



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, ILLINOIS 60532-4352

July 31, 2018

Mr. Scott Sharp
Site Vice President
Prairie Island Nuclear Generating Plant
Northern States Power Company, Minnesota
1717 Wakonade Drive East
Welch, MN 55089-9642

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2—NRC
INTEGRATED INSPECTION REPORT 05000282/2018002; 05000306/2018002;
AND 07200010/2018001

Dear Mr. Sharp:

On June 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Prairie Island Nuclear Generating Plant, Units 1 and 2. On July 12, 2018, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any finding or violation of more than minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, and Requests for Withholding."

Sincerely,

/RA Billy Dickson Acting for/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

Docket Nos. 50-282; 50-306; 72-010
License Nos. DPR-42; DPR-60; SNM-2506

Enclosure:
IR 05000282/2018002; 05000306/2018002;
07200010/2018001

cc: Distribution via LISTSERV®

Letter to Scott Sharp from Kenneth Riemer dated July 31, 2018

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2—NRC
INTEGRATED INSPECTION REPORT 05000282/2018002; 05000306/2018002;
AND 07200010/2018001

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Richard Skokowski
Allan Barker
DRPIII
DRSIII
ROPreports.Resource@nrc.gov

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-282; 50-306; 72-010

License Nos: DPR-42; DPR-60; SNM-2506

Report No: 05000282/2018002; 05000306/2018002;
07200010/2018001

Enterprise Identifier: I-2018-002-0041

Licensee: Northern States Power Company, Minnesota

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

Location: Welch, MN

Dates: April 1 through June 30, 2018

Inspectors: L. Haeg, Senior Resident Inspector
P. LaFlamme, Resident Inspector
T. Ospino, Resident Inspector, Acting
R. Elliott, Resident Inspector, Dresden
N. Fields, Health Physicist
M. Davis, Transportation and Storage Safety Inspector
C. Roque-Cruz, Safety Inspection Engineer (Observer)
R. Torres, Materials Engineer

Approved by: K. Riemer, Chief
Branch 2
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee performance by conducting an integrated quarterly inspection at Prairie Island Nuclear Generating Plant, Units 1 and 2 in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. No findings or violations were identified. One Unresolved Item (URI) is summarized in the Additional Tracking Item table below.

List of Findings and Violations

None.

Additional Tracking Item

| Type | Issue Number | Title | Report Section | Status |
|------|---|---|----------------------------------|--------|
| URI | 05000282/2018002-01; 05000306/2018002-01 | Results of ISFSI Cask Array Dose Calculation Not Incorporated into FSAR | Inspection Results 60855.1 | Open |

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PLANT STATUS

Units 1 and 2 operated at full power for the entirety of the inspection period, with the exception of brief down-power maneuvers to accomplish planned surveillance testing activities.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515 Appendix D, "Plant Status" and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01—Adverse Weather Protection

External Flooding (1 Sample)

The inspectors evaluated readiness to cope with external flooding on April 23, 2018.

71111.04Q—Equipment Alignment

Partial Walkdowns (2 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) D1 Emergency Diesel Generator (EDG) on April 25, 2018; and
- (2) 11 Residual Heat Removal (RHR) with 12 RHR out of service for planned maintenance on June 20, 2018.

71111.05Q—Fire Protection

Quarterly Inspections (4 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) Fire Zone 2; Unit 1 & 2 Auxiliary Feedwater (AFW) Pump Rooms; Elevation 695' on May 7, 2018;
- (2) Fire Zone 97; Bus 25 & 26 Rooms on May 22, 2018;
- (3) Fire Zone 6; D1 EDG Room on June 21, 2018; and
- (4) Fire Zone 82; D2 EDG Room on June 21, 2018.

71111.06—Flood Protection Measures

Underground Cables (1 Sample)

The inspectors evaluated cable submergence protection in:

- (1) Bus CT 11 & 12 Feeder Cable Vault on May 7, 2018.

