April 19, 2002

Mr. Mano Nazar
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 50-282/02-02; 50-306/02-02

Dear Mr. Nazar:

On March 31, 2002, the NRC completed an inspection at your Prairie Island Nuclear Generating Plant. The enclosed report documents the inspection findings which were discussed on March 28, 2002, with you and 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.

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

Sincerely,

/RA/

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 50-282/02-02;
50-306/02-02

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cc w/encl: Plant Manager, Prairie Island
R. Anderson, Executive Vice President
and Chief Nuclear Officer
Site Licensing Manager
Nuclear Asset Manager
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
Administrator, Goodhue County Courthouse
Commissioner, Minnesota Department
of Commerce

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-282; 50-306
License Nos:	DPR-42; DPR-60
Report No:	50-282/02-02; 50-306/02-02
Licensee:	Nuclear Management Company, LLC
Facility:	Prairie Island Nuclear Generating Plant
Location:	1717 Wakonade Drive East Welch, MN 55089
Dates:	February 15 through March 31, 2002
Inspectors:	S. Ray, Senior Resident Inspector D. Karjala, Resident Inspector Z. Dunham, Resident Inspector, Kewaunee M. Kunowski, Project Engineer J. Adams, Resident Inspector, Quad Cities
Approved by:	Roger D. Lanksbury, Chief Branch 5 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000282-02-02; IR 05000306-02-02, on 2/15-3/31/2002; Nuclear Management Company, Prairie Island Nuclear Generating Plant, Units 1 & 2, Resident Inspector Report.

This report covers a 6-week routine resident inspection. The inspection was conducted by resident inspectors and a regional project engineer. 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/ASSESS/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. Unit 2 was in a refueling outage until the reactor was brought critical on March 1, 2002. The Unit 2 generator was placed online on March 2 and reached full power on March 4, 2002. Unit 2 operated at or near full power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors observed operator actions and plant response during icing conditions that caused instabilities on the transmission grid. The inspection was conducted because the adverse weather conditions created the potential for a loss of offsite power and/or a reactor trip transient. Circuit breakers 8H7 and 8H8 opened in response to transmission line icing conditions, which isolated a Red Rock transmission line from the Prairie Island switchyard. The inspectors observed control room activities to verify that equipment responded as expected and that operator actions addressed the alarms and conditions in accordance with the procedures listed at the end of this report.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Train Walkdown

a. Inspection Scope

The inspectors performed a partial walkdown of the D1 diesel generator while the D2 diesel generator was unavailable because of surveillance testing. The inspectors utilized the valve and electrical breaker status checklists listed at the end of the report to verify that components were properly positioned and that support systems were lined up to support diesel generator operation. The inspectors also examined the material condition of diesel generator components and valves and evaluated the general housekeeping of the D1 diesel generator room. The inspectors reviewed outstanding work orders (WOs) and condition reports (CRs) associated with the diesel to verify that these documents did not reveal issues that could affect train function. The inspectors used the information in the sections of the Updated Safety Analysis Report (USAR) and Technical Specifications (TSs) listed at the end of this report to determine the functional requirements of the system.

b. Findings

No findings of significance were identified.

.2 System Walkdown

a. Inspection Scope

The inspectors walked down the accessible portions of the cooling water system in the turbine and auxiliary buildings. The inspectors utilized the system checklists and flow diagrams listed at the end of the report to verify that components were properly positioned. The inspectors also examined the material condition of the components. The inspectors reviewed outstanding WOs and CRs associated with the system to verify that these documents did not reveal issues that could affect system function. The inspectors used the information in the sections of the USAR and TSs listed at the end of this report to determine the functional requirements of the system. The inspectors reviewed licensee records to verify that minor deficiencies identified during this inspection were entered into the corrective action system.

