

June 7, 2001

Mr. J. Sorensen
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
NRC INSPECTION REPORT 50-282/01-09; 50-306/01-09

Dear Mr. Sorensen:

On May 11, 2001, the NRC completed an inspection at your Prairie Island Nuclear Generating Plant. The enclosed report documents the inspection findings which were discussed on May 11, 2001, 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.

No findings of significance were identified.

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Sincerely,

/RA/

Roger D. Lanksbury, Chief
Branch 5
Division of Reactor Projects

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

Enclosure: Inspection Report 50-282/01-09;
50-306/01-09

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R. Anderson, Executive Vice President
and Chief Nuclear Officer
Site Licensing Manager
Nuclear Asset Manager
J. Malcolm, Commissioner, Minnesota
Department of Health
State Liaison Officer, State of Wisconsin
Tribal Council, Prairie Island Indian Community
J. Silberg, Esquire
Shawn, Pittman, Potts, and Trowbridge
A. Neblett, Assistant Attorney General
Office of the Attorney General
S. Bloom, Administrator
Goodhue County Courthouse
Commissioner, Minnesota Department
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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: 50-282/01-09; 50-306/01-09

Licensee: Nuclear Management Company, LLC

Facility: Prairie Island Nuclear Generating Plant

Location: 1717 Wakonade Drive East
Welch, MN 55089

Dates: April 1 through May 11, 2001

Inspectors: S. Ray, Senior Resident Inspector
S. Thomas, Resident Inspector
M. Farber, Reactor Inspector

Approved by: Roger Lanksbury, Chief
Project Branch 5
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000282-01-09; IR 05000306-01-09, on 04/01-05/11/2001; Nuclear Management Company, Prairie Island Nuclear Generating Plant, Units 1 & 2. Resident inspector and maintenance rule implementation report.

This report covers a 6-week routine resident inspection and a baseline maintenance rule inspection. The inspection was conducted by resident inspectors and a specialist inspector. No findings of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation.

A. Inspector-Identified Findings

No findings of significance were identified.

B. Licensee-Identified Findings

No findings of significance were identified.

Report Details

Summary of Plant Status

Unit 1 was operated at or near full power for the entire inspection period except that power was reduced to 25 percent on April 1, 2001, to allow removal of the 12 reactor vessel support cooling fan for repairs, and power was reduced to 50 percent on April 4-5, 2001, to allow reinstallation of the fan and turbine valve testing. Unit 2 was operated at or near full power for the entire inspection period except that power was reduced to 40 percent on April 6-8, 2001, to allow condenser cleaning and turbine valve testing, and the Unit was shutdown on May 9, 2001, as required by Technical Specifications, when both the D5 and D6 emergency diesel generators were declared inoperable. A manual turbine trip inserted by control room operators due to condenser vacuum problems during the shutdown resulted in an expected reactor trip from about 13 percent power. Unit 2 reached Cold Shutdown Mode at the end of the inspection period on May 11, 2001.

During this inspection period, significant flooding of the Mississippi River in the area of the plant was experienced. The river reached two separate crests of 685.4 feet above sea level on April 17 and 685.7 feet above sea level on April 28. The latter was the highest river level in almost 30 years of plant operations. Normal river level was 674.5 feet above sea level. Both crests were well below the design basis flood level of 703.5 feet above sea level.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

- The inspectors performed a complete walkdown of the accessible portions of the Unit 1 auxiliary feedwater (AFW) system to verify that the system was in the correct lineup and had no obvious deficiencies. The inspectors also reviewed outstanding work orders (WOs) and condition reports (CRs) associated with the system to verify that there were no known conditions that could affect its function. This system was selected because of its high risk achievement worth as a mitigating system for several events.
- On April 16, 2001, the licensee was granted a Notice of Enforcement Discretion (NOED), Number 01-3-002, to provide for additional time to repair and test the D6 emergency diesel generator (EDG). The inspectors performed a partial walkdown of equipment identified in the NOED, which had an elevated risk importance due to the extended outage of the D6 EDG, to verify that the equipment was operable and adequately protected. This equipment included the Unit 1 4-kilovolt (KV) essential switchgear, the Unit 2 4-KV essential switchgear, and the D1, D2, and D5 EDGs.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of fire fighting equipment, the control of transient combustibles, and on the condition and operating status of installed fire barriers. The inspectors selected the following fire areas for inspection based on their overall contribution to internal fire risk, as documented in the Individual Plant Examination of External Events (IPEEE):

