September 6, 2005

Mr. T. Palmisano
Site Vice-President
Prairie Island Nuclear Generating Plant
Nuclear Management Company, LLC
1717 Wakonade Drive East
Welch, MN 55089

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2
NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT
NO. 05000282/2005009(DRP); 05000306/2005009(DRP)

Dear Mr. Palmisano:

On August 5, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution team inspection at your Prairie Island Nuclear Generating Plant. The enclosed report documents the inspection findings, which were discussed with you and other members of your staff on August 5, 2005.

This inspection focused on the effectiveness of your program to identify and resolve problems. The inspection examined activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

On the basis of the samples selected for review, the inspectors concluded that, in general, problems were being properly identified, evaluated, and corrected. We noted that some weaknesses continued to exist, particularly with respect to the quantity, quality, and consistency of trending data entered into the program. This lack of data made effective early identification of trends difficult for your staff.

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

Sincerely,

/RA/

R. Skokowski, Chief
Branch 3
Division of Reactor Projects

Docket Nos. 50-282; 50-306
License Nos. DPR-42; DPR-60

Enclosure: Inspection Report 05000282/2005009(DRP); 05000306/2005009(DRP)
w/Attachment: Supplemental Information

cc w/encl: C. Anderson, Senior Vice President, Group Operations
J. Cowan, Executive Vice President and Chief Nuclear Officer
Regulatory Affairs Manager
J. Rogoff, Vice President, Counsel & Secretary
Nuclear Asset Manager
Tribal Council, Prairie Island Indian Community
Administrator, Goodhue County Courthouse
Commissioner, Minnesota Department
of Commerce
Manager, Environmental Protection Division
Office of the Attorney General of Minnesota

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-282; 50-306
License No:	DPR-42; DPR-60
Report No:	05000282/2005009(DRP); 05000306/2005009(DRP)
Licensee:	Nuclear Management Company, LLC
Facility:	Prairie Island Nuclear Generating Plant
Location:	1717 Wakonade Drive East Welch, MN 55089
Dates:	July 18 through August 5, 2005
Inspectors:	S. Ray, Senior Resident Inspector (Acting), Monticello D. Karjala, Resident Inspector, Prairie Island T. Bilik, Reactor Engineer
Approved by:	R. Skokowski, Chief Branch 3 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000282/2005009(DRP), 05000306/2005009(DRP); 07/18/2005-08/05/2005; Prairie Island Nuclear Generating Plant, Units 1 & 2; Identification and Resolution of Problems.

This report covers an announced baseline inspection on the Identification and Resolution of Problems. The inspection was conducted by a Senior Resident Inspector, the Resident Inspector, and a Region III Reactor Engineer. No findings of significance were identified. 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 concluded that the licensee adequately identified, evaluated, and resolved problems within the requirements of the corrective action program (CAP). There were some problems with program implementation, but these problems had been identified by the licensee and actions were underway to resolve them. The team noted a number of observations, including:

- The initiation rate of issues entered into the CAP system has been relatively steady for the last two years. About half of the issues being entered were low priority items and were closed rapidly without further evaluation to actions taken, trending, or work orders being issued. This indicated that most issues, even minor ones, were being entered in the CAP.

- The quality of apparent cause evaluations and root cause evaluations had improved in the last two years.

- Trending of CAP data remained weak with essentially no improvement in the last two years despite the issue being identified by several organizations. Most of the electronic fields on the CAP documents useful for trending such as system, equipment number, process code, failure mode codes, and other predefined categories were not used in approximately 65 percent of the CAP items. The inspectors noted that most of the trends identified by the licensee in the last year had only been identified within the last two weeks through recent emphasis placed on department roll up meetings. There was little evidence that any trends had been identified by electronic sorting of CAP items using the coded fields.

- Corrective actions for several issues focused more on detecting inadequacies rather than preventing them. For example, the corrective actions relied on activities like management reviews, operator rounds and score sheets to catch the problems after they occurred, rather than preventing them from occurring in the first place.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems (71152)

.1 Effectiveness of Problem Identification

a. Inspection Scope

The inspectors reviewed items selected from the seven cornerstones of safety to determine whether the licensee was effective in identifying problems and entering them into its corrective action program (CAP). The inspectors reviewed selected plant procedures, interviewed plant personnel, attended various station meetings, and reviewed various assessments to determine if problems were being identified at the proper threshold, characterized appropriately, and being entered into the CAP.

The inspectors primarily reviewed documents associated with the CAP covering the period from September 2003 through July 2005, the period since the last Problem Identification and Resolution (PI&R) Inspection. The inspectors selected a number of CAP documents and other records from that period for a more in-depth review of selected issues. These issues included licensee-identified findings, NRC-identified findings, and issues from industry operating experience.

To assess trending, maintenance rule implementation, and to identify items that the licensee might have failed to enter into the CAP, the inspectors conducted walkdowns of selected risk-significant equipment and plant areas. This consisted of the cooling water system and areas where loose material might create tornado missile hazards or blockage of drain paths for internal flooding.

To assess the licensee's ability to perform critical self-assessments, the inspectors reviewed selected Nuclear Oversight (NOS) reports and department self-assessments. The inspectors also attended a department roll up meeting (DRUM) and the site DRUM integration meeting.

Specific documents reviewed that played a significant role in the inspector's assessments are listed in the Attachment.

b. Assessment

No findings of significance were identified. The inspectors concluded that the licensee was generally effective in identifying problems and they appropriately characterized them. The significance threshold for entering issues into the CAP was appropriate and in accordance with the licensee's CAP procedures. The program was relatively mature and stable with improvements noted in reducing the backlog of items to be closed.

