

April 28, 2004

Mr. J. 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 05000282/2004003;  
05000306/2004003

Dear Mr. Solymossy:

On March 31, 2004, 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, 2004, with you and other members of your staff.

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

Based on the results of this inspection, one self-revealing finding of very low safety significance that involved a violation of NRC requirements was identified. However, because the violation was of very low safety significance and the issue was entered into your corrective action process, the NRC is treating the finding as a Non-Cited Violation in accordance with Section VI.A.1 of the NRC's Enforcement Policy.

If you contest the subject or severity of a Non-Cited Violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Prairie Island Nuclear Generating Plant.

In accordance with 10 CFR 2.390 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/**

Kimberly A. Gruss, Chief  
Branch 5  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000282/2004003;  
05000306/2004003  
w/Attachment: Supplemental Information

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

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML041200487.wpd

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RIII	RIII				
NAME	JCameron:ntp	KGruss				
DATE	04/28/04	04/28/04				

**OFFICIAL RECORD COPY**

ADAMS Distribution:

DFT

MLC

RidsNrrDipmlipb

GEG

HBC

JTA

C. Ariano (hard copy)

C. Pederson, DRS (hard copy - IR's only)

DRPIII

DRSIII

PLB1

JRK1

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-282; 50-306

License Nos: DPR-42; DPR-60

Report No: 05000282/2004003; 05000306/2004003

Licensee: Nuclear Management Company, LLC

Facility: Prairie Island Nuclear Generating Plant, Units 1 and 2

Location: 1717 Wakonade Drive East  
Welch, MN 55089

Dates: January 1 through March 31, 2004

Inspectors: J. Adams, Senior Resident Inspector  
S. Burton, Senior Resident Inspector, Monticello  
D. Karjala, Resident Inspector  
B. Winter, Reactor Engineer

Approved by: Kimberly A. Gruss, Chief  
Branch 5  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000282/2004003, 05000306/2004003; 01/01/2004 - 03/31/2004; Prairie Island Nuclear Generating Plant, Units 1 & 2; Operator Performance During Non-Routine Evolutions and Events.

This report covers a 3-month period of baseline resident inspection and an announced baseline inspection for the Periodic Evaluation of Maintenance Rule Implementation. The inspections were conducted by resident inspectors and inspectors from the Region III office. One green finding was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. Inspector-Identified and Self-Revealed Findings

#### **Cornerstone: Barrier Integrity**

Green. A finding of very low safety significance associated with exceeding Technical Specification (TS) and Pressure Temperature Limits Report (PTLR) limits was self-revealed. Technical Specification 3.4.3 requires that reactor coolant system (RCS) temperature be maintained within the limits of the PTLR. Section 3.0 of the PTLR requires that RCS temperature remain above 86 degrees Fahrenheit when the RCS is not vented. On December 1, 2002, with Unit 1 in Mode 5, and the RCS not vented, the reactor coolant pumps were started causing RCS temperature to drop below 86 degrees Fahrenheit. Action statement C.2 of TS 3.4.3 requires that the RCS be evaluated for acceptability for continued operation prior to entering Mode 4. Operators placed Unit 1 in Mode 4 without completing the required evaluation. Upon identification of the failure to meet the criteria contained in action statement C.2 of TS 3.4.3, the licensee performed the required evaluation to demonstrate the acceptability of continued operation. This finding also affected the cross-cutting areas of human performance and problem identification and resolution. Operators and engineers failed to recognize the violation of TS 3.4.3 and PTLR limits associated with RCS temperatures, and failed to recognize and implement the TS-required actions prior to a change in Mode. Additionally, supervisors and plant managers failed to recognize the significance of the event and assign an appropriate priority during the corrective action screening process.

This issue was more than minor since the finding could be reasonably viewed as a precursor to a significant event such as the degradation or failure of the reactor pressure vessel. The finding was determined to be not suitable for significance determination process evaluation. NRC management reviewed the finding for significance and determined it to be of very low safety significance based on engineering evaluation conclusions that the limiting vessel baseline material stresses remained within allowable limits. Therefore, the deficiency was confirmed not to result in loss of function per Generic Letter 91-18. This finding resulted in a Non-Cited Violation of TS 3.4.3 which required the RCS be evaluated for acceptability for continued

operation prior to entering Mode 4 when temperature limits contained in the PTLR are exceeded. (Section 1R14)

**B. Licensee-Identified Violations**

One Violation of very low safety significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective action tracking numbers are listed in Section 4OA7 of this report.

## REPORT DETAILS

### Summary of Plant Status

Unit 1 operated at or near full power until February 20, 2004, when power was reduced to approximately 45 percent of full power to allow condenser water box cleaning, amertap repair, turbine control valve maintenance and testing, and to search for condenser tube leaks. Unit 1 returned to full power on February 23, 2004, where it remained through the remainder of the period.

Unit 2 operated at or near full power for the entire period.

### **1. REACTOR SAFETY**

#### **Cornerstone: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness**

1RST Post-Maintenance and Surveillance Testing (Pilot) (71111.ST)

.1 Post-Maintenance Testing

a. Inspection Scope

During this inspection period, the inspectors completed five inspection samples, comprised of the following post-maintenance testing activities:

- D6 emergency diesel generator following corrective maintenance to the overspeed stopping jack on January 5, 2004;
- 12 diesel-driven cooling water pump following maintenance on January 27, 2004;
- 12 DDCLP bearing water supply three-way valve on January 29, 2004;
- D2 emergency diesel generator following completion of the 18-month preventive maintenance on the engine and generator on March 11, 2004; and
- 11 shield building special ventilation system following the calibration of the exhaust filter temperature switch on March 16, 2004.

During the performance of these inspections, the inspectors conducted in-plant observation and/or in-office reviews of documentation to ensure that testing activities met the following attributes:

- testing activities satisfied the test procedure acceptance criteria;
- effects of the testing had been adequately addressed prior to the commencement of the testing;
- measurement and test equipment calibrations were current;
- test equipment was used within the required range and accuracy;
- applicable prerequisites described in the test procedures were satisfied;
- affected systems or components were removed from service in accordance with approved procedures;

- testing activities were performed in accordance with the test procedures and other applicable procedures;
- jumpers and lifted leads were controlled and restored where used;
- test data/results were accurate, complete, and valid;
- test equipment was removed after testing;
- equipment was returned to a position or status required to support the operability of the system in accordance with approved procedures; and
- all problems identified during the testing were appropriately documented in the corrective action program (CAP).

The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Surveillance Testing

a. Inspection Scope

During this inspection period, the inspectors completed five inspection samples, comprised of the following surveillance testing activities:

- SP 1093, D1 Diesel Generator Monthly Slow Start Test, on January 26, 2004;
- SP 1102, 11 Turbine-Driven Auxiliary Feedwater (AFW) Pump Monthly Test, on January 30, 2004;
- SP 2155B, Component Cooling (CC) System Quarterly Test, on February 5, 2004;
- SP 2335, D6 Diesel Generator 24-Hour Load Test, on March 1, 2004; and
- SP 1306, D2 Diesel Generator 18-Month Relay Functional Test, performed on March 10, 2004.

Observation of surveillance testing activities associated with licensee SP 1102 completed the quarterly baseline inspection requirement to observe an inservice testing activity for a risk significant pump or valve.

During completion of the inspection samples, the inspectors observed in-plant activities and reviewed procedures and associated records to verify that:

- preconditioning does not occur;
- effects of the testing had been adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria was clearly stated, demonstrated operational readiness, and was consistent with the system design basis;
- plant equipment calibration was correct, accurate, properly documented, and the calibration frequency was in accordance with Technical Specifications (TSs), Updated Safety Analysis Report (USAR), procedures, and applicable commitments;
- measuring and test equipment calibration was current;



- test equipment was used within the required range and accuracy;
- applicable prerequisites described in the test procedures were satisfied;
- test frequency met TS requirements to demonstrate operability and reliability;
- the tests were performed in accordance with the test procedures and other applicable procedures;
- jumpers and lifted leads were controlled and restored where used;
- test data/results were accurate, complete, and valid;
- test equipment was removed after testing;
- where applicable for in-service testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers Code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data have been accurately incorporated in the test procedure;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented in the corrective action (CA) program.

The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Alignment Inspections

a. Inspection Scope

During this inspection period, the inspectors completed three inspection samples, comprised of partial in-plant walkdowns of accessible portions of trains of risk-significant mitigating systems during times when the trains were of increased importance due to the unavailability of the alternate train. The inspectors verified the alignment of the following plant equipment:

- D6 emergency diesel generator during the unavailability of the D5 emergency diesel generator for planned maintenance on January 21, 2004;
- D2 emergency diesel generator during the unavailability of the D1 emergency diesel generator for planned maintenance on February 17, 2004; and
- 22 CC water pump during the unavailability of the 21 CC water pump for planned maintenance on March 16, 2004.

The inspectors utilized the licensee's applicable valve and electric breaker alignment checklists to verify that the components and required support systems were properly

positioned to support the proper operation of the inspected systems. The inspectors also examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors reviewed outstanding work orders (WO) and AR CAPs associated with the trains to verify that those documents did not reveal issues that could affect train function. The inspectors used the information in the appropriate sections of the USAR to determine the functional requirements of the systems. The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Complete System Alignment Inspection

a. Inspection Scope

During the week of January 18, 2004, the inspectors performed a detailed in-plant walkdown of the alignment and condition of the Unit 2 Auxiliary Feedwater system, a risk significant system that provides decay heat removal during normal, off-normal, and accident modes of operation. This inspection effort constituted one complete system alignment inspection sample. As part of this inspection, the inspectors reviewed the documents listed in the Attachment.