- Area 20, Bus 15 switchgear room;
- Area 81, Bus 16 switchgear room;
- Area 111, Bus 25 switchgear room; and
- Area 112, Bus 26 switchgear room.

b. Findings

No findings of significance were identified.

1R06 Flood Protection (71111.06)

a. Inspection Scope

The inspectors reviewed the licensee's actions during the preparations for and onset of actual significant flooding of the Mississippi River at the plant site. The licensee implemented its flooding procedure on April 9, 2001, when the 3-day prediction of river level indicated that the level would be higher than 678 feet above sea level, the abnormal operating procedure action level. The inspectors evaluated licensee actions to protect low lying buildings and equipment, control of the external circulating water system, plan for maintaining site access, and coordinate with local officials to plan emergency evacuation contingencies and other matters. The inspectors also observed licensee actions to recover after the flood and return plant systems to normal.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

The inspectors observed an operating crew on the simulator during requalification testing activities. The inspectors evaluated crew performance in the areas of:

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

The inspectors also observed the performance of the examination evaluators and their critique of the crew's performance. Additionally, the inspectors reviewed simulator configuration compared to the actual control room. The scenario involved a trip of a charging pump, generator voltage regulator adjust failure, turbine trip/reactor trip, and subsequent loss of heat sink.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

1. Quarterly Inspection

a. Inspection Scope

The inspectors reviewed systems to verify that the licensee properly implemented the maintenance rule for structures, systems, or components (SSCs) with performance problems. This evaluation included the following aspects:

- whether the SSC was scoped in accordance with 10 CFR 50.65;
- whether the performance problem constituted a maintenance rule functional failure;
- safety significance classification;
- the proper 10 CFR 50.65 (a)(1) or (a)(2) classification for the SSC; and
- the appropriateness of the performance criteria for SSCs classified as (a)(2) or the appropriateness of goals and corrective actions for SSCs classified as (a)(1).

The inspectors reviewed the licensee's implementation of the maintenance rule requirements for the following SSCs:

- Unit 1 containment ventilation system;
- D6 emergency diesel generator; and
- station and instrument air system.

b. Findings

No findings of significance were identified.

2. Biannual Inspection

a. Inspection Scope

The objectives of the inspection were to:

- verify that the periodic evaluation was completed within the time restraints defined in the maintenance rule (once per refueling cycle, not to exceed two 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 had balanced reliability and unavailability during the previous refueling cycle, including a review of safety significant SSCs;
- verify that (a)(1) goals were met, corrective action was 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 had established (a)(2) performance criteria, examined any SSCs that failed to meet their performance criteria, or reviewed any SSCs that had suffered repeated maintenance preventable functional failures including a verification that failed SSCs were considered for (a)(1).

The inspectors reviewed the current periodic evaluation, "Equipment Performance Annual Report 2000," dated April 5, 2001. To evaluate the effectiveness of (a)(1) and (a)(2) activities the inspector examined approximately 16 CRs and 20 WOs associated with the chemical and volume control system.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed the licensee's management of plant risk during maintenance activities and its control of emergent work activities. The inspection was conducted to verify that evaluation, planning, control, and performance of the work were done in a manner to reduce risk where practical, and that contingency plans were in place where appropriate. The activities were selected based on the component's contribution to risk or the probability of the work resulting in an initiating event. The following activities or conditions were inspected:

- reinstall the 12 reactor vessel support cooling fan;
- repair cylinder 1B on Engine 2 of the D6 EDG;
- scuffed D6 1B Engine 2 cylinder following 24-hour post-maintenance test run;
- jacket cooling water leakage problem on the D2 EDG; and
- D5 and D6 EDG inoperability due to oil incompatibility problems.

b. Findings

No findings of significance were identified. Potential findings and enforcement actions for the D5/D6 oil problem will be addressed in Special Inspection 50-306/01-13 initiated to investigate this issue.