Weaknesses in entering data into the CAP to enable electronic trending remained since the previous PI&R Inspection with essentially no improvement. However, licensee NOS and department self-assessments had already identified this and other minor weaknesses. Specific observations in this area are discussed below.

(1) Identification Threshold

The rate of CAP initiation has remained steady since the last biennial inspection. Approximately 400 CAPs per month were initiated with higher rates during outage periods. Approximately half of the CAPs were closed rapidly to trending, actions taken or work orders issued. This indicated a relatively low threshold was used in initiating CAPs and that the threshold has not changed significantly. Improvements have been accomplished since the last PI&R Inspection in the areas of backlogs of open CAPs, use of due date extensions for actions, and open CAP actions. Dramatic reductions in the backlog of open CAPs and open CAP actions were accomplished in the fall of 2003. Specifically the CAP backlog was reduced from around 4000 to about 700 CAPs and the action backlog was reduced from about 1700 to 800 actions. Since that time, an additional reduction of about 10 percent has been accomplished in each of those areas.

(2) Trending Program

The inspectors performed an examination of the licensee's trending activities as a follow-on to an observation made in the previous PI&R Inspection. With respect to the quality of the trending program, the inspectors noted several observations as described below.

A number of the elements of the trending program remained weak or poorly implemented. The lack of systematic trending and analysis of CAP data was still a recognized problem. The NOS and department self-assessments repeatedly identified that the implementation of the trending program was less than adequate. In particular, there was a need to enter trend code data accurately and completely into the CAP system to be useful in order to identify existing or emergent adverse trends. The DRUM program, which was established in 2004 to improve department performance trending, initially met with limited success. There was recently a renewed effort by the licensee to focus on trending through DRUMs. Workshops on the DRUM process, DRUMs, and a DRUM oversight meeting were held in July and August of 2005, with an emphasis on completing the CAP data. While a number of trends were identified at the DRUMs, there was little evidence that any trends had been identified by electronic sorting of CAPs using coded fields. The effectiveness of these efforts through a review of the CAPs most recently written indicated that approximately two-thirds of the CAPs written continued to lack complete code information. While no violations of regulatory requirements were identified this was considered a weakness with the CAP.

(3) Nuclear Oversight

Reports from NOS identified a number of issues with regard to a lack of effectiveness of the CAP. In particular, NOS noted that there had been a lack of improvement with the program. This included timeliness and effectiveness of corrective actions, approval of apparent cause evaluations (ACEs) by the corrective action review board (CARB),

procedural adherence, and effectiveness of closure actions. In addition, NOS identified problems with low CARB meeting member attendance and preparedness. Finally, NOS identified problems with 10 CFR 50 Appendix B corrective actions being tracked outside the formal Appendix B programs as non-CAPs.

The inspectors noted that some improvements had been made. The backlog of open CAPs has been reduced, and actions had been initiated to prevent use of non-CAP programs for Appendix B corrective actions. However, the inspectors noted that the actions to prevent Appendix B corrective actions from being tracked outside of the CAP depended on reviews of items by management and supervisors in the daily CAP screening meeting to detect mistakes, rather than preventing improper tracking. Regarding the CARB meeting attendance, the renewed focus on the DRUM program had improved the attendance at the CARB meetings.

(4) Department Self-Assessments

Department self-assessments identified that the trending program implementation was less than adequate. The licensee noted that the quality and consistency of trending and follow-up on adverse trends needed improvement to help resolve lower level problems before they became consequential and that opportunities were being missed to improve equipment performance through the CAP. Trend code data was not easily obtainable or in a format that permitted simple trend identification. The licensee noted that trend coding was not being completed following root cause evaluations (RCEs), ACEs, and Human Performance Clock Resets. The licensee also noted in department self-assessments, that the closeout of corrective actions was less than adequate. The assessments stated that insufficient ownership of the CAP was impeding program improvements and causing corrective actions to be ineffective. The assessments observed that CARB membership attendance at meetings was low and appeared not to be considered a high priority. In addition, the assessments noted that some CAP initiators also desired more feedback on the disposition of CAPs, but there was no consistent feedback on CAPs that were closed to trend. The inspectors concluded that licensee department self-assessments had been effective in identifying most of the weaknesses in the CAP.

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The inspectors reviewed CAP documents to verify that issues were appropriately characterized and clearly described, attended CAP screening meetings to observe the assignment of CAP priorities and assignments, interviewed members of the licensee's staff and attended CARB meetings to observe the licensee's review of ACE and RCE reports.

The inspectors reviewed a sample of issues identified through the licensee review of operational events (OE) at other facilities and reviews of NRC Information Notices to verify that the licensee had evaluated the issues for applicability, entered those that were applicable into the CAP, and adequately evaluated and corrected the issues.

The inspectors conducted an independent review of a sample of recently completed ACEs and RCEs to assess the quality of the reviews, determination of the causes of issues, assessment of the extent of condition, and review of common cause possibilities.

The inspectors reviewed a sampling of CAP documents that were closed out to other documents and programs to verify that the original issue was carried through to the new documents with the proper priority. This included CAPs either closed to other CAPs, the work control process, engineering work requests, actions taken or trending.

Specific documents reviewed that played a significant role in the inspector's assessments are listed in the Attachment.

b. Assessment

No findings of significance were identified. The inspectors concluded that the licensee properly evaluated issues identified through OE, had made improvements in the quality of RCEs and ACEs, generally preserved the integrity of the issues in CAPs closed to other documents, and held effective screening and review meetings.