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 fire areas for inspection based on their overall contribution to internal fire risk, as documented in the Individual Plant Examination of External Events (IPEEE), their potential to impact equipment which could initiate a plant transient, or their impact on the plant's ability to respond to a security event. The inspectors used the documents listed at the end of this report to verify that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and that fire doors, dampers, and penetration seals appeared to be in satisfactory condition.

The following areas were inspected:

- Fire Area 41A, Screenhouse Safeguards Area;
- Fire Area 41B, Screenhouse Basement;
- Fire Area 58, Auxiliary Building 695-foot elevation, Unit 1; and
- Fire Area 73, Auxiliary Building 695-foot elevation, Unit 2.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

The inspectors observed an operating crew during an “as found” requalification examination on the simulator. The inspectors evaluated crew performance in the areas of:

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

Crew performance in these areas was compared to licensee management expectations and guidelines as presented in the operations section work instructions (SWIs) listed at the end of this report and to the critical tasks listed in the exercise guide at the end of this report. The inspectors also compared simulator configurations with actual control room board configurations. For any weaknesses identified, the inspectors observed the licensee evaluators to verify that they also noted the issues and discussed them in the critique at the end of the session. For this examination, the licensee evaluators determined that the crew had failed because they did not properly perform one of the critical tasks, so the inspectors interviewed personnel and reviewed records to verify that actions were initiated to remediate the crew before they returned to duty.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

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 problems constituted maintenance rule functional failures;
- the proper 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 above aspects were evaluated by using the maintenance rule scoping and report documents listed at the end of this report. For each SSC reviewed, the inspectors also reviewed significant WOs and CRs listed at the end of this report to verify that failures were properly identified, classified, and corrected and that unavailable time had been properly calculated. The inspectors reviewed documents to verify that minor discrepancies in the licensee's maintenance rule reports were corrected.

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

- Unit 2 auxiliary feedwater (AFW) system;
- Unit 1 and Unit 2 cooling water system; and
- Unit 2 condenser air removal 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 emergent maintenance activities or during activities where more than one significant system or train was unavailable. The activities were chosen based on their potential impact on increasing the probability of an initiating event or impacting the operation of safety significant equipment. The inspection was conducted to verify 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 licensee's daily configuration risk assessment records, observations of shift turnover meetings, observations of daily plant status meetings, observations of shiftly outage meetings, and the documents listed at the end of this report were used by the inspectors 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 being communicated to the necessary personnel.

The inspectors reviewed the following emergent maintenance activities:

- failure of the 22 containment spray (CS) pump breaker to close during the integrated safety injection test;
- reduced seal return flow on the 22 reactor coolant pump (RCP); and
- steam leak on high pressure turbine drain piping on Unit 2.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors evaluated plant conditions, selected CRs, and corrective action process (CAP) documents for risk significant components and systems in which operability issues were questioned. These conditions were evaluated to determine whether the operability of the components and systems was justified. The inspectors compared the operability and design criteria in the appropriate sections of the TS and USAR to the licensee's evaluations presented in the CRs and documents listed at the end of this report to verify that the components or systems were operable. Where compensatory measures were necessary to maintain operability, the inspectors reviewed the documents listed at the end of the report to verify that the measures were in place, would work as intended, and were properly controlled.

The conditions evaluated were:

- the licensee's evaluation of steam generator level setpoint issues identified by Westinghouse Nuclear Safety Advisory Letters (NSALs); and
- whether the liquid radwaste discharge monitor, R-18, could be considered operable when its ability to discriminate low level signals was questionable.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed post-maintenance testing activities associated with maintenance on important mitigating, barrier integrity, and support systems to ensure that the testing adequately verified system operability and functional capability with consideration of the actual maintenance performed. The inspectors used the appropriate sections of the TSs and the USAR, as well as the documents listed at the end of this report, to evaluate the scope of the maintenance and to verify that the post-maintenance testing was performed adequately, demonstrated that the maintenance was successful, and that operability was restored. In addition, the inspectors reviewed CAPs to verify that minor deficiencies identified during these inspections were entered into the licensee's corrective action system.

