April 25, 2003

Mr. Joseph Solymossy
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 INTEGRATED INSPECTION REPORT 50-282/03-02; 50-306/03-02

Dear Mr. Solymossy:

On March 31, 2003, the U.S. Nuclear Regulatory Commission (NRC) completed a baseline inspection at your Prairie Island Nuclear Generating Plant, Units 1 and 2. The enclosed report documents the inspection findings which were discussed on April 8, 2003, with you and other members of your staff.

This inspection examined 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. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

Since the terrorist attacks on September 11, 2001, the NRC has issued two Orders (dated February 25, 2002, and January 7, 2003) and several threat advisories to licensees of commercial power reactors to strengthen licensee capabilities, improve security force readiness, and enhance access authorization. The NRC also issued Temporary Instruction 2515/148 on August 28, 2002, that provided guidance to inspectors to audit and inspect licensee implementation of the interim compensatory measures (ICMs) required by the February 25th Order. Phase 1 of TI 2515/148 was completed at all commercial nuclear power plants during 2002, and the remaining inspections are scheduled for completion in 2003. Additionally, table-top security drills were conducted at several licensees to evaluate the impact of expanded adversary characteristics and the ICMs on licensee protection and mitigative strategies. Information gained and discrepancies identified during the audits and drills were reviewed and dispositioned by the Office of Nuclear Security and Incident Response. For 2003, the NRC will continue to monitor overall safeguards and security controls, conduct inspections, and resume force-on-force exercises at selected power plants. Should threat conditions change, the NRC may issue additional Orders, advisories, and temporary instructions to ensure adequate safety is being maintained at all commercial power reactors.

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 (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/

Patrick Louden, Chief
Branch 5
Division of Reactor Projects

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

Enclosure: Inspection Report 50-282/03-02; 50-306/03-02

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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:	50-282/03-02; 50-306/03-02
Licensee:	Nuclear Management Company, LLC
Facility:	Prairie Island Nuclear Generating Plant, Units 1 and 2
Location:	1717 Wakonade Drive East Welch, MN 55089
Dates:	December 29, 2002 through March 31, 2003
Inspectors:	J. Adams, Senior Resident Inspector D. Karjala, Resident Inspector R. Winter, Reactor Engineer, DRS A. Dunlop, Reactor Engineer, DRS M. Mitchell, Radiation Specialist, DRS
Approved by:	Patrick Louden, Chief Branch 5 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000282/2003-002, 05000306/2003-002; Nuclear Management Company, LLC; on 12/29/2002 - 3/31/2003, Prairie Island Nuclear Generating Plant, Units 1 & 2. Routine Baseline Inspection Report.

This report covers a 3-month period of baseline inspection. The inspection was conducted by the resident inspectors and inspectors from the Region III office. 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.

A. Inspection Findings

No findings of significance were identified.

B. Licensee-Identified Violations

No findings of significance were identified.

REPORT DETAILS

Summary of Plant Status

Unit 1 was operated at or near full power until March 1, 2003, when power was reduced to 15 percent to repair a leaking main condenser tube, clean condenser water boxes, repair Loop A main feedwater regulating valve (MFRV) positioner, and conduct quarterly turbine valve testing. Unit 1 was returned to full power on March 2 and was operated at that power level for the remainder of the inspection period.

Unit 2 was operated at or near full power until January 11, 2003, when power was reduced to 40 percent to add oil to the 21 reactor coolant pump, conduct quarterly turbine valve testing, and to clean condenser water boxes. Unit 2 was returned to full power on January 12, and was operated at that power level for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdowns

a. Inspection Scope

The inspectors performed three partial walkdowns during this inspection period. On February 5, 2003, the inspectors walked down the 21 containment spray train of Unit 2 while the 22 containment spray pump was out of service for planned maintenance. On February 14, 2003, the inspectors walked down the 22 diesel-driven cooling water pump (DDCLP) while the 12 DDCLP was out of service for planned maintenance. On March 27, 2003, the inspectors walked down the Unit 1 D2 diesel generator while the D1 diesel generator was unavailable during the monthly surveillance.

The inspectors evaluated the operability of the selected train when the redundant train was inoperable or unavailable. The inspectors used the applicable valve and electric breaker checklists listed at the end of this report to verify the as-found configuration of the systems matched the configuration specified in the system alignment checklists. The inspectors also examined the material condition of system components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors reviewed outstanding work orders (WO) and corrective action program (CAP) activity requests (AR) associated with the trains to verify that those documents did not reveal issues that could affect train function. The inspectors verified that the system's functional requirements referenced in the Technical Specifications (TS) and Updated Safety Analysis Report (USAR) could be performed if needed. In addition, the inspectors reviewed the AR CAPs listed at the end of this report to verify that the licensee was identifying issues at an appropriate threshold and entering them into their corrective action program.

b. Findings

No findings of significance were identified.

.2 Complete System Walkdowns

a. Inspection Scope

The inspectors conducted a detailed in-plant review of the alignment and condition of the Unit 2 emergency diesel generators (D5 and D6). The inspectors used the applicable valve and electric breaker checklists listed at the end of this report to verify that the as-found system configuration matched the configuration specified in the system alignment checklists. The inspectors also examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies and examined all applicable outstanding design issues, temporary modifications, and operator workarounds. The inspectors reviewed outstanding WOs and AR CAPs associated with the trains to verify that those documents did not reveal issues that could affect train function. The inspectors referred to the TSs and USAR to determine the functional requirements of the systems. In addition, the inspectors reviewed the AR CAPs listed at the end of this report to verify that the licensee was identifying issues at an appropriate threshold and entering them into their corrective action program in accordance with station corrective action procedures.

b. Findings

No findings of significance were identified.

1R05 Fire Protection Area Walkdowns (71111.05)

a. Inspection Scope

The inspectors conducted in-office and in-plant reviews of portions of the licensee's Fire Hazards Analysis and Fire Strategies to verify consistency in the documented installed fire protection equipment in the fire protection areas listed below. The inspectors selected fire areas for inspection based on their overall contribution to internal fire risk, as documented in the Individual Plant Examination of External Events (IPEEE); their potential to impact equipment which could initiate a plant transient; or their impact on the plant's ability to respond to a security event. The inspectors assessed the control of transient combustibles and ignition sources, the material and operational condition of fire protection systems and equipment, and the status of fire barriers. The inspectors performed an in-plant walkdown of the following risk significant fire areas:

- Fire Area 25, Unit 1 D1 emergency diesel generator room, on January 16, 2003;
- Fire Area 32, auxiliary feed pump, instrument air compressor room, and hot shutdown panel room, on January 16, 2003;
- Fire Area 20, Unit 1 safety-related electrical bus 15 room, on January 27, 2003;
- Fire Area 80, Unit 1 safety-related electrical bus 111 room, on January 27, 2003;
- Fire Area 117, Unit 2 safety-related electrical bus 25 room, on January 27, 2003;

- Fire Area 118, Unit 2 safety-related electrical bus 26 room, on January 27, 2003;
- Fire Area 115, Unit 2 D5 emergency diesel generator lubricating oil storage tank room, on January 27, 2003; and
- Fire Area 113, Unit 2 D5 emergency diesel generator fuel oil day tank room, on January 27, 2003.

The inspectors also reviewed the AR CAPs listed at the end of this report to verify that the licensee was identifying fire protection issues at an appropriate threshold and entering them into their corrective action program in accordance with station corrective action procedures. The inspectors discussed fire protection issues with the fire protection engineer, operations personnel, and plant management.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

The inspectors observed, at the simulator, an operating crew during an "as found" requalification examination on February 10, 2002. The inspectors evaluated crew performance in the areas of:

- clarity and formality of communications;
- ability to take timely actions in the safe direction;
- prioritization, interpretation, and verification of alarms;
- procedure use;
- control board manipulations;
- oversight and direction from supervisors; and
- group dynamics.

