition and formulate corrective actions. The apparent cause determined that an analysis of component functions performed in 1994 was in error and resulted in the components being classified as nonessential in the procurement system. The extent of condition conducted as part of this apparent cause did not adequately consider the classification of other components in the strainer assembly, such as shear pins used in the motor coupling or the strainer wiper arm. The loss of design control of electrical components was discussed in NRC Inspection Report 05000298/2003002 and was the subject of a noncited violation. (NCV 05000298/2003002-05) Corrective actions for this condition included a modification to the control panels to restore them to original design using qualified components.

On May 30, 2004, the shear pin in the motor coupling for service water Discharge Strainer B failed. As a result, service water Loop B was declared inoperable and the strainer was disassembled for inspection. The inspection revealed that the rubber boot on the wiper had separated from the arm and had become lodged between the arm and the strainer basket. This most likely caused the wiper arm to bind, resulting in a failure of the shear pin. Condition Report CR-CNS-2004-04050 was written to evaluate this condition. The evaluation determined that the wiper arm was classified as nonessential and failed due to a manufacturing deficiency. Since the component was classified as non-essential, there were no quality controls applied to the procure of these components which may have detected the defect prior to use in the system. Further evaluation determined that the shear pins, and a number of additional mechanical components in the strainer assembly were also incorrectly classified as non-essential in the procurement system. Corrective actions for this condition included repairs to strainer, commercial grade dedication of the remaining stock of spare mechanical components, and correction of the component classifications in the procurement system.

Analysis. The failure to implement the appropriate design control measures to maintain design configuration control and to prevent nonessential components from being placed in service in the service water discharge strainers was a performance deficiency. The finding affected the Initiating Events Cornerstone and is more than minor since it is associated with the design control attribute of the Initiating Events Cornerstone and it affected the cornerstone objective of limiting events that challenge plant stability. Using the significance determination process Phase 1 worksheet in Inspection Manual Chapter 0609, Appendix A, the finding the finding required a Phase 2 analysis since it contributed to both the likelihood of a reactor trip and the likelihood that mitigation systems would not be available. The Phase 2 significance determination indicated that the issue was potentially greater than green. The NRC had not completed the Phase 3 significance determination at the time of report issue. This issue is unresolved for significance. (URI 05000298/2005009-03)

This finding had cross-cutting aspects associated with problem evaluation.

Enforcement. The inspectors were still evaluating potential enforcement actions at the close of the inspection. This issue is unresolved for significance and enforcement.

(iv) Inattentive Fire Watch

Introduction. The team identified a Green noncited violation of Technical Specification 5.4.1.d for failure to implement the fire watch procedure. Specifically, on June 16, 2005, the inspector identified that a compensatory fire watch, responsible for protecting equipment important to safety from fire damage, was not alert and therefore inattentive to the areas assigned as directed by procedure. This issue had crosscutting aspects in the area of human performance (procedures).

Description. On June 16, 2005, the inspector toured the service water pump room to verify a compensatory fire watch and discovered that the fire watch was not alert or attentive to the area assigned. Following questioning by the inspector, the fire watch knew his duties and responsibilities, but also stated that he was working overtime. Upon leaving the area, the inspector discussed the situation with the licensee. The control room was notified and the fire watch was immediately relieved.

Analysis. The failure to adequately implement plant procedures was a performance deficiency. The issue was more than minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. Inspection Manual Chapter 0609, Appendix F, was used to assess the safety significance of this finding. The finding had very low safety significance because the inattentive fire watch constituted a low level of degradation. The fire watch was inattentive for no more than 2 hours and the probability of a fire for the exposure period was 1.5 E-6. In addition, in the event of a fire, the fire watch would have been alerted by the operational halon alarm. Other mitigating fire fighting equipment (fire extinguishers) and personnel (fire brigade) were still available.

The finding had crosscutting aspects associated with human performance (procedure adherence).

