November 3, 2000

Mr. J. Sorensen
Site General Manager
Prairie Island Nuclear Generating Plant
Nuclear Management Company, LLC
1717 Wakonade Drive East
Welch, MN 55089

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT - NRC INSPECTION REPORT 50-282/00-15(DRP); 50-306/00-15(DRP)

Dear Mr. Sorensen:

On October 5, 2000, the NRC completed the baseline problem identification and resolution inspection at your Prairie Island Nuclear Generating Plant. The inspection results were discussed on October 5 with you and members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, no findings were identified and we concluded that your program effectively identified and resolved conditions adverse to quality in that the inspectors did not identify any issues that resulted in the operability of safety-related or risk significant plant equipment being questioned. Also, we concluded that your personnel communicated an acceptable level of responsibility in identifying and entering safety issues into the corrective action program. The inspectors, however, identified several examples where corrective action due dates were missed or untimely and where documentation of corrective actions was weak. In addition, the inspectors determined that your staff had not identified a trend regarding 16 instances where valves or switches were mispositioned.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available **electronically** for public inspection in the NRC Public Document Room **or** from the *Publicly Available Records System (PARS) component of NRC's document system (ADAMS)*. *ADAMS is accessible from* the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Roger Lanksbury, Chief
Reactor Projects Branch 5

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

Enclosure: Inspection Report 50-282/00-15(DRP);
50-306/00-15(DRP)

cc w/encl: Site General Manager, Prairie Island
Plant Manager, Prairie Island
M. Wadley, Chief Nuclear Officer
G. Eckholt, Site Licensing Manager
S. Northard, Nuclear Asset Manager
J. Malcolm, Commissioner, Minnesota
Department of Health
State Liaison Officer, State of Wisconsin
Tribal Council, Prairie Island Dakota Community
J. Silberg, Esquire
Shawn, Pittman, Potts, and Trowbridge
A. Neblett, Assistant Attorney General
Office of the Attorney General
S. Bloom, Administrator
Goodhue County Courthouse
Commissioner, Minnesota Department
Of Commerce

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-282, 50-306
License Nos:	DPR-42, DPR-60
Report No:	50-282/00-15(DRP); 50-306/00-15(DRP)
Licensee:	Nuclear Management Company, LLC
Facility:	Prairie Island Nuclear Generating Plant
Location:	1717 Wakonade Drive East Welch, MN 55089
Dates:	September 18 - October 5, 2000
Inspectors:	S. Ray, Senior Resident Inspector M. Kunowski, Project Engineer R. Winter, Reactor Engineer
Approved by:	Roger Lanksbury, Chief Reactor Projects Branch 5 Division of Reactor Projects

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW, or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

SUMMARY OF FINDINGS

IR 05000282-00-15, IR 05000306-00-15, on 09/18 - 10/05/2000, Nuclear Management Company, LLC, Prairie Island Nuclear Generating Plant, Units 1 & 2. Annual baseline inspection of the Identification and Resolution of Problems.

The report covers a 2½-week inspection by the senior resident inspector and two region-based inspectors. This was an announced inspection to review the effectiveness of the corrective action program. The inspection included review of the licensee's methods for identification, cause investigation, and correction of quality-related problems. The inspectors used Inspection Procedure 71151, "Identification and Resolution of Problems," to conduct the inspection.

Problem Identification and Resolution

The inspectors concluded that the licensee's program effectively identified and resolved conditions adverse to quality in that the inspectors did not identify any issues that resulted in the operability of safety-related or risk significant plant equipment being questioned. The problem identification threshold within the condition report process was low. Issues were prioritized and evaluated properly, according to the significance of the problem. Operability and reportability evaluations were typically completed as required. Corrective actions were usually timely and effective in preventing recurrence. The inspectors, however, identified several examples where corrective action due dates were missed or untimely and where documentation of corrective actions was weak. In addition, the inspectors determined that the licensee had not identified a trend regarding 16 instances where valves or switches were found mispositioned. Problems with corrective action due dates and corrective action trending, in general, had been identified in licensee self-assessments. The inspectors conducted interviews with plant personnel to ascertain the existence of a safety conscious work environment and concluded that plant personnel communicated an acceptable level of responsibility in identifying and entering safety issues into the corrective action program. The inspectors noted that licensee management was undecided about which of two forms would be the written means for employees to document identified problems and submit to the corrective action program.