Crew performance in these areas was compared to licensee management expectations identified in the Administrative Work Instruction listed at the end of this report. The inspectors also compared simulator configurations with actual control room board configurations. For any weaknesses identified, the inspectors observed the licensee evaluators to verify that they also noted the issues and discussed them in the critique at the end of the session.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Maintenance Effectiveness Inspections

a. Inspection Scope

The inspectors conducted an in-plant walkdown and in-office review of the effectiveness of the licensee's maintenance efforts in implementing the maintenance rule (MR) requirements, including a review of scoping, goal-setting, performance monitoring, short-term and long-term corrective actions, and current equipment performance problems. The inspectors compared the documented performance of the selected maintenance rule components to the performance criteria established by the licensee's maintenance rule program. The components were selected based on its designation as risk significant under the MR. The components reviewed by the inspectors were:

- Unit 1, 12 instrument alternating current inverter breaker failure on February 3, 2003;
- Unit 2, 21 component cooling water heat exchanger thermal relief valve piping through-wall leak on March 14, 2003; and
- Unit 1, boric acid transfer pump repetitive seal failures on March 24, 2003.

b. Findings

No findings of significance were identified.

.2 Biennial Periodic Evaluation Inspection

a. Inspection Scope

The objective of the inspection was to:

- Verify that the periodic evaluation was completed within the time restraints defined in 10 CFR 50.65, the maintenance rule (once per refueling cycle, not to exceed 2 years), ensuring that the licensee reviewed its goals, monitoring, preventive maintenance activities, industry operating experience, and made appropriate adjustments as a result of that review;

- Verify that the licensee balanced reliability and unavailability during the previous refueling cycle, including a review of safety significant structures, systems, and components (SSC);

- Verify that (a)(1) goals were met, corrective actions were appropriate to correct the defective condition including the use of industry operating experience, and (a)(1) activities and related goals were adjusted as needed; and

- Verify that the licensee has established (a)(2) performance criteria, examined any SSCs that failed to meet their performance criteria, or reviewed any SSCs that have suffered repeated maintenance preventable functional failures including a verification that failed SSCs were considered for (a)(1).

The inspectors examined the last periodic evaluation report for the year 2001. To evaluate the effectiveness of (a)(1) and (a)(2) activities, the inspectors examined (a)(1) action plans, justifications for returning SSCs from (a)(1) to (a)(2), and a number of corrective action documents (contained in the list of documents at the end of this report). In addition, the corrective action documents were reviewed to verify that the threshold for identification of problems was at an appropriate level and the associated corrective actions were appropriate. The inspectors focused the inspection on the following systems:

- Containment Ventilation
- Component Cooling Water (CC)

In addition, the inspectors reviewed an engineering self-assessment that addressed the maintenance rule program implementation.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors conducted in-plant and in-office reviews of the licensee's management of plant risk during activities where more than one risk significant system or train was unavailable. The inspectors verified the plant's configuration addressed in the licensee's risk assessment matched the as-found plant configuration and that appropriate actions had been implemented in accordance with licensee risk management procedures. The inspectors selected plant configurations based on their potential for increasing the probability of an initiating event or impacting the operation of safety significant mitigating equipment. The inspectors verified that evaluation, planning, control, and performance of the work were done in a manner to reduce the risk and minimize the duration where practical, and that contingency plans were in place where appropriate. The inspectors examined daily configuration risk assessment records, observed shift turnover meetings, observed daily plant status meetings, and reviewed risk assessment documents listed at the end of this report to verify that the equipment configurations were properly listed, that protected equipment was identified and controlled, and that significant aspects of plant risk were communicated to the necessary personnel. The inspectors discussed daily and emergent risk assessments with risk assessment engineers and operators.

The inspectors reviewed the following planned maintenance activities associated with the simultaneous unavailability of the listed maintenance rule risk significant systems:

- the Unit 2 simultaneous unavailability of the 22 containment spray pump, the 21 charging pump, and the 22 boric acid transfer pump on February 5, 2003;
- the simultaneous unavailability of the 22 turbine-driven auxiliary feedwater (TDAFW) pump, the 21 charging pump, and the 22 boric acid transfer pump on February 6, 2003;

- the simultaneous unavailability of the 22 residual heat removal pump and heat exchange, 125 air compressor, and 122 intake bypass gate on March 3, 2003;
- the simultaneous unavailability of the D2 emergency diesel generator, 13 charging pump, and the 122 instrument air compressor on March 11, 2003; and
- the Unit 1 simultaneous unavailability of the D1 emergency diesel generator, 12 charging pump, 121 motor-driven cooling water pump, 11 containment spray pump, and 12 boric acid transfer pump on March 27, 2003.

The inspectors reviewed several AR CAPs to verify that problems associated with plant risk assessment were identified at an appropriate threshold, entered into the corrective action program, and corrective actions implemented commensurate with the significance of the issue. A detailed list of the documents reviewed during this inspection is included at the end of this report.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance Related to Non-Routine Plant Evolutions and Events (71111.14)

a. Inspection Scope

On March 1, 2003, the inspectors observed from the control room a planned load reduction on Unit 1 from 100 percent power to about 15 percent power. The load reduction was performed to conduct turbine stop, governor, and intercept valve testing, repair condenser tube leaks, replace a MFRV positioner, and clean condenser water boxes. The inspectors reviewed the plans, schedule, and contingency plans. Contingency plans were developed due to instability of the Loop A MFRV positioner and previous problems with feedwater heater levels. The inspectors compared operator performance to the applicable procedures. The documents reviewed during this inspection are listed at the end of this report.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed five operability determinations the licensee generated that warranted selection on the basis of risk. The inspectors reviewed the following operability determinations:

- Operability Recommendation (OPR) 000373, Abnormal Sound Noticed During Coastdown of 12 Safety Injection Pump, January 17, 2003;
- OPR 000376, Cooling Water Leak on 21 Component Cooling Water Heat Exchanger, January 27, 2003;

- OPR 000377, Wrong Oil Added to 11 Auxiliary Feedwater Pump, January 30, 2003;
- OPR 000378, 122 Safeguards Traveling Screen Differential Pressure Switch, February 5, 2003; and
- OPR 000380, Evaluate Effect of Installed Vent Plug on 2VC-25-2, February 12, 2003.

The inspectors assessed the accuracy of the evaluations, the use and control of compensatory measures if needed, and compliance with the TSs. The inspectors review included a verification that the operability determinations were made as specified by procedure 5AWI 3.15.5, "Operability Determinations." The technical adequacy of the determinations was reviewed and compared to the TSs, Technical Requirements Manual, USAR, and associated design-basis documents. A detailed list of the documents reviewed during this inspection is included at the end of this report.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (OWAs) (71111.16)

a. Inspection Scope

On March 17, 2003, the inspectors conducted an in-office review of an OWA associated with Unit 2 volume control tank (VCT) level transmitter 2LT-141. The level transmitter is drifting high at a rate of 1 percent per month due to a slow leak in the instrument reference leg. This condition may require operators to take manual action to open the charging pump suction motor operated valve from the refueling water storage tank on a VCT low level. The instrument logic for the automatic transfer requires low level on two-out-of-two VCT level instruments for the swap to occur. With the indicated level drifting high on 2LT-141, the automatic swap of suction sources to the charging pump may not occur at the appropriate level without manual operator action. The charging pumps are equipment expected to mitigate reactor coolant inventory loss during events resulting in the loss of reactor coolant including a small break loss-of-coolant-accident.

The inspectors verified that the functional capability of the system, human reliability in responding to an initiating event, and the ability of operators to implement abnormal or emergency operating procedures were not significantly affected. The inspectors reviewed the applicable sections of the USAR and TS and discussed the OWAs with control room operators. The inspectors also reviewed operator logs to identify any potential conditions that should be considered OWAs.

The inspectors also reviewed the ARs listed at the end of this report to verify that the licensee was identifying issues at an appropriate threshold and entering them into their corrective action program in accordance with station procedures. A detailed list of the documents reviewed during this inspection is included at the end of this report.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors conducted in-plant observation and in-office review of post-maintenance testing activities associated with maintenance on important mitigating, barrier integrity, and support systems to ensure that the testing was performed adequately, demonstrated that the maintenance was successful, and that operability was restored. The inspectors reviewed the appropriate sections of the TSs, USAR, and maintenance documents to determine the systems' safety functions and the scope of the maintenance. In addition, the inspectors reviewed ARs to verify that minor deficiencies identified during these inspections were entered into the licensee's corrective action system in accordance with station procedures. A detailed list of the documents reviewed during this inspection is included at the end of this report.