Enforcement. Technical Specification 5.4.1.d states, "Written procedures shall be established, implemented, and maintained covering the fire protection program implementation." Administrative Procedure 0.39, "Fire Watches," Revision 31, Section 6.3.1 states that a compensatory continuous fire watch, "...shall observe the affected area and be alert for signs of fire, smoke, and changing conditions." Contrary to this procedural requirement, the compensatory continuous fire watch was not alert for signs of fire, smoke, and changing conditions. Because the finding is of very low safety significance and has been entered into the corrective action program as Condition Report CR-CNS-2005-4418, this finding is being treated as a noncited violation, consistent with Section VI.A of the Enforcement Policy (NCV 05000298/2005009-04).

(v) Emergency Diesel Generator Fuel Leaks

Introduction. An unresolved item was identified regarding the evaluation and corrective actions for fuel leaks on both emergency diesel generators (EDG).

Description. On March 22, 2005, during a monthly surveillance test on EDG 1, an operator observed fuel spraying from the injector pump for Cylinder 8R. The spray was from the area where the metering rod penetrates the injector pump body. As a result, EDG 1 was secured and declared inoperable until the fuel pump could be replaced. EDG 1 was repaired, successfully tested, and declared operable on March 23, 2005. This condition was documented in Condition Report CR-2005-02449. The licensee documented an operability assessment for this condition prior to declaring EDG 1 operable, which stated that the system was fully operable based on corrective actions taken.

An apparent cause determination was completed on April 28, 2005, which stated the apparent cause for the leak was improper draining of the injector pump drain line. The only basis for this determination was the similarity between this event and an event at Cooper Nuclear Station in 1998 and an additional, single industry event in 1995. Corrective actions resulting from this evaluation included replacement of the pump immediately after the leak was detected and an evaluation of the leaking pump by the vendor. There was no corrective action to clean or inspect the injector pump drain line to determine if it was obstructed nor was there any evaluation of fuel quality that could lead to obstruction of the drain line.

On June 6, 2005, an identical leak developed on Cylinder 8L on EDG 2 during a monthly surveillance test. Immediate corrective actions for this leak were the same as for the previous leak on EDG 1. This condition was documented in Condition Report CR-CNS-2005-04197 and the licensee determined that EDG 2 was fully operable based on replacing the injector pump. Condition Report CR-CNS-2005-04197 was administratively closed on June 9, 2005.

During a review of Condition Reports CR-2005-02449 and CR-2005-04197, the team concluded that the corrective actions taken in response to these two conditions did not explicitly address the apparent cause. Furthermore, there was no technical basis for the apparent cause. The team also questioned operability of both diesels since the previous operability assessments were based on the immediate corrective actions and, if the condition still existed, the potential fuel leaks would create a fire hazard that could challenge operability of the diesels. On June 10, 2005, the licensee documented an additional operability assessment in Condition Report CR-CNS-2005-04281, which stated that both diesels were fully operable based primarily on two factors: 1) a previous evaluation of an unrelated 10 drop-per-minute fuel leak bounded any potential fuel leaks from the injector pumps, and 2) an operator could be assigned to clean any fuel leakage to prevent a fire hazard while the engines were running.

The team reviewed the operability assessment in Condition Report CR-CNS-2005-04281 and concluded that it did not document a reasonable assurance of operability for the diesels. This was discussed with the licensee and, on June 17, 2005, the licensee produced a white paper documenting further analyses of engine performance and the potential fire hazards due to the injector pump leaks. The team concluded that the white paper supported a reasonable assurance of operability.

As a result of the team's questions regarding the adequacy of the apparent cause and corrective actions for this condition, the licensee determined the need to perform a more rigorous apparent cause determination for this condition.

Analysis. This finding affected the Mitigating Systems Cornerstone and is more than minor since it impacted the availability and reliability of the emergency diesel generators which are relied upon to mitigate the consequences of an initiating event. If warranted, the inspectors will complete a Phase 2 significance determination when closing the unresolved item.