Report Details

Summary of Plant Status: Unit 1 and Unit 2 operated at or near full power for the entire inspection period.

4. OTHER ACTIVITIES (OA)

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Occupational Radiation Safety, Public Radiation Safety, and Physical Protection

4OA2 Problem Identification and Resolution

.1 Effectiveness of Problem Identification

a. Inspection Scope

The inspectors interviewed plant staff and reviewed a selected sample of documents that pertained to the seven cornerstones of safety contained in the Reactor Safety, Radiation Safety, and Safeguards strategic performance areas. The inspectors used the results of the interviews and document reviews to determine if problems were being identified, appropriately characterized, and entered into the corrective action program. The document samples selected by the inspectors for review consisted of condition reports (CRs), error reduction task force reports (ERTFs - root cause analysis reports), meeting minutes, work orders (WOs), and audits and self-assessments generated during the last year. In addition, for the high risk significant D5 emergency diesel generator and 4160-volt electrical systems, the inspectors reviewed completed corrective maintenance activities, WOs, and related CRs.

b. Issues and Findings

There were no findings identified during this inspection. The inspectors determined that the licensee was effective at identifying problems and appropriately characterizing problems. Plant problems were generally recognized and documented at a low threshold. Several methods existed for entering problems into the licensee's corrective action program, including CRs, WOs, 2DOs (management-generated "to-do" items), industry operating experience assessments, procedure change requests, field observation cards ("yellow cards"), and employee observation reports ("buff cards"). Plant issues were entered into one of these processes for correction.

Most plant problems were entered into the corrective action program via CRs. Plant personnel could electronically generate a CR themselves or cause one to be generated by filling out and submitting one of the buff cards, which had been located throughout the plant along with placarded instructions for using the cards. The yellow cards had formerly been used exclusively by managers and supervisors for documenting good and poor practices seen during observations of work in-progress. The licensee had recently made the decision to allow all plant staff to use the yellow cards and, in early September 2000, provided training on this revised use of the cards. The buff cards

were removed from their dispensers in the plant and replaced with the yellow cards. However, the placarded instructions had not been changed to reflect the removal of the buff cards and the new use of the yellow cards. As of the end of the inspection, the licensee was evaluating whether it was going to provide both cards as alternative means for plant personnel to document problems. In either case, the inspectors determined that problems were being documented and entered into the corrective action process.

The inspectors noted from a review of CRs and meeting minutes, and discussions with plant personnel, that the trending described in the licensee's administrative work instructions (AWIs) for the corrective action program was not being done rigorously by various management review teams (such as the management assessment team and the human performance, equipment performance, and process performance panels) charged with identifying problem identification/corrective action trends. This problem with trending had also been identified by the licensee during a recent self-assessment. In a review of the CR database for the past 2 years, the inspectors noted that only three trends have been identified (and documented in CRs) by these groups. However, the inspectors did not consider this trending issue highly significant because trends had been identified by other groups, such as quality assurance, ERTFs, and department self-assessment groups. The licensee indicated to the inspectors that it was considering the establishment of a searchable code for CRs that document trends to facilitate future searches for trends.

In addition to the observation on the extent of trending, the inspectors had two other observations regarding trends:

- Four CRs had been written in the last 2½ months on personnel logging out their electronic dosimeters before going through the access control Friskall contamination monitors. This repeat "problem" had not been formally identified as an adverse trend by the licensee. After the 3rd occurrence, a radiation protection supervisor posted a sign reminding people of the correct practice. However, 3 days later, when the 4th occurrence took place, the sign was gone. After the 4th occurrence, the licensee determined that general employee training did not cover this expectation. At the exit meeting on October 5, the licensee stated to the inspectors that not only was the expectation on the order of logging out and using the Friskall not discussed in general employee training, it was not specified in radiation protection procedures. In view of this, the inspectors concluded that attributing these 4 occurrences to personnel errors may have been unwarranted.

- Sixteen CRs were written in 2000 for valves or switches found out of position, yet the licensee had not identified a negative trend in this area. While each of the 16 problems had been corrected and was individually of minimal or no risk significance, the relatively high number of mispositionings was a possible precursor to a more risk significant equipment control problem. Additionally, these 16 CRs did not include any of the equipment tagout mispositioning problems which the resident inspectors had previously brought to the licensee's attention and for which substantial corrective action had been taken.