The inspectors conducted in-plant walkdowns using the applicable alignment checklists to verify that system components were properly positioned to support the operation of the Auxiliary Feedwater systems and to verify that the as-found system configuration matched the configuration specified in the system alignment checklist. The inspectors examined the material condition of the components, such as pumps, motors, valves, instrumentation, controls, and electrical panels. The inspectors 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 verified that tagging clearances were appropriate and attached to the specified equipment. The inspectors reviewed outstanding WOs and AR CAP items associated with the trains to determine if any degraded conditions existed that could affect the accomplishment of the systems safety functions. The inspectors referred to the TS, USAR, and other design basis documents to determine the functional requirements of the systems and verified those functions could be performed if needed. In addition, the inspectors reviewed the AR CAP items to verify that the licensee was identifying issues at an appropriate threshold and entering them into their CA program in accordance with station CA 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 document action for the installed fire protection equipment and features 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; 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 following eight fire areas were inspected by in-plant walkdowns supporting the completion of eight fire protection zone walkdown samples:

- Fire Area 25, Unit 1, D1 emergency diesel generator room on January 16, 2004;
- Fire Area 31, Unit 1 auxiliary feedwater pump and instrument air compressor room on January 16, 2004;
- Fire Area 32, Unit 2 auxiliary feedwater pump and instrument air compressor room on January 16, 2004;
- Fire Area 41A, diesel-driven cooling water pump area of the screenhouse on January 20, 2004;
- Fire Area 81, Unit 1 bus 15, 4160 volt switchgear room on January 16, 2004;
- Fire Area 113, Unit D5 emergency diesel generator fuel oil day tank room on January 20, 2004;
- Fire Area 115, Unit D5 emergency diesel generator lubricating oil storage tank room on January 20, 2004; and
- Fire Area 117, Unit 2 bus 25, 4160 volt switchgear room on January 20, 2004.

The inspectors also reviewed the AR CAP items listed in the Attachment to verify that the licensee was identifying fire protection issues at an appropriate threshold and entering them into their CA program in accordance with station CA procedures.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors performed an in-office review of the most recently completed SP for the inspection of plant flooding barriers and the abnormal procedure for flooding. The contents of these documents were compared to the plant flood protection design sections in the USAR and the assumption contained in the IPEEE associated with external flooding event. This inspection effort completed the annual external flood protection inspection sample.

The inspectors performed a physical inspection of flood protection barriers in the Auxiliary Building, Turbine Building, D5/D6 Building, and the Old Screenhouse during the period of March 3 through 11, 2004, comparing the as-found conditions of the flood protection panels against the acceptance criteria in the SP. The inspectors also verified that the actions specified in the abnormal procedure for flooding could be performed in a timely manner (3 days) if required, and the necessary hardware and consumable materials were available and still within their shelf life.

The inspectors reviewed several AR CAP items to verify that minor deficiencies identified during this inspection were entered into the licensee's CA program, that problems associated with plant equipment relied upon to prevent or minimize flooding were identified at an appropriate threshold, and that CAs commensurate with the significance of the issue were identified and implemented. As part of this inspection, the inspectors reviewed the documents listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

On March 1, 2004, the inspectors performed a quarterly review of Crew 6 during licensed operator requalification training in the simulator, completing one licensed operator requalification inspection sample. The inspectors observed a training crew during an as-found requalification examination in the plant's simulator facility. The inspectors compared crew performance to licensee management expectations. The inspectors verified that the crew completed all the critical tasks for the scenario. For any weaknesses identified, the inspectors observed that the licensee evaluators noted the weaknesses and discussed them in the critique at the end of the session.

The inspectors assessed the licensee's effectiveness in evaluating the requalification program, ensuring that licensed individuals operated the facility safely and within the conditions of their licenses, and evaluated licensed operator mastery of high-risk operator actions. The inspection activities included, but were not limited to, a review of high risk activities, emergency plan performance, incorporation of lessons learned, clarity and formality of communications, task prioritization, timeliness of actions, alarm response actions, control board operations, procedural adequacy and implementation, supervisory oversight, group dynamics, interpretations of TSs, simulator fidelity, and licensee critique of performance. The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Biennial Maintenance Effectiveness Periodic Evaluation

a. Inspection Scope

The inspectors examined the periodic evaluation reports completed for calendar years 2002 and 2003. To evaluate the effectiveness of (a)(1) and (a)(2) activities, the inspectors examined a number of Prairie Island (a)(1) Action Plans, Functional Failures, and CAP reports. The inspectors reviewed these same documents to verify that the threshold for identification of problems was at an appropriate level and the associated CAs were appropriate. Also, the maintenance rule program documents were reviewed. The inspectors reviewed the following systems, completing four inspection procedure samples:

- AFW Auxiliary Feedwater;
- DG Emergency Diesel Generator;
- EA 4160 Vac; and
- CC CC Water.

The inspectors verified that the periodic evaluation was completed within the time restraints defined in 10 CFR 50.65 (once per refueling cycle, not to exceed 2 years). The inspectors also determined that the licensee reviewed its goals, monitored Structures, Systems, and Components (SSCs) performance, reviewed industry operating experience, and made appropriate adjustments to the maintenance rule program as a result of the above activities.

The inspectors verified that the licensee balanced reliability and unavailability of SSCs including safety significant systems during the previous refueling cycle.

The inspectors verified that (a)(1) goals were established and CAs were appropriate to address the causes for SSCs being in (a)(1) category, including the use of industry operating experience, and that (a)(1) activities and related goals were adjusted as needed.

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

In addition, the inspectors reviewed maintenance rule self-assessments that addressed the maintenance rule program implementation. The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Quarterly Maintenance Effectiveness Assessments

a. Inspection Scope

The inspectors performed one issue/problem-oriented maintenance effectiveness inspection of repetitive pump seal failures on safety-related pumps and two structures, systems, or components function-oriented maintenance effectiveness inspections associated with the annunciator and CC water systems. The inspectors selected these structures, systems, or components for review because of their designation as high risk significant systems in the Maintenance Rule. Additionally, the annunciator system and several safety-related pumps had recently experienced repetitive problems. This inspection effort constituted three maintenance effectiveness inspection samples.

The inspectors reviewed maintenance activities to assess maintenance effectiveness, including maintenance rule activities, work practices, and the evaluation of issues for common cause. Inspection activities included, but were not limited to, the licensee's categorization of specific issues including evaluation of performance criteria, appropriate work practices, identification of common cause errors, extent of condition, and trending of key parameters. Additionally, the inspectors reviewed implementation of the Maintenance Rule (10 CFR 50.65) requirements, including a review of scoping, goal-setting, performance monitoring, short-term and long-term CAs, functional failure determinations associated with reviewed condition reports, and current equipment performance status.

For each system reviewed, the inspectors reviewed significant WOs and AR CAP items to verify that failures were properly identified, classified, and corrected, and that unavailable time had been properly calculated. The inspectors reviewed CA documents to verify that the licensee was identifying maintenance effectiveness and maintenance rule issues at an appropriate threshold and entering them into their CA program in accordance with station CA procedures. The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed risk assessments for the following six maintenance activities, completing six risk assessment and emergent work control inspection samples:

- unavailability of the 22 turbine-driven auxiliary feedwater pump and the 22 containment spray pump for planned maintenance on January 8, 2004;
- unavailability of emergency diesel generator D5 and the 21 cooling water pump for planned maintenance on January 20, 2004;
- unavailability of the Unit 2 Reactor Protective System blue channel Overtemperature Delta Temperature and Overpower Delta Temperature trips for

emergent maintenance while the 121 safeguards traveling screen, the 121 and 122 intake bypass gates, and the 124 air compressor were unavailable for planned maintenance on February 4, 2004;

- unavailability of the 22 CC pump and heat exchanger, the 121 safeguards traveling screen, the 121 and 122 intake bypass gates, and the 124 air compressor for planned maintenance on February 5, 2004;
- unavailability of the 12 residual heat removal (RHR) pump, the 121 safeguard traveling screen, and the 122 air compressor for planned maintenance on February 11, 2004; and
- unavailability of the D2 emergency diesel generator, 22 diesel-driven cooling water pump, and the 22 cooling water strainer for planned maintenance on March 9, 2004.

During these reviews, the inspectors compared the licensee's risk management actions to those actions specified in the licensee's procedures for the assessment and management of risk associated with maintenance activities. 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 used the licensee's daily configuration risk assessment records, observations of shift turnover meetings, observations of daily plant status meetings, and observations of shiftily outage meetings to verify that the equipment configurations had been properly listed, that protected equipment had been identified and was being controlled where appropriate, and that significant aspects of plant risk were communicated to the necessary personnel. The documents reviewed by the inspectors are listed in the Attachment.

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 3, 2004, the inspectors reviewed licensee personnel performance during a December 1, 2002, transient that resulted in Unit 1 reactor coolant system (RCS) temperature reduction below the limits of the PTLR as reported in Licensee Event Report 2002-03-00. The review constituted one inspection procedure sample. The inspectors conducted an in-office review of documents associated with the event and discussed the event with engineering and operations personnel. The inspectors compared the actions of plant personnel to the action required by TS and plant procedures. The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

Introduction

During an RCS fill and vent evolution with the reactor in Mode 5, the start of a reactor coolant pump (RCP) caused the RCS temperature to drop below the PTLR limit of 86

degrees Fahrenheit. Subsequently, operators took the reactor to Mode 4 without performing the TS-required evaluation of RCS acceptability for continued operation, resulting in a self-revealing finding of very low safety significance and a Non-Cited Violation of TS requirements.