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

a. Inspection Scope

- The inspectors reviewed the performance of the control room operators during an infrequently performed reactor power decrease to approximately 50 percent power to facilitate emergent maintenance on the 12 reactor vessel support cooling fan. As part of this inspection, the inspectors also reviewed the reactivity management guidelines provided by the nuclear engineers for the reactor plant transient.
- As discussed in the Summary of Plant Status and Section 1R06 of this report, the plant experienced significant flooding during the inspection period. The level of the Mississippi River was higher than it had ever been since the beginning of plant operation and was high for an extended period of time. The inspectors evaluated personnel performance during continued plant operations in the flood period which included several non-routine configurations, including loss of the river screenhouse, overflowing of the intake bay and discharge canals, loss of the cooling towers, suspension of liquid radioactive waste discharges, and flooding of some plant roads. The inspectors attended several daily strategy meetings in which the plant staff discussed flood coping actions and lessons learned.
- The inspectors observed licensee operators performing a rapid shutdown of Unit 2 after the D5 and D6 emergency diesel generators were declared inoperable due to oil incompatibility problems. The inspectors evaluated the operators' planning, briefings, use of procedures, and control of the plant during a forced shutdown and manual turbine trip which resulted in an expected reactor trip.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed a sampling of operability evaluations for safety significant systems and conditions to determine whether operability was justified, whether availability was affected, and whether an unrecognized increase in risk had occurred. The following evaluations were reviewed:

- 22 auxiliary feedwater trip throttle valve tappet sticking;
- CV-31127 [11 steam generator feedwater regulator valve] sticking; and
- 12 steam generator power operated relief valve inadvertent cycling while in automatic.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16)

a. Inspection Scope

The inspectors reviewed the cumulative effect of all identified operator workarounds (OWAs) to determine whether the cumulative conditions had a significant effect on plant risk or on the operators' ability to respond to a transient or accident situation.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed post-maintenance testing activities to ensure that the testing adequately verified system operability and functional capability with consideration of the actual maintenance performed. The post-maintenance testing activities were selected based on the respective system's importance to mitigating core damage or protecting barrier integrity.

The inspectors observed post-maintenance testing associated with the following work:

- the D6 EDG following the repair of cylinder 1B on engine 2;
- the 123 air compressor subsequent to a 1000-hour planned maintenance activity, replacement of its 3-way unloader valve, and inspection of the starwheel on control switch 49012; and
- testing subsequent to the performance of 121 spent fuel special and inservice purge exhaust fan inspection.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20)

a. Inspection Scope

The inspectors observed portions of the Unit 2 shutdown to Cold Shutdown Mode conducted on May 9-11, 2001. The inspectors evaluated the licensee's performance during the cooldown from normal operating temperature and pressure using the steam dumps and the transition to residual heat removal cooling. The inspectors evaluated the licensee's control of shutdown risk, configuration control, reactivity control, electrical power configuration activities, clearance activities, and operator response to equipment problems including failure of a source range detector and spurious operation of the steam dumps.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors witnessed selected surveillance testing and reviewed test data to verify that the equipment tested using the surveillance test procedures (SPs) met Technical Specifications, the Updated Safety Analysis Report (USAR), Design Basis Documents (DBDs), and licensee procedural requirements, and demonstrated that the equipment was capable of performing its intended safety functions. The activities were selected based on their importance in verifying barrier integrity or mitigating systems capability. The following tests were evaluated:

- SP 2307, "D6 Diesel Generator 6 Month Fast Start Test" in conjunction with SP 2335, "D6 Diesel Generator 18 Month 24 Hour Load Test";
- SP 1102, "11 Turbine-Driven AFW Pump Monthly Test"; and
- SP 1106A, "12 Diesel Cooling Water Pump Monthly Test."