Testing subsequent to the following activities was observed and evaluated:

- the 12 diesel cooling water pump annual inspection;
- decontamination of the sample chamber of the liquid radwaste discharge monitor R-18; and
- draining and refilling the D5 diesel generator fuel oil day tank.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20)

a. Inspection Scope

The inspectors reviewed and/or observed activities associated with a Unit 2 refueling outage. The inspectors reviewed the outage plan and schedule to verify that risk had been appropriately considered, and evaluated how emergent work and changing plant conditions were handled from a risk control perspective. Among the significant outage activities the inspectors observed were the reactor coolant system (RCS) draindown to reduced inventory conditions for removal of the steam generator nozzle dams; and preparation for, and accomplishment of, mode changes from refueling through power operation; including heatup, securing of residual heat removal (RHR) cooling, reactor startup preparations, physics testing, and power ascension. Documents and procedures used in these reviews are listed at the end of this report. For each mode change, the inspectors reviewed the completed prerequisite checklists to ensure that TS requirements were met. The inspectors also conducted a containment cleanliness inspection near the end of the outage with emphasis on ensuring that no material was left in containment that could affect the flow to the containment recirculation sump. The inspectors also observed and/or reviewed several other miscellaneous outage activities. The inspectors regularly reviewed the licensee's shutdown risk assessment classification and its control of protected equipment when defense-in-depth equipment was unavailable, especially electrical power sources.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors witnessed selected surveillance testing and/or reviewed test data to verify that the equipment tested using the surveillance procedures (SPs) met the TSs, the USAR, 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 mitigating systems capability and barrier integrity. The inspectors used the documents listed at the end of this report to verify that the

testing met the TS frequency requirements; that the tests were conducted in accordance with the procedures, including establishing the proper plant conditions and prerequisites; that the test acceptance criteria were met; and that the results of the tests were properly reviewed and recorded.

The following tests were observed and evaluated:

- SP 2083, Unit 2 Integrated SI [safety injection] Test With a Simulated Loss of Offsite Power;
- SP 2750, Post Outage Containment Close-Out Inspection; and
- SP 2093, D5 Diesel Generator Monthly Slow Start Test and Coincident Opacity Testing.

b. Findings

No findings of significance were identified.

1R23 Temporary Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed a temporary modification to remove one of the overspeed trip mechanisms on the D5 diesel generator. The inspectors reviewed the temporary modification description and the 10 CFR 50.59 screening form listed at the end of the report to ensure they were completed in accordance with the licensee administrative work instruction (AWI) guidance listed at the end of the report. In addition, the inspectors reviewed the listed section of the USAR and TSs to verify that the installation did not affect the specified design function or operability of the system. The inspectors also reviewed the installation and removal work orders listed at the end of the report and walked down the installation to insure the temporary equipment was installed in accordance with the plan. The inspectors also reviewed the control room transitional drawing file to ensure that the appropriate drawing had been updated to show the temporary modification.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151)

a. Inspection Scope

The inspectors reviewed the PI data submitted by the licensee for completeness and accuracy of the Safety System Unavailability PI for the RHR System in the Mitigating Systems Cornerstone. The inspectors compared the data reported by the licensee to the definitions and guidance contained in the Nuclear Energy Institute (NEI) guidance

listed at the end of this report. The inspectors reviewed electronic control room logs and limiting condition for operations logs for the first through fourth quarters of 2001 to verify the reported unavailable times. The inspectors also reviewed the CRs and WOs listed at the end of this report to identify any unavailability times that the licensee might have missed.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

Inadvertent Train B SI Actuation on Unit 2

a. Inspection Scope

The inspectors observed control room personnel respond to an inadvertent Train B SI actuation on February 26, 2002, on Unit 2. Unit 2 was in the process of heatup and startup, and was at approximately 340 degrees Fahrenheit at the end of its refueling outage when the actuation occurred. The inspectors responded to the control room and conducted control panel walkdowns to verify that all Train B engineered safeguards equipment had responded as expected. The inspectors also observed operator response actions to diagnose the event, stabilize the plant, and recover. The event resulted in the operators tripping the only operating decay heat removal system. There was no RCS heatup, at the time, due to the injection of relatively cool water by the 22 SI pump. The operators terminated the injection before the pressurizer was filled so pressure control was never lost. Because the event did not result in any adverse reactor conditions and all mitigating equipment responded as expected, this event was considered to be of minor safety significance.