#### Description

On December 1, 2002, with the reactor in Mode 5 during an RCS fill and vent evolution, the start of an RCP caused the RCS temperature to drop below 80 degrees Fahrenheit. Technical Specification 3.4.3 required that RCS temperature be maintained within the limits of the PTLR. Section 3.0 of the PTLR requires that RCS temperature remain above 86 degrees Fahrenheit when the RCS is not vented. This condition existed for about 56 hours. The drop in RCS temperature below the PTLR limits required that the licensee evaluate the RCS for acceptability for continued operation before entering Mode 4. Unit 1 entered Mode 4 on December 3, 2002. The TS condition was not recognized by plant operators and the required action was not completed prior to entering Mode 4.

A Unit 2 reactor operator, who observed the RCP start, questioned the decrease of Unit 1 RHR inlet temperature below 86 degrees Fahrenheit and pointed it out to the Unit 1 operators. This prompted a discussion among the Unit 1 operating crew. The operators erroneously determined that temperature drop was not a concern since this was a transient condition and not representative of bulk coolant temperature. As such, senior licensed operators failed to recognize that TS limits had been exceeded.

The Unit 2 reactor operator accepted the transient temperature justification with reservations and on December 6, 2002, submitted AR CAP 027064 questioning whether the plant was operating in a conservative manner by starting RCPs at a temperature low enough to cause the resulting transient temperature to go below the 86 degrees Fahrenheit PTLR limit. The licensee's root cause report indicated that the reactor operator's intent in writing this AR CAP was not to report a potential TS violation.

Following the Submittals of AR CAP 027064, multiple opportunities were missed by plant operations and engineering personnel to recognize the TS violation. For example:

- on December 6, 2002, the Shift Manager performed an operability screening of AR CAP 027064 and failed to recognize the TS violation;
- on December 12, 2002, the participants of the operations focus meeting (all senior licensed personnel) failed to recognize the TS violation;
- on December 12, 2002, the event screening committee, a technically diverse group of senior personnel, failed to recognize the TS violation; and
- on December 10, 2002, through October 22, 2003, engineering personnel involved in the event evaluation and assessment specified in condition evaluation (CE) 001649, and the identification and implementation of CAs specified in CA 003778, failed to recognize the TS violation.

The AR CAP 027064 was closed on November 17, 2003. On November 29, 2003, the operator that initiated AR CAP 027064 reviewed the CA taken and initiated an AR CAP 034273 questioning the correctness of a formula that was provided by



engineering for the calculation of the RCS bulk average coolant temperature and the resolution of all concerns from his original AR CAP.

On December 31, 2003, an engineer involved in the development of the original PTLR reviewed the CE 004228 resulting from AR CAP 034273. This engineer recognized that the RCS bulk average coolant temperature was not a valid parameter for the representation of the reactor vessel balkline material temperature. The System Engineering Manager then concluded that there had been a violation of TS 3.4.3. The licensee wrote AR CAP 034715 entering the condition into the CA program and performed an engineering evaluation to assess the acceptability of the reactor vessel integrity for continued operation. Resident and Regional inspectors reviewed the licensee's evaluation using inspection procedure 71111.15. (Section 1R15)

### Analysis

The inspectors determined that the failure of operators and engineers to recognize the exceeding of TS 3.4.3 and PTLR limits without implementing the specified actions affected the barrier integrity cornerstone, thus warranting evaluation for significance. The inspectors determined that the finding was more than minor in accordance with Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Disposition Screening," issued on June 20, 2003. Specifically, the finding could be reasonably viewed as a precursor to a significant event, such as the degradation or failure of the reactor pressure vessel. In this specific case, RCS temperature went below the temperature for which the Overpressure protection system was analyzed in the PTLR. At the time that the temperature transient occurred, the reactor vessel was not vented and was nearly water-solid. Any high pressure injection of water into the RCS could have rapidly resulted in a Overpressure condition exceeding the maximum allowable stresses of the reactor vessel balkline material.

This finding affected the cross-cutting areas of human performance. The licensee's root cause evaluation identified, as a primary cause, human performance deficiencies. Specifically, the operators lacked sufficient knowledge to prevent a temperature transient during RCP start which resulted in RCS temperature below the limit required by the PTLR. Additionally, operators did not recognize or evaluate the impact of the low temperature condition as required by TS 3.4.3.

This finding also affected the cross-cutting areas of problem identification and resolution. Specifically, the condition occurred on December 1 but was not entered into the CA program until December 6, 2002; the AR CAP was screened as a significance level C (condition adverse to quality) and should have been a significance level B (significant condition adverse to quality); the CE was not completed until November 11, 2003; the initial evaluation did not adequately address the issues, resulting in the originator of the initial AR CAP to initiate another AR CAP on November 29, 2003; and the second AR CAP was also inappropriately screened as a significance level C.

The inspectors attempted to evaluate the finding using the Inspection Manual Chapter 0609, "Significance Determination Process (SDP)," Appendix A, Attachment 1, "Significance Determination of Reactor Inspection Findings for At-Power Situations," issued on March 18, 2002. Since the finding was associated with a challenge to RCS

barrier, the Phase 1 SDP worksheets specified that a Phase 2 SDP be performed. However, the Phase 2 SDP does not model degradation or failure of the RCS and could not be used to evaluate the significance of this issue.

The inspectors reviewed the licensee's evaluation that justified the acceptability of the reactor vessel for continued operation. The licensee concluded that the limiting vessel baseline material stresses remained within allowable limits since excessive RCS pressure did not exist concurrently with the low RCS temperatures. Therefore, the deficiency was confirmed not to result in loss of function per Generic Letter 91-18. In the case of a mitigating system this would result in a finding of very low safety significance using the Phase 1 SDP worksheet. Applying this logic to the barrier integrity cornerstone, one can reasonably conclude that this finding was also of very low safety significance. Since the finding was not suitable for SDP evaluation, NRC management reviewed the finding for significance and determined it to be of very low safety significance (Green).

### Enforcement

Prairie Island TS 3.4.3 requires that RCS temperature be maintained within the limits of the PTLR. Section 3.0 of the PTLR requires that RCS temperature remain above 86 degrees Fahrenheit when the RCS is not vented. On December 1, 2002, with Unit 1 in Mode 5, and with the RCS not vented, the RCPs were started causing RCS temperature to drop below 86 degrees Fahrenheit. The action specified in action statement C.2 of TS 3.4.3 requires that the RCS be evaluated for acceptability for continued operation prior to entering Mode 4. Contrary to the above, Unit 1 entered Mode 4 on December 3, 2002, without completing the required evaluation. Upon identification of the failure to meet the criteria contained in action statement C.2 of TS 3.4.3 on December 31, 2003, the licensee performed the required evaluation to justify the acceptability of continued operation. This evaluation was documented in operability recommendation (OPR) 000468 and was completed on December 31, 2003. Because this violation was of very low safety significance, and the licensee entered the condition into their CA program with AR CAP 034715, this violation is being treated as an NCV in accordance with VI.A.1 of the NRC's Enforcement Policy (NCV 05000282/2004003-01).

### 1R15 Operability Evaluations (71111.15)

#### a. Inspection Scope

The inspectors reviewed the technical adequacy of eight operability evaluations completing eight operability evaluation inspection procedure samples. The inspectors conducted these inspections by in-office review of associated documents and in-plant observations of affected areas and plant equipment. The inspectors compared degraded or nonconforming conditions of risk significant structures, systems, or components associated with mitigating systems against the functional requirements described in TS, USAR, and other design basis documents; determined whether compensatory measures, if needed, were implemented; and determined whether the evaluation was consistent with the requirements of Administrative Work Instruction (AWI) 5AWI 3.15.5, "Operability Determinations." The following operability evaluations were reviewed:

- Operability Recommendation 468, which was performed in response to Unit 1 RCS temperature exceeding the PTLR RCS Temperature Limit during refueling outage 1R22 on January 6, 2004;
- prompt operability evaluation documented in AR CAP 033846, which determined that the D5 emergency diesel generator remained operable with the D5 ventilation system recirculation damper inoperable on January 22, 2004;
- Operability Recommendation 441 documenting the operational acceptability of the voltage applied to relays in the turbine-driven auxiliary feedwater pump control circuit during the design basis events on February 3, 2004;
- independent assessment of the operability of the 22 DDCLP with the 21 scavenging and combustion air damper failed in open position for WO 0305054 on February 12, 2004;
- OPR 473 documenting the operational acceptability of the floor load capacity of the 755 foot elevation of the Unit 2 auxiliary building on March 16, 2004;
- OPR 478 documenting the acceptability of the current auxiliary feedwater pump suction pressure switch setpoint assuming the failure of the condensate storage tanks following a seismic event or tornado on March 17, 2004;
- the historical assessment of operability for mitigating equipment down stream of high energy line break dampers CD-34197 and CD-34198 including the 12, 21, and 22 safety-related batteries and the 12 and 22 auxiliary feedwater pumps on March 24, 2004; and
- evaluation of technical support center (TSS) operability and Reportability after the TSS was unable to meet the acceptance criteria during the performance of ventilation testing on March 29, 2004.

