UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-4005

December 6, 2007

Stewart B. Minahan, Vice
President-Nuclear and CNO
Nebraska Public Power District
72676 648A Avenue
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000298/2007006

Dear Mr. Minahan:

On September 21, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed the onsite portion of a team inspection at your Cooper Nuclear Station. The enclosed inspection report documents the inspection findings which were discussed on November 28, 2007, with Mr. M. Colomb, General Manager of Plant Operations, and other members of your staff.

This inspection reviewed activities conducted under your license as they relate to the identification and resolution of problems, compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel. The team reviewed approximately 208 condition reports, work orders, associated root and apparent cause evaluations, and other supporting documents. The team reviewed cross-cutting aspects of NRC findings and interviewed personnel regarding the condition of your safety conscious work environment at Cooper Nuclear Station.

On the basis of the sample selected for review, the team concluded that your performance remained generally consistent with the last problem identification and resolution inspection. Generally, your staff effectively identified, evaluated and prioritized and implemented effective corrective actions for conditions adverse to quality. One finding was evaluated under the risk significance determination process as having very low safety significance (Green). This finding was determined to be a violation of NRC requirements. However, because this violation was of very low safety significance and the issue was entered into your corrective action program, the NRC is treating this finding as a noncited violation, consistent with Section VI.A.1 of the NRC's Enforcement Policy. This noncited violation is described in the subject inspection report. 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, D.C. 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 facility.

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,

/RA/

Linda J. Smith, Chief
Engineering Branch 2
Division of Reactor Safety

Docket: 50-298
License: DPR-46

Enclosure:
NRC Inspection Report 05000298/2007006
w/attachments: 1. Supplemental Information
2. Information Request

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket:	50-298
License:	DPR-46
Report:	05000298/2007006
Licensee:	Nebraska Public Power District
Facility:	Cooper Nuclear Station
Location:	P.O. Box 98 Brownville, Nebraska
Dates:	August 27 through November 28, 2007
Inspectors:	D. Proulx, Senior Reactor Inspector, Team Leader N. Taylor, Senior Resident Inspector P. Goldberg, Reactor Inspector, Engineering Branch 2
Accompanying Personnel:	C. Ryan, Nuclear Safety Development Program, Region IV
Approved By:	Linda Joy Smith, Chief Engineering Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000298/2007006; 08/27/07 - 11/28/07; Cooper Nuclear Station: Identification and Resolution of Problems

The report covered a 2-week period of onsite inspection by a resident inspector and region-based inspectors. One Green noncited violation was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: N/A

- The team reviewed approximately 208 risk significant issues, apparent and root cause analyses, and other related documents, to assess the effectiveness of the licensee's problem identification and resolution processes and systems. The team concluded that the licensee's management systems were effective, although several examples (historical and current) of failure to implement appropriate and timely corrective actions existed, especially early in the assessment period. But, overall, corrective actions were appropriate to the circumstances. The licensee implemented an effective program for evaluating operational experience. However, three examples existed where ineffective use of operating experience contributed to issues. The licensee overall performed effective and critical self-assessments.

  The team concluded that the licensee maintained an overall safety-conscious work environment. An increasing trend in anonymous condition reports written was being addressed by the licensee to ensure that issues affecting the safety conscious work environment did not exist. In addition, the team (as well as a licensee self-assessment) received isolated comments that it was easier to quickly repair items upon identification, rather than entering the items into the corrective action program. Plant personnel interviewed generally considered the employee concerns program a viable option to pursue safety issues. However, the team received isolated comments that individuals lacked confidence in the ability of the employee concerns program to resolve issues.

Cornerstone: Mitigating Systems

- Green. The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI for failure to correct a nonconservative technical specification. The licensee determined on March 14, 2007 that Technical Specification Surveillance Requirements 3.8.4.2 and 3.8.4.5 were nonconservative, but did not initiate any corrective action to address the degraded condition. The licensee determined that these surveillance requirements were nonconservative with respect to safety-related 125 Vdc battery intercell resistance measurements.

  The failure to correct an inadequate technical specification surveillance requirement is a performance deficiency. This finding is more than minor because it is associated with the Mitigating Systems cornerstone attribute of procedure quality and affects the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable circumstances (i.e., core damage). Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding is determined to have a very low safety significance because it did not result in the loss of a mitigating system safety function. This finding has a cross-cutting aspect in the corrective action program component of the cross-cutting area of problem identification and resolution because the licensee did not take appropriate corrective action to address a condition adverse to quality (P.1(d)) (Section 4OA2).