Enforcement. This finding remains unresolved pending completion of the licensee's apparent cause determination for the fuel injector pump leaks and the results of an extent of condition inspection of the injector pump drain lines. This information is needed to determine if the licensee's evaluation and corrective actions were adequate as well as to determine if their operability assessment was correct. (URI 05000298/2005009-05)

4OA6 Exit Meeting

On September 8, 2005, the U. S. Nuclear Regulatory Commission (NRC) completed a team inspection at your Cooper Nuclear Station. The enclosed report documents the inspection findings. On June 23, 2005, at the end of the onsite portion of the inspection, these findings were discussed with Mr. S. Minahan and other members of your staff. The team continued in-office document reviews and conducted an exit meeting with Mr. J. Roberts and other members of your staff on July 21, 2005. A final exit meeting was conducted with Mr. Paul Fleming and other members of your staff on September 8, 2005.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Roberts, Director, Nuclear Safety Assurance
D. Barker, Root Cause Analysis Supervisor
J. Bebb, Manager, Security
M. Bergmeyer, Operations Support Group Supervisor
S. Blake, Manager, Quality Assurance
T. Chard, Manager, Radiation Protection
K. Chambliss, Operations Manager
J. DeBartolo, Employee Concerns Program Ombudsman
R. Edington, Vice President
R. Estrada, Corrective Actions Manager
K. Fili, Manager, Nuclear Projects
P. Fleming, Licensing Manager
JM. Hannaford, Mechanical Maintenance Superintendent
D. Kimbell, Outage Manager
G. Kline, Director, Engineering
T. Hottovy, Manager, Equipment Reliability
S. Minahan, General Manager of Plant Operations
D. Montgomery, Manager, Human Performance
K. Sutton, Risk Management Supervisor
J. Waid, Training Manager
D. Werner, Operations Training Supervisor

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000298/2005009-01	NCV	Failure to Comply with Technical Specification Required Actions for Two Inoperable Diesel Generators (Section 4OA2e(2)(i)).
05000298/2005009-02	FIN	Inadequate Corrective Actions for a Fire in the Multi-Purpose Facility (Section 4OA2e(2)(ii)).
05000298/2005009-04	NCV	Failure to Implement the Station Fire Watch Procedure (Section 4OA2e(2)(iv)).

Opened

05000298/2005009-03	URI	Failure to Maintain Design Control of Service Water Discharge Strainers (Section 4OA2e(2)(iii)).

05000298/2005009-05	URI	Evaluation and Corrective Actions for Emergency Diesel Generator Fuel Leaks (Section 4OA2e(2)(v)).

Documents Reviewed

Procedures

Administrative Procedure ENN-OP-104, “Operability Determinations,” Revision 2

Maintenance Procedure 7.2.53.3, “Diesel Generator Cylinder Maintenance,” Revision 21

Surveillance Procedure 6.1DG.101, “Diesel Generator 31 Day Operability Test (IST) (DIV 1),” Revision 37

Surveillance Procedure 6.2DG.101, “Diesel Generator 31 Day Operability Test (IST) (DIV 2),” Revision 39

Administrative Procedure 0.5.EVAL, “Preparation of Condition Reports,” Revision 8

Engineering Procedure 3.4.4, “Temporary Configuration Change,” Revision 6

Maintenance Procedure 7.0.1.7, “Troubleshooting Plant Equipment,” Revision 11

Administrative Procedure 0.5.CR, “Condition Report Initiation, Review, and Classification," Revision 1

Administrative Procedure 0.5.Root-Cause, “Root Cause Analysis Procedure," Revision 4

Administrative Procedure 0.5, “Conduct of the Condition Report Process," Revision 52

Administrative Procedure 0.5.NAIT, “Corrective Action Implementation and Nuclear Action Item Tracking," Revision 23

Administrative Procedure 0.5.OPS,”Operability Determination,” Revision 23

SAIC-DP-390.700-01, “Dedication/Seismic Procedure for Solenoid Valves and Transient Suppressors," Revision A

Administrative Procedure 0.39, “Fire Watches,” Revision 31

Administrative Procedure 0-EBS-NOT, “SAP Notifications,” Revision 18

Administrative Procedure 0-HP-Implement, “Human Performance Policy Implementing Procedure,” Revision 6

Administrative Procedure 0-CNS-47, “Training Oversight Program,” Revision 16

Conduct of Operations 2.0.2, “Operations Logs and Reports,” Revision 76

Conduct of Operations 2.0.3, “Conduct of Operations,” Revision 49

Conduct of Operations 2.0.4, “Relief Personnel and Shift Turnover,” Revision 21

Surveillance Procedure 6.1DG.401, “Diesel Generator Fuel Oil Transfer Pump IST Flow Test (DIV 1),” Revision 17 and 18