The inspectors observed and evaluated the post-maintenance activities for the following:

- 122 Control Room Air Handler following six-month inspection on February 4, 2003;
- 12 DDCLP following adjustment to the bearing/seal flow control valve on February 14, 2003.
- CV-31127, Feedwater to 11 Steam Generator main control valve, following replacement of the positioner on March 2, 2003.
- 22 CC pump following annual preventive maintenance on March 5, 2003.
- 122 Diesel-Driven Fire Pump following replacement of the starter motor on March 25, 2003.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors conducted in-plant observation and in-office review of selected surveillance tests and test data to verify that the equipment performance met surveillance procedure (SP) acceptance criteria. The inspectors verified that the tested equipment was capable of performing its intended safety functions as described in the TS and USAR. The inspectors verified that the testing met the required TS frequency; that the tests were conducted in accordance with the applicable procedures; that operators met prerequisites and established the proper plant conditions; and that the results of the tests were properly reviewed and recorded. The following tests were observed and evaluated:

- D6 Diesel Generator Monthly Slow Start Test, SP 2305, and D6 Diesel Generator 18-Month 24-Hour Load Test, SP 2335, on January 6 and 7, 2003;

- 122 Control Room Clean Up Ventilation System Filter Removal Efficiency Test, SP 1055.2, on February 7, 2003;
- D2 Diesel Generator Monthly Slow Start Test, SP 1305, on February 10, 2003;
- 22 TDAFW Pump Monthly Test, SP 2102, on March 7, 2003; and
- Train B Safety Injection Quarterly Test, SP 1088B, on March 12, 2003.

In addition, the inspectors reviewed several AR CAPs to verify that the licensee was identifying surveillance problems at an appropriate threshold, and that corrective actions commensurate with the significance of the issue were identified and implemented in accordance with station corrective action procedures. A detailed list of the documents reviewed during this inspection is included at the end of this report.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

On February 11, 2003, the inspectors conducted an in-office review of temporary modification 02T150 that lifted leads on pressurizer heater MTR 184-6, Group D on Unit 1. The inspectors reviewed the associated 10 CFR 50.59 safety evaluation screening 1726, comparing it with system design basis requirements in applicable sections of the USAR. The inspectors discussed the installation of the temporary modification with system engineers and compared the remaining Unit 1 pressurizer heater capacity to the acceptance criteria in TS 3.9.4 and Safety Evaluation 552.

b. Findings

No findings of significance were identified.

Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed the licensee perform an emergency preparedness drill on February 25, 2003. The inspectors observed activities in the control room simulator. The inspectors also attended the post-drill facility critique for the control room simulator immediately following the drill and conducted an in-office review of the final drill critique report. The inspectors focused on weaknesses and deficiencies in the drill performance and ensured that the licensee evaluators noted the same weaknesses and deficiencies and entered them into the corrective action program in accordance with station procedures. The inspectors placed emphasis on observations regarding event classification, notifications, protective action recommendations, and site evacuation and

accountability activities. The inspectors reviewed the documents listed at the end of this report.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns, Radiological Boundary Verifications, and Radiation Work Permit Reviews

a. Inspection Scope

The inspectors conducted walkdowns of the radiologically restricted area to verify the adequacy of radiological boundaries and postings. Specifically, the inspectors walked down several radiation and high radiation area boundaries in the reactor, radwaste, and fuel handling buildings. Confirmatory radiation measurements were taken to verify that these areas were properly posted and controlled in accordance with 10 CFR Part 20, licensee procedures and TSs. The radiation work permit for NRC general tours was reviewed for electronic dosemeter alarm set points and protective clothing requirements. The inspectors attended a pre-job brief for an at power containment entry conducted during the inspection to assess the adequacy of the radiological information exchanged and the access control restrictions.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

.1 Offsite Dose Calculation Manual (ODCM)

a. Inspection Scope

The inspectors reviewed the Radioactive Effluent Release Report for the year 2001 to verify that the radiological effluent program was implemented as described in the USAR and the ODCM. The inspectors reviewed changes made by the licensee to the ODCM as well as to the liquid and gaseous radioactive waste processing system design, procedures, or operation since the last inspection to verify that changes were documented in accordance with the requirements of the ODCM and the TSs.

The inspectors reviewed the 2001 Report to determine if anomalous results had been reported and whether those anomalous results were adequately resolved.

b. Findings

No findings of significance were identified.

.2 Gaseous and Liquid Release Systems Walkdowns

a. Inspection Scope

The inspectors performed walkdowns of the major components of the gaseous and liquid release systems to verify that the current system configuration was as described in the USAR and the ODCM, and to observe ongoing activities and equipment material condition. This included radiation and flow monitors, demineralizers and filtration systems, compressors, tanks, and vessels. The inspectors also discussed the waste processing system operations and components with the cognizant system engineer to assess its overall operation.

b. Findings

No findings of significance were identified.

.3 Gaseous and Liquid Releases

a. Inspection Scope

The inspectors reviewed liquid and gaseous radioactive waste release records for 2002 including radiochemical measurements to verify that appropriate treatment equipment was used, and that the radwaste effluents were processed and released in accordance with the ODCM. The inspectors also verified that radioactive releases met the 10 CFR Part 20 requirements.

b. Findings

No findings of significance were identified.

.4 Abnormal Releases and Inoperable Effluent Radiation Monitors

a. Inspection Scope

The inspectors reviewed the records of any abnormal releases and/or releases made with inoperable effluent radiation monitors. The inspectors reviewed the licensee's actions for those releases to ensure an adequate defense-in-depth was maintained against an unmonitored release of radioactive material to the environment.

b. Findings

No findings of significance were identified.

.5 Dose Calculations

a. Inspection Scope

The inspectors reviewed gaseous and liquid release records for the year 2002, the Radioactive Effluent and Waste Disposal Report for the year 2001, and years 2001 and 2002 monthly dose calculations to ensure that the licensee had properly determined the offsite dose to the public from radiological effluent releases, and to determine if any annual Technical Specification or ODCM (i.e., Appendix I to 10 CFR Part 50 values) limits were exceeded.

b. Findings

No findings of significance were identified.

.6 Air Cleaning Systems

a. Inspection Scope

The inspectors reviewed the most recent air cleaning system surveillance test results for containment purge, and the radwaste and auxiliary buildings exhaust ventilation systems activated carbon beds to ensure that test results were within the licensee's acceptance criteria. The inspectors also reviewed surveillance test results for the gaseous release systems to verify that the flow rates were consistent with USAR values.

b. Findings

No findings of significance were identified.

.7 Effluent Monitor Calibrations

a. Inspection Scope

The inspectors reviewed calibration records of liquid and gaseous point of discharge effluent radiation monitors to verify that instrument calibrations were within the required calibration frequency. The inspectors also reviewed the current effluent radiation monitor alarm setpoint values for agreement with station requirements.

b. Findings

No findings of significance were identified.

.8 Counting Room Instrument Calibrations and Quality Control

a. Inspection Scope

The inspectors reviewed the quality control records for radiochemistry instrumentation used to identify and quantitate radioisotopes in effluents in order to verify that the instrumentation was calibrated and maintained as required by station procedures. This review included calibrations of gamma spectroscopy/spectrometry systems, liquid scintillation instruments, proportional counters, and associated instrument control charts. The inspectors also reviewed the lower limit of detection determinations to verify that the radiochemical instrumentation and analysis conditions used for effluent analysis could meet the ODCM detection requirements.

b. Findings

No findings of significance were identified.

.9 Interlaboratory Comparison Program

a. Inspection Scope

The inspectors reviewed the results of the year 2002 Radiochemistry Cross Check Program in order to evaluate the licensee’s capability to perform radiochemical measurements, and to assess the quality of radioactive effluent sample analyses performed by the licensee. The inspectors reviewed the licensee's quality assurance evaluation of the Interlaboratory Comparison Program and associated corrective actions for any deficiencies identified.

b. Findings

No findings of significance were identified.