During the interviews, one concern expressed by some employees was that it was hard to apply the proper effort to significant issues of high priority when the due dates for actions of lower significance came first. A related concern was that there was a perceived pressure to take some "token" corrective action to close out even minor issues not important to safety or not related to quality. These issues were discussed with the station's management.

Additional observations in this area are discussed below.

(1) Issues Identified through OE

The inspectors reviewed OE023894 which was initiated to address piston lip cracking in an emergency diesel generator at Calvert Cliffs. The Calvert Cliffs diesels were the same make as the D5 and D6 diesels at Prairie Island. The inspectors verified that the licensee implemented surveillance procedure changes to reduce the stresses on the pistons when reducing load on the diesel engines.

The inspectors reviewed OE028002 which was initiated to address NRC Information Notice 2003-15, "Importance of Followup Activities in Resolving Maintenance Issues." The inspectors verified that motor operated valve maintenance procedures were revised to address the motor pinion concerns described in the Information Notice.

(2) Quality of ACEs and RCEs

The inspectors reviewed a number of ACEs and RCEs for quality. This had been an area of weakness in the previous PI&R Inspection. The inspectors concluded that the quality of the evaluations had improved. However, much of the improvement could be credited to supervisor and management reviews, CARB reviews, and the use of scorecards to grade the products. Several ACEs and RCEs were found by the licensee

to be inadequate on first draft and were sent back to the writers for revision. Again, corrective action for this weakness focused more on detecting inadequate evaluations rather than preventing them.

The inspectors identified one ACE with a corrective action to prevent recurrence discussed in the text of the evaluation that had not been translated into a formal corrective action document. However, a discussion with the department supervisor indicted that the corrective action had been adequately evaluated.

Causes identified in most ACEs and RCEs were not coded back into the original CAPs to help with trend identification.

(3) CAPs Closed to Other Documents

The inspectors reviewed numerous CAPs closed to other documents such as other CAPs, the work control process, and engineering work orders. The inspectors also reviewed CAPs closed to actions taken or trending.

The inspectors concluded that the original concern in CAPs was preserved in the documents the CAPs were closed to, and that the new documents were generally appropriately tracked. The licensee had identified a problem with some CAPs being inappropriately closed to non-CAP documents outside of the Appendix B system. The inspectors interviewed licensee CAP personnel regarding the resolution of this issue, which included the implementation of a new CAP software program, that may address the concern.

About half of the CAPs were of relatively low significance and priority and were closed rapidly to either actions taken or trending. The inspectors noted that about 65 percent of the CAPs closed to trending had no electronic trending codes assigned, so that there was no effective way to electronically search for trends. While no violations of regulatory requirements were identified, the lack of rigor in assigning trending codes was considered a weakness with the CAP.

(4) Effectiveness of CAP Screening Meetings and the CARB

The inspectors observed two CAP screening meetings and concluded that CAPs were generally assigned an appropriate significance level and priority as specified by the licensee's CAP procedures.

The inspectors observed two CARB meetings and reviewed CAPs associated with CARB issues. The CAPs were initiated to document meeting attendance and scheduling weaknesses. These have resulted in a backlog of evaluations to be reviewed. The inspectors reviewed the licensee's recovery plan and found it acceptable. The inspectors also noted that some evaluations were rejected because the evaluators did not understand the expectations for evaluation completion and documentation. In general, the evaluations that were approved by the CARB were of acceptable quality.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The inspectors selected sample issues documented in CAPs, NRC inspection reports (IRs), licensee self-assessments, NOS assessments, and other sources to evaluate the effectiveness and timeliness of corrective actions. Items selected from NRC inspection reports included NRC-identified findings and violations, self-revealing and licensee-identified findings and violations, weaknesses identified in the last PI&R Inspection, and a small sample of minor issues. For selected issues, the inspectors reviewed records going back for about five years instead of back to the last inspection.

Specific documents reviewed that played a significant role in the inspector's assessments are listed in the Attachment.

b. Assessment

No findings of significance were identified. In most cases, licensee corrective actions were adequate and effective. Some examples were identified where corrective actions were focused on detection of problems when they occurred, rather than preventing them from occurring. The licensee had made essentially no progress in improving the use of trend codes and other electronic sorting date entries in CAP documents. Specific observations in this area are discussed below.

(1) Issues From Last PI&R Inspection

The inspectors reviewed licensee corrective actions for issues and findings identified in the previous PI&R Inspection, primarily focusing on the following:

- NCV [Non-Cited Violation] 05000282/2003007-01; 05000306/2003007-01; Inadequate Corrective Action to Prevent Recurrence for the Control of Material That Could Potentially Block Critical Drain Paths;
- Inconsistent use of Trend Coding;
- Weaknesses in ACEs; and
- Corrective Action Not Being Closed in Accordance With the Licensee's Process.

For the NCV, the inspectors concluded that corrective actions were generally adequate to find and rapidly remove material that could block critical drainage paths. However, the licensee corrective actions were primarily focused on increased operator inspections to discover problems in a timely manner rather than preventing the problems from occurring.

The inspectors concluded that weaknesses in the trending program had remained essentially unchanged. The coding of CAP data remained inconsistent and incomplete among the station departments even though the station's coding and trending guidance manual was detailed. While there was an increased focus on addressing this issue via the DRUM program, a review of the most recently generated CAPs (following the DRUM workshops) indicated that the number of CAPs with incomplete code trending data remained at approximately 65 percent.