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The inspectors interviewed plant staff and reviewed the prioritization and evaluation of problems identified in a selected sample of CRs, audits, and self-assessments to verify that identified issues were appropriately characterized and an appropriate analysis of the cause of the problem was performed for conditions adverse to quality. The assessment included a review of the level assigned, operability and reportability determinations, extent of condition evaluations, cause investigations, and the appropriateness of the assigned corrective actions. Through its assessments, the licensee had identified a problem with plant staff not meeting corrective action due dates. As part of the Corrective Action Behavior Modification of its ongoing 100-Day Behavior Outage (taken in response to the findings of an industry group assessment of the licensee), station management established the expectation that by November 24, 2000, there would be no overdue corrective actions. As a result of this expectation, over 150 overdue items had been closed in the 30 days preceding the inspection. The inspectors focused their efforts on these closed overdue items to determine if the quality of the closure of the items may have been compromised by the emphasis placed on the expectation by management. In addition, the inspectors reviewed the licensee's evaluation of selected industry experience information to assess if issues applicable to Prairie Island were appropriately addressed.

The inspectors also attended the daily Causal Work Review meetings, where newly issued WOs and CRs were reviewed and screened, and observed how plant problems were entered into the corrective action program. Additionally, the inspectors attended an Operations Committee (onsite review committee) meeting and reviewed Corrective Action Review Board minutes to assess root cause analyses and corrective actions. The documents reviewed during the inspection are listed at the end of this report.

b. Issues and Findings

There were no findings identified during this inspection. The inspectors determined that Prairie Island personnel generally evaluated and categorized issues appropriately. Cause evaluations and corrective actions were of sufficient depth for the problem(s) identified. Except for some rather sparse documentation of corrective actions taken for several of the recently closed overdue items (discussed in Section 4OA2.3), the quality of the closed CRs was acceptable. However, the inspectors had several minor observations related to due dates:

> (1) five of the 10 proposed corrective actions for a 1999 outside group review of radiation protection activities had no due dates assigned, (2) two corrective actions associated with the D5 diesel were on the overdue list but had actually been completed, (3) three of 5 action items (for training and procedure changes) from the ERTF report for a recent high radiation area control problem had inordinately extended due dates (these dates were subsequently revised after the inspectors discussed their observation with the licensee), (4) a CR was 6 months overdue because the individual who had been assigned responsibility to assign someone to resolve the problem documented in the CR was not aware

that the item was assigned to him, and (5) the due date for an action to re-overhaul a cooling water valve using the correct quality level parts had been set for 3 years from the time of the inspection. After the inspectors questioned the timeliness of this corrective action, the licensee determined that the date was appropriate because the valve was not scheduled to be reinstalled for several years, but wrote a CR to address the larger issue of specifying on WOs the quality grade of parts when other safety-related valves are repaired or rebuilt.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The inspectors interviewed plant staff and reviewed CRs, corrective action effectiveness reviews, audits, and self-assessments to verify that corrective actions for issues effectively corrected the immediate problem and, where appropriate, addressed long-term correction and common cause or generic concerns. The documents reviewed during the inspection are listed at the end of this report.

b. Issues and Findings

The were no findings during this inspection. Except mainly for the equipment configuration control and radiation protection issues discussed in Section 4OA2.1, the corrective actions reviewed were complete and effective in preventing recurrence of the problems. However, the inspectors noted that the corrective actions taken for a number of Level 3 (the lowest level) CRs were not documented and for an occasional Level 2 CR were incompletely documented. In addition, the inspectors identified one CR that had an attached operability evaluation that specified three compensatory measures; however, these were not being tracked in the corrective action program to ensure the measures were implemented. The inspectors verified that the measures were implemented.

.4 Effectiveness of Licensee Audits and Assessments

a. Inspection Scope

The inspectors interviewed plant staff and reviewed CRs, audits, and self-assessments to verify that corrective actions commensurate with the issues were identified and implemented in a timely manner, including corrective actions to address common cause or generic concerns. The documents reviewed during the inspection are listed at the end of this report.

b. Issues and Findings

There were no findings in this inspection area. Recently completed audits and self-assessments adequately covered the subject area and the associated findings were appropriately captured in the corrective action program as CRs. Of note were a recently completed self-assessment of corrective action process effectiveness, and an earlier assessment of the corrective action program against December 1999 industry guidance on corrective action programs. Both reviews were performance-based and insightful,

and corrective actions identified as a result of those two assessments, when fully implemented, had the potential to significantly enhance the licensee's corrective action program. The results of this inspection were in reasonable agreement with the results of those assessments.

