January 17, 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 50-282/01-18; 50-306/01-18

Dear Mr. Nazar:

On December 29, 2001, the NRC completed an inspection at your Prairie Island Nuclear Generating Plant. The enclosed report documents the inspection findings which were discussed on December 27, 2001, with Mike Werner 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.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. This advisory was followed by additional advisories, and although the specific actions are not releasable to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more limited access of personnel and vehicles to the sites. The NRC has conducted various audits of your response to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design basis threat (DBT). From these audits, the NRC has concluded that your security program is adequate at this time.

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/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

Original signed by
Roger D. Lanksbury

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 50-282/01-18; 50-306/01-18

cc w/encl: Plant Manager, Prairie Island
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: | 50-282/01-18; 50-306/01-18 |
| Licensee: | Nuclear Management Company, LLC |
| Facility: | Prairie Island Nuclear Generating Plant |
| Location: | 1717 Wakonade Drive East<br>Welch, MN 55089 |
| Dates: | November 16 through December 29, 2001 |
| Inspectors: | S. Ray, Senior Resident Inspector<br>S. Thomas, Resident Inspector<br>D. Karjala, Resident Inspector<br>D. McNeil, Senior Operations Specialist |
| Approved by: | Roger D. Lanksbury, Chief<br>Branch 5<br>Division of Reactor Projects |

# SUMMARY OF FINDINGS

IR 05000282-01-18; IR 05000306-01-18, on 11/16-12/29/2001; Nuclear Management Company, Prairie Island Nuclear Generating Plant, Units 1 & 2, Resident Inspector and Licensed Operator Requalification Program Report.

This report covers a 6-week routine resident inspection and an inspection of the licensed operator requalification program. The inspections were conducted by resident inspectors and a senior operations specialist. 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 about 40 percent on December 2-3, 2001, for quarterly turbine valve testing. Unit 2 was operated at or near full power for the entire inspection period.

## 1. REACTOR SAFETY

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

### 1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors conducted plant walkdowns and document reviews to verify that the risk significant systems were adequately protected against impending cold weather. The residents concentrated on the condensate storage tank (CST) heating system, the instrument air compressor cooling system, and the ventilation systems for the emergency and security diesel generator rooms. The inspectors used the licensee checklists and procedures listed at the end of this inspection report to verify that the systems were lined up as required. In addition, the inspectors reviewed the condition reports (CRs) and work orders (WOs) listed at the end of this report to verify that the licensee had entered problems identified with cold weather operations into the corrective action system and was taking the appropriate compensatory actions.

b. Findings

No findings of significance were identified.

### 1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors performed a walkdown of the 21 shield building ventilation train to verify that the redundant train was in the correct lineup while the 22 shield building ventilation train was inoperable due to a failed surveillance test. The inspectors used the checklist and drawing listed at the end of this report to determine the correct lineup. The inspectors also reviewed outstanding WOs and CRs associated with the 21 train to verify that these documents did not reveal issues that could affect train function. Significant WOs and CRs reviewed are listed at the end of this report. 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. During the walkdown, the inspectors also observed the

material condition of the equipment to verify that there were no significant conditions not already in the licensee's work control system.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Area Walkdowns

a. Inspection Scope

The inspectors conducted 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. Using the documents listed at the end of this report, the inspectors walked down the areas 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 41: screenhouse ground floor, elevation 670';
- Fire Area 41: plant screenhouse, elevation 695';
- Fire Area 35: 21 battery room, elevation 695'; and
- Fire Area 36: 22 battery room, elevation 695'.

b. Findings

No findings of significance were identified.