Several issues were raised by both the inspectors and licensee personnel regarding TS interpretation and compliance, the adequacy of the emergency procedures for the unusual plant conditions, and reporting requirements. Each of the issues was entered into the licensee's corrective action system using the CRs listed at the end of this report.

The licensee concluded that the actuation was invalid and was caused by an electrical maintenance technician accidently shorting two contacts with a test equipment lead. The inspectors reviewed the electrical drawings listed at the end of the report with licensee engineering personnel to verify that the licensee's conclusions regarding the cause of the actuation were reasonable and would have led to the plant response experienced. The licensee intended to report the event as either a written Licensee Event Report (LER) or optional 60-day telephone report to the NRC.

b. Findings

No findings of significance were identified.

4OA6 Meeting(s)

Exit Meeting

The resident inspectors presented the inspection results to Mr. M. Nazar and other members of licensee management at the conclusion of the inspection on March 28, 2002. The licensee acknowledged the findings presented. No proprietary information was identified.

KEY POINTS OF CONTACT

Licensee

T. Breene, Manager Nuclear Performance Assessment
B. Jefferson, Director Site Operations
A. Johnson, General Superintendent Radiation Protection and Chemistry
R. Lingle, Operations Manager
J. Maki, Production Planning Manager
L. Meyer, General Superintendent Plant Maintenance
M. Nazar, Site Vice President
J. Waddell, Superintendent Security
M. Werner, Plant Manager
L. Williams, Director of Engineering

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USES

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
ARP	Alarm Response Procedure
AWI	Administrative Work Instruction
CAP	Corrective Action Process
CFR	Code of Federal Regulations
CR	Condition Report
CS	Containment Spray
IMC	Inspection Manual Chapter
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
KV	Kilovolt
LER	Licensee Event Report
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
NSAL	Nuclear Safety Advisory Letter
NSSS	Nuclear Steam Supply System
PARS	Publicly Available Records
PI	Performance Indicator
PM	Preventive Maintenance
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RHR	Residual Heat Removal
SDP	Significance Determination Process
SI	Safety Injection
SP	Surveillance Procedure
SSC	Structure, System, or Component
SWI	Section Work Instruction
TS	Technical Specification
USAR	Updated Safety Analysis Report
WO	Work Order

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather Protection

CR 200202426	Received Undervoltage Alarms on Bus 11 & Bus 12	
Alarm Response Procedure (ARP) C47005-0201	Bus 11 4.16KV [kilovolts] Undervoltage	Revision 11
ARP C47005-0202	Bus 12 4.16KV Undervoltage	Revision 11
ARP C47022-0610	Fire Detection Panel FP121 Trouble Alarm	Revision 29
ARP C47023-0601	Substation Local Alarm	Revision 31
ARP C47024-0704	Bus 16 Sequencer Channel Alert	Revision 34
ARP C47507-0303	Hydrogen and Seal Oil Local Alarm	Revision 20
ARP C47508-0509	NSSS [Nuclear Steam Supply System] Annunciator System Power Failure	Revision 22
ARP C47524-0701	Bus 25 Sequencer Channel Alert	Revision 34
ARP C47524-0704	Bus 26 Load Sequencer Channel Alert	Revision 34