.5. Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors reviewed numerous corrective action documents and interviewed numerous plant staff to assess the nuclear safety consciousness of the work environment.

b. Issues and Findings

There were no findings during this inspection. Licensee personnel acknowledged the responsibility to notify supervisors of safety problems or document the problems themselves electronically or on the yellow or buff cards. Station management's expectation that workers identify problems at a low threshold was also readily apparent to the inspectors. Licensee personnel were responding to this expectation: in 1999, 3427 corrective action documents were generated; whereas, as of September 18, 2000, well over 3700 corrective action documents, in a wide range of significance, had been generated. During the discussions with plant staff, a small number of personnel expressed some reluctance to write CRs for human performance problems because they believed that by doing so they might get their co-workers in trouble; some workers expressed the view that they did not "bother" to write CRs anymore because in the past they would submit CRs to their supervisors who would get the problems fixed and not pass the CRs on for review by the station corrective action group; and a few workers expressed confusion over which form to use, the yellow card, the buff card, or a safety enhancement form. Also, in its self-assessments, the licensee identified that feedback to workers who generated problem identification documents needed to be improved. As of the end of the inspection, the licensee was completing actions to address this issue.

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. J. Sorensen and other members of licensee management on October 5, 2000. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

G. Anderson, Human Performance Panel Chairman
T. Breene, Manager, Nuclear Performance Assessment
K. Carlson, Corrective Action Process Owner
D. Hutchson, Security Manager
A. Johnson, General Superintendent Radiation Protection and Chemistry
M. Klee, Project Manager, Nuclear Performance Assessment
D. Reynolds, Process Performance Panel Chairman
D. Schuelke, Plant Manager
J. Sorensen, Site General Manager
B. Stephens, Equipment Performance Panel Chairman
D. Swenson, Planning Supervisor

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
AWI	Administrative Work Instruction
CFR	Code of Federal Regulations
CR	Condition Report
DRP	Division of Reactor Projects
ERTF	Error Reduction Task Force
LER	Licensee Event Report
NRC	Nuclear Regulatory Commission
SP	Surveillance Procedure
USAR	Updated Safety Analysis Report
WO	Work Order

LIST OF DOCUMENTS REVIEWED

Administrative Work Instructions (AWIs)

5AWI 1.10.0, “Corrective Action Process,” Revision 3W
5AWI 1.10.1, “Condition Reporting Process,” Revision 2W
5AWI 1.10.2, “Actions to Correct Conditions or Prevent Recurrence,” Revision 0W
5AWI 1.10.3, “Site Trending Program and Trend Analysis,” Revision 0W
5AWI 1.10.4, “Management Assessment of Plant Performance,” Revision 0W
5AWI 1.10.5, “Self Assessment,” Revision 0W
5AWI 1.10.6, “Root Cause Investigations and Apparent Cause Evaluations,” Revision 0W
5AWI 1.10.7, “Cause Coding,” Revision 0W
5AWI 3.7.0, “Operating Experience Assessment, Revision 3
5AWI 3.15.5, “Operability Determinations,” Revision 4
5AWI 3.15.7, “Prairie Island Field Observation Program,” Revision 2

Procedures and Related Documents

Procedure Quarantine Forms PQR1999-0011 through PQR1999-0014, dated April 23, 1999
RPIP [Radiation Protection Implementing Procedure] 1013, “Occupational Radiation Safety Performance Indicators,” Revision 0
RPIP 1125, “Radiation Occurrences,” Revision 8
SP [Surveillance Procedure]1115, “Spent Fuel Pool Special Ventilation System Test,” Revision 20
SP 2115, “Spent Fuel Pool Special Ventilation System Test,” Revision 0
SP 1544, “Containment At Power Monthly Inspection,” Revision 32
SP 2544, “Containment At Power Monthly Inspection,” Revision 34
SP 1130, “Containment Vacuum Breakers Quarterly Tests,” Revision 33
SP 2130, “Containment Vacuum Breakers Quarterly Tests,” Revision 38
Special Operations Procedure D27.18, “Steam Generator Nozzle Dam Installation SG [Steam Generator],” Revision 17