71111.11Q—Licensed Operator Regualification and Licensed Operator Performance

Operator Performance (1 Sample)

The inspectors observed and evaluated operator response to heater drain tank pump variable frequency drive issues on June 25 and 26, 2018.

Operator Regualification (1 Sample)

The inspectors observed and evaluated a licensed operator regualification session on June 19, 2018.

71111.12Q—Maintenance Effectiveness

Routine Maintenance Effectiveness (2 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

- (1) Generic Letter 89–13 Program during the week of April 23, 2018; and
- (2) Units 1 & 2 EDGs during the week of May 28, 2018.

71111.13—Maintenance Risk Assessments and Emergent Work Control (4 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

- (1) D2 EDG failure to run during 24 hour endurance test on April 23, 2018;
- (2) Unplanned 2N43 Nuclear Instrument issue and other emergent maintenance activities on May 23, 2018;
- (3) D5 EDG ventilation system human performance event on June 7, 2018; and
- (4) EDG oil addition methodology concerns on June 18, 2018.

71111.15—Operability Determinations and Functionality Assessments (4 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) AR 501000007726; 12 AFW pump room cooler cooling water flow evaluation on May 4, 2018;
- (2) AR 501000010208; Oil leak on D6 EDG on April 1, 2018;
- (3) AR 501000011241; D2 EDG 50G relay calculation and field setting error on April 24, 2018; and

(4) AR 501000012585; D2 EDG jacket water leak on May 28, 2018.

71111.19—Post Maintenance Testing (4 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) D2 EDG 50G relay and breaker replacement and testing activities on April 30, 2018;
- (2) Bus 112 room cooler motor replacements on May 11, 2018;
- (3) 2N43 Nuclear Instrument indication and overpower trip high range bistable replacement on May 29, 2018; and
- (4) D2 EDG slow start following jacket water gasket torque adjustment on June 25, 2018.

71111.22—Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (2 Samples)

- (1) SP 2307; D6 Diesel Generator 6 Month Fast Start Test on April 20, 2018; and
- (2) SP 2130B; Train B Containment Vacuum Breakers Quarterly Tests on June 27, 2018.

In-service (2 Samples)

- (1) SP 1089A; Train A RHR Pump and Suction Valve from the Refueling Water Storage Tank (RWST) Quarterly Test, on May 10, 2018; and
- (2) SP 1089B; Train B RHR Pump and Suction Valve from RWST Quarterly Test on June 21, 2018.

Reactor Coolant System Leak Detection (1 Sample)

- (1) SP 1001AA; Daily Reactor Coolant System Leakage Test on April 30, 2018.

71114.06—Drill Evaluation

Emergency Planning Drill (1 Sample)

The inspectors evaluated an emergency planning drill on June 5, 2018.

Drill/Training Evolution (1 Sample)

The inspectors evaluated licensed operator simulator training with Drill and Exercise Performance Indicator opportunities on April 30, 2018.

OTHER ACTIVITIES – BASELINE

71151—Performance Indicator Verification (4 Samples)

The inspectors verified licensee performance indicators submittals listed below:

- (1) MS07: High Pressure Injection Systems - 2 Samples (April 1, 2017–March 31, 2018);
and
- (2) MS08: Heat Removal Systems - 2 Samples (April 1, 2017–March 31, 2018).

71152—Problem Identification and Resolution (1 Sample)

Semiannual Trend Review

The inspectors reviewed items documented in the licensee's corrective action program between January 1 and June 30, 2018 for trends that might be indicative of a more significant safety issue.

71153—Follow-Up of Events and Notices of Enforcement Discretion

Events (1 Sample)

The inspectors evaluated a loss of power to Bus 25 and the licensee's response on May 17, 2018.