.2 Fire Brigade Drill

a. Inspection Scope

The inspectors observed the performance of a fire brigade drill in the Unit 1 hydrogen seal oil area. This area was considered risk significant because a fire could cause a unit trip initiating event. The inspectors observed the initial response of the control room operators to the fire alarm, the brigade turnout and organization in the brigade dressing area, and the establishment of communications between the brigade and the control room. The inspectors also observed the fire brigade's response to the simulated fire, the brigade leader's command and control, and the brigade's use of fire fighting

equipment. At the conclusion of the drill, the inspectors observed the licensee's drill critique to ensure that any weaknesses noted during the drill were addressed and/or entered into the licensee's corrective action system. In addition to the NRC inspection procedure listed above, the inspectors used the licensee's Fire Drill Criteria Checklist and other documents listed at the end of this report for the evaluation.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

.1 Facility Operating History

a. Inspection Scope

The inspectors reviewed the plant's operating history from January 2000 through November 2001, to assess whether the Licensed Operator Requalification Training (LORT) program had addressed operator performance deficiencies noted at the plant.

b. Findings

No findings of significance were identified.

.2 Licensee Requalification Examinations

a. Inspection Scope

The inspectors performed a biennial inspection of the licensee's LORT program. The inspectors reviewed the annual requalification operating and written examination material to evaluate general quality, construction, and difficulty level. The operating portion of the examination was inspected during December 3 - 7, 2001. The operating examination material consisted of two dynamic simulator scenarios and five job performance measures (JPMs). The biennial written examination was administered between September 28 and November 2, 2001. The biennial written examination material included approximately 35 open reference, multiple-choice questions on each examination. The inspectors reviewed the methodology for developing the examinations, including the LORT program two-year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications. The inspectors assessed the level of examination material duplication during the current year annual examinations with last year's annual examinations. The inspectors also interviewed members of the licensee's management and training staff and discussed various aspects of the examination development.

b. Findings

No findings of significance were identified.

.3 Licensee Administration of Requalification Examinations

a. Inspection Scope

The inspectors observed the administration of the requalification operating test to assess the licensee's effectiveness in conducting the test and to assess the facility evaluators' ability to determine adequate performance using objective, measurable performance standards. The inspectors evaluated the performance of one operating shift crew and one administrative crew during two dynamic simulator scenarios and five JPMs in parallel with the facility evaluators. The inspectors observed the training staff personnel administering the operating test, including pre-examination briefings, observations of operator performance, individual and crew evaluations after dynamic scenarios, techniques for JPM cuing, and the final evaluation briefing for licensed operators. The inspectors noted the performance of the simulator to support the examinations. The inspectors also reviewed the licensee's overall examination security program.

b. Findings

No findings of significance were identified.

.4 Licensee Training Feedback System

a. Inspection Scope

The inspectors assessed the methods and effectiveness of the licensee's processes for revising and maintaining its LORT program up-to-date, including the use of feedback from plant events and industry experience information. The inspectors interviewed licensee personnel (operators, instructors, training management, and operations management) and reviewed the applicable licensee's procedures. In addition, the inspectors reviewed the licensee's quality assurance/quality control oversight activities, including the licensee's training department self-assessment reports, to evaluate the licensee's ability to assess the effectiveness of its LORT program and to implement appropriate corrective actions.

b. Findings

No findings of significance were identified.

.5 Licensee Remedial Training Program

a. Inspection Scope

The inspectors assessed the adequacy and effectiveness of the remedial training conducted during the annual requalification examinations to ensure that the training addressed weaknesses identified in licensed operator performance. The inspectors reviewed the licensee's current examination cycle remediation packages for unsatisfactory operator performance on the written examination to ensure that

remediation and subsequent re-evaluations were completed prior to returning individuals to licensed duties.

b. Findings

No findings of significance were identified.