The inspectors also reviewed several AR CAP items documenting degraded conditions to verify that the licensee was identifying issues at an appropriate threshold and entering them into their CA program in accordance with station CA procedures. The documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (OWAs) (71111.16)

.1 Review of Selected Workarounds

a. Inspection Scope

On January 26, 2004, inspectors conducted an in-office review of an OWA associated with emergency diesel generators D1 and D2, completing one inspection procedure sample. On January 26, 2004, the inspectors observed a monthly surveillance of D1, and noted that for the first 30 minutes of the diesel operation, there was considerable smoke in the room from the leaks in the engine exhaust manifold. Inspectors were told that this occasionally results in fire alarms in the control room. The inspectors reviewed the situation to determine whether the condition should be considered an OWA. 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.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed design change 02EM01, which replaced the control room steam generator level chart recorders with paperless recorders, completing one permanent plant modification inspection procedure sample. The recorders replaced were four wide range and two narrow range steam generator level recorders for each unit. The recorders were qualified as Regulatory Guide 1.97 control room instrumentation. The replacement recorders display steam generator levels on an illuminated color screen and the data is stored in an internal memory. The inspectors performed an in-office review of the design change package and an in-plant review of the control room installation. A detailed list of the documents reviewed is included in the Attachment.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors conducted an in-plant observation of the physical changes to the equipment and an in-office review of documentation associated with one temporary modification. This inspection effort completes one temporary modification inspection procedure sample. The documents reviewed by the inspectors are listed in the Attachment.

The inspectors reviewed the temporary modification 98T059 that failed open the three-way cooling water valve to the RHR motor coolers. The inspection activities included, but were not limited to, a review of design documents, safety screening documents, and USAR to determine that the temporary modification was consistent with modification documents, drawings and procedures. The inspectors also reviewed the post-installation test results to confirm that tests were satisfactory and the actual impact of the temporary modification on the permanent system and interfacing systems were adequately verified. The inspectors also reviewed the AR CAP items to verify that the licensee was identifying issues at an appropriate threshold and entering them into their CA program in accordance with station CA.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed a licensed shift operating crew perform an “as-found” exercise on the simulator on March 1, 2004, completing one emergency planning simulator exercise sample. The inspectors observed activities in the control room simulator, attended the post-exercise critique, and reviewed the final exercise critique report. The inspectors evaluated the drill performance and verified that licensee evaluators’ observations were consistent with those of inspectors and that deficiencies were entered into the CA program.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA1 Performance Indicator Verification (71151)

**Cornerstone: Mitigating Systems**

a. Inspection Scope

The inspectors reviewed the licensee Submittals for two performance indicators for Prairie Island Units 1 and 2, completing four performance indicator verification inspection procedure samples. The inspectors reviewed the documents listed in the Attachment.

The inspectors used performance indicator guidance and definitions contained in Nuclear Energy Institute Document 99-02, Revision 2, “Regulatory Assessment Performance Indicator Guideline,” to verify the accuracy of the performance indicator data. The inspectors’ review included, but was not limited to, conditions and data from logs, LERs, condition reports, and calculations for each performance indicator specified. The inspectors also reviewed the AR CAP items listed in the Attachment to this report to verify that the licensee was identifying issues at an appropriate threshold and entering them into their CA program in accordance with station CA.

The licensee’s reports of the following performance indicators were verified:

Unit 1

- Safety System Unavailability - Auxiliary Feedwater System for the 1st quarter 2003 through the 4th quarter 2003; and
- Safety System Unavailability - High Pressure Safety Injection for the 1st quarter 2003 through the 4th quarter 2003.

Unit 2

- Safety System Unavailability - Auxiliary Feedwater System for the 1st quarter 2003 through the 4th quarter 2003; and
- Safety System Unavailability - High Pressure Safety Injection for the 1st quarter 2003 through the 4th quarter 2003.

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 routinely reviewed issues during baseline inspection activities and plant status reviews to verify that the licensee entered issues into its CA system at an appropriate threshold, that adequate attention was given to timely CAs, and that adverse trends were identified and addressed. The inspectors also performed a screening review of items entered into the CA program and observed daily CA program meetings to identify conditions that warranted additional follow-up.

b. Findings

No findings of significance were identified.

.2 Annual Sample Review

a. Inspection Scope

During the week ending January 31, 2004, the inspectors selected a CA program issue for detailed review which constituted one annual problem identification and resolution inspection procedure sample. The inspectors selected continuing configuration control problems for review. Two AR CAP items issued in 2003, identifying adverse trends in the DISPOSITIONING of plant equipment, historical CA program documents, and other CA program documents linked to those documents, were reviewed to assess the effectiveness of the licensee's efforts to correct the problem. Of the documents reviewed by inspectors, particular attention was placed on the review of the licensee's CAs taken to address the noted deficiencies and the licensee's effectiveness reviews. The inspectors also ensured that the licensee had identified the full extent of the issue, conducted an appropriate evaluation, and that licensee-identified CAs were appropriately prioritized. The inspectors compared the licensee's actions taken to address the issue against the requirements of the licensee's CA program as specified in Administrative Work Instruction 5AWI 16.0.0, "Action Request Process;" Performance Assessment Fleet Procedure FP-PA-ARS-01, "Action Request Process;" Administrative Work Instruction 5AWI 15.0.2, "WO Codes;" and 10 CFR Part 50, Appendix B. A complete list of the documents reviewed is included in the Attachment.

b. Findings and Observations

The inspectors did not identify any findings associated with the review of this sample. However, the inspectors noted that the licensee's CAs have not been fully effective in the elimination of DISPOSITIONING events. The inspectors observed that the number of events had declined during 2002 but trended upward in 2003. The licensee identified and documented the upward trend with two AR CAPs, analyzed and compared the circumstances associated with recent individual DISPOSITIONING events, and identified and implemented new and unique CAs. The licensee continues to actively monitor the effectiveness of the CAs implemented in 2003.

#### 4OA3 Event Followup (71153)

##### .1 (Closed) LER 2002-03-00: Unit 1 - Failure to Meet TS Limiting Condition for RCS Pressure and Temperature Limits

On December 1, 2002, with Unit 1 in Mode 5, RCS temperature dropped below 80 degrees Fahrenheit in response to starting the RCPs. Technical Specification 3.4.3 requires that the RCS temperature be maintained within the limits of the PTLR at all times. Section 3.0 of the PTLR requires that the RCS temperature remain above 86 degrees Fahrenheit when not vented. Action Statement C.2 for TS 3.4.3 specified evaluating the RCS acceptability for continued operation before entering Mode 4. The TS condition was not recognized and the required action was not completed prior to entering Mode 4.

The failure to perform the evaluation constituted a finding of more than minor significance. The LER was reviewed by the inspectors and a finding of very low safety significance was identified resulting in a Non-Cited Violation of NRC requirements. (Section 1R14)

##### .2 Auxiliary Feedwater Pump Suction Switch Miscalibration Event

###### a. Inspection Scope

On January 12, 2004, the licensee identified during a routine surveillance that the auxiliary feedwater pump suction switches had been miscalibrated. Early extent of CE by the licensee determined that the 11, 12, and 21 auxiliary feedwater pump suction switches had been incorrectly calibrated in the non-conservative direction during their previous calibration. The inspectors observed the licensee's immediate CAs to establish at least one operable auxiliary feedwater pump for each unit. The inspectors verified that the licensee understood the potential significance of the miscalibration error and were taking prompt action to restore the auxiliary feedwater pump pressure switch setpoints to within tolerance. The inspectors reviewed the subsequent historical operability evaluation (Section 1R15 and 4AO7) that demonstrated that the as-found calibration of the miscalibrated suction switches did not result in loss of function of the affected auxiliary feed water pumps.

###### b. Findings

No findings of significance were identified.

#### 40A4 Cross-Cutting Aspects of Findings

- .1 A self-revealing finding described in Section 1R14 of this report was attributed to, as a primary cause, human performance deficiencies, in that the operators failed to recognize and prevent a temperature transient during an RCP start. This resulted in RCS temperature falling below the limit required by the PTLR. Additionally, operators did not recognize or evaluate the impact of the low temperature condition as required by TS 3.4.3.

The finding also included Problem Identification and Resolution deficiencies. The low temperature condition was identified by an operator on the other unit rather than the operators performing the evolution. The condition occurred on December 1, but was not entered into the CAP until December 6, 2002. The AR CAP was screened as a significance level "C" which is a condition adverse to quality. The licensee's CAP procedure defines significance level "B" as a condition that is reportable to the NRC as a significant condition adverse to quality. The CE was not completed until November 11, 2003. The initial evaluation did not adequately address the issues, and the originator initiated another AR CAP on November 29, 2003. The second AR CAP was also inappropriately screened as a significance level "C." During the review of the evaluation of the second AR CAP, the significance of the condition was finally recognized, resulting in an OPR, root cause evaluation, and LER.

#### 40A5 Other Activities

- .1 (Closed) Temporary Instruction (TI) 2515/154: Spent Fuel Material Control and Accounting at Nuclear Power Plants. The inspectors completed Phase I of the subject TI and provided the appropriate documentation to NRC management as required by the TI.

#### 40A6 Meeting(s)

- .1 Interim Exit Meeting

An interim exit meeting was conducted for the Maintenance Effectiveness Periodic Evaluation inspection with Mr. J. Solymossy, Site Vice President, on March 5, 2004.

- .2 Exit Meeting

The inspectors presented the inspection results to Mr. J. Solymossy and other members of licensee management at the conclusion of the inspection on April 8, 2004. The licensee did not identify any materials examined during the inspection as proprietary in nature.