OTHER ACTIVITIES—TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

60855.1—Operation of an Independent Spent Fuel Storage Installation at Operating Plants

The inspectors evaluated the licensee's operation of the independent spent fuel storage installation (ISFSI) on-site from April 23 to April 27, and in-office through June 21, 2018. Specifically, the inspectors evaluated:

- (1) the material condition of the haul path, the ISFSI and loaded storage casks by performing a walkdown on April 25, 2018;
- (2) the radiological conditions of the ISFSI and loaded storage casks by performing independent radiological surveys on April 25, 2018 and by reviewing the licensee's radiological surveys;
- (3) the monitoring of the loaded storage casks by reviewing the operational storage pressure surveillance performed by procedure PINGP 196;
- (4) heavy lifts placing empty cask 42 into the spent fuel pool, setting the lid on the cask and removing the loaded cask from the spent fuel pool to the cask processing area;
- (5) processing of cask 42 for storage, including partial removal of bulk water during removal of the cask from the spent fuel pool and backfill with helium; and
- (6) the fuel selection packages for casks 41, 42, 43 and 44 loaded during the Spring 2018 campaign, and fuel loading operations for cask 42 on April 23, 2018.

Temporary Instruction 2690/011—Review of Aging Management Programs at Independent Spent Fuel Storage Installations

The inspectors evaluated whether the licensee had adequate processes and procedures in place to implement an Aging Management Program (AMP) of their ISFSI installation from April 24 to April 26, 2018, and conducted an in-office review of additional information related to the licensee’s AMP license conditions.

INSPECTION RESULTS

71152—Problem Identification and Resolution

| Observation | 71152 – Semiannual Trend Review |
|---|---------------------------------|
| <p>During the inspection period, the licensee identified three notable trends concerning the reliability of station EDGs, Nuclear Instrumentation, and use of operating experience. The inspectors also noted emerging trends in these areas during the inspection period.</p> <p>Although apparent and common causal evaluations were ongoing at the end of the inspection period, the inspectors performed ancillary searches of the corrective action program and held discussions with licensee management to verify that inputs to these trend evaluations were of an appropriate scope. The inspectors also reviewed interim actions taken by the licensee to mitigate the trends until more substantive and final corrective actions were taken.</p> <p>The inspectors did not identify any concerns with the licensee’s interim actions and determined that the scope of each evaluation was appropriate.</p> | |

71153—Follow-Up of Events and Notices of Enforcement Discretion

| | |
|---|-------|
| The inspectors evaluated a loss of power to Bus 25 and the licensee’s response on May 17, 2018. | 71153 |
| The inspectors observed that the control room operators appropriately responded to this event. No findings or violations were identified. | |

60855.1—Operation of an Independent Spent Fuel Storage Installation at Operating Plants

| Unresolved Item (Open) | Results of ISFSI Cask Array Dose Calculation Not Incorporated into Final Safety Analysis Report (FSAR) 05000282/2018002–01; 05000306/2018002–01 | IP 60855.1 |
|---|---|------------|
| <p><u>Description:</u></p> <p>Prairie Island ISFSI FSAR, as updated, Revision 18, Section A7A.7 evaluates off-site dose rates for an array of ISFSI casks. In this dose rate calculation, explicit modeling credit is given to the earthen berm that surrounds the Prairie Island ISFSI as discussed in Section A7A.7.1. The earthen berm provides radiation shielding for the ISFSI. This calculation allows the licensee to demonstrate, in part, compliance with Title 10 of the <i>Code of Federal Regulations</i> (CFR) 72.104(a) which requires, in part, that, “During normal operations and anticipated occurrences, the annual dose equivalent to any real individual who is located beyond the controlled area must not exceed 0.25 mSv (25 mrem) to the whole body, 0.75 mSv (75 mrem) to the thyroid and 0.25 mSv (25 mrem) to any other critical organ.”</p> | | |

Calculation TN40HT–0502, “TN–40HT Far Field Shielding Calculations”, Revision 0, was performed by the licensee in support of a License Amendment Request (LAR) to modify the Prairie Island ISFSI TN–40 cask design (designated as TN–40HT casks). The TN–40HT LAR was submitted to the NRC by the licensee on March 28, 2008. This dose rate calculation does not credit the earthen berm and, in part, also allows the licensee to demonstrate, in part, compliance with 10 CFR 72.104(a). The licensee also provided this calculation directly to the NRC in a February 29, 2012, letter in response to a Request for Supplemental Information (RSI) from the NRC associated with the license renewal application for the Prairie Island ISFSI.