Audits and Self-Assessments

“Principles For Effective Self-Assessment and Corrective Action Programs,” December 1999
“Corrective Action Process Effectiveness,” August 28 - September 1, 2000
AG 2000-M-2, “Maintenance/Work Control,” April 1 - June 30, 2000
AG 1998-E-1, “Modifications,” January 1 - March 31, 1998
AG 1998-E-4, “Corrective Actions,” October 1 - December 31, 1998
AG 2000-E-1, “Modifications,” January 1 - March 31, 2000
AG 1999-M-4, “Electrical Maintenance and Protection Department,” October 1 - December 31, 1999
AG 1999-E-4, “Design Bases Control,” October 1 - December 31, 1999

Condition Reports (CRs) and Related Corrective Action Program Documents

19970775, “1997039 Action: 1 Problems Identified During Generic Letter 89-10 Closeout Inspection”

19971400, “Workers Exiting the Radiologically Controlled Area returned electronic dosimeters before using the Friskalls”
19990033, “Cavitation Erosion of Letdown Line Orifices Resulting in Fatigue Cracking of Pipe Welds”
19990096, “SP 1016 Missing Steps”
19990958, “Safeguards Hold Card Blocking Devices for Blocks 2-132 & 2-133 Not Installed Properly”
19991117, “LER [Licensee Event Report] 19904, Relay Contacts for R-25 and R-31 That Isolate Containment In-Service Purge Isolation Valves Have Not Been Tested”
19991269, “LER19904, Relay Contacts for R-25 and R-31 That Isolate Containment In-Service Purge Valves Not Tested”
19991302, “ERTF 99-03, Common Cause Analysis of Selected Activities From the November 1998, Unit 2 Outage”
19991364, “Non-SBO [Station Blackout] 4.16 kV [Kilovolt] Bus Lockout (86) Relays are Slow to Operate Over Time and are in Need of Maintenance/Replacement”
19991703, “Updated Safety Analysis Report [USAR] Phase 2A Review Identified Differences Between Stated D5/D6 Hydraulic Governor Droop and Actual”
19991712, “ABB [Asea Brown Boveri] Breaker Type K600S, Serial Number 868012C23-010192 Has Documentation Discrepancies. It Has Been Under QC [Quality Control] Hold Since 1994.”
19992020, “Laboratory Testing of Nuclear-Grade Activated Charcoal”
19992181, “Management Should Perform a Common Cause Analysis of Equipment Control Process Errors”
19992211, “CV-31998, the 11 Turbine-Driven Auxiliary Feedwater Pump Steam Supply Control Valve, Stuck in Its Seat After Being Rebuilt per WO 9903951"
19992281, “Intake Structure Blockages”
19992352, “USAR Section 8.3 States That all Safeguard Loads Have Been Demonstrated to Operate at 90% of Nameplate Voltage”
19992389, “Travel-Radioactive Waste Packaging Transportation and Disposal Training”
19992599, “Plant Management Has Requested That an Analysis of Recent Events that Occurred During the Cycle 20 Unit 1 Outage and Other Observations be Performed”
19992677, “New Westinghouse VCB [Vacuum Circuit Breaker] Has Bent Guide Bar”
19992817, “Unit Cooler Control Switch and Fan Status Should be Verified Prior to Starting Residual Heat Removal Pumps in SP 1089 and SP 2089"
19992927, “Operator Allowed the Pressure in D1 Air Start System to Drop Below 200 PSIG (Pounds Per Square Inch - Gauge) When Cross Tie to D2 was Opened”
19992989, “D5/D6 Diesel Low Load Issue”
19993009, “Common Cause Analysis of Prairie Island Unit 1 Outage, Cycle 20"
19993066, “A Review of Containment Vacuum Breaker Analysis in the USAR Indicates That It Does Not Use a Conservative Containment Spray Flow Rate and Fan Coil Unit Heat Removal”
19993133, “Accidental Actuation of Bus CT 11 Lockout Relay Causes Loss of One Offsite Source to Safeguards Bus 16"
19993203, “Limiting Condition for Operation Not Entered for Conduct of SP 2093 on 7/12/99, Found During NRC Performance Indicator Data Verification”
19993210, “The Station Air Compressors Are High Maintenance. Install One or More Rotary Screw Compressors to Reduce Maintenance.”
19993255, “High Crankcase Pressure During D5 24-Hour Run Resulted in Shutdown of Diesel and Failing to Complete SP 2093 and 2334"