B. Licensee-Identified Violations

None

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems (71152B)

The team based the following conclusions, in part, on all issues identified in the assessment period that ranged from July 2005 to August 2007. The issues are divided into two groups. The first group (current issues) included problems identified during the assessment period where at least one performance deficiency occurred during the assessment period. The second group (historical issues) included issues that were identified during the assessment period but had performance deficiencies that occurred outside the assessment period.

Background

During this assessment, the licensee had several significant activities ongoing that affected implementation of the corrective action program. The station continued to be assigned a significant cross-cutting issue in the area of human performance, mainly due to inadequate procedures or work instructions. Cooper Nuclear Station was in the Regulatory Response column of the action matrix at the beginning of the inspection.

Overall Assessment

The team reviewed 208 risk significant issues, apparent and root cause analyses, and other related documents, to assess the effectiveness of the licensee's problem identification and resolution processes and systems. The team concluded that the licensee's management systems were generally effective, although several examples (historical and current) of failure to implement appropriate and timely corrective actions existed, especially early in the assessment period. But, overall, corrective actions were appropriate to the circumstances. The licensee implemented an effective program for evaluating operational experience. However, three examples existed where ineffective use of operating experience contributed to issues. The licensee overall performed effective and critical self-assessments.

The team concluded that the licensee maintained an overall safety-conscious work environment. An increasing trend in anonymous condition reports written was being addressed by the licensee to ensure that issues affecting the safety conscious work environment did not exist. In addition, the team (as well as a licensee self-assessment) received isolated comments that it was easier to quickly repair items upon identification, rather than entering the items into the corrective action program. The team concluded that the employee concerns program effectively resolved safety issues raised by plant and contract personnel. Plant personnel interviewed generally considered the employee concerns program a viable option to pursue safety issues. However, the team received isolated comments that individuals lacked confidence in the ability of the employee concerns program to resolve issues.

a. **Assessment of the Corrective Action Program Effectiveness**

(1) Inspection Scope

The team reviewed items selected across the cornerstones to verify that the licensee: (1) identified problems at the proper threshold and entered them into the corrective action system, (2) adequately prioritized and evaluated issues, and (3) established effective and timely corrective actions to prevent recurrence. The team performed field walkdowns to inspect for deficiencies that should have been entered into the corrective action program. Additionally, the team reviewed a sample of self assessments, trend reports and various other documents related to the corrective action program.

The team evaluated 208 condition reports, work orders and operability evaluations to assess the threshold for identifying problems, entering them into the corrective action program, and the ability to evaluate the importance of adverse conditions. Also, the team evaluated licensee efforts in establishing the scope of problems by reviewing selected self-assessments, and system health reports. The team performed a historical review of condition reports written over the last 5 years that addressed the 125 Vdc and residual heat removal systems.

The team reviewed a sample of apparent cause evaluations 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 assessed the timeliness and effectiveness of corrective actions, completed or planned, and looked for additional examples of similar problems. The team sampled specific technical issues to evaluate the adequacy of operability determinations.

Additionally, the team reviewed condition reports that addressed past NRC- and licensee-identified violations to ensure that the corrective actions addressed the issues as described in the inspection reports.

(2) Assessments

(a) Assessment - Effectiveness of Problem Identification

The team determined that, overall, the licensee effectively identified problems, with three exceptions in the assessment period. The team determined that the licensee had established an appropriate threshold for identifying conditions adverse to quality. The licensee had implemented significant effort to improve their ability to identify and take appropriate actions in response to the Substantive Crosscutting issue in problem identification and resolution that had been closed during the 2006 mid-cycle assessment.

The team determined that the licensee improved in their ability to use the condition report process to track adverse conditions Further, the team verified that the licensee processed assessment and audit results documenting adverse conditions in their corrective action program. Over the two year assessment period three issues involved failure to promptly identify conditions adverse to quality.

The team found that the licensee had a low threshold for identifying adverse trends and made effective use of the trending program to identify and resolve issues before they worsened.

Current Issues

Example 1 The licensee failed to promptly identify reactor operation above the licensed power level (Noncited Violation (NCV) 05000298/2006004-04).

Example 2: The licensee failed to identify an unanalyzed condition in the torus. A chain hoist was left in the torus without an evaluation as to its impact on safety related equipment. (NCV 05000298/2006005-003).