#### 40A7 Licensee-Identified Violations

The following violation of very low significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Manual, NUREG-1600, for being dispositioned as a Non-Cited Violation.



## **Cornerstone: Mitigating Systems**

### Auxiliary Feedwater Pump Suction Switch Miscalibration

On January 4, 2004, the licensee identified that the 12 auxiliary feedwater pump suction pressure switch had been set incorrectly during its previous calibration. An extent of condition review of the 11, 21, and 22 auxiliary feedwater pump pressure switches revealed that the 11 and 21 auxiliary feedwater pump suction pressure switches had also been set incorrectly. The cause of the incorrect pressure switch setting was due to the selection of the improper engineering units on the pneumatic calibrator. Title 10, CFR Part 50, Appendix B, Criterion V, states, in part, that activities affecting quality shall be prescribed by documented instructions, procedures or drawings of a type appropriate to the circumstances. The calibration procedure failed to include a step to verify and, if necessary, set the calibrator to the proper engineering units. The licensee entered these conditions into their CA program with AR CAPs 034864, 034876, 034882, 035302, and 035359. The historical operability of the affected auxiliary feedwater pumps were addressed by CE 004509. Based on the result of the historical operability evaluations, the auxiliary feedwater pumps would have tripped on low suction pressure prior to damaging the auxiliary feedwater pumps by air ingestion. Because the incorrect setting of the auxiliary feedwater pump suction pressure switches did not result in a loss of safety function, this violation is of very low safety significance and is being treated as a Non-Cited Violation.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee

J. Solymossy, Site Vice President  
M. Werner, Plant Manager  
T. Allen, Outage and Scheduling Manager  
R. Best, Maintenance Rule Coordinator  
R. Graham, Director of Operations  
D. Herling, Assistant Operations Manager  
P. Huffman, System Engineering Manager  
J. Lash, Training Manager  
S. Northard, Director of Engineering  
A. Qualantone, Security Manager  
G. Salamon, Regulatory Affairs Manager  
T. Taylor, Performance Assessment Manager  
D. Wilson, System Engineer  
P. Zamarripa, System Engineer

### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened and Closed

05000282/2004003-01	NCV	Failure to Meet TS Limiting Condition for RCS Pressure and Temperature Limits
50-282/02-003-00	LER	Failure to Meet TS Limiting Condition for RCS Pressure and Temperature Limits

#### Discussed

None.

## LIST OF DOCUMENTS REVIEWED

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

### 1RST Post-Maintenance Testing - Pilot

#### Emergency Diesel Generator D6

5AWI 3.12.4; Post-Maintenance Testing; Revision 11

AR CAP 034741; Air Line to D6 Stopping Jack Not Tightened

AR CAP 034780; Post Maintenance Testing Identification Responsibilities/Instructions Inadequate

Work Request A57936; D6 Emergency Diesel Generator

WO 0400028; Loose Air Line on D6 Engine 2

#### 12 DDCLP

TS SR 3.7.8.6; Cooling Water System; Amendment No. 158

USAR 10.4.1; Cooling Water System; Revision 25

SP 1106A; 12 Diesel Cooling Water Pump Monthly Test; Revision 62

AR CAP 035086; PS Actuation Not Recognized Causing Re-performance of Auto Start of 12 DDCLP

AR CAP 035101; Determine if Additional Acceptance Criteria Required for Diesel Cooling Water Pump SP

#### 12 DDCLP Bearing Water Supply Three-way Valve

SP 1845; Test Three-Way Valve Actuation to Cooling Water Supply for 12 DDCLP Bearing Water; Revision 1

#### D2 Emergency Diesel Generator 18-Month Preventive Maintenance

Preventive Maintenance Procedure P3001-2-D2; D2 Diesel Generator 18-Month Inspection; Revision 17

Preventive Maintenance Procedure P3001-4-D2; D2 Diesel Generator 18-Month Electrical Inspection; Revision 7

SP 1307; D2 Diesel Generator 6-Month Fast Start Test; Revision 25

Operations Log Entries for March 11 through March 15, 2004

AR CAP 035710; D2 Clean Fuel Oil Pump Failure During Level Switch Calibration

AR CAP 035717; D2 18-Month Preventive Maintenance - Parts Unavailable Requiring Day of Order Expediting

AR CAP 035733; 122 D2 Supply Fan Pitch Positioner Control End Cover Found with Oil Inside

AR CAP 035762; D2 Coolant Leak During SP 1307 Post-Maintenance Test from 18-Month Preventive Maintenance

11 Shield Building Special Ventilation System Temperature Switch Calibration  
Preventive Maintenance Procedure ICPM 0-035-11; 11 Shield Building Exhaust Pac Filter Temperature Switch Calibration; Revision 5

SP 1073A; Monthly Train A Shield Building Ventilation System Test; Revision 3

AR CAP 035813; Procedural Challenges with ICPM 0-035-11

1RST Surveillance Testing - Pilot

D1 Emergency Diesel Generator Monthly Slow Start Test  
SP 1093; D1 Diesel Generator Monthly Slow Start Test; Revision 76

AR CAP 035066; Fire Retardant Material for D1 Exhaust

AR CAP 035071; CV-31505, D1 Diesel Generator Cooling Water Supply Control Valve is Leaking By

11 Turbine-Driven AFW Pump Monthly Test  
SP 1102; 11 Turbine-Driven AFW Pump Monthly Test; Revision 78

AR CAP 035135; 11 Turbine-Driven AFW Pump "As Found" Governor Setting Wrong

Component Cooling System Train B Quarterly Test  
SP 2155B; CC System Quarterly Test Train B; Revision 7

D6 Emergency Diesel Generator 24-Hour Load Test  
SP 2335; D6 Diesel Generator 24-Hour Load Test; Revision 9

SP 2305; D6 Diesel Generator Monthly Slow Start; Revision 23

Operations Log Entries from March 1 through March 3, 2004

AR CAP 035593; Inadequate Operability Statement in WO 0309214 Step 7.1.2

AR CAP 035594; WOs Not Generated as Critical, Delaying D6 Outage Work

D2 Emergency Diesel Generator 18-Month Relay Functional Test  
SP 1306; D2 Diesel Generator 18-Month Relay Functional Test; Revision 8

SP 1094; Bus 15 Load Sequencer Test; Revision 15; Revision 15

Preventive Maintenance Procedure P3001-2-D2; D2 Diesel Generator 18-Month Inspection; Revision 17

Preventive Maintenance Procedure P3001-4-D2; D2 Diesel Generator 18-Month Electrical Inspection; Revision 7

AR CAP 035753; Potential TS Violation/Near Miss When Removing Load Sequencer from Service

1R04 Equipment Alignment

D6 Emergency Diesel Generator - Partial System Alignment  
Prairie Island Nuclear Generating Plant (PINGP) Integrated Checklist C1.1.20.7-13;  
D6 Diesel Generator Valve Status; Revision 12

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.20.7-14; D6 Diesel Generator Auxiliaries and Local Panels and Switches; Revision 8

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.20.7-15; D6 Diesel Generator Main Control Room Switch and Indicating Light Status; Revision 6

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.20.7-16; D6 Diesel Generator Circuit Breakers and Panel Switches; Revision 7

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.38-2; D5/D6 Fuel Oil System Status; Revision 8

Prairie Island Nuclear Generating Plant Integrated Checklist 2C37.10-1; D5/D6 Diesel Generator Building Heating Ventilation and Air Conditioning; Revision 4

Review of open AR CAP items associated with D6 emergency diesel generator including: 000128, 020939, 023859, 023934, 024699, 024700, 026025, 027540, 027562, 027657, 029535, 030004, 030410, 031319, 031890, 031915, 032082, 032339, 032702, 032879, 033286, 033722, 033763, 033795, 033832, 033845, 034068, 034356, 034396, 034434, 034441, 034468, 034475, 034544, 034741, 034904, 034971, and 034982

Review of open WOs associated with D6 emergency diesel generator including: 0201076, 0201077, 0300054, 0302005, 0310779, 0310803, 0310854, and 0311991

AR CAP 033792; Discharge Valve on 21 Reactor Makeup Pump Found Closed

CE 004019; Discharge Valve on 21 Reactor Makeup Pump Found Closed

CE 004020; Discharge Valve on 21 Reactor Makeup Pump Found Closed

D2 Emergency Diesel Generator - Partial System Alignment

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.20.7-5; D2 Diesel Generator Valve Status; Revision 18

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.20.7-6; D2 Diesel Generator Auxiliaries and Local Panels and Switches; Revision 9

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.20.7-7; D2 Diesel Generator Main Control Room Switch and Indicating Light Status; Revision 13

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.20.7-8; D2 Diesel Generator Circuit Breakers and Panel Switches; Revision 16

Review of open AR CAP items associated with D2 emergency diesel generator including: 023286, 023422, 024955, 025986, 026857, 028277, 029115, 029843, 029982, 030124, 030691, 031134, 031315, 032142, 032627, 032835, 032918, 033006, 033218, 033221, 033722, 034124, 035071, and 035221

Review of open WOs associated with D2 emergency diesel generator including: 0211489, 0211492, 0300684, 0304044, 036586, 0306600, 0306619, 0309542, 0310798, 0400095, 0400251, 0400784, and 0400977

AR CAP 029535; Concerns with Adequacy of Thread Engagement CAs

Corrective Action 005026; Concerns with Adequacy of Thread Engagement CAs

22 CC Water Pump - Partial System Alignment

Prairie Island Nuclear Generating Plant Integrated Checklist C1.1.14-2; Unit 2 CC Water System; Revision 25