19993287, “Section XI Closure Testing of 2CL-43-2 and CL-43-3 Performed in a Manner Other Than that Described in H10.1"
19993290, “Surveillance Procedure Revision Issued After Surveillance Work in Progress”
19993322, “CV-31329 Has Two Degraded Studs on the Body to Bonnet Joint”
19993500, “ERTF 99-15, Near Miss Electrical Safety Event Due to Incorrect Equipment Isolation”
20000002, “Evaluate the Methods for Providing Updates to the Fire Strategies in F5 Appendix A”
20000021, “Principles for Effective Self-Assessment and Corrective Action Programs”
20000134, “Evaluate ANI [American Nuclear Insurers] Report From November 16-17, 1999, and Make Recommendations”
20000175, “Significant Reactor Coolant System Leak Resulting From Residual Heat Removal Piping Failure”
20000253, “Field Observations are Not Trended and Reported on a Periodic Basis In Accordance With 5AWI 3.15.7"
20000354, “125 Air Compressor Loading Setpoint Too High Causing 123 Air Compressor to Time Out When CP-40-7 Is Open.”
20000439, “Over the Last 4 Years There Have Been 8 Events Involving the Light Sockets/Bulbs Used on the Control Room Heater Drain Panel”
20000462, “Substation Isolation of Red Rock 2 Line While D1 Emergency Diesel Generator Out of Service Without Risk Evaluation”
20000683, “1999 Enforcement Sanctions for Deliberate Violations of NRC Employee Protection Requirements”
20000702, “There Is an Unlabelled, Unnumbered Valve Downstream of 2SA-63-1, Air Supply to Reactor Cavity Inflatable Seat (Unit 2)”
20000720, “Normal Voltage Regulator for D5 Diesel Generator Failed to Respond to Operator’s Action to Raise/Lower Voltage”
20000812, “Drawing Discrepancies Identified During Investigation of LER 1-00-01”
20000843, “ERTF 00-01, Failure to Lock a High Radiation Area”
20000891, “Perform a Self-Assessment of System Engineering Effectiveness”
20000902, “Non-Licensed Operator Lesson Plans are in Need of Revisions”
20001015, “Level II Asbestos Work Process Deficiencies Identified”
20001030, “Category 1: Relay 1SDX8-B May Not Pick Up When Energized. This Disables Steam Dumps When Average Coolant Temperature Returns to >540 Degrees”
20001079, “Offsite Power Voltage Inadequacies”
20001138, “Quality Control Quarterly Data Indicates Negative Trend for 4 Quarters”
20001140, “National Institute for Occupational Safety and Health Respirator User Notice: Special Precautions for Using Certain Self-Contained Breathing Apparatus Air Cylinders”
20001179, “Operator Found Valve SA-291-11 Closed”
20001186, “Found Standby Heater Drain Pump Speed Control in Manual”
20001191, “Assess the “Red” Equipment Performance Panel Indicator for the Chemical and Volume Control System”
20001192, “Assess the “Red” Equipment Performance Panel Indicator for the Steam Exclusion System”
20001202, “Unit 2 Reactor Trip Caused by Turbine Trip Due a High High Feedwater Heater Level Trip in 23B Feedwater Heater”
20001206, “The Common Hydraulic Fluid Reservoir Which Supplies Makeup Fluid to the Four 21 Steam Generator Snubbers was Found Empty”