Example 3: The licensee failed to identify a degraded condition on a Service Water System strainer, leading to failure (NCV 05000298/2006005-09)

(b) Assessment - Effectiveness of Prioritization and Evaluation of Issues

Overall, the licensee appropriately prioritized and evaluated conditions adverse to quality. However, one current white finding of moderate safety significance and one historical Green NCV was identified during the assessment period in this area. The team found that the licensee was usually self critical and thorough in evaluating the causes of significant conditions adverse to quality, with the one notable exception.

Current Issue

Example: A white violation of NRC requirements was identified for failure to correct a defective emergency diesel generator (EDG) voltage regulator. Emergency Diesel Generator 2 experienced two high voltage conditions that the licensee failed to properly evaluate, leading to the subsequent failure of the EDG
(Violation 050002982007007-01).

Historical Issue

Example: A Green noncited violation was identified for failure to comply with the required actions for two inoperable EDGs. The licensee failed to properly evaluate an inadequate surveillance procedure to determine that the condition allowed by the surveillance procedure was in violation of the Technical Specifications
(NCV 05000298/2005009-01).

(c) Assessment - Effectiveness of Corrective Actions

The licensee implemented effective corrective actions to address conditions adverse to quality. The licensee improved in their ability to implement timely and corrective actions over the 2 year assessment period. However, the findings in this area demonstrated the licensee had challenges in implementing timely and effective corrective actions, especially early in the assessment period. The team identified a Green noncited violation described in this team inspection report involving untimely or ineffective corrective actions. Five additional examples that occurred during this 2 year

assessment period are also discussed. Eight historical issues involved ineffective or untimely corrective actions.

Current Issues

Example 1: A Green finding was identified for inadequate corrective actions for a fire. The specified corrective actions with respect to fire response were not specific, measurable, accountable, timely. The personnel responsible for implementing the corrective actions did not understand what was required of them (Finding 05000298/2005009-01).

Example 2: A Green finding was identified for failure to implement fire fighting standards when responding to a possible fire in the radwaste building. Contrary, to the firefighting standards, the fire brigade declared the fire out before determining the source of the smoke and completing a search of the area. Ineffective corrective actions for previously identified fire brigade deficiencies did not prevent these performance issues (Finding 05000298/2006003-04)

Example 3: A Green noncited violation was identified for failure to correct a condition adverse to quality on safety-related 4160 switchgear. The licensee identified multiple instances of misalignment between the breakers and the switchgear but failed to take effective corrective actions to correct this condition (NCV 05000298/2007002-03).

Example 4: An NRC-identified Green noncited violation was identified regarding the licensee's failure to promptly correct a condition adverse to quality. Specifically, the licensee did not initiate corrective actions to correct inadequate technical specification surveillance requirements associated with the 125 Vdc system (Section 4OA2.e(2)).

Example 5: The corrective actions to prevent reactor feed pump trips following a reactor scram have been ineffective. Corrective actions taken to address the high level trip of the B feed pump following the September 23, 2005 reactor scram were not successful in preventing the high level trip of the same feed pump following the May 19, 2007 scram. Based on the procedural guidance in place and the limitations of the level control system, the inspectors determined that a reactor feed pump trip following a scram will remain a likely outcomeuntil the new reactor level control system is installed (Observation).

Example 6: The team noted that the licensee identified 125 Vdc grounds during reactor recirculation system motor generator set starts, but the licensee has not taken timely corrective actions for this issue that continued to challenge operators. Condition Report CR-CNS-2006-3983 requested work orders to identify source of grounds during the most recent outage (RE23). These work orders were generated but were not performed during RE23. The work orders for Reactor Recirculation System Motor Generator Set A were scheduled for March 2008, but were of limited scope and were not planned to check all possible 125 Vdc ground paths. The work order for Reactor Recirculation System Motor Generator Set B was scoped for RE25. The team noted the possibility that this ground could interfere with the reactor recirculation system motor generator set function, depending on the location of the grounds (Observation).

Historical Issues

Example 1: A Green noncited violation was identified for failure to correct a degraded condition that resulted in inoperability of the reactor equipment cooling system. A leaking manual isolation valve was identified but not corrected resulting in inoperability of the system, and entry into Technical Specification 3.0.3 (NCV 05000298/2005005-02).

Example 2: A Green noncited violation was identified for failure to correct a degraded condition that resulted in inoperability of an EDG. The licensee identified that the lube oil instrument lines were subject to high cycle fatigue resulting in a failure of the instrument line. Licensee corrective action only replaced the failed material, but did not change nor redesign the configuration. As a consequence of the inadequate corrective action, the lube oil instrument line catastrophically failed during a surveillance test run (NCV 05000298/2005005-04).