A review of a number of ACEs indicated that there has been improvement in the content and the extent of condition scope. ACEs and RCEs were generally well written and tended to be rigorous in determining the cause(s) of the deficiencies.

There were still a few examples of corrective actions not being closed in accordance with the licensee's process. The significance of these issues were reviewed and determined not to be violations of regulatory requirements. Moreover, improvements had been accomplished since the last inspection in the areas of backlogs of open CAPs, use of due date extensions for actions, and open CAP actions.

(2) Corrective Actions for Previous NRC-Identified Findings

The inspectors reviewed licensee corrective actions for several NRC-identified findings, primarily focusing on the following findings:

- FIN [Finding] 05000282/2004005-02; 05000306/2004005-02; Missile Hazards in the Switch Yard;
- NCV 05000282/2004008-01; 05000306/2004008-01; Failure to Promptly Identify and Correct Condition Adverse to Quality Associated with Multiple 121 Control Room Air Handler Failures; and
- FIN 05000282/2005004-01; 05000306/2005004-01; Failure to Identify and Remove/Secure Potential Tornado Missile Hazards.

For the second finding listed above, the inspectors concluded that licensee corrective actions were adequate. For the other two findings, the inspectors concluded that, although the corrective actions were adequate to detect and eliminate potential tornado missile hazards, the corrective actions were focused on detection of the problems through increased operator and supervisor inspections, rather than prevention. Furthermore, a review associated with the control of potential tornado missile hazards completed by the licensee during the period of this inspection independently identified that the corrective actions taken up to that point had been ineffective in preventing recurrence. Several new corrective actions were proposed and entered into the CAP to help improve performance in this area. The inspectors concluded that the proposed corrective actions should improve prevention of the condition.

(3) Corrective Actions for Previous Licensee-Identified Findings

The inspectors reviewed corrective actions for several licensee-identified findings of very low safety significance, primarily focusing on the following:

- IR 05000282/2004003; 05000306/2004003; Auxiliary Feedwater Pump Suction Pressure Switch Miscalibration; and
- IR 05000282/2004007; 05000306/2004007; Control Room Special Ventilation Radiation Monitoring Instruments Miscalibrated.

The inspectors concluded that licensee's corrective actions for these issues were adequate.

(4) 5-year Review of Cooling Water Pump Shaft Bearing Supply Issue

In addition to the findings discussed above, the inspectors selected one area with multiple findings for a more extensive review. The inspectors reviewed the CAP data base to evaluate the effectiveness of corrective actions during the previous five year history of the cooling water system. The NRC identified a finding in 2000 because the original design and installation of the three safety-related cooling water pumps did not have a safety-related supply of lubricating water for the bearings. The licensee installed a safety-related bearing supply as a temporary modification in late 2000 and early 2001. The safety-related supply was from the cooling water system (river water), which caused the filters to require frequent replacement due to silt.

In 2002, the licensee installed a modification that supplied well water (non safety-related) during normal use but would switch to the safety-related supply upon low well water pressure. Following the installation of the modification, 22 CAPs were initiated during the period from 2002 through 2004 due to problems with the modification, including loss of bearing flow, low flow alarms, flow switch sticking, three-way valve malfunctions, and frequent filter plugging. These CAPs resulted in four ACEs, eleven Condition Evaluations, and numerous corrective actions. Much of the corrective action depended on increased operator monitoring to detect plugging filters or flow problems. The inspectors noted that no RCE had been for this issue and there were few corrective actions to address the cause of the problem. However, on September 1, 2004, the modification was determined by the licensee to be ineffective to prevent recurrence and a request for a different modification was initiated.

The inspectors concluded that the corrective actions for the bearing water supply issues were not effective to prevent recurrence, but the licensee had identified this and had initiated action to resolve the concern. Further, the licensee implemented an action plan to comply with 10 CFR 50.65(a)(1), added the bearing water supply in the Top Ten Equipment Issues list, and added the frequent filter replacement on the Operator Work Around list. No violation of regulatory requirements occurred.

(5) Five-Year Review of Fan Coil Unit Isolation Valve Pressure Locking Issue

Based on past system issues, the inspectors conducted a review of the history, going back about five years, of pressure locking and thermal binding problems on containment fan coil unit service water isolation valves. The inspectors concluded that the licensee had not been fully successful in permanently correcting this issue, and that interim corrective actions to use ice packs to prevent locking had not always been used. However, the binding problem occurred only when attempting to return a fan coil to service following maintenance activities, and it was not considered an operational or safety concern. The licensee had initiated actions to correct the problem with permanent modifications, but had not progressed very far with the proposal at the time of the inspection. Since the issue was not risk significant, the timeliness was considered appropriate for the circumstances.

(6) Review of Licensee Actions Regarding Minor Issues

The inspectors reviewed a sampling of minor NRC-identified issues brought to the licensee's attention since the last PI&R Inspection to ensure that the licensee had entered the issues into its CAP, if appropriate, and that the issues were being addressed commensurate with their safety significance. No weaknesses were noted.

.4 Assessment of Safety-Conscious Work Environment

a. Inspection Scope

As part of the Identification and Resolution of Problems Inspection scope, the inspectors interviewed members of the plant staff to assess the establishment of a safety conscious work environment (SCWE) at the Prairie Island Nuclear Generating Plant. In this context, a SCWE refers to an environment in which employees feel free to raise safety concerns, both to their management and to the NRC, without fear of retaliation. The interviews typically included questions similar to those listed in the Appendix, "Suggested Questions for Use in Discussions with Licensee Individuals Concerning PI&R [Problem Identification and Resolution] Issues," to NRC Inspection Procedure 71152. During the conduct of interviews, document reviews, and observations of activities relevant to the PI&R Inspection, the inspectors looked for evidence that suggested plant employees may be reluctant to raise safety concerns.