.6 Conformance with Operator License Conditions

a. Inspection Scope

The inspectors evaluated the facility and individual operator licensees' conformance with the requirements of 10 CFR Part 55. The inspectors reviewed the facility licensee's program for maintaining active operator licenses to assess compliance with 10 CFR 55.53(e) and (f). The inspectors reviewed the procedural guidance for tracking on-shift hours for licensed operators and designating which control room positions were granted credit for maintaining active operator licenses. The inspectors also reviewed 20 licensed operators' medical records maintained by the facility to ensure the medical fitness of its licensed operators and to assess compliance with medical standards delineated in ANSI/ANS-3.4 and with 10 CFR 55.21 and 10 CFR 55.25. In addition, the inspectors reviewed the licensee's LORT program to assess compliance with the requalification program requirements as described by 10 CFR 55.59(c).

b. Findings

No findings of significance were identified.

.7 Written Examination and Operating Test Results

a. Inspection Scope

The inspectors reviewed the pass/fail results of individual written tests, operating tests, and simulator operating tests (required to be given per 10 CFR 55.59(a)(2)) administered by the licensee during calender year 2001.

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 problem constituted a maintenance rule functional failure;
- 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. In addition, the inspectors reviewed CRs to verify that minor deficiencies identified during these inspections were entered in the licensee's corrective action system.

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

- circulating water system, and
- D1 and D2 emergency diesel generators.

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 activities during a time when 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 assessments, observations of shift turnover meetings, observations of daily plant status 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 maintenance activities:

- planning and actions to monitor and increase the seal leakoff flow from the 22 reactor coolant pump, and

- planning and work control associated with the work on breaker for MV-32238.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors selected CRs for risk significant components and systems in which the operability issues were discussed. These CRs 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 TSs and USAR to the licensee's evaluations presented in the CRs below 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 of 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 CRs evaluated were:

- CR 200186696, "Lineshaft and Suction Bell Float Switches for the 12 Diesel-Driven Cooling Water Pump Are Stuck in the 90-100 Percent Flow Position - No Alarm Will Sound on Loss of Flow," and
- CR 200186163, "Evaluate Westinghouse 9 November 01 Letter for Effect on Plant."

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16)

.1 Review of Selected Workarounds

a. Inspection Scope

The inspectors reviewed an operator workaround associated with the safety injection mini recirculation line flowmeters being out-of-service. This review was performed to determine whether a mitigating system function of the operator's ability to implement abnormal operating procedures was affected. This workaround was selected because with the flowmeters out-of service, the safety injection mini-recirculation line Lo/No flow alarms were also out-of-service. This workaround represented a potential increase in the possibility of safety injection pump damage because of the resultant increased reliance on operator actions to identify that adequate pump discharge or bypass flow existed, subsequent to a pump start, and to secure the pump before pump damage occurred.

b. Findings

No findings of significance were identified.

.2 Cumulative Effects of Operator Workarounds

a. Inspection Scope

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

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 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 verify that the post-maintenance testing performed adequately demonstrated that the maintenance was successful and that operability was restored. In addition, the inspectors reviewed CRs 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:

- 2RX bus fault repair; and
- operational testing of MV-32085 [Motor-Operated Valve for Refueling Water Storage Tank to 12 Residual Heat Removal Pump] subsequent to planned maintenance on its electrical supply breaker.

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 TSs, the

USAR, and licensee procedural requirements, and also 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. 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. In addition, the inspectors conducted reviews to verify that minor deficiencies identified during these inspections were entered into the licensee's corrective action system.

The following tests were observed and evaluated:

- SP 1112, "Steam Exclusion Monthly Damper Test," and
- SP 2088B, "Train B Safety Injection Quarterly Test."

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

On December 4, 2001, the inspectors observed licensee requalification examinations in the control room simulator. During the examinations, the inspectors observed the licensee make three event classifications and three notifications. Protective action recommendations were not required nor made. The inspectors attended the licensee evaluators' critique of the examinations to ensure that any weaknesses were documented and addressed.

b. Findings

No findings of significance were identified.