1R04 Equipment Alignment

D1 Diesel Generator

Integrated Checklist C1.1.20.7-1	D1 Diesel Generator Valve Status	Revision 17W
Integrated Checklist C1.1.20.7-2	D1 Diesel Generator Auxiliaries and Room Cooling Local Panels	Revision 8W
Integrated Checklist C1.1.20.7-3	Diesel Generator D1 Main Control Room Switch and Indicating Light Status	Revision 13
Integrated Checklist C1.1.20.7-4	D1 Diesel Generator Circuit Breakers and Panel Switches	Revision 11
USAR Section 8.4	Plant Standby Diesel Generator Systems	Revision 23
TS 3.7	Auxiliary Electrical System	Revision 160
TS 4.6	Periodic Testing of Emergency Power System	Revision 147

Cooling Water System

CR 20005789	Flow Element FE-27024 Was Removed Prior to Design Change Approval	
CR 20015676	Obtain Approval for Design Change and Implement Modification	

WO 9701104	Remove Flow Element and Plug Fitting	
WO 0007825	Valve Is Hard To Operate	
USAR Section 10.4.1	Cooling Water System	Revision 22
TS 3.3.D	Cooling Water System	Revision 131
Abnormal Operating Procedure C35 AOP4	Cooling Water Leakage in Containment	Revision 8
Integrated Checklist C1.1.35-1	Cooling Water System Unit One	Revision 8
Integrated Checklist C1.1.35-2	Cooling Water System Unit 2	Revision 8
Drawing NF-39216-1	Flow Diagram Unit 1 & 2 Cooling Water - Screenhouse	Revision AD
Drawing NF-39216-2	Flow Diagram Unit 1 Cooling Water - Turbine Building	Revision X
Drawing NF-39216-3	Flow Diagram - Unit 1 Cooling Water - Auxiliary Building	Revision R
Drawing NF-39216-4	Flow Diagram Unit 1 Cooling Water - Containment	Revision F
Drawing NF-39217-1	Flow Diagram Unit 2 Cooling Water - Turbine Building	Revision X
Drawing NF-39217-2	Flow Diagram Unit 2 Cooling Water - Auxiliary Building	Revision S
Drawing NF-39217-3	Flow Diagram Unit 2 Cooling Water - Containment	Revision C
Drawing NF-39255-1	Diesel Generators D1 & D2 Units 1 and 2 Flow Diagram	Revision Z
CAP000090	Work Request Sticker Was Not Removed When Work Order 0110644 Was Canceled	

1R05 Fire Protection

Plant Safety Procedure F5	Fire Fighting	Revision 27
Plant Safety Procedure F5 Appendix F	Fire Hazard Analysis	Revision 12
Plant Safety Procedure F5 Appendix D	Impact of Fire Outside Control/Relay Room	Revision 8
Plant Safety Procedure F5 Appendix A	Fire Strategies	Revision 7

IPEEE NSPLMI-96001 Appendix B	Internal Fires Analysis	Revision 2

1R011 Licensed Operator Requalification Program

Lesson Plan P9160S-001	Simulator Cycle Quiz #35	Revision 1
SWI O-0	Conduct of Operations	Revision 1
SWI O-2	Shift Organization, Operations, and Turnover	Revision 46
SWI O-10	Operation Manual Usage	Revision 41
SWI O-25	Periodic Data Acquisition and Logkeeping	Revision 29

1R12 Maintenance Rule Implementation

General

	2000 Equipment Performance Annual Report	April 20, 2001
	Maintenance Rule System Basis Document, Volume 1A	Revision 3
	Maintenance Rule System Basis Document, Volume 1B, Cooling Water Section	Revision 3
	Quarterly Equipment Performance Report - 4th Quarter 2001 (draft)	February 2002
NUMARC 93-01	Nuclear Energy Institute Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	Revision 2
Regulatory Guide 1.160	Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	Revision 2

Unit 2 AFW System

CR 20014863	Control Valve CV-31419 Did Not Open Within Reference Range
CR 20017083	Entered Unplanned Limiting Condition for Operation Action Due to 22 Turbine-Driven AFW Pump Recirculation Control Valve CV-31419 Failure to Open During SP-2102
CR 20017776	Replace AFW Pump Recirulation/Lubricating Oil Solenoid Valves With Models Having Elastomers Rated for Higher Temperature