Example 3: A Green noncited violation was identified for failure to take effective corrective actions that resulted in failure of a safety-related 4160 V breaker. In December 2000, a safety-related breaker failed to operate due to inadequate clearances. Corrective actions for this failure did not prevent a subsequent similar failure of the 4160 V breaker for Service Water Pump A (NCV 05000298/2005005-05).

Example 4: A Green noncited violation was identified for failure to correct the causes of multiple motor operated valve failures. As a result of the inadequate corrective action, two similar failures occurred in September 2005 (NCV 05000298/2005014-02).

Example 5: A Green noncited violation was identified for failure to correct a degraded condition that resulted in clogging of the service water system strainers. As a result of the inadequate corrective action, a similar service water strainer clogging event occurred in October 2005 (NCV 05000298/2005015-01).

Example 6: A Green noncited violation was identified for failure to correct the use of unqualified parts inservice water system strainers. An NCV was documented in NRC Inspection Report 05000298/2003002 for this issue, but the licensee failed to take corrective actions to revise design basis documentation to require qualified parts in the strainers. As a result, Service Water Discharge Strainer B failed in service in May 2004 (NCV 05000298/2006002-02).

Example 7: A Green finding was identified for failure to correct identified problems in implementing commitments to the NRC with respect to Generic Letter 89-13 (NRC Inspection Report 05000298/2005015).

Example 8: A Green noncited violation was identified for failure to correct a degraded condition that resulted in the overtorquing of a motor operated valve. The licensee received vendor notification that motor-operated valve torque switch roll pins were susceptible to failure, but failed to take corrective actions to preclude this failure. As a result, the high pressure coolant injection inboard isolation valve was overtorqued when tested (NCV 05000298/2006005-06).

b. Assessment of the Use of Operating Experience

(1) Inspection Scope

The team examined licensee programs for reviewing industry operating experience. The team selected a sampling of operating experience notification documents and associated condition reports, which had been issued during the assessment period. The team then examined whether the licensee had entered those items deemed relevant into their corrective action program. Finally, the team reviewed a number of significant conditions adverse to quality and conditions adverse to quality to verify if the licensee had appropriately evaluated them for industry operating experience.

(2) Assessment

Overall, the team determined that the licensee had appropriately evaluated industry operating experience for relevance to the facility and had entered applicable items in the corrective action program. The licensee appropriately evaluated for internal and external industry operating experience when performing root cause and apparent cause evaluations. Three instances of inappropriate use of operating experience contributed to findings during this assessment period. Although operational experience was not considered as a cross-cutting aspect in this report for Example 2, use of operational experience contributed to the finding.

Current Issues

Example 1: A White violation of NRC requirements was identified for failure to correct a defective EDG voltage regulator. Emergency Diesel Generator 2 experienced two high voltage conditions that the licensee failed to properly evaluate, leading to the subsequent failure of the EDG. Poor evaluation/implementation of operational experience contributed to this failure (Violation 05000298/2007007-01).

Example 2: An NRC-identified Green noncited violation was identified regarding the licensee's failure to promptly correct a condition adverse to quality. Specifically, the licensee did not initiate corrective actions to correct inadequate technical specification surveillance requirements associated with the 125 Vdc system. Poor implementation of operating experience contributed to this finding. The licensee received NRC Administrative Letter 98-10, which discussed inadequate technical specifications, and identified that battery intercell resistance measurements may have been nonconservative, but did not implement the recommended corrective actions (Section 4OA2.e(2)).

Example 3: The licensee continued to experience failures associated with motor-operated valve torque switch roll pins despite industry/NRC operating experience with respect to this issue dating to 1994. This item was the subject of NCV 05000298/2006005-06. The licensee's efforts in addressing this issue were ongoing during this inspection period.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

The team reviewed self-assessments and plant trending documents. The team evaluated the use of self-assessments, the role of Quality Assurance, and the role of the corrective action program administrators.

(2) Assessment

The team determined that the licensee implemented self-critical trending and assessment programs. The team determined that the licensee performed thorough critical self-assessments, as listed in the attachment. The number of self-assessments performed and the variety of ways used to assess site performance provided a broad perspective on site performance. Quality Assurance provided detailed assessments of the reviewed organizations performance. The team verified that the licensee had implemented performance indicators and trended data that allowed the managers to evaluate the progress of their actions to improve performance related to corrective action program deficiencies. The team concluded that the licensee used their trending program to critically evaluate potential deficiencies The trending program appropriately identified issues.