.10 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed audits, self-assessments, and condition reports generated in 2002 to evaluate the effectiveness of the licensee’s self-assessment process in the identification, characterization, and prioritization of problems, and to verify that previous radiological instrumentation and effluent related issues were adequately addressed. Condition reports that addressed radioactive treatment and monitoring program deficiencies were also reviewed to verify that the licensee had effectively implemented the corrective action program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

Cornerstones: Mitigating Systems and Public Radiation Safety

.1 Safety System Unavailability

a. Inspection Scope

The inspectors conducted an in-office review of the performance indicator data submitted by the licensee for completeness and accuracy, and to verify that the licensee had reported data in accordance with the guidance provided by the Nuclear Energy Institute. The inspectors reviewed documents listed at the end of this report for performance indicator data for the mitigating systems cornerstone. The inspectors reviewed the following performance indicators from the 4th quarter 2001 through the 4th quarter 2002:

- Safety System Unavailability for Unit 1 and Unit 2 Safety Injection System; and
- Safety System Unavailability for Unit 1 and Unit 2 Auxiliary Feedwater System.

b. Findings

No findings of significance were identified.

.2 RETS/ODCM Radiological Effluent Occurrences

a. Inspection Scope

The inspectors verified the licensee's assessment of its performance indicators for public radiation safety. Since no reportable elements were identified by the licensee for the 1st, 2nd, 3rd and 4th quarters of 2002, the inspectors reviewed the licensee's data to verify that there were no occurrences concerning the public radiation safety cornerstone during those quarters.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

The inspectors selected AR CAP 000460 for detailed in-office review. The CAP resulted from an inadvertent safety injection on Unit 2, Train B, during an electrical surveillance when a test meter probe inadvertently made contact with a terminal. The AR CAPs

were reviewed to ensure the full extent of the issues were identified, appropriate evaluations were performed, and appropriate corrective actions were specified and prioritized. The inspectors evaluated the AR CAPs against the requirements of the licensee's corrective action program requirements as delineated in procedure 5AWI 16.0.0, "Action Request Process." A detailed list of the documents reviewed during this inspection is included at the end of this report.

b. Findings

There were no findings identified associated with the sample reviewed. However, the inspectors identified that timely implementation of the corrective actions may be in jeopardy. The licensee's planned long term corrective action to prevent recurrence is to install test points which would require design modifications. The inspectors noted that the planned test point modifications were not included in the outage work scope for the Fall 2003 outage. When the inspectors inquired about the resolution of this issue, the licensee indicated that the work could be completed online; however, no clear plan had been discussed or established at the conclusion of the inspection.

4OA3 Event Followup (71153)

a. Inspection Scope

(Closed) Licensee Event Report (LER) 1-02-02: Unit 1 - Manual Reactor Trip and Auxiliary Feedwater Pump Start During Planned Shutdown.

On November 15, 2002, Unit 1 was undergoing an orderly shutdown in preparation for a planned refueling outage. Prior to the shutdown, an existing problem with the steam generator blowdown flash tank vent line bellows to 13A feedwater heater had been identified and contingency plans were in place for monitoring the level of the 13A feedwater heater during the load decrease. At approximately 8:20 p.m., with the reactor at approximately 12 percent power, the operators manually tripped the reactor in response to a Hi Hi feedwater heater level alarm, in accordance with the annunciator response procedure and the established contingency plans.

During the performance of reactor trip recovery procedures, the 11 TDAFW pump auto started at 8:55 p.m. when the running main feedwater pump was secured. The operators had manually started the 12 motor-driven auxiliary feedwater (AFW) pump. Procedure 1ES-0.1, "Reactor Trip Recovery," step 18f, directed the operators to stop the running main feedwater pump. Procedure ES-0.1 assumed the AFW pumps had automatically started on low steam generator level during the reactor trip. For a reactor trip at low power levels this may not be the case. When the running main feedwater pump was stopped, the 11 TDAFW pump started because the AFW selector switch had not positioned to Shutdown. The cause of the 11 TDAFW pump auto start is attributed to insufficient procedure guidance in that procedure 1ES-0.1 did not address the auto-start logic.

The issues were entered into the licensee's corrective action program. The inspectors reviewed the LER and the ARs listed at the end of this report and no new significant issues were identified. The reactor trip did not constitute a violation of NRC

requirements because the flash tank vent line bellows does not fall under the 10 CFR 50, Appendix B, quality assurance requirements. The auto-start of the 11 TDAFW pump was evaluated using the Significance Determination Process and determined to be a minor issue because it did not affect the Reactor Safety Cornerstone Mitigating Systems objective.

b. Findings

No findings of significance were identified.

4OA6 Meeting(s)

.1 Interim Exit Meetings

- Maintenance Rule Implementation - Periodic Evaluation inspection with Mr. M. Nazar, Senior Vice-President, on January 24, 2003.

- Radiation Protection inspection with Mr. M. Nazar, Senior Vice President, on February 21, 2003.

.2 Exit Meeting

The resident inspectors presented the inspection results to Mr. J. Solymossy and other members of licensee management on April 8, 2003. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

KEY POINTS OF CONTACT

Licensee
T. Allen, Production Planning Manager
T. Amundson, Manager Business Support
R. Best, Maintenance Rule Coordinator
P. Huffman, Manager of System Engineering
A. Johnson, Radiation Protection Manager
J. Kivi, Licensing Engineer
M. Ladd, General Superintendent Plant Maintenance
D. Larimer, Radiochemistry Supervisor
R. Lingle, Operations Manager
M. McKeown, Manager of Design Engineering
M. Nazar, Senior Vice-President
S. Northard, Director of Engineering
J. Solymossy, Site Vice-President
J. Waddell, Superintendent Security
M. Werner, Plant Manager
P. Wildenborg, Lead Technical Health Physicist
R. Womack, Manager of Engineering Programs

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

50-282/306/03-002-00	LER	Unit 1 - Manual Reactor Trip and Auxiliary Feedwater Pump Start During Planned Shutdown

Discussed

None

LIST OF DOCUMENTS REVIEWED

1R04 Equipment Alignment

Partial Walkdowns

22 Diesel-Driven Cooling Water Pump

Integrated Checklist C1.1.35-3; Cooling Water System; Revision 21

TS 3.7.8; Cooling Water System; Amendment No. 149

Prairie Island Nuclear Generating Plant (PINGP) Procedure B35; Cooling Water System; Revision 6

21 Containment Spray

Integrated Checklist C1.1.18-2; Safety Injection; Containment Spray; Caustic Addition; and Hydrogen Control System Checklist Unit 2; Revision 35

D2 Diesel Generator

Integrated Checklist C1.1.20.7-5; D2 Diesel Generator Valve Status; Revision 17

Integrated Checklist C1.1.20.7-6; D2 Diesel Generator Auxiliaries and Room Cooling Local Panels; Revision 8

Integrated Checklist C1.1.20.7-5; Diesel Generator D2 Main Control Room Switch and Indicating Light Status; Revision 12

Integrated Checklist C1.1.20.7-5; D2 Diesel Generator Circuit Breakers and Panel Switches; Revision 16

WO 0207402; Unable to Adjust D2 Field Amp Meter; August 28, 2002

WO 0207603; D2 Lube Oil Temperature Cycling at Low End; September 4, 2002

WO 0300963; Seal Leak on D2 Jacket Coolant Pump; March 11, 2003

Complete System Walkdown

D5 Diesel Generators (D5 and D6)

Integrated Checklist C1.1.20.7-9; D5 Diesel Generator Valve Status; Revision 10

Integrated Checklist C1.1.20.7-10; D5 Diesel Generator Auxiliaries and Local Panels and Switches; Revision 5

Integrated Checklist C1.1.20.7-11; D5 Diesel Generator Main Control Room Switch and Indicating Light Status; Revision 3

Integrated Checklist C1.1.20.7-12; D5 Diesel Generator Circuit Breakers and Panel Switches; Revision 8

WO 0202715; D5 Engine 1 Temperature Exhaust Scanner Alarms Come In Early; March 28, 2002