System Operating Procedure 2.2.20.1, “Diesel Generator Operations,” Revision 29

Administrative Procedure 0.31, “Equipment Status Control,” Revision 25, 26, 30, 20

Administrative Procedure 0.9, “Tagout,” Revisions 38, 45, 40, 42

Work Orders

4419754	4369738	4223674	4433127	4439813
4423503	4368396	4369809	4438867	4378919
4426786	4439974	4336982	4384301	4381079
4427573	4338130	4334891	4432766	4381101
4433906	4413822	4444359	4447810	4381076

Notifications

10100095	10302980	10219305	10341393	10309260
10149445	10344894	10192442	10344353	10257704
10204599	10345640	10245257	10345076	10257705
10230205	10363941	10245272	10357496	10257728
10265276	10392274	10246735	10377826	10272631
10265439	10301712	10246736	10381974	10277487
10278088	10386042	10246739	10385089	10282579
10279881	10302274	10307660	10314351	1028884
10283907	10361379	10309276	10300212	10284340
10292161	10385103	10314178	10328166	

Significant Condition Reports (SCRs)

2003-0431	1999-0059	2004-0163	2003-0713	2003-1957
2003-0946	2001-0194	2004-0270	2003-0770	2003-1958
2003-1814	2002-0880	2004-0322	2003-1432	2003-1959
2003-1876	2001-1161	2004-0350	2003-1627	2003-1966
2003-1958	2003-0349	2004-0396	2003-1632	2003-2038
2004-0031	2003-1844	2004-0525	2003-1808	2004-0077
2004-0471	2003-1808	2004-6068	2003-1844	2004-0163
2004-0204	2004-0115	2003-0387	2003-1869	