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the removal of Temporary Modification 00T072 which had bypassed three fire detectors subject to spurious actuation in the D5 and D6 emergency diesel generator rooms. During this inspection period, the detectors were permanently relocated to reduce the probability of spurious actuation. The inspectors reviewed the WOs for the relocation to verify that the detectors had been properly restored and also reviewed the adequacy of operator training on the new plant configuration.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification (71151)

Safety System Functional Failures

a. Inspection Scope

The inspectors reviewed the performance indicator data submitted by the licensee for completeness and accuracy for the safety system functional failures indicator in the mitigating systems cornerstone. Condition reports, operator logs, and licensee event reports were reviewed for the periods of April 2000 through March 2001 to verify that the licensee had reported all safety system failures for those four quarters in accordance with the guidance provided by the Nuclear Energy Institute (NEI).

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The objective of the inspection was to review the licensee's problem identification and resolution of maintenance rule-related issues. The inspectors reviewed three CRs that identified problems with maintenance rule implementation.

b. Issues and Findings

No findings of significance were identified.

4OA6 Meeting(s)

Exit Meeting

The resident inspectors presented the inspection results to Mr. J. Sorensen and other members of licensee management at the conclusion of the inspection on May 11, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

Interim Exit Meeting Summary

Senior Official at Exit:

Mr. J. Sorensen, Site Vice President

Date:

April 13, 2001

Proprietary:	No
Subject:	Maintenance Rule Implementation
Change to Inspection Findings:	No

KEY POINTS OF CONTACT

Licensee

T. Allen, General Superintendent Engineering, Nuclear Generation Services
T. Amundson, General Superintendent Engineering
T. Breene, Manager Nuclear Performance Assessment
G. Eckholt, Licensing Manager
L. Gard, General Superintendent Plant Maintenance
G. Lenertz, Executive Engineer
J. Leveille, Licensing Engineer
A. Johnson, General Superintendent Radiation Protection and Chemistry
Y. Shem, Probabilistic Risk Assessment Project Manager
T. Silverberg, General Superintendent Plant Operations
M. Sleigh, Superintendent Security
J. Sorensen, Site Vice President
B. Stephens, Maintenance Rule Coordinator
M. Werner, Plant Manager

NRC

R. Lanksbury, Chief, Projects Branch 5

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

LIST OF ACRONYMS USES

ADAMS	Agency wide Documents Access and Management System
AFW	Auxiliary Feedwater
CFR	Code of Federal Regulations
CR	Condition Report
DBD	Design Basis Document
EDG	Emergency Diesel Generator
IMC	Inspection Manual Chapter
IPEEE	Individual Plant Evaluation of External Events
IR	Inspection Report
KV	Kilovolt
NEI	Nuclear Energy Institute
NOED	Notice of Enforcement Discretion
NRC	Nuclear Regulatory Commission
OA	Other Activities
OWA	Operator Workaround
PARS	Publicly Available Records
SDP	Significance Determination Process
SP	Surveillance Procedure
SSC	Structures, Systems, or Components
USAR	Updated Safety Analysis Report
WO	Work Order