WO 0205487; Oil Leak at Flange by 2LT-5030 on D5; June 19, 2002

WO 0206360; D5 HT [High Temperature] Cooling Water Temperature at Zero; July 23, 2002

WO 0206361; D5 Engine 2 Manifold Temperature High Scale; July 23, 2002

Integrated Checklist C1.1.20.7-13; D6 Diesel Generator Valve Status; Revision 12

Integrated Checklist C1.1.20.7-14; D6 Diesel Generator Auxiliaries and Local Panels and Switches; Revision 7

Integrated Checklist C1.1.20.7-15; D6 Diesel Generator Main Control Room Switch and Indicating Light Status; Revision 4

Integrated Checklist C1.1.20.7-16; D6 Diesel Generator Circuit Breakers and Panel Switches; Revision 6

1R05 Fire Protection

Plant Safety Procedure F5, Appendix A; Fire Strategies for Fire Areas 20, 25, 32, 80, 113, 115, 117, and 118; Revision 13

Plant Safety Procedure F5, Appendix F; Fire Hazard Analysis for Fire Areas 20, 25, 32, 80, 113, 115, 117, and 118; Revision 16

Plant Safety Procedure F5, Appendix K; Fire Protection and Detection Systems; Revision 7

IPEEE NSPLMI-96001, Appendix B; Internal Fires Analysis; Revision 2

FPP-5 NFPA [National Fire Protection Association] 72; Prairie Island Nuclear Generating Plant, Appendix 7 - NFPA 72E Code Compliance Review; Revision 1

PINGP Calculation ENG-EE-132; Evaluation for Variances from NFPA 72E; Revision 0

AR CAP 025815; Inadequacies in the NFPA Code Compliance Review; October 16, 2002

Condition Evaluation (CE) 001222; Inadequacies in the NFPA Code Compliance Review; October 19, 2002

Corrective Action (CA) 003012; Inadequacies in the NFPA Code Compliance Review; November 18, 2002

AR CAP 028065; Acetone Cans Were Placed Under Current Welding Job; February 5, 2003

1R11 Licensed Operator Requalification Program

Administrative Work Instruction 5AWI 3.15.0; Plant Operation; Revision 13

1R12 Maintenance Rule Implementation

12 Instrument Alternating Current Inverter

PINGP Procedure H24; Maintenance Rule Program; Revision 5

Maintenance Rule List of Risk Significant Systems; Volume A, Table 2, Revision 3 Summary of Prairie Island Nuclear Generating Plant Maintenance Rule Scope Determination and Performance Criteria; January 2002

Maintenance Rule System Specific Basis Document; Instrument Power System; Revision 4

AR CAP 026011; CB [Circuit Breaker] 401 Found Tripped on 12 Inverter; October 28, 2002

CE 001316; CB 401 Found Tripped on 12 Inverter; November 4, 2002

21 Component Cooling Water Heat Exchanger

PINGP Procedure H24; Maintenance Rule Program; Revision 5

Maintenance Rule List of Risk Significant Systems; Volume A, Table 2, Revision 3 Summary of Prairie Island Nuclear Generating Plant Maintenance Rule Scope Determination and Performance Criteria; January 2002

Maintenance Rule System Specific Basis Document; Cooling Water System; Revision 5

Maintenance Rule System Specific Basis Document; Component Cooling Water System; Revision 4

AR CAP 027844; Cooling Water Leak on 21 Component Cooling Water Heat Exchanger Pipe; January 25, 2003

Maintenance Rule Evaluation (MRE) 000103; Conduct Maintenance Rule Evaluation Regarding Corrective Actions Program Action Request 027844; February 21, 2003

MRE 000134; Cooling Water 3/4-2CL-82 Inoperable Due to ASME [American Society of Mechanical Engineers] Code Pressure Boundary Leak; March 17, 2003

Unit 1 Boric Acid Transfer Pump Seal Failures

PINGP Procedure H24; Maintenance Rule Program; Revision 5

Maintenance Rule List of Risk Significant Systems; Volume A, Table 2, Revision 3 Summary of Prairie Island Nuclear Generating Plant Maintenance Rule Scope Determination and Performance Criteria; January 2002

Maintenance Rule System Specific Basis Document; Cooling Water System; Revision 5

Maintenance Rule System Specific Basis Document; Chemical and Volume Control System (CVCS); Revision 5

AR CAP 026562; Adverse Trend on Boric Acid Transfer Pump Mechanical Seals, Chesterton 180 Style; November 21, 2002

AR CAP 026565; Unexpected Failure of 12 Boric Acid Transfer Pump Mechanical Seal; November 21, 2002

CE 001506; Adverse Trend on Boric Acid Transfer Pump Mechanical Seals, Chesterton 180 Style; November 22, 2002

MRE 000055; Adverse Trend on Boric Acid Transfer Pump Mechanical Seals, Chesterton 180 Style; November 24, 2002

MRE 000056; Unexpected Failure of 12 Boric Acid Transfer Pump Mechanical Seal; November 24, 2002

AR CAP 027028; Rework on 11 and 12 Boric Acid Transfer Pumps; December 4, 2002

AR CAP 027985; 12 and 22 Boric Acid Transfer Pumps Break; January 31, 2003

AR CAP 028333; Maintenance Rule Evaluations Were Not Generated for Three Equipment Events That Were Potential Maintenance Rule Functional Failures

MRE 000106; 12 and 22 Boric Acid Transfer Pumps Break; February 21, 2003

AR CAP 028972; Maintenance Rule Functional Failure of 12 Boric Acid Transfer Pump; March 15, 2003

Apparent Cause Evaluation (ACE) 008666; Maintenance Rule Functional Failure of 12 Boric Acid Transfer Pump; March 17, 2003

Biennial Periodic Evaluation

PINGP Procedure H24; Maintenance Rule Program; Revision 5

Equipment Performance Annual Report 2001; April 17, 2002

Equipment Performance Annual Report 2000; April 5, 2001

Maintenance Rule (a)(1) Action Plan - Annunciator System

Maintenance Rule (a)(1) Action Plan - Auxiliary Feedwater System

Maintenance Rule (a)(1) Action Plan for Improving Availability and Reliability of Safeguards CL [Cooling Water] System Pump Trains

Maintenance Rule (a)(1) Action Plan - D6 Diesel Generator; November 6, 2002

Maintenance Rule (a)(1) Action Plan - EA System (4160-Volt Alternating Current); April 9, 2002

Maintenance Rule Meeting Minutes from January 2001 through May 2002

Quarterly Equipment Performance Report - 1st Quarter 2001; May 4, 2001

Quarterly Equipment Performance Report - 2nd Quarter 2001; July 25, 2001

Quarterly Equipment Performance Report - 3rd Quarter 2001; October 26, 2001

Quarterly Equipment Performance Report - 4th Quarter 2001; February 16, 2002

Self-Assessment of the Maintenance Rule Implementation; August 8, 2001

Summary of PINGP Maintenance Rule Scope Determination and Performance Criteria; February 17, 2003

System Health Report - Containment Ventilation - Third Quarter 2002

System Health Report - Component Cooling - Third Quarter 2002

AR CAP 008716; Self-Assessment of Maintenance Rule Program; March 26, 2002

AR CAP 023088; Units 1 & 2 in PRA [Probabilistic Risk Assessment] Orange Condition; April 12, 2002

AR CAP 023341; Overspeed of 22 DDCLP During SP 1106B; May 2, 2002

AR CAP 023738; Recommend Removal of Cable Trays from MR Structural Monitoring Program; June 6, 2002

AR CAP 025424; 121 Control Room Chiller Tripped; September 25, 2002

AR CAP 026164; Excess Unavailability due to Lack of Coordination of U1 A Train Safeguards Work; November 6, 2002

AR CAP 027487; 23 CFCU [Containment Fan Coil Unit] Gap Damper Would Not Transfer to Dome; January 2, 2003

AR CAP 027673; MRFF [Maintenance Rule Functional Failures] Not Tracked for CAP022001; January 15, 2003

AR CAP 027678; 2001 MR Equipment Performance Annual Report Contains Weaknesses; January 15, 2003