WO 0401388; P3119-1-22, 22 CC Water Pump Preventive Maintenance

Maintenance Procedure D80; Scaffolding Ladders and Cable Tray Platforms; Revision 17

AR CAP 035538 Scaffold in Contact with Safety-Related Equipment

Unit 2 Auxiliary Feedwater System - Complete System Alignment

Prairie Island Nuclear Generating Plant Pre-Start Checklist C28-7; Auxiliary Feedwater System; Revision 47

Prairie Island Nuclear Generating Plant Section Work Instruction SWI-O-3; Safeguards Hold Card and Component Blocking or Locking; Revision 70

Prairie Island Nuclear Generating Plant Procedure H20; Snubber Examination and Functional Test Program; Revision 3

Prairie Island Nuclear Generating Plant Maintenance Procedure D71.2; General Painting of Plant Systems, Components, and Piping; Revision 7

SP 2171; Safety-Related Shock Suppressor Check; Revision 19

SP 2225; Snubber Functional Tests; Revision 12

Flow Diagram NF-39223; Feedwater System

AR CAP 023412; Seal Leak-Off on 21 AFW Pump Seemed to be Slightly High

AR CAP 028139; 50.59 Evaluation 1005 is Not Complete

AR CAP 028277; PINGP Form 436 is Not Always Completed Properly or Have Incomplete Reviews

AR CAP 032339; New Calculation/Analysis Issued for 22 Battery Direct Current System

AR CAP 032702; D72, Attachment O Instructs to Perform Incorrect Bonnet Torque

AR CAP 033320; Time Delay Appeared to be Excessive for AFW Pump Suction Pressure Trip During SP 2331

AR CAP 034035; Safety Evaluation 372 Needs to be Reviewed for Adequacy in Regard to the Turbine-Driven Auxiliary Feedwater Start Signal

AR CAP 034876; 21 Motor-Driven AFW Pump Suction Pressure Switch 17779 Appears to be Set Incorrectly

AR CAP 034884; 21 AFW Suction Line Has Micro-Biological Induced Corrosion Influencing Bacteria Present

WO 0212059; Perform Air Operated Valve Actuator Calibration and Inspection of CV-31418

WO 0307391; 21/22 AFW to 22 Steam Generator Motor Valve Will Not Stay in Manual

WO 0308752; 21 Motor-Driven AFW Pump Auxiliary Lubricating Oil Pump Timer Screen is Dark

WO 0308956; CV-31419 Packing Leak

WO 0310125; AFW Pump Discharge Pressure Indication Calibration

WO 0400081; Replace Inboard Turbine Bearing on 22 Turbine-Driven AFW Pump

Prairie Island Operator Workarounds as Listed on January 19, 2004

Prairie Island Temporary Modifications as Listed on January 19, 2004

1R05 Fire Protection

Plant Safety Procedure F5, Appendix A, Revision 15; Fire Strategies for Fire Areas 25, 31, 32, 41A, 81, 113, 115, and 117.

Plant Safety Procedure F5, Appendix F, Revision 19; Fire Hazard Analysis for Fire Areas; 25, 31, 32, 41A, 81, 113, 115, and 117.

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

AR CAP 034185; Fire Protection Item from Operating Experience 11088 Has Not Been Implemented at Prairie Island

AR CAP 034188; The Bleach House is Not Included in the Fire Hazards Analysis or Fire Strategies

AR CAP 034306; SP 1194, CARDOX 18-Month Inspection, Failed Its Acceptance Criteria

CA 007866; The Bleach House is Not Included in the Fire Hazards Analysis or Fire Strategies

CA 007865; Fire Protection Item from Operating Experience 11088 Has Not Been Implemented at Prairie Island

CE 004239; SP 1194, CARDOX 18-Month Inspection, Failed Its Acceptance Criteria

1R06 Flood Protection Measures (External)

USAR 2.4.3.5; Floods; Revision 24

Calculation ENG-ME-529; Flood Barrier Leakage Criteria; Revision 0

SP 1293; Inspection of Flood Control Measures; Revision 11

AB-4; Flood; Revision 24

Temporary Change Notice 2004-0129; Temporary Change to AB-4, Revision 24

Design Basis Document TOP-05; Hazards; Revision 2W

AR CAP 029815; Inadequate Guidance in AB-4 Regarding Flood Door 164

AR CAP 035631; CA 5152 Follow-Up via WO 0302197 Inadequately Prioritized

CA 005152; Inadequate Guidance in AB-4 Regarding Flood Door 164

Other (OTH) 008376; Deck-O-Seal Sealant Life of 1 Year



OTH 031286; Perform Role as Operations Flood Preparations Leader

WO 0302197; Install Hasp and Lock On Compactor Room Trap Door

1R11 Licensed Operator Requalification Program

5AWI 3.15.0; Plant Operation; Revision 15

1R12 Maintenance Rule Implementation

Maintenance Rule Implementation - Periodic Evaluation

H24; Maintenance Rule Program; Revision 6

H24.1; Phase 1 Risk Assessment Preparation; Revision 0

H24.1; Phase 1 Risk Assessment Preparation; Revision 0

H24.1; Assessment and Management of Risk Associated with Maintenance Activities;  
Revision 7

H24.3; Structures Monitoring Program; Revision 3

PRA Summary Information Level 1 and Level 2; Revision 0

Unit 1 PINGP, Key PRA Results; dated January 16, 2003

Unit 2 PINGP, Key PRA Results; dated July 11, 2002

Prairie Island Nuclear Generating Plant Equipment Performance Annual Report 2002;  
dated October 28, 2003

Prairie Island Nuclear Generating Plant Equipment Performance Annual Report 2003;  
dated March 1, 2004

Prairie Island Nuclear Generating Plant Quarterly Equipment Performance Report 2002;  
1<sup>st</sup> Quarter 2002; dated May 16, 2002

Prairie Island Nuclear Generating Plant Quarterly Equipment Performance Report 2002;  
2<sup>nd</sup> Quarter 2002; dated August 16, 2002

Prairie Island Nuclear Generating Plant Quarterly Equipment Performance Report 2002;  
3<sup>rd</sup> Quarter 2002; dated October 2002

Health and Status Report - AFW Auxiliary Feedwater; dated February 16, 2004

Health and Status Report - D6 Emergency Diesel; dated February 16, 2004

Health and Status Report - EA 4.16Kv Electrical; dated February 16, 2004

Health and Status Report - CC CC Water; dated February 16, 2004

Monthly Unavailability Report - EA 4.16KV Electrical; January 2002 - January 2004

Monthly Unavailability Report - D1, D2, D5, D6 Diesel Generators; January 2002 - January 2004

Monthly Unavailability Report - CC CC Water; January 2002 - January 2004

Summary of Prairie Island NGP Maintenance Rule Scope Determination and Performance Criteria; dated February 2004

Summary of Equipment Events Within 2-year Monitoring Window; dated February 27, 2004

Maintenance Rule a(1) Action Plan Annunciator System (AC); Revision 6

Maintenance Rule a(1) Action Plan Air Removal System; Revision 3

Maintenance Rule a(1) Action Plan D6 Diesel Generator; Revision 6

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

Maintenance Rule Evaluation 151; Mechanical Failure on D5 1A Starting Air Compressor

Maintenance Rule Evaluation 168; D5 Engine 1 Crankcase Pressure had Short Term High Readings during SP 2093

Maintenance Rule Evaluation 169; Failure of Indicating Light Circuit for BKR 25-7 21 RHR Pump

Maintenance Rule Evaluation 189; Failure of Indicating Light Circuit for BKR 25-7 21 RHR Pump

Maintenance Rule Evaluation 205; BOP Annunciator System Power Failure

Maintenance Rule Evaluation 223; D5 Engine 1 Piston Combustion Chamber Lip Cracks on Two Cylinders

Minutes of PINGP Maintenance Rule Expert Panel Meeting #2309 -05 Conducted April 14, 2003

Minutes of PINGP Maintenance Rule Expert Panel Meeting #2309 -06 Conducted May 23, 2003

Minutes of PINGP Maintenance Rule Expert Panel Meeting #2309 -07 Conducted May 30, 2003

Minutes of PINGP Maintenance Rule Expert Panel Meeting #2309 -08 Conducted June 11, 2003

Minutes of PINGP Maintenance Rule Expert Panel Meeting #2309 -09 Conducted September 10, 2003

Minutes of PINGP Maintenance Rule Expert Panel Meeting #2309 -10 Conducted October 4, 2003

Minutes of PINGP Maintenance Rule Expert Panel Meeting #2309 -11 Conducted December 22, 2003

CAP025759; During Speed Switch Replacement Adjacent Connector and Cable Found Damaged; dated October 14, 2002

CAP024643; 11 CS Pump CC Water Low Flow Did Not Alarm; dated August 14, 2002

CAP027842; MV-32131 21 CC Surge Tank Vent Motor Valve Failed to Go Open; dated January 24, 2002

CAP031368; Preventive Maintenance Analysis of CC System Identified Poor Mechanical Seal Performance Associated with the CC; dated July 15, 2003

CAP033531; Inspection of CI-68-1 Revealed Some Degradation of the Pin and Springs; dated October 14, 2003

CAP034468; While Performing the PMT; Preliminary Troubleshooting indicated an Incorrect Setting in the DRUL Control Circuit; dated December 12, 2003