Current Issues

Example 1: The licensee corrective action program self-assessment identified several areas for improvement and negative observations: (1) Timely completion of corrective actions still appeared to be a challenge (2) new hires were slow to receive requisite training to enter items into the corrective action program, which could have impeded problem identification, (3) some administrative processes were not being implemented in accordance with procedures, (4) the licensee observed a decline in corrective action review board performance, and (5) the licensee has been slow to correct a corrective action issue associated with an EDG injection pump since the last NRC problem identification and resolution inspection.

Example 2: The licensee's safety culture assessment (and corrective action program assessment) identified similar safety culture issues as the NRC. The licensee identified that: (1) an increasing trend in anonymous condition reports existed, and (2) personnel believed that it was easier just to fix problems on the spot than enter them into the corrective action program.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

The team reviewed the April 2007 Nuclear Safety Culture Assessment results, and the licensee's Focused Self-Assessment Report in preparation for the NRC problem identification and resolution inspection. Also, the team interviewed an organizational cross-section of 20 site personnel to assess their willingness to raise safety issues, use the corrective action program and use the employee concerns program. These interviews assessed whether conditions existed that would challenge the establishment

of a safety-conscience work environment.

(2) Assessment

The team concluded that the licensee maintained an appropriate safety conscious work environment. The team determined that the 2007 safety culture assessment response included an overall culture where employees felt free to raise safety concerns without fear of reprisal and elevate issues as necessary. The 2007 safety culture assessment also identified that (1) most station personnel could not identify the site procedure to implement safety culture directives at Cooper Nuclear Station, (2) a small minority of station personnel would not raise issues above first level supervision, (3) the licensee poorly communicated changes, which could undermine the level of trust in management. Additionally, the licensee's Focused Self-Assessment Report in preparation for the NRC problem identification and resolution inspection noted that (1) an increasing trend in anonymous condition reports existed, and (2) personnel believed that it was easier just to fix problems on the spot than enter them into the corrective action program.

From the interviews conducted during this inspection, the team determined: (1) personnel would not hesitate to use the corrective action program, raise concerns to management or bring a concern to the NRC; (2) a minority of the interviewees did not trust the employee concerns program, know the location of the Employee Concerns coordinator's office, nor the name of Employee Concerns coordinator; and (3) a minority of the interviewees believed that it was easier just to fix problems on the spot than enter them into the corrective action program. The team concluded that, although no safety conscious work environment concerns existed, the increasing trend in anonymous condition reports could indicate potential concerns. The licensee was evaluating appropriate actions to address this issue by the end of the inspection.

e. Specific Issues Identified During This Inspection

(1) Inspection Scope

The team reviewed the root cause analysis, including the identified corrective actions to prevent recurrence, reviewed supporting documents and interviewed personnel. During the reviews described in Sections 4OA2.a(2)(a), 4OA2.a(2)(b) and 4OA2.a(2)(c), the team identified the following findings.

(2) Findings and Observations

Failure to Correct Battery Surveillance Requirements

Introduction. An NRC-identified Green noncited violation was identified regarding the licensee's failure to promptly correct a condition adverse to quality. Specifically, the licensee did not initiate corrective actions to correct inadequate technical specification surveillance requirements.

Description. On February 9, 2007, the licensee initiated Condition Report CNS-2007-00985 which reported an operating experience document that had potential applicability for Cooper Nuclear Station. The condition report referred to the discovery of inadequate technical specification requirements that led to a recent inspection finding at another facility (documented in Inspection Report 05000254/2006003) and assigned an action to determine the applicability of this condition at Cooper Nuclear Station. Cooper Nuclear Station has two safety-related 125 Vdc batteries that are required to achieve safe shutdown. Technical Specification Surveillance Requirements 3.8.4.2 and 3.8.4.5 identify the maximum allowable resistance values for connections within these battery cells. One of the values requires that battery inter-cell connection resistance be maintained less than 150 micro-ohms. On March 14, 2007, the licensee determined that although administrative procedures were in place to ensure that battery inter-cell resistance values were maintained sufficiently low to ensure battery operability, Cooper Nuclear Station technical specifications contained the same non-conservatism as had been reported in the operating experience.

Based on this conclusion, the licensee initiated Condition Report CNS-2007-01812 which reported the non-conservatism in Technical Specification Surveillance Requirement 3.8.4.2 and 3.8.4.5. Corrective Action No. 1 directed a re-analysis of the battery calculations to determine which should be modified, the battery calculations or the technical specification surveillance requirements. This analysis was performed in Corrective Action No. 2, and again determined that the technical specification limits were nonconservative and that the battery would not be able to perform its safety function if all battery inter-cell resistance values had risen to the technical specification allowable limit. Instead of initiating a technical specification change, however, Corrective Action No. 3 was initiated to revise the surveillance procedure to “include an overall battery inter-cell resistance sum to ensure battery operability.”