AR CAP 028333; MREs Were Not Generated for 3 Equipment Events That are Potentially MRFFs; February 16, 2003

*AR CAP 028417; Much of Maintenance Rule Program Documentation is Not Controlled; February 20, 2003

*AR CAP 028418; 2001 MR Annual Report Balance Evaluation for SSCs Returned to (a)(2); February 20, 2003

*AR CAP 028419; 2001 MR Annual Report Balance Evaluation Contains no Evaluation for Plant Level Events; February 20, 2003

*AR CAP 028420; Rationale for AR System Remaining (a)(2) Status Appears to be Incorrect; February 20, 2003

*AR CAP 028421; 2001 MR Annual Report Balance Evaluation for D6 Diesel Generator; February 20, 2003

*AR CAP 028451; 2 MRFFs of 121 CR Chiller in Last 2 Years, But Not in MR a(1) Status; February 21, 2003

*AR CAP 028453; MRFF Was Declared for 9/25/2002 121 CR Chiller Failure but no MRE Was Generated; February 21, 2003

General Condition Report (GEN) 20015416; 121 Control Room Chiller Failed to Control Chill Water Temperature; June 30, 2001

GEN200186219; Leaking U-bend on 11 FCU [Fan Coil Unit]; November 14, 2001

GEN20016604; Through Wall Leakage from Pipe on Inlet to 11 CCHX [Component Cooling Water Heat Exchanger] CL Relief; August 10, 2001

GEN200185657; Manual Reactor Trip Due to Condenser Vacuum Differential Greater Than 2.5"; October 31, 2001

GEN200186231; MV-32377 Failed to Open When Restoring 11 CFCU; November 16, 2001

MRE 0000010; CV-39201 - 11/13 FCU Cooling Water Return Found Open; June 13, 2003

MRE 000040; Hypobromus (CH) Exceeded Maintenance Rule OOS (Out-of-Service) Performance Criteria; October 31, 2002

MRE 000043; 12 FCU Fouling; November 12, 2002

MRE 000074; 23 CFCU Gap Damper Would Not Transfer to Dome; January 3, 2003

MRE 000080; MRFF Not Tracked for CAP 022001; January 16, 2003

WO 0109964; High Vibes on 14 Containment Dome Recirc Fan; August 12, 2001

WO 0115724; Control Switch Did Not Activate Motor Valve; December 19, 2001

WO 0117625; 14 FCU Failed SP 1086 on Delta T; December 21, 2001

*Condition Reports issued during the inspection

1R13 Maintenance Risk Assessments and Emergent Work Control

February 5, 2003 Risk Assessment

PINGP Procedure H24.1; Assessment and Management of Risk Associated with Maintenance Activities; Revision 5

Unit 1 and Unit 2 Risk Assessment for Proposed Work for Week of 3107B for February 5, 2003

Prairie Island Plant Status Report for February 5, 2003

AR CAP 026026; Maintenance Rule Unavailability Not Identified; October 28, 2002

February 6, 2003 Risk Assessment

PINGP Procedure H24.1; Assessment and Management of Risk Associated with Maintenance Activities; Revision 5

Plant Status Report; February 6, 2003

Unit 2 Configuration Risk Assessment; February 6, 2003

Operations Log Entries; February 6, 2003

March 3, 2003 Risk Assessment

PINGP Procedure H24.1; Assessment and Management of Risk Associated with Maintenance Activities; Revision 5

Unit 1 and Unit 2 Risk Assessment for Proposed Work for Week of 3111B for March 3, 2003

Prairie Island Plant Status Report for March 3, 2003

March 11, 2003, Risk Assessment

PINGP Procedure H24.1; Assessment and Management of Risk Associated with Maintenance Activities; Revision 5

Unit 1 and Unit 2 Risk Assessment for Proposed Work for Week of 3112B for March 11, 2003

Prairie Island Plant Status Report for March 11, 2003

March 27, 2003 Risk Assessment

PINGP Procedure H24.1; Assessment and Management of Risk Associated with Maintenance Activities; Revision 5

Unit 1 and Unit 2 Risk Assessment for Proposed Work for Week of 3202A for March 27, 2003

Prairie Island Plant Status Report for March 27, 2003

1R14 Non-routine Evolutions

Unit 1 Load Reduction on March 1, 2003

PINGP 1391; Look Ahead Process Planning Form; Replace 11 Steam Generator Feedwater Regulating Valve Positioner/Turbine Valve Test/Condenser Tube Leak Identification and Repair; January 15, 2003

Schedule; Unit 1 Downpower; February 26, 2003

WO 0209267; SP 1054 Quarterly Turbine Stop, Governor, and Intercept Valve; September 26, 2003

Operating Procedure 1C1.4; Unit 1 Power Operation; Revision 30

SP 1054; Turbine Stop, Governor, and Intercept Valve Test; Revision 26

1R15 Operability Evaluations

12 Safety Injection Pump

AR CAP 027712; Abnormal Sound Noticed During Coastdown of 12 Safety Injection Pump; January 17, 2003

Engineering Work Request (EWR) 004190; Abnormal Sound Noticed During Coastdown of 12 Safety Injection Pump; February 12, 2003

CE 001903; Abnormal Sound Noticed During Coastdown of 12 Safety Injection Pump; January 20, 2003

OPR 000373; Abnormal Sound Noticed During Coastdown of 12 Safety Injection Pump; January 17, 2003

Drawing Number H-SP-1580-1; John Crane Type 1B 2.510 Diameter Package Shaft Seal

X-HIAW-1001-648; Safety Injection Pump Technical Manual

Cooling Water Leak on 21 Component Cooling Water Heat Exchanger

AR CAP 028968; Cooling Water Line 3/4-2CL-82 Inoperable Due to ASME Code Pressure Boundary Leak; March 14, 2003

AR CAP 027844; Cooling Water Leak on 21 Component Cooling Water Heat Exchanger; January 25, 2003

OPR 000376; Cooling Water Leak on 21 Component Cooling Water Heat Exchanger; January 27, 2003

Operable But Degraded (OBD) Evaluation 000037; Cooling Water Leak on the 21 Component Cooling Water Heat Exchanger Pipe; January 30, 2003

CA 004024; 2CL-57-1 Pinhole Leak; January 28, 2003

Administrative Work Instruction 5AWI 3.15.5; Operability Determinations; Revision 7

Generic Letter 90-05; Guidance for Performing Temporary Non-Code Repair of ASME Code Class 1, 2, and 3 Piping; June 15, 1990

Generic Letter 91-18; Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions; Revision 1

Wrong Oil Added to 11 Auxiliary Feedwater Pump

AR CAP 027948; Added Wrong Oil to 11 Turbine Driven Auxiliary Feedwater Pump; January 30, 2003

OPR 000377; Wrong Oil Added to 11 Auxiliary Feedwater Pump; January 30, 2003

122 Safeguards Traveling Screen Differential Pressure Switch

AR CAP 028046; 122 Safeguards Traveling Screen Backwash Capabilities; February 4, 2003

OPR 000378; 122 Safeguards Traveling Screen Differential Pressure Switch; February 5, 2003

GEN 200200923; D/P Gauge 7038605 Reads Negative; January 31, 2002

Prairie Island Drawing B35-2; Plant Screenhouse Cooling Water Supply; Revision 2

Vent Plug on 2VC-25-2

OPR 000380; Evaluate Effect of Installed Vent Plug on 2VC-25-2; February 12, 2003

AR CAP 028255; Evaluate Effect of Installed Vent Plug on 2VC-25-2; February 12, 2003

OBD 000039; Evaluate Effect of Installed Vent Plug on 2VC-25-2; February 14, 2003

ACE 008649; Evaluate Effect of Installed Vent Plug on 2VC-25-2; February 14, 2003

AR CAP 029039; Resolution of CVCS Relief Valve Operability Issues; March 18, 2003

AR CAP 029336; Operability of Valve VC-25-2 Pressure Retaining (Integrity) Function in Doubt; March 28, 2003

OPR 000391; Operability of Valve VC-25-2 Pressure Retaining (Integrity) Function in Doubt; March 28, 2003