CR 20017971	Modify AFW Systems to Remove the Recirulation/Lubricating Oil Cooling Control Valves	
CR 200186464	Implement Periodic Inspection and/or Replacement of AFW Recirculation Solenoid Valve Elastomeric Seats	
CR 200200675	Develop an Action Plan for Returning the AFW System to Maintenance Rule a(2) Status	
WO 0110640	Solenoid Valve SV-33493 Did Not Vent Completely Off	
WO 0111809	Fail Open AFW Recirculation Control Valve CV-31418	
WO 0111811	Fail Open AFW Recirculation Control Valve CV-31419	

Unit 1 and Unit 2 Cooling Water

CR 20004776	Cooling Water Vertical Cooling Water Pump Bearing Lubricating Supply Downgrade to Non Quality	
CR 200186350	Re-examine the Revised Root Cause Evaluation for the Cooling Water White Finding	
CR 200200677	Develop Action Plan to Return the Cooling Water System to a(2)	

Unit 2 Air Removal System

CR 20014153	At 24 Megawatts During Performance of 2C1.3, Unit 2 Turbine Was Manually Tripped Due to High Condenser Differential Pressure of 2.5 Inches With Vacuum Decreasing	
CR 200185657	Manual Reactor Trip Due to Condenser Vacuum Differential Greater Than 2.5 Inches	
LER 2-01-04	Manual Turbine Trip/Reactor Trip Due to High Differential Condenser Backpressure	Original
LER 2-01-05	Manual Reactor Trip on Unit 2, Initiated in Response to a High Differential Pressure Between the Turbine Steam Condensers, Caused by an Inadvertent Venting of One Condenser While Isolating a Steam Leak	Original

1R13 Maintenance Risk Assessments and Emergent Work Control

CS Breaker Issue

WO 0104847	Perform PM [Preventive Maintenance] on Breaker 26-9 CS Pump	
WO 0201793	Troubleshoot Cause of 22 CS Pump Not Starting	
CR 200201895	During Preparations for SP 2083 Breaker 26-9 22 CS Pump Failed to Close from Relay 2CS-20X and from CS-46561	
Electrical Maintenance Procedure PE 0007	5HK250/350 Breaker Testing Maintenance & Repair - Minor	Revision 1

22 RCP Seal Issue

CR 200202073	22 RCP Number 1 Seal Leak-Off Flow Rate Decreased Below 0.8 Gallons Per Minute During Startup on 2/27/02 - Evaluate Low Leak-Off Flow Rate	
WO 0201940	Start 22 RCP With Enhanced Monitoring	
WO 0201921	Provide a 2nd Balance Shot for 22 RCP	
WO 0201937	Start/Stop the 22 RCP Oil Lift Pump	
WO 0201966	22 RCP Seal Replacement Per D15.1 [this WO was written as a contingency]	
Abnormal Operating Procedure 2C3 AOP3	Failure of a Reactor Coolant Pump Seal	Revision 8
Temporary Change Notice 2002-0901 to 2C3 AOP3	Failure of a Reactor Coolant Pump Seal	
Project Plan	22 Reactor Coolant Pump Seal Leak-Off Issues	March 1, 2002
P. Huffman Memorandum	Low Leak-Off RCP Seal Concern	March 5, 2002

High Pressure Steam Leak Issue

D. Herling Memorandum	Contingency Actions for Unit 2 High Pressure Steam Leak	March 4, 2002
P. Huffman Memorandum	Unit 2 Turbine Drain Steam Leak	March 4, 2002
J. Loesch Memorandum	Steam Leak Safety Requirements	March 4, 2002

Temporary Modification 02T122	Furmanite Repair on Turbine CV-3 Drain Loop	
WO 0202013	Install Furmanite Box on Turbine CV-3 Drain Loop	
Maintenance Procedure D93	On-Line Leak Sealing	Revision 9