NRC Administrative Letter 98-10, “Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety,” December 29, 1998, states the staff position that “the discovery of an improper or inadequate technical specification value...is considered a degraded or nonconforming condition as defined in GL 91-18” and “the staff expects that....an amendment to the technical specifications, with appropriate justification and schedule, will be submitted in a timely fashion.” This staff position is also reiterated in Regulatory Issue Summary 2005-20, “Revision to Guidance Formerly Contained in NRC Generic Letter 91-18,” September 26, 2005.

The team determined that the licensee had not taken prompt corrective action in accordance with 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action.” Following identification of this issue by the team, the licensee initiated Condition Report CNS-2007-1812 Corrective Action No. 4, which will result in a license amendment request to move the specific technical specification battery surveillance testing requirements to a new battery monitoring and maintenance administrative program. This move would facilitate changes to the allowable inter-cell resistance values.

Analysis. The failure to correct an inadequate technical specification surveillance requirement is a performance deficiency. This finding is more than minor because it is associated with the Mitigating Systems cornerstone attribute of procedure quality and

affects the associated cornerstone objective to ensure the availability, reliability , and capability of systems that respond to initiating events to prevent undesirable circumstances (i.e., core damage). Using the Manual Chapter 0609, “Significance Determination Process,” Phase 1 Worksheet, the finding is determined to have a very low safety significance, because it did not result in the loss of a mitigating system safety function. This finding has a cross-cutting aspect in the corrective action program component of the cross-cutting area of problem identification and resolution because the licensee did not take appropriate corrective action to address a condition adverse to quality(P.1(d)).

Enforcement. Part 50 of Title 10 of the Code of Federal Regulations, Appendix B, Criterion XVI, “Corrective Action,” requires, in part, that licensees promptly correct conditions adverse to quality. Contrary to this, the licensee determined on March 14, 2007 that Technical Specification Surveillance Requirements 3.8.4.2 and 3.8.4.5 were nonconservative but did not initiate any corrective action to address the degraded condition. Because the finding is of very low safety significance and has been entered into the licensee’s corrective action program as Condition Report CNS-2007-01812, this violation is being treated as an NCV consistent with Section VI.A of the Enforcement Policy: NCV 05000298/2007006-01, "Failure to Take Corrective Actions for Nonconservative Technical Specification Surveillance Requirements”.

f. Human Performance Crosscutting Issue Corrective Actions

(1) Inspection Scope

In the end-of-cycle assessment letter dated March 2, 2007, NRC concluded that a substantive crosscutting issue in the area of human performance continued existed at Cooper Nuclear Station. As stated in the letter, "there were 10 Green inspection findings with crosscutting aspects in human performance. Seven of these findings involved the work practices component of human performance. A crosscutting theme associated with four of the seven findings, in the Initiating Events, Mitigating Systems, and Barrier Integrity cornerstones, involved the aspect of procedure compliance." Further, NRC determined that the performance improvement plan developed in 2006 had not proven effective in substantially mitigating the crosscutting theme.

The team reviewed the corrective actions, assessments, higher tier apparent cause analysis and other documentation related to the Human Performance Crosscutting issue.

(2) Assessment

The team determined that the licensee performed a thorough evaluation of a significant crosscutting issue in human performance crosscutting theme of procedure compliance. However, during the inspection, the NRC issued the mid-cycle assessment letter for Cooper Nuclear Station, which kept open the significant crosscutting issue in human performance, on August 31, 2007. Although the significant cross cutting issue in human performance remained open, the specific cross cutting theme was related to the adequacy of procedure guidance.

4OA6 Management Meetings

On November 28, 2007, the team leader discussed the results of the inspection activities to Mr. M. Colomb and other members of his staff who acknowledged the findings. The team confirmed that proprietary information was not disclosed in this inspection report.