LIST OF DOCUMENTS REVIEWED

1R04 Equipment Alignment

System Prestart Checklist C28-2	Auxiliary Feedwater System Unit 1	Revision 39
SP 1301	11 Turbine Driven Auxiliary Feedwater Pump Auto Start and Functional Refueling Outage Test	Revision 11
SP 1302	11 AFW Pump Suction Quarterly Line Flush	Revision 2
SP 1303	12 AFW Pump Suction Quarterly Line Flush	Revision 2
Flow Diagram NF-39222	Unit 1 Feedwater System	Revision AX
Flow Diagram NF-39216-2	Unit 2 Cooling Water - Turbine Building	Revision V
Northern States Power Letter	Response to NRC Generic Letter 89-13 Service Water System Problems Affecting Safety-Related Equipment	January 28, 1992
Operating Procedure 1C28.1	Auxiliary Feedwater System Unit 1	Revision 4
USAR Section 11.9	Condensate, Feedwater and Auxiliary Feedwater Systems	Revision 21
CR 20010019	11 Turbine Driven AFW Pump Auxiliary Lube Oil Pump Ran for Only 0.9 Minutes on 12/20/00 and Did Not Run on 1/1/01	
CR 20011562	11 and 12 AFW Pump Low Suction Pressure Switches PS-17704 and PS-17776 Both Drifted Outside Their SP 1234 Tolerance Band	
CR 20011864	CV-31998 Cycled Open and Closed Continuously During the Integrated Safety Injection Test	
CR20013581	CV-31154, 12 Motor Driven AFW Pump Recirculation Lube Oil Cooling Control Valve Opened Faster Than the Reference Range of 1-3 Seconds	
DBD-SYS-28B	Auxiliary Feedwater System	Revision 3
WO 0012983	Install Replacement W-2 Switch, CS-51017	
WO 0012986	Install Replacement W-2 Switch, CS-51517	
WO 0012980	Install Replacement W-2 Switch, CS-46439	

WO 0000337	Investigate and Correct 12 Motor Driven AFW Auxiliary Lube Oil Pump Cycling on Auto Start	
WO 0004804	SP 1083, Unit 1 Response to Safeguards Signal	
Nuclear Management Company Letter	Request for Notice of Enforcement Discretion Prairie Island Technical Specification 3.7.B	Revision 1, April 16, 2001
NRC Region III Letter	Prairie Island Nuclear Generating Plant - Notice of Enforcement Discretion, NOED No. 01-3-002	April 18, 2001
Nuclear Management Company Letter	50.9 Report - D6 NOED Compensatory Measures	April 20, 2001
<u>1R05 Fire Protection</u>		
IPEEE NSPLMI-96001 Appendix B	Internal Fires Analysis	Revision 2
Plant Safety Procedure F5 Appendix A	Fire Strategies	Revision 7
F5 Appendix D	Impact of Fire Outside Control/Relay Room	Revision 5
F5 Appendix F	Fire Hazard Analysis	Revision 12
<u>1R06 Flood Protection</u>		
Abnormal Procedure AB-4	Flood	Revision 17
CR 20013164	New Issues Identified With SP 1293 Plus Those Listed in CR 20002892	
USAR Section 2.4.3.5	Floods	Revision 21
USAR Appendix F	Probable Maximum Flood Study, Mississippi River at Prairie Island, Minnesota	Revision 4
DBD-TOP-05	Hazards	Revision 2
IPEEE NSPLMI-96001 Appendix C	Other External Events	Revision 0
<u>1R11 Licensed Operator Requalification</u>		
Simulator Exercise Guide SQ25	Simulator Cycle Quiz #25	Revision 1

1R12 Maintenance Rule Implementation (Quarterly)