Although the results from calculation TN40HT–0502 for a single cask was incorporated into the Prairie Island ISFSI FSAR, Revision 18, in Tables A7A.2–2 and A7A.6–1, the results from TN40HT–0502 for an array of casks which, in part, allows the licensee to demonstrate, in part, compliance with 10 CFR 72.104(a), has not been incorporated into the ISFSI FSAR, Revision 18.

Title 10 CFR 72.70, “Safety analysis report updating” requires, in part, that “(a) Each specific licensee for an ISFSI shall update periodically, as provided in paragraphs (b) and (c) of this section, the FSAR to assure that the information included in the report contains the latest information developed (b) Each update shall contain all the changes necessary to reflect information and analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirement since the submission of the original FSAR or, as appropriate, the last update to the FSAR under this section. The update shall include the effects of: (2) All safety analyses and evaluations performed by the licensee in support of approved license amendments.”

This Unresolved Item is being opened to determine whether or not the licensee is required to update the ISFSI FSAR with the results of calculation TN40HT–0502 for an array of casks in accordance with 10 CFR 72.70.

Planned Closure Action: Region III will coordinate with the Division of Spent Fuel Management in the NRC Office of Nuclear Material Safety and Safeguards to determine whether or not calculation TN40HT–0502 is subject to the FSAR updating requirements of 10 CFR 72.70 for the Prairie Island ISFSI.

Temporary Instruction 2690/011—Review of Aging Management Programs at Independent Spent Fuel Storage Installations

The procedures and processes that the licensee has in place to implement the AMP were consistent with the AMP provided in the renewed license and the requirements of 10 CFR 72.

EXIT MEETINGS AND DEBRIEFS

The inspectors confirmed that proprietary information was controlled to protect from public disclosure. No proprietary information was documented in this report.

- On June 21, 2018, the inspectors presented the ISFSI inspection results to Mr. H. Hansen, Plant Manager, and other members of the licensee staff via telephone.
- On July 12, 2018, the inspectors presented the quarterly integrated inspection results to Mr. S. Sharp, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01—Adverse Weather

- AB-4; Flood; Revision 51
- AR 501000011259; Equipment Required for AB-4 Not Available; 04/26/2018

71111.04—Equipment Alignment

- AR 501000006617; PI Evaluation of Cooper Event 53126 OE on DG; 12/27/2017
- AR 501000011698; DG PNL Ground Alarm; 05/08/2018
- AR 501000011277; D1 50G Relay Calculation Setting Error; 04/25/2018
- AR 501000011581; SV-33187 D2 CLG WTR SPLY SV Failed; 05/03/2018
- PE 3001-4-D2; D2 Diesel Generator Inspection; Revision 6
- C1.1.15-1; Unit 1 Residual Heat Removal; Revision 39

71111.05AQ—Fire Protection

- AR 501000011278; Multiple Ladders on One Ladder Hook; 04/27/2018
- AR 501000011555; Pinhole Through Wall Leak on FP Piping; 05/03/2018
- F5 Appendix A; Fire Strategies—Aux Feedwater Pump Rooms; Revision 4
- Fire Detection Zone 82—Diesel Generator Room; F5—Appendix A; Revision 31

71111.06—Flood Protection Measures (External)

- FP-PC-CBL; Cable Condition Monitoring Program; Revision 2
- H65.2.21; Inaccessible Medium and Low Voltage Cables Not Subject to CFR 50.49 Environmental Qualification Requirements Aging Management Program; Revision 1