1R16 OWAs

AR CAP 028909; 2LT-141 (VCT Level Channel) May Not Perform Automatic Function; March 12, 2003

OPR 000389; 2LT-141 (VCT Level Channel) May Not Perform Automatic Function; March 12, 2003

CE 002280; Evaluate Extent of Condition Related to 2LT-141 (VCT Level Channel); March 14, 2003

CA 004633; Document Status of 2LT-141 VCT Level Channel as a Level One Operator Work Around; March 14, 2003

OBD 000047; Evaluate Operable But Degraded Condition of 2LT-141 (VCT Level Channel); March 14, 2003

Abnormal Operating Procedure C12.5 AOP2; Malfunction of Automatic Makeup; Revision 8

Alarm Response Procedure C47515; Volume Control Tank High/Low Level; Revision 38

Administrative Work Instruction 5AWI 3.10.8; Equipment Problem Resolution Process; Revision 2

Temporary Change Notice (TCN) 2003-0251; Temporary Change to SP 2001B, Step 21; Revision 2

Design Basis Document SYS-12A; Chemical and Volume Control System; Revision 2

AR CAP 029037; Manual Rod Control Operator Work Around; March 18, 2003

AR CAP 028976; T Ave [Average Temperature] Compensator Spikes Causing Unnecessary Rod Movement; March 16, 2003

USAR, Section 14; Small Break Loss of Coolant Accident Analysis; Revision 20

1R19 Post-Maintenance Testing

122 Control Room Air Handler

Preventive Maintenance Procedure (PM) 3147-1-122; 122 Control Room Air Handler Six-Month Inspection; Revision 8

WO 0209521; P3147-1-122 122 Control Room Air Handler 6 Month Inspection; February 4, 2003

AR CAP 028062; Auxiliary Building Roof Leak; February 4, 2003

12 Diesel-Driven Cooling Water Pump

WO 0300189

AR CAP 028474; Minor Concerns, 12 DDCLP Bearing Water Flush and FCV [Flow Control Valve] Adjustment Work; February 23, 2003

TS 3.7.8; Cooling Water (CL) System; Amendment No. 149

PINGP Procedure B35; Cooling Water System; Revision 6

CV-31127, Feedwater to 11 Steam Generator Main Control Valve

WO 0213163; Repair/Replace Positioner on CV-31127; February 24, 2003

Maintenance Procedure D100; Air Operated Valve Diagnostic Testing Procedure; Revision 3

PM ICPM 1-335; Feedwater Control Valve Calibration; Revision 12

AR CAP 028673; CV-31127, Unit 1 A FRV Responded Slowly to Step Decrease of 100% to 90% Demand; March 2, 2003

AR CAP 028618; Max Allowable Air Supply Pressure to MFRV's Exceeded; February 28, 2003

22 Component Cooling Pump

WO 0209510; P3119-1-22, 22 Component Cooling Pump PM; October 2, 2002

WO 0211799; SP 2155B, CC System Quarterly Test Train B; December 5, 2002

PM 3119-1-22; 22 Component Cooling Pump Annual Inspection; Revision 19

SP 2155B; CC System Quarterly Test Train B; Revision 5

122 Diesel-Driven Fire Pump

SP 1524; 122 Diesel Fire Pump Weekly Test; Revision 28

1R22 Surveillance Testing

D6 Diesel Generator Monthly Slow Start and 18-Month 24-Hour Load Test

SP 2305; D6 Diesel Generator Monthly Slow Start Test; Revision 20

WO 0209347; SP 2305 D6 Diesel Generator Monthly Slow Start; January 6, 2003

SP 2335; D6 Diesel Generator 18 Month 24 Hour Load Test; Revision 9

WO 0206967; SP 2335 D6 Diesel Generator 24 Hour Load Test; January 6, 2003

AR CAP 027542; D6 Engine 2 Generator Bearing Vibration Alarm When Above Full Load; January 7, 2003

AR CAP 027543; D6 Engine 1 Generator Bearing Oil Leakage; January 7, 2003

AR CAP 027540; HT Coolant Hose Leakage on D6; January 7, 2003

AR CAP 027562; Steps Were NA'd [Not Applicable] in D6 Five Year PM Per TCN Without Appropriate Follow Up Action; January 8, 2003

AR CAP 027657; D6 Held in MR a(1) Status; January 14, 2003

122 Control Room Clean Up Ventilation System Filter Efficiency Test

SP 1055.2; 122 Control Room Clean Up Ventilation System Filter Removal Efficiency Test; Revision 12

WO 0210432; SP 1055.2 122 Control Room Clean Up Filter Removal Efficiency Test; February 3, 2003

AR CAP 028245; Control Room Chiller - Charcoal Filter Units; February 12, 2003

D2 Monthly Slow Start

SP 1305; D2 Diesel Generator Monthly Slow Start Test; Revision 29

Technical Specification 3.8.1; Alternating Current Sources - Operating; Amendment 158

AR CAP 028204; Oil Leaks on Exhaust on D2 Slow Start; February 10, 2003

22 Turbine Driven Auxiliary Feedwater Pump Monthly Test

SP 2102; 22 Turbine Driven Auxiliary Feedwater Pump Monthly Test; Revision 71

TCN 2003-0195; Change to SP 2102; Add Step 7.20.1 and Step 7.40.1

Train B Safety Injection Quarterly Test

SP 1088B; Train B Safety Injection Quarterly Test; Revision 2

PINGP Procedure D63; Installation Guidelines for Threaded Fasteners; Revision 11

Inadequate Thread/Bolt Engagement on 12 Safety Injection Pump Seal Water Supply/Return Flanges

1R23 Temporary Modifications

Safety Evaluation 552; Minimum Capacity Requirements for Pressurizer Heaters; Revision 0

Technical Specification 3.9.4; Reactor Coolant System - Pressurizer; Amendment 158

Temporary Modification 02T150; Bypass of Failed Unit 1 Pressurizer Heater; December 4, 2002

USAR Sections 4.1, 4.4, 7.2, 7.4, 7.8, 8.4, 14.5

1EP6 Drill Evaluation

PINGP 577; Emergency Notification Report Form; February 25, 2003

AR CAP 028507; Observed On the Simulator - Step Order in E-0 May Challenge ABSV [Auxiliary Building Special Ventilation] 6 Minute Requirement; February 25, 2003

2OS1 Access Controls for Radiologically Significant Areas

PINGP Focused Self Assessment; Radioactive Material Control; September 30, 2002

Radiation Work Permit 6; Minor Maintenance Inspections in Containment At-Power; Revision 3

2PS1 Radiological Effluents

C.21.1-5.1; 121 ADT [Auxiliary Building Drain Tank] Monitor Tank Release; Revision 21

C21.1-5.11; Releasing 121 CVCS Monitor Tank to River; Revision 21

Annual Radioactive Effluent and Waste Disposal Report for January through December 2001; May 15, 2001

Containment Release Authorization; February 19, 2003

Generation Quality Services Observation Report 2001088; Radiological Effluent Monitoring Program (REMP) Implementation; July 10, 2001

LER 02-01-00; Condition Prohibited by Technical Specifications Due to Potential Auxiliary Building Special Vent Zone Boundary Degradation; September 16, 2002

PINGP 1083; Radwaste Building Ventilation Charcoal Filter Efficiency Evaluation; November 23, 1999

USAR Section 9; Plant Radioactive Waste Control Systems; Revision 23

CA 002286; Radiochemistry Cross Check Program Failure; September 10, 2002

AR CAP 023342; Effluent Doses Not Calculated by Calendar Period to Compare to ODCM Limits; May 2, 2002

AR CAP 024147; Liquid and Gaseous Effluent Dose Projection Not Reviewed IAW [In Accordance With] ODCM; July 12, 2002

AR CAP 025257; Potentially Incorrect Primary to Secondary Leak Rate Values Calculated; September 17, 2002

AR CAP 025259; Radiochemistry Cross Check Program Failure; September 17, 2002

AR CAP 025524; 2R-37 Efficiency Not Acceptable After Detector Change-out; October 1, 2002

AR CAP 025548; Procedure Needed for RP [Radiation Protection] to Perform Gas Calibration on Rad Detectors; October 2, 2002