Equipment Performance Report	2000 Annual Report	April 20, 2001
	Prairie Island Maintenance Rule System Basis Document	Revision 3
USAR Section 5	Containment System	Revision 22
Operating Procedure 1C19.2	Containment System Ventilation Unit 1	Revision 5
WO 0001352	P3151-1-1 Unit 1 Containment Fan Quarterly Lube and Inspection	
WO 0003614	Verify Proper Rotation of 121 Containment Purge Supply Fan	
WO 0006991	Adjust Positioner on 121 Containment Purge Supply Fan	
WO 0006991	Replace Brackets on Control Damper CD-34470	
WO 0010855	Obtain Flow Data for 11/12 Gap Fans With Fan Coil Units Running	
WO 0010856	Obtain Flow Data for 11/12 Support Gap Fans With Fan Coil Units Running	
WO 20003244	Reactor Vessel Gap Cooling Low Flow Alarm Setpoint Lowered to Allow Annunciator to Clear After Fan Coils Are Swapped	
WO 20011995	High Vibration Problems With 12 and 13 Containment Fan Coil Units. Restrict Fast Speed Operation of Containment Fan Coil Units	
WO 0000234	D6 Diesel Generator Load Changes Uncontrollably	
WO 0001343	P3001-2-D6 - D6 Diesel Generator 18 Month Inspection	
WO 0004050	Verify Operation of D6 Relays in Vertical Panel	
WO 0008267	During SP 2305, Difficulty Was Encountered Trying to Reduce Load to Less Than 700 Kilowatts	
WO 0023036	Secure D6 Station Blackout Building Ventilation	

CR 20012318	Air Lines for 121 Instrument Air Dryer Solenoid Valve B Hooked Up Wrong During Performance of PM 3510-1-121
CR 20004861	122 Station Air Compressor Tripped on Low Lube Oil Pressure 5 to 10 Seconds After Start
CR 20000354	Agastat Timing Relay for 123 Air Compressor Out of Calibration Causing Compressor to Time Out Prematurely
WO 0000363	"C" Solenoid Valve on 121 Instrument Air Dryer Is Venting Air Continuously When the Right Dryer Column Is Drying
WO 0002955	Test Procedure 1805, Instrument Air Joint Integrity Test
WO 0003517	123 Air Compressor Unloader Malfunctioning
WO 0004637	122 Instrument Air Compressor Unloader Valve Discharging Air Continuously
WO 0006640	123 Instrument Air Compressor Not Unloading Properly
WO 0013265	122 Instrument Air Compressor Valve Discharging Air Continuously
WO 0013084	High Engine Oil Level in D6 Engine 2
WO 0101092	Loose Parts from Fuel Line Support Bracket
CR 20002997	D6 Governor Baseload Kilowatts Higher Than Normal
CR 20003000	D6 Deluge Valve Tripped One Hour After Run of D6. Thermal Detector Tripped Due to High Temperature.
CR 20013451	Received D6 Not Ready Light On 44513-E7 Concurrent With D6 Engine 1 Lube Oil Sump Low Level Alarm During SP 2335.

1R12 Maintenance Rule Implementation (Biannual)

H Procedure H24	Maintenance Rule Program	Revision 3
H Procedure H24.1	Assessment and Management of Risk Associated With Maintenance Activities	Revision 0
H Procedure H24.3	Structures Monitoring Program	Revision 0
USAR Section 10.2.3	Chemical and Volume Control System	Revision 22

Maintenance Rule System Specific Basis Document	VC - Chemical and Volume Control System	Revision 3
	Equipment Performance Annual Report 1999	March 31, 2000
	Equipment Performance Annual Report 2000	April 5, 2001
Operations Manual B12A	Operations Manual, Chemical and Volume Control	Revision 4
Operations Manual B12B	Operations Manual, Boric Acid Storage and Recycle	Revision 2
DBD-SYS-12A	Design Basis Document, Chemical and Volume Control System	Revision 1
Administrative Work Instruction 5AWI 1.10.1	Condition Reporting Process	Revision 3
CR 19981900	Misposition Valve Line Up on Boric Acid Transfer Pump After Restoring Boric Acid Filter	
CR 19983568	SP 1052 Failed Acceptance Criteria - Believe CV-31329 Leaking	
CR 19991284	Shaft Run Out on 11 Boric Acid Transfer Pump Exceeded the Value Specified in D48	
CR 19991438	Unable to Calibrate 1PT-174 to Tolerance Defined in ICPM 1-269	
CR 19993391	CV-31328 Exceeded Stroke Times As Specified in SP 1357	
CR 19993479	12 Charging Pump Discharge Manifold Had a Leaky Valve Seat	
CR 20001189	23 Charging Pump Out-of-Service for Extended Period of Time for Maintenance, Lessons Learned	
CR 20001191	Assess the "Red" Equipment Performance Panel Indicator for the Chemical and Volume Control System	
CR 2000264711	Reactor Coolant Pump #1 Seal Leakoff Flow Transmitter Respanned Without Consideration of the Impact on Emergency and Abnormal Operation	
CR 2000313211	Reactor Coolant Pump #1 Seal Leakoff As Indicated on 1FR-175, Channel 1 Has Changed to Erratic Trace vs. Steady Trace	