## 4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151)

a. Inspection Scope

The inspectors reviewed for completeness and accuracy the PI data submitted by the licensee for the Emergency AC [alternating current] Power Systems PI in the Mitigating Systems cornerstone. The inspectors compared the data reported by the licensee to the definitions and guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 1. The inspectors reviewed the computerized Limiting Conditions for Operation Log, Control Room Log, and Hold and Secure Card Log to gather information regarding unavailable times for the

emergency diesel generators, and compared those times to the data reported by the licensee.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

.1 (Closed) Licensee Event Report (LER) 2-01-03, Revision 1 and (Closed) LER 2-01-03, Revision 2: Technical Specification Required Shutdown of Unit 2 Due to Declared Inoperability of Both Emergency Diesel Generators.

This event was discussed in Special Inspection Report 50-306/01-13. The event is considered to be of very low risk significance based on the results of a Regulatory Conference documented in NRC letter to Mr. Mano Nazar dated December 11, 2001.

.2 (Closed) LER 1-01-03: Plant In Unanalyzed Condition Due to Flood Panel Deficiencies.

This event report described a licensee-identified condition where 16 of 17 flood panels, which are installed during a flood condition where water level crest is predicted to exceed 692' elevation, were degraded. The issues included not having the correct gasket materials, inadequate anchor bolt installation capabilities, and the inability to install the panels in a timely manner.

The SDP Phase 1 screening assumed the loss of long-term reactor heat removal capability. Since the plant-specific SDP Phase 2 worksheets do not currently include initiating events related to the licensee's Individual Plant Examination of External Events analysis (i.e., external flooding), a Phase 3 risk assessment was completed using information from the IPEEE.

Based on the assessment, it was determined that the issue was of very low risk significance (Green) due to the low probability of an external flooding event that reached the 695' elevation, the use of existing procedures that monitored areas vital to critical plant equipment, and the sufficient amount of time (five days) the licensee had after the external flooding conditions began to successfully complete compensatory actions prior to reaching the 695' elevation. The licensee entered the issue into its corrective action system as CR 20015571.

4OA6 Meeting(s)

Exit Meeting

The resident inspectors presented the inspection results to Mr. M. Werner and other members of licensee management on December 27, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

Interim Exit Meeting

| | |
|---|---|
| Senior Official at Exit: | Mano Nazar, Site Vice President |
| Date: | December 7, 2001 |
| Proprietary (explain “yes”) | No |
| Subject: | Results of an inspection of the licensee’s licensed operator requalification program |
| Change to Inspection Findings: | No |

## KEY POINTS OF CONTACT

Licensee

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

NRC

S. Ray, Senior Resident Inspector, Prairie Island

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Closed

| | | |
|---|---|---|
| 2-01-03 Revision 1 | LER | Technical Specification Required Shutdown of Unit 2 Due to Declared Inoperability of Both Emergency Diesel Generators (Section 4OA3.1) |
| 2-01-03 Revision 2 | LER | Technical Specification Required Shutdown of Unit 2 Due to Declared Inoperability of Both Emergency Diesel Generators (Section 4OA3.1) |
| 1-01-03 | LER | Plant In Unanalyzed Condition Due to Flood Panel Deficiencies (Section 4OA3.2) |

Discussed

None.

LIST OF ACRONYMS USES

| | |
|---|---|
| AC | Alternating Current |
| ADAMS | Agencywide Documents Access and Management System |
| ANS | American National Standard |
| ARP | Annunciator Response Procedure |
| CFR | Code of Federal Regulations |
| CR | Condition Report |
| CST | Condensate Storage Tank |
| DRS | Division of Reactor Safety |
| DRP | Division of Reactor Projects |
| ICPM | Instrumentation and Controls Preventive Maintenance |
| IMC | Inspection Manual Chapter |
| IPEEE | Individual Plant Examination of External Events |
| IR | Inspection Report |
| JPM | Job Performance Measure |
| LER | Licensee Event Report |
| LORT | Licensed Operator Requalification Training |
| LOCA | Loss of Coolant Accident |
| NCV | Non-Cited Violation |
| NOMS | Nuclear Operations Management System |
| NEI | Nuclear Energy Institute |
| NRC | Nuclear Regulatory Commission |
| PARS | Publicly Available Records |
| PI | Performance Indicator |
| PINGP | Prairie Island Nuclear Generating Plant |
| PITC | Prairie Island Training Center |
| RCP | Reactor Coolant Pump |
| SAT | Systems Approach to Training |