1R15 Operability Evaluations

Steam Generator Level Issues

CR 200201616	NSAL 02-3 Steam Generator Narrow Range Level Offset Due to Mid-Deck Plate Pressure Loss	
CR 200201692	Steam Generator Mid-Deck Plate Pressure Loss Issue	
CR 200201822	Maximum Reliable Indicated Steam Generator Water Level	
CR 200201823	Steam Generator Water Level Control System Uncertainty Issue	
Westinghouse NSAL-02-3	Steam Generator Mid-Deck Plate Pressure Loss Issue	February 18, 2002
Westinghouse NSAL-02-4	Maximum Reliable Indicated Steam Generator Water Level	February 19, 2002
Westinghouse NSAL–2-5	Steam Generator Water Level Control System Uncertainty Issue	February 19, 2002
SP 1002A	Analog Protection System Calibration	Revision 26
TS 2.3	Limiting Safety System Setting, Protective Instrumentation	Revision 91
USAR Section 7.4.1	Reactor Protection System	Revision 23

R-18 Radiation Monitor

CAP000026	Evaluate Low End Bug Point Check for R-18	
USAR Section 7.5.2.12	Waste Disposal System Liquid Effluent Monitor (R-18)	Revision 23
Operating Procedure C11	Radiation Monitoring System	Revision 20
Operations Manual B11	Radiation Monitoring System	Revision 5
H Procedures H4	Offsite Dose Calculation Manual, Section 2.0, Liquid Effluents	Revision 16

USAR Section 9.2	Liquid Radwaste System	Revision 23
TS 6.5.D	Radioactive Effluent Controls Program	Revision 147

1R19 Post Maintenance Testing

TS 3.3.D.	Cooling Water System	Revision 131
USAR Section 10.4.1	Cooling Water System	Revision 22
PM 3002-2-12	12 Diesel Cooling Water Pump Annual Inspection	Revision 19
SP 1106A	12 Diesel Cooling Water Pump Monthly Test	Revision 59
WO 0112416	R-18 Sample Chamber Decontamination	
PM 3155-3	R-18 Sample Chamber Decontamination	Revision 4W
USAR Section 7.5.2.12	Waste Disposal System Liquid Effluent Monitor (R-18)	Revision 23
USAR Section 9.2	Liquid Radwaste System	Revision 23
TS 6.5.D	Radioactive Effluent Controls Program	Revision 147
SP 2093	D5 Diesel Generator Monthly Slow Start Test	Revision 69
WO 0202003	Perform D5 Opacity Test	
5AWI 15.4.0	Minor Maintenance Program	Revision 0
Maintenance Procedure D18	Equipment Lubrication	Revision 54
TS 3.7	Auxiliary Electrical Systems	Revision 160
TS 4.6	Periodic Testing of Emergency Power Systems	Revision 147
USAR Section 8.4	Plant Standby Diesel Generator Systems	Revision 23
CAP000100	Level in D5 Turbocharger Lowered Without Proper Documentation or Work Control	

1R20 Refueling and Other Outage Activities

Operating Procedure 2C1.6	Shutdown Operations - Unit 2	Revision 13
Operating Procedure 2C4.2	RCS Inventory Control - Post Refueling	Revision 13
Operating Procedure 2C1.4	Unit 2 Power Operation	Revision 27

Operating Procedure 2C1.2	Unit 2 Startup Procedure	Revision 25
Special Operating Procedure 2D2	RCS Reduced Inventory Operation	Revision 13
PM 3132-1-22	22 Turbine-Driven Aux Feed Pump Refueling Inspection	Revision 33
SP 2102	22 Turbine-Driven AFW Pump Monthly Test	Revision 68
SP 2330	22 Turbine-Driven AFW Turbine/Pump Bearing Temperature Test	Revision 7
Maintenance Procedure D30	Post Refueling Startup Testing	Revision 34
Maintenance Procedure D32	Temperature Coefficient Measurement at Hot Zero Power	Revision 10
Maintenance Procedure D34	Boron Endpoint Measurement	Revision 8