#### Component Cooling Water System

PINGP Procedure H24; Maintenance Rule Program; Revision 6

NUMARC 93-01; Industry Guidelines for Monitoring Effectiveness of Maintenance at Nuclear Power Plants; Revision 3

PINGP Maintenance Rule System Specific Basis Document, CC Water Section; Revision 6

PINGP Maintenance Rule Scope Determination and Performance Criteria; Figure A2

PINGP Maintenance Rule List of Risk Significant Components

PINGP Design Basis Document System 14; CC Water System; Revision 3W

PINGP Tank Book; CC Water Surge Tank; Revision 1

WO 0203356; 21 CC Surge Tank Level Control Calibration

PINGP Preventive Maintenance Procedure ICPM 2-017; 21 CC Surge Tank Level Control Calibration; Revision 3; dated November 23, 2002

Pioneer Service & Engineering Company Calculation; CC Water Expansion Tank Sizing; dated June 16, 1969

AR CAP 026268; 24607, 21 CC Water Surge Tank Level Transmitter Found Excessive Out-of-Calibration

AR CAP 03196; Excessive Floor Loads in Auxiliary Building

CA 002975; 24607, 21 CC Water Surge Tank Level Transmitter Found Excessive Out-of-Calibration

CE 004658; Excessive Floor Loads in Auxiliary Building

Maintenance Rule Evaluation 000048; 24607, 21 CC Water Surge Tank Level Transmitter Found Excessive Out-of-Calibration

OTH 003390; 24607, 21 CC Water Surge Tank Level Transmitter Found Excessive Out-of-Calibration

Annunciator System

PINGP Procedure H24; Maintenance Rule Program; Revision 6

NUMARC 93-01; Industry Guidelines for Monitoring Effectiveness of Maintenance at Nuclear Power Plants; Revision 3

PINGP Maintenance Rule System Specific Basis Document, Annunciator Section; Revision 7

PINGP Maintenance Rule Scope Determination and Performance Criteria; Figure A2

PINGP Maintenance Rule List of Risk Significant Components

Maintenance Rule a(1) Action Plan for the Annunciator System; Revision 6

AR CAP 025730; 47513-0609 Balance of Plant Annunciator System Power Failure Alarm Received at 1645 10-12-02

AR CAP 026169; Annunciator System Exceeded Maintenance Rule Performance Criteria

AR CAP 028826; Unit 1 Balance of Plant Annunciator Failure

AR CAP 032125; Balance of Plant Annunciator System Failure

AR CAP 032198; Balance of Plant Annunciator System Power Failure

AR CAP 034206; Unit 1 Nuclear Steam Supply System Annunciator System Problems

MRE 000034; 47513-0609 Balance of Plant Annunciator System Power Failure Alarm Received at 1645 10-12-02

MRE 000131; Unit 1 Balance of Plant Annunciator Failure

MRE 000205; Balance of Plant Annunciator System Power Failure

MRE 000235; Unit 1 Nuclear Steam Supply System Annunciator System Problems

Pump Seals

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

AR MRE 000056; Unexpected Failure of 12 Boric Acid Transfer Pump Seal

AR MRE 000087; Repeat Maintenance on 22 Boric Acid Transfer Pump for Seal Leakage

AR MRE 000106; Maintenance Rule Functional Failure of 12 Boric Acid Transfer Pump

AR MRE 000145; 12 Boric Acid Transfer Pump Seal Leak

AR MRE 000177; 12 Boric Acid Transfer Pump Seal Leak

AR MRE 000243; 21 RHR Pump Seal Leak

AR Self Assessment 006235; Perform Self-Assessment of Mechanical Seal Performance

AR Self Assessment 008088; Focused Self-Assessment of Prairie Island Experience with the Performance of Pump Packing and Seals

1R13 Maintenance Risk Assessments and Emergent Work Control

PINGP Procedure H24.1; Assessment and Management of Risk Associated with Maintenance Activities; Revision 7

Unit 1 and 2 Configuration Risk Assessment for January 8, 2004

Unit 1 and 2 Configuration Risk Assessment for January 20, 2004

WO 0400204; D5 Engine 2 Fan 2 Breaker

WO 0308013; SP 2093 D5 Diesel Generator Monthly Slow Start

AR CAP 034971; D5 Engine 2 Radiator Fan 2 Breaker Tripped on Thermal Overload

Unit 2 Configuration Risk Assessment for February 4, 2004

Control Room Logs for February 4, 2004

WO 0400777; Replace Unit 2 Blue Average RCS Temperature Lag Amplifier 2TM-403BB; February 4, 2004

AR CAP 035177; Overtemperature Delta Temperature Channel Alert Alarms (Blue Channel)

Unit 2 Configuration Risk Assessment for February 5, 2004

Unit 1 Configuration Risk Assessment for February 11, 2004

Voluntary Limiting Condition for Operation Plan; 12 RHR Voluntary Limiting Condition for Operation Plan; February 11, 2004

Unit 1 Configuration Risk Assessment for March 9, 2004

AR CAP 035402; 4201A Probabilistic Risk Assessment Did Not Include 22 Charging Pump on February 18, 2004

1R14 Nonroutine Evolutions

TS 3.4.3; RCS Pressure and Temperature Limits; Amendment No. 158

Pressure and Temperature Limits Report; Revision 3

LER 2002-03-00; Failure to Meet TS Limiting Condition for RCS Pressure and Temperature Limits

AR RCE 000188; Unit 1 RCS Operation Not Evaluated for Violating PTLR RCS Low Temperature Limit in 1R22

AR CAP 027064; Transient RCS Temperatures of Less Than 86 Degrees Fahrenheit Observed During 1D8 RCP Runs

AR CAP 034273; CAP 027064 Closed with Incomplete Resolution of All Concerns

AR CAP 034715; Unit 1 RCS Operation Not Evaluated for Exceeding PTLR RCS Temperature Limit in 1R22

1R15 Operability Evaluations

Unit 1 RCS Exceeded PTLR Temperature Limit

TS 3.4.3; RCS Pressure and Temperature Limits; Amendment No. 158

Pressure and Temperature Limits Report; Revision 3

5AWI 3.15.5; Operability Determinations; Revision 8

AR CAP 027064; Transient RCS Temperatures of Less Than 86 Degrees

AR CAP 034273; CAP 027064 Closed with Incomplete Resolution of All Concerns

AR CAP 034715; Unit 1 RCS Operation Not Evaluated for Exceeding PTLR RCS Temperature Limit in 1R22

OPR 000468; Unit 1 RCS Operation Not Evaluated for Exceeding PTLR RCS Temperature Limit in 1R22

CE 004417; Unit 1 RCS Operation Not Evaluated for Exceeding PTLR RCS Temperature Limit in 1R22

Emergency Diesel-Generator D5 Recirculation Damper

TS 3.8.1; Alternating Current Sources - Operating; Amendment No. 149

USAR 10.3.12; D5/D6 Building and Room Ventilation Systems; Revision 25

5AWI 3.15.5; Operability Determinations, Revision 8

AR CAP 033846; 32422-VZ D5 Room Recirculation Damper Actuator Has Failed Closed

AR CAP 035011; D5 Out of Service Time Extended Due to Failure of Positioner for Recirculation Damper

AR CAP 035022; Recirculation Damper for D5 Engine Room Failed Closed During Post-Maintenance Test

AR CAP 035045; Operability Evaluation in D5 Vent Mixing Damper Lacked Adequate Detail

22 Battery and DC Distribution System

AR CAP 032339; New Calculation/Analysis Issued for 22 Battery DC System

OPR 000441; New Calculation/Analysis Issued for 22 Battery DC System

Engineering Work Request 006850; New Calculation/Analysis Issued for 22 Battery DC System

CA 006959; New Calculation/Analysis Issued for 22 Battery DC System

Operable But Degraded 000072; New Calculation/Analysis Issued for 22 Battery DC System

Operable But Degraded 000073; New Calculation/Analysis Issued for 22 Battery DC System

Procedure Change Request 006849; New Calculation/Analysis Issued for 22 Battery DC System

21 Scavenging and Combustion Air Damper

USAR Section 10.4.1; Cooling Water System; Revision 25

Procedure B37B; Safeguards Ventilation System; Revision 6

WO 0305054; 21 Scavenging and Combustion Air Solenoid Operating Valve is Leaking; February 12, 2004

Unit 2 Auxiliary Building Floor Loading of 755 Foot Elevation

USAR Section 12.2.4.1.5.3; Design Codes

USAR Section 12.2.4.1.8.3; Design Codes and Design Criteria

AR CAP 035196; Excessive Floor Loading in the Auxiliary Building

CE 004656; Excessive Floor Loading in the Auxiliary Building

OPR 000473; Excessive Floor Loading in the Auxiliary Building

Operable But Degraded 000087; Excessive Floor Loading in the Auxiliary Building

5AWI 3.15.5; Operability Determinations; Revision 8

Auxiliary Feedwater Pump Suction Pressure Switch Setpoint Acceptability

AR CAP 035445; Design of Auxiliary Feedwater Pump Suction Pressure Switch is Inadequate

OPR 000478; Auxiliary Feedwater Pump Suction Pressure Switch Setpoint Acceptability

Engineering Calculation ENG-ME-551; Water Available to the Auxiliary Feedwater Pumps with Out-of-Tolerance Suction Pressure Switch; Revision 0

Prairie Island Drawing X-HIAW-106-188; Condensate Make-Up Piping; Revision B

Prairie Island Drawing X-HIAW-1106-261; Condensate Make-Up; Revision D

Prairie Island Drawing X-HIAW-106-94; Condensate Make-Up Piping; Revision 6

Prairie Island Drawing NQ-118234; 12 Inch Condensate Make-Up Auxiliary Feedwater Pump Suction Piping Isometric; Revision A