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|---|---|
| SBLOCA | Small-Break Loss of Coolant Accident |
| SDP | Significance Determination Process |
| SP | Surveillance Procedure |
| SRO | Senior Reactor Operator |
| SSC | Structure, System, or Component |
| TC | Temperature Controller |
| TCN | Temporary Change Notice |
| TP | Test Procedure |
| TS | Technical Specification |
| UFSAR | Updated Final Safety Analysis Report |
| USAR | Updated Safety Analysis Report |
| WO | Work Order |

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather Protection

| | | |
|---|---|---|
| TP [Test Procedure] 1637 | Winter Plant Operation | Revision 28 |
| System Prestart Checklist C28-11 | CST Winter Operation | Revision 8 |
| Operating Procedure C28.6 | Condensate Storage Tank Freeze Protection System | Revision 9 |
| WO 0115191 | TC [temperature controller]-26300 is not Working | |
| WO 0100026 | 121 Spent Fuel Pool Makeup Air Handler Snow Buildup | |
| WO 0100266 | Fabricate Metal Cover for Control Switch | |
| CR 20010134 | 11 Condensate Recycle Pump Found in Auto/Off Rendering CST Freeze Protection Out-of-Service | |
| CR 20011227 | C28.6 Condensate Storage Tank Freeze Protection System Does Not Address Unit 1/Unit 2 CST Temperature Control Valves CV-31959 and 31957 | |
| CR 20010022 | Auxiliary Building and Spent Fuel Pool Makeup Air Handlers Regularly Build Up With Snow During Winter and No Procedures for Dealing With It | |

1R04 Equipment Alignment

| | | |
|---|---|---|
| Integrated Checklist C19.2-6 | Shield Building Ventilation System Unit 2 | Revision 9 |
| Drawing NF-39602-2 | Reactor Building Unit 2 Ventilation Flow Diagram | Revision AP |
| Operating Procedure 2C19.2 | Containment System Ventilation Unit 2 | Revision 7 |
| Operations Manual B19 | Containment Systems | Revision 5 |
| USAR Section 5.3 | Secondary Containment System | Revision 22 |
| TS 3.6.H | Shield Building Ventilation System | Revision 91 |
| TS 4.4.B | Emergency Charcoal Filter Systems | Revision 126 |
| WO 0114057 | Humidity Sensor Not Working | |
| WO 0115017 | Status Panel Lights Lit Unexpectedly | |

| | | |
|---|---|---|
| CR 20001580 | Auxiliary Building and Shield Building Ventilation System Charcoal Ignition Temperature Stated in the USAR is Incorrect | |
| CR 200185163 | During ICPM [Instrumentation and Controls Preventive Maintenance] 2-018 Found the Unit 2 Shield Building Ventilation Particulate and Charcoal Filter Humidity Sensor Not Working - No Spares - They Are Obsolete | |

1R05 Fire Protection

Area Walkdowns

| | | |
|---|---|---|
| Plant Safety Procedure F5 | Fire Fighting | Revision 25 |
| Plant Safety Procedure F5 Appendix F | Fire Hazard Analysis | Revision 12 |
| Plant Safety Procedure F5 Appendix A | Fire Strategies | Revision 8 |
| IPEEE NSPLMI-96001 Appendix B | Internal Fires Analysis | Revision 2 |
| F5 Appendix D | Impact of Fire Outside Control/Relay Room | Revision 6 |