20001255, “WO 0001204 Implemented Operator Actions Without Screening for Safety Evaluation Prior to Turning Building Ventilation Fans Off”
20001336, “ERTF 00-03, 22 Steam Generator Cold Leg Bowl Drain Plug Installed in the Wrong Drain Hole”
20001350, “Unnecessary Exposure and Lost Manhours Occurred by Hooking Up Incore Thermocouples While at 1-Foot Below Reactor Vessel Flange”
20001383, “Unit 2 RHR [residual heat removal] Suction Transmitters Isolated Due to Improper Isolation Position”
20001438, “Discrepancy Between Actual and Assumed Operating Conditions Used in Westinghouse Loss of Coolant Accident Hydraulic Force Analysis”
20001455, “D5 Engine 2 Speed/Field Flash was Found Out of Tolerance by More Than 10%”
20001472, “Feedwater Pipe Support 2-FWH-74 was Found with a Failed Support Component During the Unit 2 2000 Refueling Outage”
20001481, “Spill of Seal Water From Seal Water Return Piping During Venting and Draining of System for Maintenance”
20001548, “During Foreign Material Exclusion Inspections of the D5 Engine 1 Crankcase a Metal Spacer was Found”
20001577, “Heat Trace Alarm Power Supply Breaker Turned Off”
20001607, “Snubber PI-270 From Location 2-rhrrh Failed Functional Test (Low Bleed). Installed 3/92 With Wrong Bleed Setting”
20001806, “Revise 18-Month Electrical Preventive Maintenance Procedures to Include Checks of Wire Tightness, Especially on Motor-Operated Potentiometer”
20001844, “Siphoning During Reactor Coolant System Draindown 2D2.1 Following Refueling”
20001887, “Found 11 Volume Control Tank to Gaseous Analyzer Sample Point Included in Normal Sampling”
20001984, “Finding 2000-004, Missed Quality Control Inspection Points Having Impact on Work Sample That Could Affect Ability to Assure Quality of Work”
20002027, “Inadequate Assessment of the Effect of Differential Temperatures on Safety-Related Pumps”
20002091, “The Condition Report Process is Not Being Used to Identify, Correct, Track or Trend Misplaced Work Order Requests”
20002252, “Site Safety Committee Needs to Evaluate Cause and Contributors to Significant Injury Reduction in the 2000 Unit 2 Outage”
20002275, “During Conduct of Work in WO 0009626, Valve 2ZE-4-4 Was Found Closed When It Was Expected to be Open”
20002361, “During the Post-WO Review, Found Bolts on D5 Generator Were Torqued to Wrong Value”
20002420, “Found D4 Output Breaker 42-2 in the Test Position During Performance of Test Procedure 2745"
20002469, “While Drilling Hole in Wall Between 122 Chiller Room and the Auxiliary Building a Hollow Block was Found. Wall Should be Filled”
20002505, “Worker Logged Out Their Rados Dosimeter Before Using the Friskall”
20002506, “Adverse Trend - Second Quarter 2000, 11 Level 3 and 2 Level 2 Condition Reports Related to Unlabeled Chemicals”
20002623, “Revise Procedure D27.18 on Nozzle Dam Installation and Installation Verification to Include Correct Location for Drain Plug”
20002655, “Steam Generator Tube Failure at Indian Point Unit 2"
20002674, “Self Assessment of Condition Reports Indicates an Increase in Number of Unlabeled Radioactive Materials”

20002733, “2VC-15-40 Found Closed but Not Locked as Specified in the USAR”
20002818, “Two Days in a Row HT 30B Was Found in Manual Causing High Temperature Alarms”
20002823, “Unit 1 Operator Found 122 Acid Regulating Pump Valves Closed and the Pump Breaker Open”
20002848, “Found Drain Valve for 123 Instrument Air Compressor Moisture Separator Closed”
20002870, “Engineer Placed Electronic Dosimeter on Rack Prior to Entering Friskall Upon Exiting Auxiliary Building”
20002880, “Found Valve FP-30-10 Open. This is a Normally Closed Valve”
20002911, “Heat Trace Circuit 53N Found in the Off Position Following a Heat Trace Annunciator in Control Room”
20002912, “Found Root Valve for 123 Filter Water Strainer Differential Pressure Switch Closed Following Preventive Maintenance. Valve Should Have Been Open After Flush”
20002943, “Evaluate/Assess Procedure Use and Adherence”
20003099, “Licensee Responsibility for Quality Assurance Oversight of Contractor Activities Regarding Fabrication and Use of Spent Fuel Storage Cask Systems”
20003143, “2AF-31-1 and 2AF-31-2 Found Open. Expected Position Was Shut”
20003192, “Evaluate PI LOCA [Prairie Island Loss-of-Coolant Accident]/Transient Analyses to Determine Impact of Higher Pellet Densities”
20003233, “Operator Placed Electronic Dosimeter on Rack Before Using Friskall”
20003242, “Non-conservatism Exists in Main Steam Line Break Dose Analysis for Voltage Based Repair Criteria Which Limits Dose Equivalent Iodine to 0.6 Microcuries per Gram”
20003257, “Individual Logged Out His Electronic Dosimeter Prior to Using the Friskall”
20003270, “Westinghouse Stress Analysis and Engineering Specifications for Steam Generator Used a Non-conservative Seismic Response Spectrum”
20003286, “Evaluate Short Circuit Rating of Transfer Switches for AB and MA Motor Control Centers”
20003326, “Valve HG-3-7, H2 [Hydrogen] to Unit 1/Unit 2 Turbine Building Was Found Open During Operator Rounds”
20003345, “2R-50 Sample Control Valve Found Closed During Routine Sample Resulting in a Zero Flow Condition”
20003348, “Cable Tray and Conduit Support Discrepancies Identified During As-built Walkdowns for Modification 00FP01"
20003361, “P10 Setpoint Specified in Technical Specifications as Unblocking Above 9 Percent Rated Thermal Power is Analyzed at 10 Percent Rated Thermal Power”
20003486, “Modify Kea Term Default Settings to Use a Font Which Displays Zero and O Differently”
20003509, “Conduct Training Analysis as Noted Above for ESP [Engineering Support Program] Initial and Continued Training”
20003609, “Calibration of 121/122 Instrument Air Dryer Dew Point has Procedure Step Per Cal Card. This May Need to be Proceduralized.”
20003775, “Valve VC-15-169 Is in the Closed Position. The Checklist C21.3-9.2 Calls for It to be in the Open Position”
20003949, “Fully Implement 5AWI 1.10.3 for Trending of Condition Report Data in the Area of Human Performance”
20003950, “Fully Implement 5AWI 1.10.3 for Trending of Condition Report Data in the Area of Process Performance”
20003951, “Fully Implement 5AWI 1.10.3 for Trending of Condition Report Data in the Area of Equipment Performance”