Assessment of Historical Operability of the 12, 21, and 22 Batteries and the 12 and 22 Auxiliary Feedwater Pumps Following the Failure of Steam Exclusion Dampers

Prairie Island High Energy Line Break Analysis; ATD-0312; Revision 0



Engineering Assessment of Battery Room Temperature with Degraded Steam Exclusion Dampers

Technical Requirements Manual Limiting Condition for Operation 3.0.c; Revision 1

Technical Requirements Manual Section 3.7.1; Steam Exclusion System; Revision 1

SP 1112; Steam Exclusion Damper Monthly Damper Test; Revision 44

WO 0403588; CD-34197 1/8 Inch Gap When Closed

Prairie Island Drawing NF-39601: Turbine Building/Diesel Generator Heating, Ventilation, and Cooling Flow Diagram; Revision AL

AR CAP 035665; 1/8 Inch Gap on CD-34197

AR CAP 035879; Common Failure on Steam Exclusion Damper Resulting in a Unplanned Technical Requirements Manual Limiting Condition for Operation Entry

AR CAP 035880; Battery Room Steam Exclusion Dampers

TSS Ventilation Unable to Meet Acceptance Criteria During Surveillance Test

AR CAP 035954; Test Procedure 1689 Failed to Meet Acceptance Criteria

CE004961; Evaluate this Event [Test Procedure 1689 Failed to Meet Acceptance Criteria], Initiate CAs as Needed

AR CAP 035959/CE004961; MS Word Attachment titled, "TSS Operability Evaluation"

NUREG-0696; Functional Criteria for Emergency Response Facilities; Final Report

NUREG-1022; Event Reporting Guidelines 10 CFR 50.73 and 50.73; Revision 2

#### 1R16 OWAs

##### D1/D2 Exhaust Manifold Leaks

5AWI 3.10.8; Equipment Problem Resolution Process; Revision 4

SP 1093; D1 Diesel Generator Monthly Slow Start Test; Revision 76

Prairie Island Operator Workarounds; dated January 23, 2004

AR CAP 035141; D1 Exhaust Manifold Leaks Exhaust Into D1 Room During SP 1093

#### 1R17 Permanent Plant Modifications

Design Change Package 02EM01; Steam Generator Paperless Recorders; dated September 11, 2003

## 1R23 Temporary Modifications

### Temporary Modification 98T059

PINGP 5AWI 6.3.3; Temporary Modifications; Revision 0

Nuclear Management Company Corporate Office Quality Procedure FP-E-MOD-03;  
Temporary Modifications; Revision 0

PINGP Form 976; Temporary Modification 98T059; dated September 28, 1998

10 CFR 50.59 Safety Evaluation Screening 442; Isolation of Air to the RHR Unit Cooler  
Temperature Control Valve and Revision of SP 1089/SP 2089 Acceptance Criteria for  
Unit Coolers; dated September 22, 1998

Powers Technical Instruction VP 657-5; VP 657WM Valve; dated December 1969

PINGP Condition Report 19982244; CV-31754 is Not Controlling Adequately to Supply  
11 RHR Pump Motor Unit Cooler with Chilled Water

AR CAP 035363; Shutdown of the Reverse Osmosis System on the Unit 2 Refueling  
Water Storage Tank

## 4OA1 Performance Indicator Verification

Prairie Island Nuclear Generating Plant Form 1318B; Performance Indicators -  
Mitigating System Unavailability; Revision 0; Unit 1 and Unit 2 High Pressure Safety  
Injection and Auxiliary Feedwater; 1<sup>st</sup> through 4<sup>th</sup> Quarters 2003

Operating Logs; Unit 1 and Unit 2; 1<sup>st</sup> through 4<sup>th</sup> Quarters 2003

Plant Procedure H33.2; Mitigating Systems Cornerstone Unavailability Performance  
Indicator Reporting Instructions; Revision 6

Plant Procedure H33; Performance Indicator Reporting; Revision 5

## 4OA2 Identification and Resolution of Problems

### Annual Sample

Condition Report 2000-4323; Trending of Condition Reports Related to Mispositionings  
Did Not Identify a Negative Trend; dated September 28, 2000

Root Cause Analysis for Condition Report 2000-4323; Negative Trend Related to  
Mispositioned Equipment Events; Revision 0

AR CAP 021234; Effectiveness Review for Level 1 Condition Report 2000-4323  
Determined That CAs Were Ineffective

Condition Report 2001-4211; CA for DISPOSITIONING Condition Report 2000-4323 Not Effective in Preventing Repeat Occurrences

Root Cause Investigation Report for Condition Report 2001-4211; CA for DISPOSITIONING Condition Report 2000-4323 Not Effective in Preventing Repeat Occurrences; Revision 0

AR CAP 021867; Perform a Common Cause Evaluation of Ineffective CAs

Apparent Cause Evaluation 007752; Perform a Common Cause Evaluation of Ineffective CAs

AR CAP 024469; Potential Adverse Trend in Operations Regarding Procedure Use and Adherence

CE 000709; Potential Adverse Trend in Operations Regarding Procedure Use and Adherence

AR CAP 027795; Adverse Trend in Site Mispositionings

Apparent Cause Evaluation 008641; Adverse Trend in Site Mispositionings

AR CAP 030448; Adverse Trend in Component Mispositionings

Apparent Cause Evaluation 008710; Adverse Trend in Component Mispositionings

CA 005911; Adverse Trend in Component Mispositionings

#### 4OA3 Event Followup

Technical Specification 3.4.3; RCS Pressure and Temperature Limits; Amendment No. 158

Pressure and Temperature Limits Report; Revision 3

LER 2002-03-00; Failure to Meet TS Limiting Condition for RCS Pressure and Temperature Limits

AR RCE 000188; Unit 1 RCS Operation Not Evaluated for Violating PTLR RCS Low Temperature Limit in 1R22

#### 4OA4 Cross-Cutting Aspects of Findings

LER 2002-03-00; Failure to Meet TS Limiting Condition for RCS Pressure and Temperature Limits

5AWI 16.0.0; Action Request Process; Revision 5

AR RCE 000188; Unit 1 RCS Operation Not Evaluated for Violating PTLR RCS Low Temperature Limit in 1R22

AR CAP 027064; Transient RCS Temperatures of Less Than 86 Degrees Fahrenheit Observed During 1D8 RCP Runs

AR CAP 034273; CAP 027064 Closed with Incomplete Resolution of All Concerns

AR CAP 034715; Unit 1 RCS Operation Not Evaluated for Exceeding PTLR RCS Temperature Limit in 1R22

40A7 Licensee-Identified Violation

Auxiliary Feedwater Pump Suction Switch Miscalibration

AR CAP 034864; 12 Auxiliary Feedwater Pump Pressure Switch Found Out-of-Tolerance

AR CAP 034876; 21 Motor-Driven Auxiliary Feedwater Pump Suction Pressure Switch Appears to be Set Incorrectly

AR CAP 034882; 11 Turbine-Driven Auxiliary Feedwater Pump Suction Pressure Switch Vacuum Trip Setpoint Found Above Tolerance

AR CAP 035302; Deficiencies Found in the Auxiliary Feedwater Pump Pressure Switch Calibration Procedure

AR CAP 035359; Additional CAs Related to RCE 000189 - Auxiliary Feedwater Pump Pressure Switch Miscalibration

CE 004509; 21 Motor-Driven Auxiliary Feedwater Pump Switch Set Incorrectly - Evaluate for Past Operability

RCE 000189; Auxiliary Feedwater Pump Pressure Switch Miscalibration

LER 2002-03-00; Failure to Meet TS Limiting Condition for RCS Pressure and Temperature Limits

TS 3.4.3; RCS Pressure and Temperature Limits; Amendment No. 158

Pressure and Temperature Limits Report; Revision 3

AR RCE 000188; Unit 1 RCS Operation Not Evaluated for Violating PTLR RCS Low Temperature Limit in 1R22

AR CAP 027064; Transient RCS Temperatures of Less Than 86 Degrees Fahrenheit Observed During 1D8 RCP Runs

AR CAP 034273; CAP 027064 Closed with Incomplete Resolution of All Concerns

AR CAP 034715; Unit 1 RCS Operation Not Evaluated for Exceeding PTLR RCS Temperature Limit in 1R22

## LIST OF ACRONYMS USED

AFW	Auxiliary Feedwater
AR	Action Request
AWI	Administrative Work Instruction
CA	Corrective Action
CAP	Corrective Action Program
CC	Component Cooling
CE	Condition Evaluation
CFR	Code of Federal Regulations
CV	Control Valve
DC	Direct Current
DDCLP	Diesel-Driven Cooling Water Pump
IMC	Inspection Manual Chapter
IPEEE	Individual Plant Examination of External Events
LER	Licensee Event Report
MRE	Maintenance Rule Evaluation
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
OPR	Operability Recommendation
OTH	Other
OWA	Operator Workaround
PINGP	Prairie Island Nuclear Generating Plant
PTLR	Pressure and Temperature Limit Report
RCE	Root Cause Evaluation
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RHR	Residual Heat Removal
SDP	Significance Determination Process
SP	Surveillance Procedure
SSC	Structure, System, or Component
TS	Technical Specification
TSC	Technical Support Center
USAR	Updated Safety Analysis Report
WO	Work Order