Fire Brigade Drill

| | | |
|---|---|---|
| Fire Drill 2001-04 | Unit 1 Hydrogen Seal Oil Area | |
| Plant Safety Procedure F5 Appendix J | Fire Drills | Revision 7 |
| Plant Safety Procedure F5 Appendix A | Fire Detection Zone 4 | Revision 7 |
| CR 200186895 | Conduct of Fire Drill | |

1R11 Licensed Operator Requalification

| | | |
|---|---|---|
| PITC Q-96 | Job Performance Measure Summary Sheets (10 Operators) | Revision 7 |
| PITC Q-203 | Training Cycle Simulator Team Evaluation (2 Crews) plan | Revision 1 |
| Meeting Minutes | Operations PAC Committee Meeting Notes | Various |
| Simulator Guide | NIS Failure/Charging Pump Trip/RCP Seal Failure/RPS Failure/SBLOCA | Revision 13 |
| Simulator Guide | Steam Generator Tube Rupture w/Loss of 1R Transformer | Revision 0 |

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|---|---|---|
| Simulator Guide | Loss of Bus Duct Cooling/Accumulator Inleakage/Loss of All AC/SBLOCA | Revision 4 |
| Job Performance Measures | Thirty Job Performance Measures of Various Titles Used for this Examination | Various |
| Written Examinations | Written Examinations Administered to All Licensed Operators During Examination Weeks | Various |
| Medical Records | Medical Records for Twenty Randomly Selected Operators | Various |
| UFSAR | Prairie Island Updated Final Safety Analysis Report, Section 14.5.4, Steam Generator Tube Rupture | Revision 22 |
| SWI-0-43 | Operator Qualification Program | Revision 1 |
| SWI 0-39 | Operations Training Plan | Revision 6 |
| CR 20000885 | Perform a Self-Assessment of Operations Training | March 31, 2000 |
| Self-Evaluation | INPO Accreditation Renewal Self-Evaluation Report | September 6, 2001 |
| P9100 | Program Description for License Requalification Training | Revision 17 |
| Training Procedure | NRC Exam Security Training Procedure 3.10 | Revision 8 |
| PITC 3.7 | License Requalification Examination Development and Administration | Revision 10 |

1R12 Maintenance Rule Implementation

General

| | | |
|---|---|---|
| | 2000 Equipment Performance Annual Report | April 20, 2001 |
| | Maintenance Rule System Basis Document, Volume 1A | Revision 3 |
| | Quarterly Equipment Performance Report - 3nd Quarter 2001 | November 13, 2001 |
| 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 |

Circulating Water

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|---|---|
| CR 20017973 | Intake Approach Canal Indicates Canal Is Slowly Filling In With Silt That May Affect Water Intake to the Plant |
| CR 20017497 | MV-32001, 11 Circulating Pump Discharge Valve Operation |
| CR 20002892 | Problems Identified During Surveillance Procedure 1293, “Flood Preparation Flood Control Panel Inspection/Installation” |
| WO 0101630 | 24 Traveling Screen Does Not Rotate |
| WO 0104411 | Repair Control Valve for 22 Traveling Screen |
| WO 0101591 | Traveling Screens Start and Stop Independent of Control Switch Position |
| WO 0101586 | 23 Traveling Screen Making Abnormal Noises |
| WO 0101222 | 24 Traveling Screen Wash Water Control Valve Leaking By |
| WO 0101172 | Instrument Block Valve for 13 Traveling Screen Spray Wash Pressure Switch Needs Rebuild |
| WO 0010754 | Adjust Limit Switches on MV-32005 [1B Condenser Circulating Water Crossover Motor Valve], Inspect Seats |
| WO 0008664 | 21 Traveling Screen Noise |
| WO 0008663 | 23 Traveling Screen Making Noise |
| WO 0000300 | Repair SV-33140 [22 Traveling Screen Spray Wash Solenoid Valve] |