The inspectors also reviewed a sampling of issues regarding nuclear safety that had been entered into the Employee Concerns Program (ECP) to ensure that they had been evaluated for operability concerns and entered into the CAP system with the appropriate priority and timeliness. The inspectors also reviewed the station's procedures related to the ECP and discussed the implementation of the program with the station's program coordinator. During interviews with plant personnel, their knowledge of and satisfaction with the ECP was discussed.

Specific documents reviewed that played a significant role in the inspector's assessments are listed in the Attachment.

b. Assessment

No findings of significance were identified. The inspectors concluded that, overall, a healthy SCWE existed at the Prairie Island Nuclear Generating Plant. All individuals interviewed indicated a willingness to raise safety concerns using the CAP process. All of the individuals interviewed indicated that they had previously initiated CAPs on issues. Individuals initiated CAPs related to their own and their department's activities, as well as other department's activities. The inspectors did not identify any evidence of retaliation against anyone who had raised a safety issue. Interviews with employees and reviews of CAPs indicated that issues were being identified by all department and a wide cross-section of personnel within those departments. In some cases, supervisors initiated most of the CAPs in the department because the employees were unfamiliar with the system. However, in those cases, employees were still not reluctant to bring up issues.

All employees interviewed indicated a familiarity with other options of raising safety issues, specifically the ECP and the NRC. Several of the employees stated that they had used the ECP and were generally satisfied with the results. The interviews indicated that confidentiality within the ECP was adequately maintained, and timeliness of investigations and actions were appropriate. The inspectors determined that nuclear safety issues brought up in the ECP had been appropriately entered into the CAP and evaluated for operability concerns in a timely manner.

In general, employees stated that their management was supportive of employees who raised safety concerns, and actively encouraged such activities.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. T. Palmisano and other members of licensee management at the conclusion of the inspection on August 5, 2005. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee-Identified Violations

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

T. Palmisano, Site Vice President
L. Clewett, Plant Manager
J. Conners, System Engineer
C. Goranowski, Employee Concerns Program Manager
R. Graham, Director, Site Operations
J. Kivi, Senior Regulatory Compliance Engineer
M. Klee, Corrective Action Program Coordinator
E. Perry, NOS Supervisor
J. Wells, Performance Assessment Manager
R. Wirkkala, System Engineer

NRC

G. Wilson, Chief (acting), Projects Branch 3

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

Prior to the inspection, the NRC requested a number of documents for inspector preparation. Those documents were provided electronically by the licensee. A list of the documents requested is presented below. Specific documents from this list that played a significant role in the inspector's assessments are listed separately in the Attachment.

LIST OF INFORMATION REQUESTED

1. A copy of administrative procedure(s) for the corrective action process, trending program, quality assurance audit program, self-assessment program, corrective action effectiveness review program, and industry operating experience review program.

2. Scheduled date/time/location of all meetings associated with implementation of the corrective action program, such as CR screening meetings, corrective action review board meetings, etc.

3. A copy of nuclear quality assurance audits and self-assessments of the corrective action program completed since December 2003.

4. A chronological list of nuclear quality assurance audits and self-assessments completed for all departments since December 2003.

5. A chronological list of operability determinations initiated since July 2000.

6. A chronological list of all open apparent cause evaluations and root cause evaluations. Include a description, date initiated, and whether there was an associated operability evaluation.

7. A chronological list of all closed root and apparent cause evaluations since July 2000. Include a description, date initiated, date closed, and whether there was an associated operability evaluation.

8. A chronological list of condition reports initiated since December 2003 that involve inadequate or ineffective corrective actions. Include a brief description and status, whether open or closed.

9. A chronological list of in-service test or Technical Specification surveillance test failures since December 2003, with a brief description of the component/system which failed.

10. A copy of the latest corrective action program performance indicators.

11. Any performance indicators associated with backlog of corrective maintenance items.

12. A chronological list of operating experience documents received since July 2000 and any associated condition reports.

13. A chronological list of condition reports and work documents written since July 2000 associated with the Containment Fan Cooling Units and Emergency Diesel Generator Systems.

14. A chronological list of condition reports associated with human performance errors since July 2000.

15. A chronological list of condition reports issued since July 2000 where the NRC was the identifying organization.

16. A list of condition reports associated with Non-Cited Violations from NRC Inspection Reports received since July 2000.

17. A chronological list of all Licensee Event Reports issued since July 2000, with a brief description of the affected components or systems.

18. Have available for review and use a copy of the Quality Assurance manual.

19. Have available for review and use a copy of the latest organization chart and phone listing.

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

Root Cause Evaluations

RCE000188; Unit 1 Reactor Coolant System Operation Not Evaluated for Exceeding Pressure and Temperature Limits Report Reactor Coolant System Temperature Limit in Refueling Outage 22; January 2, 2004

RCE000189; Auxiliary Feedwater Pump Suction Pressure Switch Miscalibration; February 14, 2004

RCE000191; Control Room Radiation Monitor Setpoint Miscalibration; May 14, 2004

RCE000192; Repetitive Troubleshooting of 121 Control Room Air Supply Fan; June 24, 2004

RCE000192; Repetitive Troubleshooting of 121 Control Room Air Supply Fan; Revision 1; September 14, 2004

RCE000193; 21 Fan Coil Unit Unplanned Limiting Condition for Operations Due to Cooling Water Leak; January 13, 2005