71111.11Q—Licensed Operator Regualification

- AR 501000013684; 22 HDT Pump Tripped; 06/25/2018
- AR 501000013512; 21 Heater Drain Pump Variable Frequency Drive Fault; 06/24/2018
- P9118SE; Cycle 18D Simulator Evaluation #2; Revision 0
- 2C1.4; Unit 2 Power Operation; Revision 60
- 2C12.5; Unit 2 Boron Concentration Control; Revision 9

71111.12—Maintenance Effectiveness

- AR 501000010800; Cooling Water System Chemical Injection; 04/16/2018
- AR 501000011119; CL Chemical Treatment Commitment; 04/23/18
- AR 501000011044; Train A CL Microbe Population Elevated; 04/23/2018
- AR 501000010208; Maintenance Rule Functional, MSPI, and Equipment Reliability Clock Reset Failure Evaluation; 04/01/2018
- AR 50001521309; Maintenance Rule Functional, MSPI, and Equipment Reliability Clock Reset Failure Evaluation—SP 2093, D5 DG Monthly Slow Start Test; 05/08/2016
- AR 501000003002; Maintenance Rule Functional, MSPI, and Equipment Reliability Clock Reset Failure Evaluation—D2 Diesel Generator 6-Month Fast Start; 09/24/2017
- AR 501000007811; Maintenance Rule Functional, MSPI, and Equipment Reliability Clock Reset Failure Evaluation—DG-01; 01/29/2018
- AR 501000007811; D2 Lockout During Slow Start Test; 01/29/2018
- AR 501000011150; D2 Tripped on Overcurrent on BKR 16-9; 04/24/2018
- AR 1541610-01; Maintenance Rule Functional, MSPI, and Equipment Reliability Clock Reset Failure Evaluation—SP 1093, D1 Diesel Generator Monthly Slow Start, Alarm 55300-0303; 11/12/2016
- H21; Generic Letter 89-13 Implementing Program; Revision 24
- WO 700034230-0920; PMT CS-53815; 01/30/2018

71111.13—Maintenance Risk Assessment and Emergent Work

- AR 501000012623; D2 Ground Troubleshooting Observations; 05/29/2018
- AR 501000001194; Rise in Emergent Work for March; 04/24/2018
- AR 501000011255; D2 Governor Abnormalities During SP 1305; 04/27/2018
- AR 501000011344; D2 Coolant Leak on #8 Cyl. On Start-up; 04/27/2018
- AR 501000011391; Inadequate Written PMT for MV–32021; 04/30/2018
- AR 501000011306; D2 Engine Vibrations Below Expected Range; 04/30/2018
- AR 501000011330; 12 DG GND Troubleshooting Identified GND; 04/30/2018
- AR 501000007726; GE Aging Management Evaluation; 02/28/2018
- AR 501000012314; 2N43 Diverging on an Upward Trend; 05/22/2018
- AR 501000012987; D5 Past Operability; 06/07/2018
- AR 501000011150; D2 Tripped on Overcurrent on Breaker 16–9; 04/24/2018
- AR 501000011137; D2 Woodward Governor Oil Leak; 04/24/2018
- AR 501000011244; SP 1335 Power Factor Guidance Needed; 04/25/2018
- AR 501000011247; No Light Indication on Breaker 16–9; 04/25/2018
- AR 501000011263; D2 Standby Lube Oil Pump Not Starting; 04/24/2018
- AR 501000011277; D1 50G Relay Calculation Setting Error; 04/26/2018
- C18.1; Engineered Safeguards Equipment Support Systems; Revision 48
- SP 2120; Core Quadrant Power Balance Determination With One Excore Nuclear Channel Out of Service Unit 2; 05/25/2018
- TP 2567; Mixing Factors; 05/16/2018
- WO 700039474; DC Ground Level 3 Troubleshooting; 05/25/2018
- WO 700028202–0010; Replace MTR 111J–62; 01/15/2018