Attachments: 1. Supplemental Information
2. Information request

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

S. Blake, Quality Assurance Manager
M. Boyce, Director, Projects
T. Carson, Maintenance Manager
M. Colomb, General Manager, Plant Operations
R. Estrada, Corrective Action and Assessments Manager
J. Flaherty, Senior Staff Licensing Engineer
P. Fleming, Director, Nuclear Safety Assurance
T. Hottovy, Equipment Reliability Manager
G. Kline, Director, Engineering
S. Minahan, Site Vice President
D. Montgomery, Assistant General Manager, Plant Operations
D. Oshlo, Radiation Protection Manager
D. Vandercamp,Licensing Manager
J. Waid, Training Manager
D. Willis, Operations Manager

NRC

P. Goldberg, Reactor Inspector, Region IV
M. Hay, Chief, Project Branch C
D. Proulx, Senior Reactor Inspector, Region IV
L. Smith, Chief, Engineering Branch 2
N. Taylor, Senior Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000298/2007006-001	NCV	Failure to Take Corrective Actions for Nonconservative Technical Specification Surveillance Requirements (Section 4OA2.e(2))

LIST OF DOCUMENTS REVIEWED

Condition Reports(CRs)

Note: all CRs tabulated have the format of CR-CNS-XXXX-XXXXX.

2002-05062	2005-06648	2006-02902	2006-06968	2007-00985
2003-00290	2005-06708	2006-02982	2006-06973	2007-01033
2003-02122	2005-06785	2006-02987	2006-06982	2007-01068
2003-03136	2005-06894	2006-03006	2006-07170	2007-01073
2003-06528	2005-06915	2006-03093	2006-07342	2007-01075
2003-07906	2005-06916	2006-03342	2006-07490	2007-01078
2004-00283	2005-06959	2006-03563	2006-07638	2007-01812
2004-00518	2005-06960	2006-03651	2006-07727	2007-01971
2004-00526	2005-06975	2006-03751	2006-07744	2007-02070
2004-01636	2005-07017	2006-03825	2006-07777	2007-02146
2004-03583	2005-07201	2006-03939	2006-08130	2007-02187
2004-04050	2005-07338	2006-03983	2006-08266	2007-02324
2004-07632	2005-07428	2006-04096	2006-08354	2007-02327
2004-07947	2005-07740	2006-04251	2006-08441	2007-02328
2005-00066	2005-07772	2006-04339	2006-08474	2007-02334
2005-00429	2005-08103	2006-04516	2006-08683	2007-02516
2005-00616	2005-08576	2006-04526	2006-08812	2007-02706
2005-00625	2005-08890	2006-04534	2006-08818	2007-02990
2005-00639	2005-08930	2006-04573	2006-08821	2007-02993
2005-00799	2005-09107	2006-04622	2006-08973	2007-03048
2005-01136	2006-00190	2006-04651	2006-08990	2007-03115
2005-01137	2006-00307	2006-04652	2006-09006	2007-03162
2005-01240	2006-00616	2006-04815	2006-09151	2007-03164
2005-01407	2006-00667	2006-05144	2006-09155	2007-03328
2005-02649	2006-00668	2006-05184	2006-09161	2007-03380
2005-03380	2006-00727	2006-05186	2006-09166	2007-03555
2005-03391	2006-00806	2006-05188	2006-09222	2007-03593
2005-03412	2006-01070	2006-05280	2006-09250	2007-03597
2005-03451	2006-01073	2006-05316	2006-09268	2007-03617
2005-03523	2006-01372	2006-05366	2006-09307	2007-04665
2005-04456	2006-01410	2006-05530	2006-09309	2007-04669
2005-04501	2006-01413	2006-05687	2006-09338	2007-04688
2005-04505	2006-01415	2006-05736	2006-09612	2007-04708
2005-05058	2006-01416	2006-06018	2006-09628	2007-05008
2005-05260	2006-01546	2006-06084	2006-09874	2007-05013
2005-05261	2006-01549	2006-06133	2006-09878	2007-05070
2005-05588	2006-01814	2006-06588	2006-10118	2007-05284
2005-05618	2006-02064	2006-06709	2007-00038	2007-05540
2005-05806	2006-02213	2006-06727	2007-00734	2007-06035
2005-05940	2006-02441	2006-06763	2007-00773	2007-06482
2005-06328	2006-02445	2006-06783	2007-00793	
2005-06646	2006-02846	2006-06886	2007-00914	

Procedures

Number	Title	Revision
0.5	Conduct of the Condition Report Process	57
0.5CR	Condition Report Identification, Review, and Classification	7
0.5.EVAL	Preparation of Condition Reports	12
0.5.NAIT	Corrective Action Implementation and Nuclear Action Item Tracking	30
0.5.TREND	Corrective Action Program (CAP) Trending	9
0.26	Surveillance Program	55
2.3_C-1	Panel C – Annunciator C-1	24
2.3_C-4	Panel C – Annunciator C-4	23
2.1.5	Reactor Scram	55C1
6.EE.601	125V/250V Station and Diesel Fire Pump Battery 7 Day Check	14
6.EE.609	125V/250V Station Battery Intercell Connection Testing	10
6.EE.611	125V/250V Battery Cell and Rack Examination	3
7.3.9	125V/250V Bus Ground Alarm Relays Maintenance and Testing	5
7.3.31.3	125V/250V Battery Terminal Cleaning and Torquing	6
7.5.3	MOV Viper System Diagnostics	1