RCE000196; Non-Code Repair of Containment Fan Coil Unit Tubing and Fittings; March 31, 2005

RCE000197; Security Weapon Accidently Discharged; June 1, 2005

Apparent Cause Evaluations

ACE008749; Unplanned Power Change Due to Loss of Unit 2 ERCS [Emergency Response Computer System]; July 22, 2003

ACE008757; Another ERCS Failure on Unit 2; August 1, 2003

ACE008765; Several ERCS Programs Aborted; August 29, 2003

ACE008772; Assess Ineffective Corrective Actions Alluded to in CAP032208; September 13, 2003

ACE008780; Unposted High Radiation Area Entrances; September 22, 2003

ACE008783; Unit 2 Refueling Cavity Leakage; September 24, 2003

ACE008787; Inadequate Control of D7 May Indicate Broader Deficiencies; October 3, 2003

ACE008788; Lock High Radiation Area (Technical Specification High Radiation Area) Not Barricaded or Posted Per Technical Specification 5.7.2; October 10, 2003

ACE008816; 11 Turbine Driven Auxiliary Feedwater Pump “As Found” Governor Setting Wrong; February 2, 2004

ACE008817; Simulator Switches Were Found in an Abnormal Position; February 9, 2004

ACE008828; Sample Valves Installed Without Proper Plant Configuration Controls; March 25, 2004

ACE008835; Radiological Environmental Monitoring Program Downstream River Sample Showed Elevated Tritium Activity; May 3, 2004

ACE008837; 121 Control Room Air Handler Fan Tripped; May 10, 2004

ACE008846; Implementation of the Site Trending Program is Less Than Adequate; June 28, 2004

ACE008852; SP 1039 Did Not Catch Potential Missile Hazard in Switchyard; July 6, 2004

ACE008858; Bus 26 Sequencer Inoperable; July 22, 2004

ACE008869; Quality Assurance Finding - Corrective Actions on the Non-CAP Side of TTrack; September 8, 2004

ACE008871; Unplanned Power Change During 33 Inverter Deenergization - Reactivity; September 13, 2004

ACE008873; Lost Production Due to Inadequate Scheduling and Job Planning for 10-Year Inservice Inspection; September 21, 2004

ACE008883; Adverse Trend in Operations Human Performance; November 8, 2004

ACE008912; D1 Locked Out During Post Maintenance Operability Testing; January 28, 2005

ACE008930; Adverse Trend in Component Mispositionings; March 16, 2004

ACE008944; Develop an a(1) Action Plan for 122 Spent Fuel Pool Pump; April 7, 2005

ACE008953; 121 Control Room Air Handler Fan Motor Currents Above Nameplate Rating; April 30, 2005

ACE008960; High Radiation Area Posting Violation Due to Protected Plant Equipment Signs Placed Over Them; May 10, 2005

ACE008973; Two Instances of CAP Level C Actions on the Non-CAP Side of TTrack; June 6, 2004

ACE008993; SP 1039 Tornado Hazard Site Inspection; July 6, 2005

Corrective Action Program Documents

CAP023088; Units 1 & 2 in Probabilistic Risk Assessment Orange Condition; April 12, 2002

CAP023779; Unable to Make Bearing Water Flow Adjustments; June 10, 2002

CAP024661; 12 DDCLP [diesel-driven cooling water pump] Declared Inoperable; August 15, 2002

CAP024872; Loss of Bearing Water Flow on 22 Diesel Cooling Water Pump; August 26, 2002

CAP025483; Loss of Bearing Seal Water Flow to 22 Diesel Cooling Water Pump; September 29, 2002

CAP025762; Loss of Bearing Water Flow on 12 DDCLP; October 14, 2002

CAP025825; Loss of Bearing Seal Water Flow to 12 Diesel Driven Cooling Water Pump; October 17, 2002

CAP028048; Annular Space Around 22 DDCLP Drain Line Caulked, not Seal Welded; February 4, 2003

CAP029138; 121 Motor Driven Cooling Water Pump Bearing/Seal Water Supplied by Cooling Water; March 21, 2003

CAP029175; 12 Cooling Water Pump Bearing Flow on Cooling Water; March 22, 2003

CAP031196; Found Two Dumpsters in Front of the Plant Screenhouse Inadequately Secured; July 4, 2003

CAP031431; Coding of Corrective Action Program Data is Insufficient to Allow Meaningful Analysis; July 17, 2003

CAP032208; Critical Drainage Path not Maintained In Accordance With Drainage Control; September 4, 2003

CAP032420; Assess Ineffective Corrective Actions Alluded to in CAP032208; September 12, 2003

CAP032473; 121 Cooling Water Pump Bearing Water in the Bypass Mode; September 14, 2003

CAP033621; 22 DDCLP Found with Stuck Bearing Water Flow Switch; October 20, 2003

CAP034479; Actuation of Three-Way Valves for Safeguards Cooling Water Pumps; December 15, 2003

CAP034582; 12 and 121 Cooling Water Pump Shaft Flow; December 20; 2003

CAP034864; 12 AFWP [auxiliary feedwater pump] Pressure Switch Found Out-of-Tolerance; January 12, 2004

CAP034876; 21 Motor-Driven AFWP Suction Pressure Switch (17779) Appears to be Set Incorrectly; January 13, 2004

CAP035302; Deficiencies Found in the AFWP Pressure Switch Calibration Procedure; February 11, 2004

CAP035359; Additional Corrective Actions Related to RCE00189 - AFWP Pressure Switch Miscalibration; February 14, 2004