71111.15—Operability Evaluations

- 22 DDCLP; Adverse Condition Monitoring Plan—Air Compressor; 03/23/2018
- FP–OP–ACM–01; 22 RCP Motor Lower Oil Reservoir Low Level Alarms; Revision 3
- AR 501000007726; Unable to Get Min. Flow 12 AFWP Cooler; 04/17/2018
- AR 501000010915; 22 RCP Motor ACMP Threshold Exceeded; 04/24/2018
- AR 501000010789; SP 2307 Not Performed as Scheduled; 04/17/2018
- AR 501000011279; 12 DC Panel Ground Alarms; 04/27/2018
- AR 501000011241; 50G Relay Calc. and Field Setting Error; 04/26/2018
- AR 501000011406; NRC Question on 50G Relay Setting; 05/01/2018
- AR 501000011430; DC Ground Level 3 Troubleshooting; 05/01/2018
- AR 501000011340; BKR 16–9 No Green Light with BKR Open; 04/30/2018
- AR 501000011241; 50G Relay Calc. and Field Setting Error; 04/25/2018
- AR 501000011277; D1 50G Relay Calculation Setting Error 04/26/2018
- AR 501000012345; Loss of U2 Bus Duct Cooling; 05/22/2018
- AR 501000011628; NRC Identified CAP Written Info; 05/05/2018
- AR 501000011663; CAP Not Issued For NRC Info Request; 05/05/2018
- AR 501000012585; D2 Water Jacket Cooling Water Leak; 05/28/2018
- TP 1789B; AFW Pump Room Cooler Flushing, Flow Balancing, DP Monitoring, & Air Side Inspection, Train B; Revision 4
- MSPM ENG–ME–021; Auxiliary Feedwater Pump Room Heat Loads, Revision 3
- C18.1; Engineered Safeguards Equipment Support System; Revision 48
- SP 1106B; 11 Diesel Cooling Water Pump Monthly Test; Revision 93
- NE–40006 Sheet 73; D2 Emergency Gen. Lockout Relay 86; Revision 76
- WO 700039089–80; Roll BRK 16–9 and 52S Check; 04/26/2018
- WO 700039089–20; 50G Perform Testing Per PE 00D2–DGC; 04/24/2018

71111.19—Post Maintenance Testing

- AR 50100002911; D5 Relay Replacement RTS/PMT Inadequate; 09/20/2017
- AR 500001521309; D5 DG Would Not Pick Up Load Upon Start; 05/08/2016
- AR 501000011467; LCO Issue with PMT for MV-32196; 05/02/2018
- AR 501000011343; 12 DC Panel Grid Identified; 04/30/2018
- AR 501000013672; 12 DC PNL Ground Alarm; 06/25/2018
- AR 501000013665; D2 Coolant Leak Rate Monitoring June 18; 06/24/2018
- PE 0007; 5 HK250/350 and 5VHK/250 Breaker Testing Maintenance and Repair—Minor; Revision 18
- SP 2318.31; NIS Power Range Channel Calibration; Revision 28
- SP 2318.3; NIS Power Range Channel Calibration; Revision 28
- SP 1118; Verifying Paths from the Grid to U-1 Buses; Revision 32
- SP 1305; D2 Diesel Generator Monthly Slow Start Test; Revision 58
- SP 1118; Verifying Paths From the Grid to U-1 Buses; Revision 34
- WO 700022304; PMT: 2PSH-6169; 07/17/2017
- WO 700028201-0010; Replace Mtr 111J-68; 04/06/2018
- WO 700028201-0020; MTR 111J-58—Bench Test Motor; 01/15/2018
- WO 700028202; Benchtest Motor; 01/15/2018
- WO 700040488-0040; TS and Repair 2N43; 05/23/2018
- WO 700026970-0010; D5 Relay PMT; 09/21/2017
- WO 700039089-30; 50G, Replace Relay; 04/25/2018
- WO 700039089; 51 RLYS, AMP-Meter and Switches Testing; 04/25/2018