Condition Reports

CR-CNS-2001-5051
CR-CNS-2002-1302
CR-CNS-2002-1533
CR-CNS-2002-3439
CR-CNS-2003-0046
CR-CNS-2003-0729
CR-CNS-2003-2322
CR-CNS-2003-2476
CR-CNS-2003-4686
CR-CNS-2003-5492
CR-CNS-2003-5594
CR-CNS-2003-5814
CR-CNS-2003-5973
CR-CNS-2003-6265
CR-CNS-2003-7472
CR-CNS-2003-7900
CR-CNS-2003-7921
CR-CNS-2004-0047
CR-CNS-2004-0927
CR-CNS-2004-1083
CR-CNS-2004-1096
CR-CNS-2004-1358
CR-CNS-2004-1565
CR-CNS-2004-1692
CR-CNS-2004-1791
CR-CNS-2004-2589
CR-CNS-2004-2754
CR-CNS-2004-2860
CR-CNS-2004-2860
CR-CNS-2004-3081
CR-CNS-2004-3089
CR-CNS-2004-3394
CR-CNS-2004-3548
CR-CNS-2004-3625
CR-CNS-2004-3658
CR-CNS-2004-3706
CR-CNS-2004-4000
CR-CNS-2004-4046
CR-CNS-2004-4050
CR-CNS-2004-4068
CR-CNS-2004-4221
CR-CNS-2004-4282
CR-CNS-2004-4298
CR-CNS-2004-4371
CR-CNS-2004-4602
CR-CNS-2004-4888
CR-CNS-2004-4918
CR-CNS-2004-5264
CR-CNS-2004-5299
CR-CNS-2004-5342
CR-CNS-2004-5433
CR-CNS-2004-5511
CR-CNS-2004-5597
CR-CNS-2004-6068
CR-CNS-2004-6109
CR-CNS-2004-6227
CR-CNS-2004-6384
CR-CNS-2004-6530
CR-CNS-2004-6548
CR-CNS-2004-6574
CR-CNS-2004-6585
CR-CNS-2004-6606
CR-CNS-2004-6650
CR-CNS-2004-6760
CR-CNS-2004-6848
CR-CNS-2004-6961
CR-CNS-2004-7031
CR-CNS-2004-7109
CR-CNS-2004-7409
CR-CNS-2004-7422
CR-CNS-2004-7620
CR-CNS-2004-7748
CR-CNS-2004-7846
CR-CNS-2004-7866
CR-CNS-2004-7947
CR-CNS-2004-7962
CR-CNS-2004-7963
CR-CNS-2005-0004
CR-CNS-2005-0382
CR-CNS-2005-0431
CR-CNS-2005-0459
CR-CNS-2005-0532
CR-CNS-2005-0566
CR-CNS-2005-0568
CR-CNS-2005-0710
CR-CNS-2005-0817
CR-CNS-2005-0843
CR-CNS-2005-0948
CR-CNS-2005-0957
CR-CNS-2005-0980
CR-CNS-2005-1111
CR-CNS-2005-1168
CR-CNS-2005-1258
CR-CNS-2005-1360
CR-CNS-2005-1496
CR-CNS-2005-1601
CR-CNS-2005-1721
CR-CNS-2005-1902
CR-CNS-2005-1917
CR-CNS-2005-2054
CR-CNS-2005-2055
CR-CNS-2005-2067
CR-CNS-2005-2077
CR-CNS-2005-2133
CR-CNS-2005-2134
CR-CNS-2005-2167
CR-CNS-2005-2169
CR-CNS-2005-2182
CR-CNS-2005-2183
CR-CNS-2005-2189
CR-CNS-2005-2252
CR-CNS-2005-2274
CR-CNS-2005-2295
CR-CNS-2005-2324
CR-CNS-2005-2391
CR-CNS-2005-2449
CR-CNS-2005-2460
CR-CNS-2005-2487
CR-CNS-2005-2506
CR-CNS-2005-2543
CR-CNS-2005-2607
CR-CNS-2005-2618
CR-CNS-2005-2663
CR-CNS-2005-2676
CR-CNS-2005-2710
CR-CNS-2005-2713
CR-CNS-2005-2720
CR-CNS-2005-2721
CR-CNS-2005-2724
CR-CNS-2005-2725
CR-CNS-2005-2731
CR-CNS-2005-2752
CR-CNS-2005-2763
CR-CNS-2005-2804
CR-CNS-2005-2808
CR-CNS-2005-2982
CR-CNS-2005-2983
CR-CNS-2005-3005
CR-CNS-2005-3007
CR-CNS-2005-3061
CR-CNS-2005-3197

CR-CNS-2005-3198	CR-CNS-2005-3830	CR-CNS-2005-4381
CR-CNS-2005-3267	CR-CNS-2005-3904	CR-CNS-2005-4411
CR-CNS-2005-3281	CR-CNS-2005-3906	CR-CNS-2005-4418
CR-CNS-2005-3320	CR-CNS-2005-3930	CR-CNS-2005-4440
CR-CNS-2005-3433	CR-CNS-2005-3967	CR-CNS-2005-4442
CR-CNS-2005-3450	CR-CNS-2005-4146	CR-CNS-2005-4456
CR-CNS-2005-3457	CR-CNS-2005-4184	CR-CNS-2005-4459
CR-CNS-2005-3484	CR-CNS-2005-4197	CR-CNS-2005-4480
CR-CNS-2005-3491	CR-CNS-2005-4276	CR-CNS-2005-4483
CR-CNS-2005-3493	CR-CNS-2005-4281	CR-CNS-2005-4489
CR-CNS-2005-3536	CR-CNS-2005-4340	CR-CNS-2005-4501
CR-CNS-2005-3609	CR-CNS-2005-4342	CR-CNS-2005-4505
CR-CNS-2005-3751	CR-CNS-2005-4368	CR-CNS-2005-4517
CR-CNS-2005-3801	CR-CNS-2005-4371	CR-CNS-2005-4563

Resolve Condition Reports (RCRs)

2003-0394	2004-0394	2004-0166	2003-1757	2002-2416
2003-1843	2005-0980	2003-1030	2003-1838	2003-1968
2003-1955	2004-0374	2004-0356	2003-1695	

Vendor Manuals

VM-0290, ITE Gould 480 Volt Motor Control Center
VM-0245, Cooper Bessemer KSV16T Emergency Diesel Generator