CR 20005914	Finger Plate Was Installed Upside Down on CV 31201 (Diaphragm Replacement)
CR 2001202912	Charging Pump Has a Crack in One of the Suction Valve Cages
WO 9803833	Replace 11 and 12 Reactor Coolant Pump Seal Injection Flow Transmitters
WO 9803832	Replace Varidrive Belts
WO 0013939	CV-31201 Strokes But Does Not Pass Flow and Leaks
WO 0101203	12 Charging Pump Leaking Near Suction Manifold
WO 9804373	21 Charging Pump Oil, Oil Pump Housing/Cover Leaks
WO 9810085	11 Charging Pump Has High Seal Leakage
WO 9811038	Repair Leaking Seals on 13 Charging Pump
WO 9811346	22 Boric Acid Transfer Pump Has a Blown Seal on the Pump
WO 9811791	12 Charging Pump Lost Pumping Capacity
WO 9812235	12 Charging Pump Discharge Hydraulic Desurger
WO 9812736	Replace Air Motor on CV-31214
WO 9815471	22 Charging Pump Leakage from Block
WO 9901499	12 Pump Discharge Hydraulic Desurger Nitrogen Line
WO 9904671	11 Boric Acid Transfer Pump Making Abnormal Sound
WO 9904900	Smoked Belt on 13 Charging Pump
WO 9908080	13 Charging Pump Outboard Packing Assembly Came Apart
WO 9908374	23 Charging Pump Blown Desurger
WO 9912507	12 Charging Pump Discharge Manifold Is Leaking
WO 9904460	Replace Mechanical Seal on 11 Boric Acid Transfer Pump
WO 0004036	12 Boric Acid Transfer Pump Seal Failure

1R13 Maintenance Risk Assessment and Emergent Work Control

WO 0104157	Remove/Reinstall 12 Reactor Vessel Support Cooling Fan	
WO 0104300	High Crankcase Pressure on D6	
WO 0104388	D6 Engine 2 Cylinder B1 Repairs	
WO 0104718	Repair of Replace Piston Oiler on D6 Engine 2	
WO 0104618	Perform Boroscope Inspection of D6	
Maintenance Standards Implementing Procedure 4019	D5/D6 5 Year Inspection	Revision 0
CR 20013265	Surveillance Procedure 2118 Not Completed Within 8 Hours - Failed to Meet Technical Specification Action Statement	
CR 20013363	D6 Shut Down After Observing Crankcase Pressure Rise on 24 Hour Run - Boroscope Identified One Cylinder With Minor Blowby	
WO 0105220	Repair Failed Jacket Cooling Water Jumper Gasket	
WO 0014348	D2 Diesel Generator 18 Month Inspection	

1R14 Personnel Performance Related to Non-routine Plant Evolutions and Events

Operating Procedure 1C1.4	Unit 1 Power Operation	Revision 23
CR 20013382	Incorporate Lessons Learned from Spring 2001 Flood Into AB-4	
SP 1128	Monthly Backflush of Emergency Bay Intake Pipe	Revision 5
CR 20014064	Evaluate Potential Failure to Meet Commitment 0766 on Monthly Backflush (SP 1128) of Emergency Intake Line	
Operating Procedure 1C1.4	Unit 1 Power Operation	Revision 23
Operating Procedure 2C1.4	Unit 2 Power Operation	Revision 23
Operating Procedure 2C1.3	Unit 2 Shutdown	Revision 46