CAP035376; Open OE Corrective Action Average Age Adverse Trend; February 16, 2004

CAP035545; Regularly Scheduled CARB Cancelled; February 27, 2004

CAP035873; RM-23 High Alarm Set Point Found Out Of Tolerance; March 22, 2004

CAP035993; Daisy Chaining - Closing CAP Actions to Non-CAP Actions; March 31, 2004

CAP036060; Tornado Hazard per SP 1039; April 4, 2004

CAP036061; Tornado Hazard per SP 1039; April 4, 2004

CAP036192; 121 Motor-Driven Cooling Water Pump Loss of Bearing Water Flow Alarm; April 13, 2004

CAP036490; Less Than Adequate Support for CARB Sub-Committee Activities; May 3, 2004

CAP036591; 121 Control Room Air Handler Work; May 10, 2004

CAP036622; Missile Concern in Substation; May 11, 2004

CAP036655; Cooling Water Pump Three-Way Valves Not Operating Properly; May 13, 2004

CAP036668; 2CL-136-1 Did Not Fully Reseat to Well Water; May 13, 2004

CAP036685; Follow-up on the resolution of Identified trends is not Evident; May 14, 2005

CAP036702; CT11 Transformer Oil Sump Grating May be a Tornado Missile Hazard; May 14, 2004 [NRC-Identified]

CAP036940; Replacement of Cooling Water Pumps Seal Filters Should be Considered an Operator Work Around; June 1, 2004

CAP037285; CARB Attendance Less Than Adequate; June 25, 2004

CAP037384; SP 1039 Did Not Catch Potential Missile Hazard in Switchyard; July 2, 2004 [NRC-Identified]

CAP037655; CARB Sub-Committee Meeting Canceled; July 23, 2004

CAP037778; Quality Assurance Personnel Identified a Potential Problem with a Security door; August 3, 2004

CAP037831; The Hypobromous System may not Adequately Protect the Cooling Water System; August 8, 2004

CAP037867; CAP of Recent Issue Closed to WIN [Work it Now] Card That Was Completed Several Weeks Ago; August 10, 2004

CAP037975; All Phases of Underground Cables to CT12 Affected by Water; August 18, 2004

CAP038163; QA Finding - Corrective Actions on the Non-CAP side of TTrack; August 30, 2004

CAP038311; Neutron Flux Monitor Power Supplies Should be Replaced or Refurbished; September 8, 2004

CAP038338; Inverter 33 Power Surge Disabled Essential Computer Equipment; September 9, 2004

CAP038344; Loads Fed From Panel 313 Were Lost For a Brief Time; September 9, 2004

CAP038345; During Troubleshooting of Inverter 33, Breaker CB-4 Opened Causing Loss of Loads on Panel 313; September 9, 2004

CAP038347; Effect of Operating Turbine with Moisture Separator Reheater Reheating Valves closed; September 9, 2004

CAP038353; Unplanned Power change During 33 Inverter Deenergization - Reactivity; September 10, 2004

CAP038436; CL-57-1 Leaking By; September 13, 2004

CAP038523; Momentary Ground Alarm on 21 Battery During Post-Maintenance Test of 4160 Volt B12 Direct Current Control Power Automatic Bus Transfer; September 15, 2004

CAP038587; 1R23 Cross Unit Maintenance Rule Impact Not Completed; September 17, 2004

CAP038615; Atmospheric Steam Dump Valve Dual Indication; September 18, 2004

CAP038695; Lost Production Due to Inadequate Scheduling and Job Planning for 10 Year Inservice Inspection; September 21, 2004

CAP038769; Tagging Device on Breaker in ON Position May Prevent Trip of Breaker; September 23, 2004

CAP038788; Non-outage Unit Limiting Condition for Operation Time Impacted by Outage Work; September 23, 2004

CAP038841; Poor Foreign Material Control on Inservice Inspection Vessel Work; September 25, 2004

CAP038947; Actions to Remove Cooling Water System From Top 10 Equipment Issues List Have Been Ineffective; September 30, 2004

CAP039356; 22 DDCLP Bearing/Seal Water 3-Way Valve Failed; October 18, 2004

CAP040065; CARB Meeting Not Held During 1R23; December 2, 2004

CAP040441; ACE Failed to Adequately Address Extent of Condition; January 5, 2005 [NRC-Identified]

CAP040783; Auxiliary Building Survey Maps; January 31, 2005

CAP040977; Non-CAP OTH [other] Should Have Been on Corrective Action Side; February 14, 2005

CAP040979; Non-CAP OTH Should Have Been on Corrective Action Side; February 14, 2005

CAP041380; Chemistry Quality Assurance Program Flagged Persuasive Bias on th Sulfate Analysis; March 16, 2005

CAP042033; 121 Control Room Air Handler Fan Motor Currents Above Nameplate Rating; April 28, 2005

CAP042056; Lawn Mower Outside Old Administrative Building Door in tornado Exclusion Zone; April 29, 2005

CAP042156; Issues Associated with Temporary Storage Tank for Transformer Oil; May 5, 2005

CAP042183; Tornado Hazard in Inspection Area 1; May 7, 2005 [NRC-Identified]

CAP042184; Tornado Hazard in Inspection Area 2; May 7, 2005 [NRC-Identified]

CAP042188; Tornado Hazards Identified During Performance of SP-1039; May 3, 2005

CAP042263; Develop a Maintenance Rule a(1) Action Plan for D5 Diesel Generator; May 9, 2005