Drawings

Appendix R Fire Protection Rule Fire Area A-Intake Structure-SW Bay
CADD file E0004615, one line drawing of CNS Offsite Power Distribution

Assessments and Audits

Confirmatory Action Letter Closure Assessment Report, July 15, 2004

System Engineering Department On-Going Self-Assessment Report 1Q2005

Operations Department On-Going Self-Assessment Report 1Q2005

Maintenance Department On-Going Self Assessment Report 1Q2005

Emergency Preparedness Department On-Going Self-Assessment Report 4Q2004

Cooper Nuclear Station CAP Trend Report 1st Quarter - 2005

LO-CNSLO-2005-00029, “Snapshot Assessment Radiation Dose Reduction”

SS04051, “Interim Effectiveness Assessment - TIP Action Plan 5.3.1.2.K”, March 8, 2004

CNS Maintenance Rule Periodic Assessment, September 1, 2002 to February 29, 2004

Human Performance Focused Self-Assessment, May 2005

Maintenance Department On-Going Self-Assessment Report 1Q-2005

Quality Assurance Surveillance Report #S405-0301 “Fire Protection Manual Operator Actions” September 23, 2003

Quality Assurance Audit 05-02, “Fire Protection Program,” April 7, 2005

Security Training Self-Assessment Report June 30, 2005

Training Self-Assessment (December 2004)

Training Department On-Going Self Assessment (1Q-2005)

QA Audit 04-05, “Engineering”

Quality Assurance Surveillances

QA Surveillance #S300-0401, “Modification Surveillance”
QA Surveillance #S300-0501, “Safety System Design and Performance Capability”
QA Surveillance #S302-0301, “Environmental Qualification Program”
QA Surveillance #S302-0401, “Maintenance Rule and Equipment Reliability”
QA Surveillance #S302-0402, “Heat Sink / Heat Exchanger Performance”
QA Surveillance #S302-0403, “EQIP Completion”
QA Surveillance #S502-0401, “ISI Program”

Noncited Violations

2003007-02	2004005-04	2004002-01	2003004-02	2003006-04
2004003-04	2005002-04	2004002-02	2004014-01	2003002-02
2004004-02	2004002-05	2003007-01	2004003-01	2003002-04
2004004-03	2005002-01	2003006-02	2004003-02	2004003-01
2004005-03	2004008-02	2003005-03	2004003-03	

Miscellaneous

List of all preventive maintenance items for miscellaneous pump motors and electrical switchgear

EPRI TR-106857-V9, Preventive Maintenance Basis, Volume 9, July, 1997

Cooper Nuclear Station Top Ten List

PdM Equipment Condition Matrix, June 13, 2005

Cooper Nuclear Station 2005 Business Plan

List of all motors classified as Critical 1

INPO AP-913, Equipment Reliability Process Description, Revision 1, November, 2001

ERRG Meeting Minutes 6/9/05

HV System Health, Updated 6/13/2005

Source Term Mitigation Plan, Updated 6/14/05

CNS RP-402, “MSA SCBA Functionals”, Performed on 6/20/2004, 7/29/2004, 8/23/2004, 9/14/2004, 10/8/2004, 11/29/2004, 12/17/2004,

Licensee Event Report 05000317/95-001-00, “Entry Into Technical Specification 3.0.3 Due to Leaking EDG Fuel Pump”

E-Mail from M. Tackett to M. Holmes dated April 26, 2005 regarding MPF Fire Potential Corrective Action

Fire Protection Program Health Team Charter, Revision 1, May 16, 2005

Human Performance Steering Committee presentation to CARB (06/14/2005)

Licensed Operator Requal and Initial License Training Feedback Cycle 01-01, 01-02,Class 10-05

Operations TRG Meeting Minutes 1Q-2005

Operations TRG Meeting Minutes 2Q-2005

Operations Management PI’s (Entergy and CNS) 1Q-2005

Operations Watchbill for the weeks of 6-13-05 and 6-20-05

Security Watchbill for 2005

Simulator Performance Review Committee Minutes (April 2004, June 2004, November 2004, February 2005)

Spill Prevention Control and Countermeasure Plan (SPCC)

Information Request 1
Cooper Nuclear Station PIR Inspection (IP 71152; Inspection Report 05000298/2005009)

The inspection will cover the period of July 2003 - April 2005. All requested information should be limited to this period unless otherwise specified. If possible, please provide all information in electronic format, preferably on CDs.