Self Assessments

Performance Improvement Focused Self-Assessment, LO-CNS-2006-00001, March 2006

Human Performance Focused Self-Assessment, LO-CNSLO-2005-00090, May 2005

CNS Corporate Follow- up Assessment, CNS-LOCR-2006-0245, July 2006

Problem Identification and Resolution Focused Self-Assessment, LO-CNSLO-2007-00100, May 2007

CNS Cross-Functional Corporate Assessment, October 2005

Human Performance Plan to Address Significant Cross-Cutting Issue, CR-CNS-2005-08818

Quality Assurance Department On-going Assessment Report, 1Q2007

Corrective Action and Assessment Department On-going Assessment Report, 1Q07

CNS Equipment Trend Report April 2007

Safety Culture Assessments

Nuclear Safety Culture Assessment, Utilities Services Alliance, April 2007

CNS Safety Culture Corporate Assessment, May 2005

CED

6017680 6015381

WO

4197360 4441730 4442779 4466357 4496356 4496465
4508686 4508820 4567086

NRC Information Notices

NRC Information Notice 94-49, “Failure of Torque Switch Roll Pins,” dated July 6, 1994

Miscellaneous

Maintenance Plan 800000021841
Post-trip Event Report 07-02
NRC Administrative Letter 98-10
Regulatory Guide 1.105
TSTF ITS Change Traveler 500 R 0
WT-CNS-2005-2905
Cooper Nuclear Station Design Criteria Documents
Burns & Roe Drawing 3058
CNS White Paper for the maintenance department to address human performance improvement and procedure quality and adherence issues.
SIR-06-463, “CNS Failure Analyses of a Limitorque AMB-1 Motor Actuator,” Revision 0
System Health Report, RHR System

ATTACHMENT 2

Information Request
July 18, 2007
Cooper Nuclear Station Problem Identification and Resolution Inspection
(IP 71152; Inspection Report 05000298/2007-006)

The inspection will cover the period of September 2005 through August 2007. All requested information should be limited to this period unless otherwise specified. The information may be provided in either electronic or paper media or a combination of these. Information provided in electronic media may be in the form of e-mail attachment(s), CDs, thumb drives, or 3 ½ inch floppy disks. The agency's text editing software is Corel WordPerfect 8, Presentations, and Quattro Pro; however, we have document viewing capability for MS Word, Excel, Power Point, and Adobe Acrobat (.pdf) text files.

Please provide the following information to David Proulx by August 3, 2007.

Note: On summary lists, please include a description of problem, status, initiating date, and owner organization.

1. Summary list of all condition reports of significant conditions adverse to quality opened or closed during the period

2. Summary list of all condition reports which were generated during the period

3. A list of all corrective action documents that subsume or "roll-up" one or more smaller issues for the period

4. Summary list of all condition reports which were down-graded or up-graded in significance during the period

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

6. List of root cause analyses planned, but not complete at end of the period

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

8. List of plant safety issues raised or addressed by the employee concerns program during the period

9. List of action items generated or addressed by the plant safety review committees during the period

10. All quality assurance audits and surveillance of corrective action activities completed during the period

11. A list of all quality assurance audits and surveillances scheduled for completion during the period, but which were not completed

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 revisions of corrective action program procedures

15. A listing of all external events evaluated for applicability at Cooper Nuclear Station during the period

16. Condition Reports or other actions generated for each of the items below:

    (1) Part 21 Reports:

    (2) Applicable NRC Information Notices:

    (3) All LERs issued by Cooper Nuclear Station during the period

    (4) NCVs and Violations issued to Cooper Nuclear Station during the period (including licensee identified violations)

(17) Safeguards event logs for the period

(18) Radiation protection event logs

(19) Current system health reports or similar information for the 125 VDC and Residual Heat Removal systems.

(20) Current predictive performance summary reports or similar information for the 125 VDC and Residual Heat Removal systems.

(21) Summary list of all Condition Reports generated for the 125 VDC and Residual Heat Removal systems for the past 5 years.

(22) Corrective action effectiveness review reports generated during the period

(23) List of risk significant components and systems

(24) List of actions done in the Human Performance Improvement Plan, to address significant cross cutting issue.