AR CAP 025666; Count Room GEM [Germanium] 4 Failed Two Consecutive Encals; October 8, 2002

AR CAP 026270; Potential Chemistry Department Mis-positioning While Sampling the VCT; November 12, 2002

AR CAP 027388; U2 TBS [Turbine Building Sump] Sampling Problems; December 24, 2002

AR CAP 028028; Incorrect Sample Volume Recorded for U1 Aux Building Vent Sample; February 3, 2003

AR CAP 028394; Failure to Perform OQAP [Operational Quality Assessment Program] Required Assessment of the REMP; February 19, 2003

AR CAP 028441; Administrative Controls for Limiting Iodine Activity Allowed in Radwaste Building; February 21, 2003

AR CAP 028442; Pre-Filters Installed in Wrong Orientation in Sample Room Vent Systems; February 21, 2003

CE 001301; ADT Monitor Tank Release Volumes Are Not Monitored Accurately; November 1, 2002

SP 1783.1; Westinghouse Radiation Monitor Electronic Calibration; Revision 5

SP 1783.2; NMC [Nuclear Management Company] Rad Monitor Electronic Calibration; Revision 5

SP 1783.2; NMC Rad Monitor Electronic Calibration; Revision 6

4OA1 Performance Indicator Verification

Calculated Performance Indicator Data for the Unit 1 and Unit 2 Safety System Unavailability of the Safety Injection System for the 4th Quarter 2001, 1st Quarter 2002, 2nd Quarter 2002, 3rd Quarter 2002, and the 4th Quarter 2002.

Calculated Performance Indicator Data for the Unit 1 and Unit 2 Safety System Unavailability of the Auxiliary Feedwater System for the 4th Quarter 2001, 1st Quarter 2002, 2nd Quarter 2002, 3rd Quarter 2002, and the 4th Quarter 2002.

Unit 1 Operating Logs from October 1, 2001 through December 31, 2002

Unit 2 Operating Logs from October 1, 2001 through December 31, 2002

PINGP Procedure H33.2; Mitigating Systems Cornerstone Unavailability Performance Indicator Reporting Instructions; Revision 2

4OA2 Identification and Resolution of Problems

AR CAP 000460; During SP 2378, Reactor Trip and Bypass Breaker Contacts, Inadvertent SI [Safety Injection] Occurred; February 26, 2002

Root Cause Evaluation 000052; Root Cause Evaluation; May 3, 2002

Other 000783; Submit Phone-In LER of This Event Per NUREG-1022; August 23, 2002

CA 000808; Install Test Points; June 29, 2002

EWR 022397; Evaluate Installation of Permanent Test Points; January 24, 2003

CA 000809; Interim Measure; August 16, 2002

CA 000810; Reinforce the Requirements; August 22, 2002

CA 000811; Delegate an Individual for Operating Experience; August 22, 2002

AR CAP 028286; Re-evaluate the Assessment/Implementation of CA 000811; February 13, 2003

CA 000812; Place a Precaution in SP-2378 [1378]; August 23, 2002

CA 000813; Actions to Prevent Conflicting Work Appears Ineffective; September 26, 2002

CA 000814; Examine Other Industry Operating Experience; July 8, 2002

CA 000815; Develop a Procedure for Recovery from an Inadvertent SI While the Plant Is in Modes 4, 5, or 6; December 16, 2002

CA 001017; Develop a Formal Policy for Use of Test Probes; September 17, 2002

AR CAP 024229; I&C Technician Caused an Unanticipated Control Room Annunciator; July 18, 2002

AR CAP 027593; Electrician Inadvertently Turned Off Power to the Intake Screenhouse Programmable Logic Controller; January 10, 2003

4OA3 Event Followup

LER 1-02-02, Unit 1 - Manual Reactor Trip and Auxiliary Feedwater Pump Start During Planned Shutdown

LER 1-02-02; Unit 1 - Manual Reactor Trip and Auxiliary Feedwater Pump Start During Planned Shutdown; January 13, 2003

AR CAP 026338; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW [Feedwater] Heater Level Problems; November 16, 2002

AR CAP 026332; Evaluate Alarm Response Procedure; November 15, 2002

CE 001436; Evaluate Alarm Response Procedure; November 16, 2002

AR CAP 026336; Sequence of Event Log Did Not Identify Reactor Trip; November 16, 2002

CE 001441; Sequence of Event Log Did Not Identify Reactor Trip; November 17, 2002

CE 001442; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW Heater Level Problems; November 17, 2002

ACE 008608; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW Heater Level Problems; November 17, 2002

CE 001440; 11 TDAFW Pump Auto Start Due to Less Than Adequate Guidance in 1ES-0.1; November 16, 2002

ACE 008454; 5 MW [MegaWatt] Change in Power on Unit 1 Due to Efficiency Loss in 13A FW Heater; June 25, 2002

CE 001455; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW Heater Level Problems; November 18, 2002

CE 001439; 11 TDAFW Pump Auto Start Due to Less Than Adequate Guidance in 1ES-0.1; November 16, 2002

CE 001532; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW Heater Level Problems; November 24, 2002

AR CAP 026333; 11 TDAFW Pump Auto Start Due to Less Than Adequate Guidance in 1ES-0.1; November 16, 2002

EWR 003193; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW Heater Level Problems; November 27, 2002

AR CAP 006579; Unit 2 Reactor Trip Caused By Turbine Trip Due to Hi Hi FW Heater Level Trip; April 29, 2000

CE 001578; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW Heater Level Problems; November 28, 2002

MRE 000062; Unit 1 Manual Reactor Trip from 12% Power Due to 13A FW Heater Level Problems; December 3, 2002

AR CAP 027157; Equipment Not Quarantined Following Reactor Trip; December 10, 2002

ACE 008622; Equipment Not Quarantined Following Reactor Trip; December 11, 2002

Request for Training 003586; Equipment Not Quarantined Following Reactor Trip; December 19, 2002

Procedure 1ES-0.1; Unit 1 Reactor Trip Recovery; Revision 20

LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ADAMS	Agencywide Documents Access and Management System
ADT	Auxiliary Building Drain Tank
AFW	Auxiliary Feedwater
AR	Activity Request
ASME	American Society of Mechanical Engineers
CA	Corrective Action
CAP	Corrective Action Program
CB	Circuit Breaker
CC	Component Cooling Water
CCHX	Component Cooling Water Heat Exchanger
CE	Condition Evaluation
CFCU	Containment Fan Cooling Unit
CFR	Code of Federal Regulations
CH	Hypobromus
CL	Cooling Water
CVCS	Chemical and Volume Control System
DDCLP	Diesel-Driven Cooling Water Pump
DRP	Division of Reactor Projects
EWR	Engineering Work Request
FCU	Fan Cooling Unit
FCV	Flow Control Valve
FW	Feedwater
GEM	Germanium
HT	High Temperature
IAW	In Accordance With
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
LER	Licensee Event Report
MR	Maintenance Rule
MRE	Maintenance Rule Evaluation
MRFF	Maintenance Rule Functional Failure
MW	MegaWatt
NFPA	National Fire Protection Association
NMC	Nuclear Management Corporation, LLC
NRC	U.S. Nuclear Regulatory Commission
OBD	Operable But Degraded
ODCM	Offsite Dose Calculations Manual
OOS	Out-of-Service
OPR	Operability Recommendation
OQAP	Operational Quality Assessment Program
OWA	Operator Workaround
PARS	Publicly Available Records System
PINGP	Prairie Island Nuclear Generating Plant
PM	Preventive Maintenance Procedure
PRA	Probabilistic Risk Assessment

REMP	Radiological Effluent Monitoring Program
RETS	Radiological Effluent Technical Specifications
RP	Radiation Protection
SI	Safety Injection
SP	Surveillance Procedure
SSC	Structure, System, and Component
TBS	Turbine Building Sump
TCN	Temporary Change Notice
TDAFW	Turbine Driven Auxiliary Feedwater
TS	Technical Specifications
USAR	Updated Safety Analysis Report
VCT	Volume Control Tank
WO	Work Order
ZC	Containment Ventilation