Please provide the following information by April 15, 2005 to:

U.S. Nuclear Regulatory Commission
Resident Inspector Office - Attn: Geoff Miller
Grand Gulf Nuclear Station
7003 Baldhill Road
Port Gibson, MS 39150

2. A complete list of all condition reports generated during the inspection period, including the entire summary of the condition description or problem statement, arranged chronologically.

3. List of all root cause analyses completed during the period

4. List of all apparent cause analyses completed during the period

5. List of plant safety issues raised or addressed by the employee concerns program

6. List of all corrective action documents that subsume or “roll-up” one or more smaller issues

7. Summary list of operator workarounds, temporary modifications, and control room and safety system deficiencies

8. Summary list of all condition reports that were down-graded or up-graded in significance

9. List of condition reports closed with no corrective actions assigned

10. List of action items generated or addressed by the plant safety review committee

11. All quality assurance audits and surveillances of corrective action activities completed during the period

12. All corrective action activity reports, functional area self assessments, and non-NRC third party assessments completed during the period

13. Corrective action performance trending/tracking information generated during the period and broken down by functional organization.

14. Current revision of the corrective action, root cause analysis, and incident investigation procedures.

15. Any additional governing procedures/policies/guidelines or informal processes for:
    a. Condition Reporting
    b. Corrective Action Program
    c. Root Cause Evaluation/Determination
    d. Deficiency Reporting and Resolution
    e. Operator Burdens/Workarounds
    f. Temporary Modifications

16. Complete condition reports or other actions generated for each of the following:
    a. All LERs issued by Cooper during the period
    b. All Violations/Findings issued to Cooper during the period
    c. Part 21 reports
    d. NRC Information Notices, Bulletins and Generic Letters

17. List of all external events and operating experience evaluated for applicability at Cooper

18. Radiation protection event logs

19. Current system health reports or similar information

20. List of all SSCs entered into paragraph a(1) monitoring under the Maintenance Rule at any time during the period (including dates entered/removed as applicable)

21. Current list of equipment considered “operable but degraded” per Generic Letter 91-18.

22. List of equipment considered “operable but degraded” per Generic Letter 91-18 prior to and immediately following scheduled refueling outages during the period

23. A copy of the current ‘Top Equipment Issues’ list

24. Current predictive performance summary reports

25. Corrective action effectiveness review reports generated during the period

Information Request 2
Cooper Nuclear Station PIR Inspection (IP 71152; Inspection Report 05000298/2005009)

Please have the following information available on June 13, 2005. Please sort the information by inspector. Electronic or hard copy of the material is requested.

Fred Sanchez

26. Full copies of the following condition reports:

    2003 - 5262, 6265, 6289, 6592, 6593, 6671, 7251, 7275, 7282, 7283, 7319, 7343, 7363, 7414, 7415, 7461, 7529, 7900, 7908, 7954

    2004 - 0499, 0570, 0602, 1485, 1593, 1693, 2780, 3625, 4000, 5123, 5299, 5342, 5597, 6068, 6530, 7846, 7963

    2005 - 0980, 2182, 2274, 2295, 2618

2. Full copies of the following SCRs:

    2003 - 1432, 1627, 1632, 1808, 1844, 1957, 1958, 1959, 1966, 2026

    2004 - 0115, 0139, 0163, 0270, 0322, 0350, 0396, 0525

    2005 - 1360, 2295

3. Interviews

    J. Waid, Training Manager
    J. Bebb, Security Manager
    D. Montgomery, Human Performance Coordinator
    D. Werner, Ops Training Supervisor
    J. Florence, Simulator Supervisor

Brian Tindell

1. Paper copies, including attachments, of all cat A CRs for the diesels/lube oil/fuel oil/and other associated systems (Including Service Water Heat Exchanger, but not all of SW) in the last five years. Electronic copies (PCRS is fine) of the summaries of cat B, C, D, E CRs in the past five years. Searchable electronic full copies of all notifications for the past five years. Full system health and MR info for the diesels.