CAP042430; D6 Diesel Generator Failure to Start Alarm Received During Performance of SP [surveillance procedure] 2305; May 16, 2005

CAP042533; D21 Foreign Material Exclusion Practices are Unsatisfactory and Below Industry Standards; May 18, 2005

CAP042577; Inadequate/Incomplete Documentation in CAPs - Missing System and Equipment Information [NRC-Identified]

CAP042591; Contaminated Trash Trailer Not Being Surveyed in a Timely Fashion; May 20, 2005

CAP042632; Tornado Hazards Near Equipment Hatch; May 22, 2005

CAP042766; Tornado Missile Hazards per SP 1039; May 27, 2005

CAP042883; Two Instances of CAP Level C Actions on the Non-CAP Side of TTrack; June 3, 2005

CAP042917; SP 1039 Tornado Hazard Site Inspection - Monthly Inspection; June 5, 2005

CAP042947; 12 Condensate Pump Stator High Temperature Annunciator; June 6, 2005

CAP043041; High High Level in 21/22/23 Feedwater Heaters Required Manual Trip of Unit 2 Turbine; June 11, 2005

CAP043136; CAP042947 Closed to a WIN Card Written for a Potentially Different Problem; June 20, 2005

CAP043314; SP 1039 Tornado Hazard Site Inspection; July 3, 2005

CAP043345; Opportunities are Being Missed to Improve Equipment Performance Via CAP

CAP043348; Insufficient Ownership of Some Multi-Organizational Programs; July 7, 2005

CAP043482; CARB Meeting Canceled; July 18, 2005

CAP043485; Unplanned LCO - 12 DDCLP Low Bearing Water Flow; July 18, 2005

CAP043575; Trending and Tracking Software Not Well Aligned with T-track; July 25, 2005

CAP043662; Examples Where NOS is not Utilizing Corrective Action Program; July 29, 2005

OE023894; Piston Lip Ring Cracking at Calvert Cliffs; January 14, 2003

OE028002; Importance of Followup Activities in Resolving Maintenance Issues; September 9, 2003

OTH035078; Track Procedure Change Request 2004024B to Completion - Trend Codes for RCEs; September 27, 2004

Corrective Action Program Documents Generated As a Result of Inspection

CAP043515; Process and Activity Codes are Not Being Applied to About 30% of 2nd Quarter 2005 CAPs; July 20, 2005 [NRC-Identified]

CAP043813; Complete MNC [Nuclear Management Company, LLC] Trend Codes Are Not Consistently Assigned to RCE CAPs; August 4, 2005 [NRC-Identified]

Nuclear Oversight Observation Reports

Nuclear Oversight Observation Report # 2004-001-6-002; Corrective Action and Corrective Action Review; July 8, 2004

Nuclear Oversight Observation Report # 2004-003-6-014; Corrective Action Review; September 3, 2004

Nuclear Oversight Observation Report # 2005-001-6-005; Corrective Action Program; March 11, 2005

Nuclear Oversight Observation Report # 2005-001-6-019; Corrective Action Review/Quality Assurance Finding Status; June 7, 2005

Procedures

5AWI 8.9.0; Internal Flooding Drainage Control; Revision 2

5AWI 16.0.0; Action Request Process; Revision 8

Apparent Cause Evaluation Manual; Revision 2; May 19, 2005

CAP Trend Code Manual; Revision 3

Department Roll Up Meeting (DRUM) Manual - Department Performance Trending; Revision 1

FP-EC-ECP-01; Employee Concerns Program; Revision 2

FP-PA-ARP-01; Action Request Process; Revision 7

PINGP 195; Turbine Bldg Data - Unit 1; Revision 77

PINGP 1180; Aux Bldg Data; Revision 31

Root Cause Evaluation Manual; Revision 6; March 4, 2005

Self Assessments

2004 NMC Employee Concerns Program; May 20, 2004

Focused Self-Assessment 31740; Corrective Action Process Effectiveness; June 21-24, 2004

Focused Self-Assessment 38108; Prairie Island Problem Identification and Resolution Process; Jun 13-17, 2005

Miscellaneous

AR [Action Request] Screening Team Meeting Agenda, August 1, 2005

AR Screening Team Meeting Agenda; August 2, 2005

AR Screening Team Meeting Agenda, July 22, 2005

AR Screening Team Meeting Agenda, July 19, 2005

CARB Agenda; July 22, 2005

ECP 2005 Mid-Year Update; August 1, 2005

NRC IR 05000282/2003007(DRP); 05000306/2003007(DRP); Prairie Island Nuclear Generating Plant, Units 1 and 2 NRC Problem Identification and Resolution Inspection Report; October 16, 2003

Second Quarter Engineering Department Roll-up Meeting Agenda; July 21, 2005

LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ADAMS	Agencywide Documents Access and Management System
AFWP	Auxiliary Feedwater Pump
AR	Action Request
CAP	Corrective Action Process
CARB	Corrective Action Review Board
CFR	Code of Federal Regulations
DDCLP	Diesel-Driven Cooling Water Pump
DRP	Division of Reactor Projects
DRUM	Department Roll-Up Meeting
ECP	Employee Concerns Program
ERCS	Emergency Response Computer System
FIN	Finding
IR	Inspection Report
NCV	Non-Cited Violation
NOS	Nuclear Oversight
NRC	U.S. Nuclear Regulatory Commission
OE	Operational Events
OTH	Other
PARS	Publicly Available Records
PI&R	Problem Identification and Resolution
RCE	Root Cause Evaluation
SCWE	Safety Conscious Work Environment
SP	Surveillance Procedure
WIN	Work it Now