<u>D1 and D2 Emergency Diesel Generators</u>

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|---|---|
| CR 200186961 | D1 Air Start Regulator Diaphragm Seems To Have Failed When Valved In |
| CR 20018377 | Removal Of Maintenance Resources During D1 18 Month Planned Maintenance Caused 4 to 5 Hour Delay In Restoration For This LCO Job |
| CR 20018181 | Eddy Current Testing Located Tubes To Be Plugged In D1 Oil Cooler And Jacket Coolant Heat Exchanger |
| CR 20017414 | SP 1093 Completed Unsat Due To Failure Of Ventilation Fans To Start |

| | | |
|---|---|---|
| CR 20015360 | Parts Traceability to End Use Lost Because They Were Charged To The Wrong Work Order | |
| CR 20012100 | SP 1093 Interrupted Due To Smoke From Penetration 472 Flammastic On Asbestos Insulation Smouldered Due To Exhaust Heat | |
| CR 20003871 | Installed New Seals On The Pumps For Both D1 and D2 Standby Coolant Recirculation Pumps | |

1R13 Maintenance Risk Assessment and Emergent Work Control

| | | |
|---|---|---|
| Prairie Island Action Plan | Actions To Mitigate Reactor Coolant Pump Seal Leak Off Rate For 22 RCP | Revision 2 |
| Temporary Instruction 01-101 | Unit 2 Volume Control Alternate Dilute Path Instructions | |
| Abnormal Operating Procedure 2C3 AOP3 | Failure Of A Reactor Coolant Pump Seal | Revision 8 |
| Operating Procedure C12.1 | Letdown, Charging, And Seal Water Injection | Revision 27 |

1R15 Operability Evaluations

| | | |
|---|---|---|
| CR 200186696 | Lineshaft and Suction Bell Float Switches for the 12 Diesel-Driven Cooling Water Pump are Stuck in the 90-100 Percent Flow Position - No Alarm Will Sound on Loss of Flow | |
| USAR Section 10.4.1 | Cooling Water System | Revision 22 |
| TS 3.3.D | Cooling Water System | Revision 131 |
| Temporary Instruction 01-105 | Unit 1 Cooling Water | December 4, 2001 |
| Temporary Change Notice (TCN) 2001-2010 to Annunciator Response Procedure (ARP) 47020-0207 | 12 Cooling Water Pump (Diesel) Running | Revision 27 |
| TCN 2001-2011 to Operating Procedure C35 | Cooling Water System | Revision 43 |
| TCN 2001-2012 to Prairie Island Nuclear Generating Plant (PINGP)195 | Turbine Building Data - Unit 1 | Revision 62 |
| ARP 47020-0608 | 12 Cooling Water Pump (Diesel) Loss of Bearing Water Flow | Revision 30 |

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|---|---|---|
| CR 200186163 | Evaluate Westinghouse 9 November 01 Letter for Effect on Plant | |
| CR 200186164 | Review Need for Changing Annunciator Response Procedure/Setpoints for Accumulator High/Low Pressure Based on Results of CR 200186163 | |
| CR 200186166 | Implement Interim Controls to Ensure Accumulator Pressures are Maintained 740 ± 20 Vice 740 ± 30 as Allowed by TS | |
| CR 200186167 | Review Need to Revise TSs Based Upon Results of CR 200186163 | |
| CR 200186168 | Review Past Operating History for Reportability Due to New Accumulator Pressure Limits in CR 200186163 Letter and TS Nonconservatism | |
| TS 3.3.A | Safety Injection and Residual Heat Removal Systems | Revision 161 |
| USAR Section 6.2 | Safety Injection System | Revision 22 |
| USAR Section 14.6 | Large Break LOCA [Loss of Coolant Accident] Analysis | Revision 22 |