1R15 Operability Evaluations

CR 20012178	Feedwater Regulating Valve Sticking - This Valve Is Required to Close to Mitigate a Main Steam Line Break Accident. Please Evaluate the Ability of the Valve to Close When Required.	
Technical Manual X-HIAW-1-1270	Feedwater Regulating Valves	
CR 20010974	After the Test of 22 AFW Pump Trip Throttle Valve the Trip Tappet Did Not Drop Down By Itself When Resetting.	
Technical Manual X-HIAW-258-23	Auxiliary Feedwater Pump Turbine	
Instrument Block Diagram X-HIAW-1-552	Unit 1 Reactor Control and Protective System	Revision E
Logic Diagram NF-40322-3	Main Steam System - Unit 1	Revision M
Safety Parameter Manifest Form	Appendix A	November 3, 2000

1R16 Operator Workarounds

The 4th Quarter of 2000 Report on Operator Workarounds and Aggregate Assessment of OWAs

1R19 Post-Maintenance Testing

WO 0104619	D6 24 Hour Load Test/Break In Run	
WO 0104620	Surveillance Procedure 2307- D6 Diesel Generator 6 Month Fast Start	
WO 0104735	Perform Boroscope of D6 Following D6 Slow Start Test	
WO 0104203	P3505-1-123 - 1000 Hour PM on 123 Air Compressor	
WO 0103954	Repair or Replace 123 Air Compressor 3-Way Unloader	
WO 0104817	Inspect Starwheel on Control Switch 49012, 123 Station Air Compressor	
Operating Procedure C34	Station Air System	Revision 17

Preventive Maintenance Procedure 3548-10-121	121 Spent Fuel Pool Special and Inservice Purge Exhaust Fan Inspection	Revision 5
Operating Procedure C37.2	Spent Fuel Pool Normal and Special Vent Systems	Revision 15

1R20 Refueling and Other Outage Activities

Operating Procedure 2C1.3	Unit 2 Shutdown	Revision 46
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1R22 Surveillance Testing

SP 2307	D6 Diesel Generator 6 Month Fast Start Test	Revision 14
SP 2335	D6 Diesel Generator 18 Month 24 Hour Load Test	Revision 8
SP 1102	11 Turbine-Driven AFW Pump Monthly Test	Revision 73
SP 1106A	12 Diesel Cooling Water Pump Monthly Test	Revision 57

1R23 Temporary Plant Modifications

WO 0003116	Remove D5 Fire Protection Detector Temporary Modification	
WO 0003117	Remove D6 Fire Protection Detector Temporary Modification	
Prairie Island Nuclear Generating Plant Form 1224	Crew Meeting Review of Noteworthy Event/Near Miss/Change	April 24, 2001

4OA1 Performance Indicator Verification

NEI 99-02	Regulatory Assessment Performance Indicator Guideline	Revision 0
LER 1-00-03	Flooding from Postulated Failure of Air/Vacuum Valve Has Potential to Disable Both Trains of Essential Service (Cooling) Water	Original
LER 1-00-04	Inoperability of Safeguards Cooling Water (Essential Service Water) Pumps Caused By Unqualified Lubricating Water Supply to the Pump Shaft Bearings	Original and Revision 1

4OA2 Problem Identifications and Resolution

CR 20005122	Level 3 Condition Reports 19992587 and 20002420 Were Improperly Assessed As Not Being Maintenance Rule Functional Failures
CR 20011178	Assess the Maintenance Rule Significance of CRs 19992587 and 20002420 (Mispositioning of D3/4 Output Breakers)
CR 20012314	Error in Calculating Out-Of-Service Hours for the Maintenance Rule Report During the Second Quarter 2000