Error Reduction Task Force (ERTF) Reports

ERTF Report 00-01, “Failure to Lock a High Radiation Area”
ERTF Report 00-03, “22 Steam Generator Cold Leg Bowl Drain Plug Installed in the Wrong Drain Hole”

Maintenance Rule Reports

3rd Quarter 1999
4th Quarter 1999
1st Quarter 2000
2nd Quarter 2000

Corrective Action Effectiveness Review

dated August 9, 2000, for CR 19980691, “D3 Storage Area Does Not Comply With Appendix R”
dated August 9, 2000, for CR 19992300, “Control Room Chiller Room Door Passive Door Pin Found Inoperable”
dated August 10, 2000, for CR 19980861, “735-foot Elevation of the Unit 1 and Unit 2 Auxiliary Building Fire Area 75 Does Not Comply With Appendix R Boundary Requirements”

Corrective Action Review Board Meeting Minutes

meeting dated September 7, 1999
October 4, 1999
November 1, 1999
December 6, 1999
February 7, 2000
March 6, 2000
April 3, 2000
May 1, 2000
June 5, 2000
July 10, 2000

Work Orders (WOs)

D5 Emergency Diesel Generator

9912403, “Check D5 Crankcase Breathers”
0000835, “Inspect Electrical Connections in the D6 Vertical Panel”
0008311, “Torque D5 Generator Bolts During Next 18-Month Preventive Maintenance”
0001301, “Troubleshoot D5 Diesel Generator Loss of Voltage Regulation”
0001311, “Replace R4 Potentiometer in D5 Normal/Standby Voltage Regulators”
0003082, “Check Connections in D5 Vertical Panel”
0003214, “Verify Conditions of R4 Resistor in D5 Voltage Regulators”
0003215, “Adjust the Preset Voltage on D5 Voltage Regulators”
0003622, “Test D5 Connections”
0004010, “D5 Vertical Panels 1, 2, and 3 Partial Termination Check”

4160-Volt Alternating Current System

9810325, “Swap out BKR [Breaker] 2RYBT, Test, Ship”
9911908, “Bus 25 Inspection”
9911993, “As Found Testing, Ship for OH, & Receipt Inspection”
9912401, “Overhaul Breaker 15-13 (Spare)
0000703, “Isolate and Restore Bus 27"
0000704, “Bus 27 Inspection/Doble”
0000705, “Bus 27 Relay Calibration”
0000708, “OH BKR 27-2"
0004039, “BKR 25-15 Will not Charge Closing Springs”
0007969, “Drill WO Inspect, Dryout, and Test Bus 16"

Other Documents

E-mail from Dennis Westphal to Matt Klee and Kenneth Carlson dated September 21, 2000, “Condition Report”
Corrective Action Process Performance Indicator Summary, dated July 1, 2000 and September 1, 2000
Management Assessment Team meeting minutes, July 26, 2000
100-Day Behavior Outage Plan, August 16, 2000
Root Cause Analysis for CR 20003685, “August 2, 2000 Drill Scenario Too Similar to September 13, 2000 Exercise,” Revision 0
Safety Evaluation 558, “Containment Vacuum Relief System,” Revision 0