1R22 Surveillance Testing

SP 2083	Unit 2 Integrated SI Test With a Simulated Loss of Offsite Power	Revision 24
WO 0201775	Test SP 2083 Exceptions 22 Fan Cooler Unit and Containment Cooling System Valves	
WO 0201805	Test SP 2083 Exceptions 22 Fan Cooler Unit Load Reject/Restore	
TS 4.5.A	Engineered Safety Features System Tests	Revision 161
SP 2750	Post Outage Containment Close-Out Inspection	Revision 22
SP 2093	D5 Diesel Generator Monthly Slow Start Test	Revision 69
WO 0201925	Add Fuel Additive for Opacity Testing on D5	
Safety Evaluation Screening 1164	WO #0201925 to Perform Additive Test	Revision 0
TS 4.6	Periodic Testing of Emergency Power Systems	Revision 147

1R23 Temporary Modifications

5AWI 6.5.0	Temporary Modifications	Revision 11
Temporary Modification 02T113	Bypass and Isolate the Function of a Failed Field Flash Speed Switch or a Failed Overspeed Switch	
WO 0201073	Isolate Overspeed Trip Device or Field Flash Speed Switch	
WO 0201074	Remove Overspeed Trip Device or Field Flash Speed Switch Temporary Modification	
Controlled Transitional File Drawing NE 118250	Flow Diagram Unit 2 Starting Air Diesel Generator D5	Revision B
USAR Section 8.4	Plant Standby Diesel Generator Systems	Revision 23
TS 3.7	Auxiliary Electrical Systems	Revision 160
TS 4.6	Periodic Testing of Emergency Power Systems	Revision 147
USAR Section 8.4	Plant Standby Diesel Generator Systems	Revision 23

4OA1 Performance Indicator Verification

NEI 99-02	Regulatory Assessment Performance Indicator Guideline	Revision 2
	Electronic Control Room Logs	1/1/2001-12/31/2001
	Electronic Limiting Conditions for Operations Logs	1/1/2001-12/31/2001
WO 0107626	Replace 22 RHR Pump Seal - Inspect and Replace Studs and Nuts	
CR 20014785	22 RHR Pump Seal Leaking	

4OA3 Event Followup

USAR Section 6	Engineered Safety Features	Revision 23
CR 200202010	Manual Trip of 21 RCP Due to Loss of Seal Water Return Following Train B SI Signal While 22 RCP Isolated	

CR 200202013	During SP 2373 Reactor Trip and Bypass Breaker Contacts Inadvertent SI Occurred During Step 7.6.1 - Worker Brushed Wrong Contacts	
CR 20020216	Review Application of TS 3.1.A.1.c on 2/26/02 With 21 RCP On, 22 RCP Out of Service, and RHR Aligned for Injection	
CR 20020217	TS 3.1.A.1.c Is Not Clear Regarding Required Actions When One RCP Is Stopped (Operable) With One RCP Inoperable	
CR 200202015	Operators Deviated from E-0 and ES-0.2 Following Inadvertent SI Due to Plant Conditions Not Meeting SI Termination Criteria	
Emergency Operating Procedure 2E-0	Reactor Trip or Safety Injection	Revision 19
Emergency Subprocedure 2ES-0.2	SI Termination	Revision 18
TS 3.1	Reactor Coolant System	
Drawing X-HIAW-1001-885-10	Feedwater Isolation Safeguards System Unit 1 & 2	Revision E
Drawing X-HIAW-1001-885-7	Safety Injection Scheme	Revision J
Drawing X-HIAW-1001-885-16	Safeguards Logic Cabinets	Revision B
Drawing X-HIAW-1-242	Safeguards Actuation Signals Logic Diagrams	Revision E