2. Paper copies, including attachments, of all CRs for the fan cooler units in the drywell and the steam tunnel for the past two years. Searchable electronic full copies of all notifications for the past two years. Full system health and MR info for the FCUs.

3. Paper copies, including attachments, of all cat A CRs regarding radiation protection (such as events, assessments, ALARA issues, process improvements, postings,

unexpected HRAs, unexpected hot spots, temp shielding, etc...) for the past two years. Searchable electronic full copies of all notifications for the past two years. Electronic copies of any major self-assessments / audits done in the past two years.

4. Paper copies, including attachments, of all cat A and B CRs regarding engineering processes or products for the past two years. Searchable electronic full copies of all notifications for the past two years. Electronic copies of any major self-assessments / audits done in the past two years.

5. Hard copies of the following:

   SCR 2003-0946
   SCR 2004-0115
   SCR 2004-0471

   CR 2003-7149
   CR 2003-7358
   CR 2003-7381
   CR 2004-6699
   CR 2005-42

   (If these Notifications are now CRs, that format is okay, I would like a copy of the completed WO too)
   Notification 10298913 - WO 4367792
   Notification 10280113 - WO 4369592
   Notification 10142147 - WO 4226513

6. Interviews

   DG system engineer, regarding DG 5 year history, early 1st week
   Person knowledgeable of FCU reliability, early 1st week (George Kahnk?)
   Bill Faraone regarding traveling screens, late 1st week (possible)
   G.J. Kline (Director of Engineering), regarding Engineering challenges, late 1st week
   T.E. Hottovy (Equipment Reliability Manager), regarding Engineering/ Eq. Reliability challenges, late 1st week (possibility, but not for sure)
   T.J. Chard (Radiation Protection Manager), regarding RP challenges, early 1st week

7. Were condition reports generated for the following control room log entries? (If so, please provide a copy)

   * 5/31/2004 @ 21:31 by Radwaste - Hydrogen in Oxygen Sample Pump failed, earlier Notification #10318114 was written for degrading condition. (Was this notification updated?)
   * 1/02/2005 @ 08:24 by BOP - RWCU-P-A has degraded further to the point that water is spraying out onto the floor.
   * 9/26/2003 @ 09:52 by CRS - Secondary containment declared inoperable.
   * 6/20/2004 @ 21:30 by Duty RP - Two spare SCBA bottles below minimum pressure, two respirators offsite for testing.

* 01/22/2004 @ 21:00 by STE - Performed emergent risk assessment due to unplanned unavailability of SA-CPSR-B.
* 01/20/2005 @ 21:10 by CRS - Fire alarm due to hot work.
* 09/14/2004 @ 14:42 by BOP - Traveling Screen trip.
* 09/14/2004 @ 15:25 by BOP - Traveling Screen trip.
* 11/18/2004 @ 08:06 by BOP - Southwest set of fans and pump tripped.
* 01/20/2005 @ 06:27 by RB/CT - Fuel Pool Cooling Skimmer Surge Tank Low Level / tripped Fuel Pool Cooling Pump 1A
* 03/29/2005 @ 19:24 by Duty RP - OWC tripped offline

Geoff Miller

1. Full copies of the following condition reports:

   2003 - 6309, 7115

   2004 - 0581, 0611, 0687, 0702, 1096, 1692, 2411, 2860, 5207, 5264, 5825, 6402, 6514, 6760, 6867, 7409, 7866, 7904, 7962

   2005 - 0113, 0382, 0532, 0817, 1258, 1288, 1335, 1742, 1902, 2055, 2077

2. Copy of the station procedure(s) governing tagouts and equipment control (current revision and any previous revisions since September 2003).

3. List of plant safety issues addressed by the employee concerns program (available for onsite review).

4. Current site performance indicators, including basis for each

5. Interviews:

   D. W. Barker
   K.A. Perry
   D. L. Pease
   D.L. Snyder
   ECP program coordinator
   Service Water System Engineer (or other person(s) knowledgeable of the issues involving the intake structure and zurn strainers)