1R16 Operator Workarounds

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|---|---|---|
| CR 20003741 | Safety Injection Mini Recirculation Flow Failure | |
| CR 20010354 | Equipment Problems Were Encountered During Installation of the Safety Injection Mini Recirculation Flow Meters | |
| WO 0003335 | Install New Safety Injection Recirculation Flowmeters | |
| WO 0003399 | Install New Safety Injection Mini Recirculation Line Flowmeters | |
| WO 0104180 | Replace Safety Injection Miniflow Transducers | |
| Temporary Instruction 01-08 | Safety Injection Mini Recirculation Line LO/NO Flow Out-Of-Service | |
| | The 4th Quarter of 2001 Report on Operator Workarounds and Aggregate Assessment of Operator Workarounds | |

1R19 Post-Maintenance Testing

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|---|---|
| CR 200185959 | Investigation of 2RX Bus Duct Following Lockout of 2RX Transformer Revealed Fault and Raises Questions on 2RY Bus Duct |
| CR 200185890 | 2RX Transformer Locked Out |
| CR 200186230 | Re-insulate the Outdoor Portion of 2RX Bus With 15 KV Insulating Sleeve. |
| CR 200186232 | Ensure Moisture Abatement Systems Are Properly Installed and Functioning on 2RX Bus Duct |
| CR 200186233 | Ensure Good Electrical Connection at the Splice Points of 2 RX Bus That Had Been Disassembled for Insulation System Repair |
| CR 200186234 | Perform Inservice Testing of Plant Busses Using Radio Frequency Monitoring Technique |
| WO 0115052 | 2RX/300 Bus Duct Inspection |
| WO 0115183 | 2RX Transformer and Bus Duct Post Maintenance Testing |
| WO 0115131 | Test Operability of the 2 RX Bus Duct Heater |
| WO 0013308 | PE-121J-4, Breaker Electrical 5 Year Planned Maintenance, MV-32085 |
| WO 0107577 | P32085 12 Residual Heat Removal Pump Suction From Refueling Water Storage Tank D70 Inspection |

1R22 Surveillance Testing

| | | |
|---|---|---|
| SP 1112 | Steam Exclusion Monthly Damper Test | Revision 40 |
| SP 1117 | Monthly Steam Exclusion Check Damper Test | Revision 8 |
| TS 4.8.C | Steam Exclusion System | Revision 91 |
| TS Table 4.1-1C | Miscellaneous Instrumentation Surveillance Requirements | Revision 121 |
| TS 3.4.C | Steam Exclusion System | Revision 91 |

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|---|---|---|
| TS Table 3.5-1 | Engineered Safety Features Initiation Instrument Limiting Set Points | Revision 44 |
| Administrative Work Instruction 5AWI 8.7.0 | Foreign Material Exclusion Program Description | Revision 3 |
| USAR Appendix I, Section 4.2 | Steam Exclusion Boundaries | Revision 23 |
| CR 19992037 | Damper Gear Integrity | |
| SP 2088B | Train B Safety Injection Quarterly Test | Revision 0 |
| TCN 2001-2036 | Train B Safety Injection Quarterly Test | Revision 0 |

4OA1 Performance Indicator Verification

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|---|---|---|
| NEI 99-02 | Regulatory Assessment Performance Indicator Guideline | Revision 1 |

4OA3 Event Followup

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|---|---|---|
| LER 2-01-03 | Technical Specification Required Shutdown of Unit 2 Due to Declared Inoperability of Both Emergency Diesel Generators | Revision 1 |
| LER 2-01-03 | Technical Specification Required Shutdown of Unit 2 Due to Declared Inoperability of Both Emergency Diesel Generators | Revision 2 |
| NRC Letter from G. Grant to M. Nazar | Final Significance Determination for Preliminary White Finding; (NRC Inspection Report 50-306/01-13) (Prairie Island Nuclear Generating Plant, Unit 2) | November 11, 2001 |
| LER 1-01-03 | Plant In Unanalyzed Condition Due to Flood Panel Deficiencies | |