71111.22—Surveillance Test

- AR 501000010208; Oil Leak on 2PSL-5173; 04/01/2018
- AR 501000011488; Increase in 2R-10 and 2R-11 Counts; 05/01/2018
- AR 501000011466; Step Changes in U2 Containment Humidity Indication; 05/02/18
- AR 501000013958; Stopwatches Not Used to Time Venting; 07/03/2018
- AR 501000014019; Spurious Vent Zone Open Door Light; 06/26/2018
- AR 501000014099; D1 Exhaust Insulation Cracked; 07/09/2018
- AR 501000000712; D6 Diesel Lockout During SP 2305; 07/17/2017
- AR 500000278714; D6 Emergency Diesel Generator; 07/17/2017
- SP 2130B; Train B Containment Vacuum Breakers Quarterly Tests; Revision 18
- SP 1089B; Train B RHR Pump and Suction Valve From RWST Quarterly Test; Revision 30
- SP 2305; D6 Diesel Generator Monthly Slow Start Test; Revision 41
- SP 2307; D6 Diesel Generator 6 Month Fast Start Test; Revision 43
- WO 700022493; SP2307 D6 DG 6 Month Fast Start Test; 04/16/2018
- WO 700023797; SP 1089A RHR PMP and Suction Valve RWST; 05/03/2018
- WO 00546815; Test Relays EOSR-8/05, DGIP-A/D5 and DGIP-8/D5 (AR 01524188); 01/30/2017
- WO 00545321; Electric Troubleshoot D5 Governor Load Control Issue; 12/22/2016
- 2C20.7; D5/D6 Diesel Generators; Revision 43
- 1C14; Component Cooling System—Unit 1; Revision 45
- 1C15; Residual Heat Removal System Unit 1; Revision 49
- H60; RCS Leakage Monitoring Program; Revision 4

71114.06—Drill Evaluation

- Prairie Island Nuclear Generating Plant Emergency Plan Drill Controller/Evaluator Notebook; June 5, 2018
- SEG P9118SE-0314; Cycle 18C Simulator Evaluation #2; Revision 0
- AR 501000010807; Evaluate Declining Trend in DEP at PI; 04/16/2018

- AR 501000011437; Items Critiqued at SIM DEP Session; 05/01/2018

71151—Performance Indicator Verification

Prairie Island Maintenance Rule Out-of-Service Log
 FP-E-MSPI-01; Mitigating System Performance Index (MSPI); Revision 9
 FP-PA-PI-01; NRC/INPO/WANO Performance Indicator Reporting; Revision 13
 FP-R-PI-01; Preparation of NRC Performance Indicators; Revision 6
 H33.2; Mitigating System Performance Indicator (MSPI) Reporting Instructions; Revision 10
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 Units 1 & 2 Auxiliary Feedwater and Safety Injection System Unavailability and Unreliability
 Index Derivation and Margin Reports

71152—Problem Identification and Resolution

AR 501000011168; EDG Reliability Challenges; 04/25/2018
 AR 501000012189; Identification of Latent OE Trend; 05/20/2018
 AR 501000012045; 2N42 Failed to 105%; 05/15/2018
 AR 501000012314; 2N43 Diverging on an Upward Trend; 05/22/2018

71153—Follow-Up of Events and Notices of Enforcement Discretion

- AR 501000012089; Bus 25 Loss of Voltage; 05/17/2018
- AR 501000012094; 2RY Isolation Not Well Prepared; 05/17/2018

60855.1—Operation of an Independent Spent Fuel Storage Installation at Operating Plants

- A-ISFSI-PINGP-2016-01; 2016 Nuclear Oversight Prairie Island Generating Plant ISFSI-
Independent Spent Fuel Storage Installation; 04/13/2016
- A-ISFSI-PINGP-2018-01; 2018 Nuclear Oversight Prairie Island Generating Plant ISFSI-
Independent Spent Fuel Storage Installation; 04/04/2018
- AR 501000011261; Records of Periodic Sling Inspections; 04/24/2018
- AR 501000011268; High Risk Plan for Cask Climb; 04/26/2018
- AR 501000011269; Weight of Worker on Cask Lid; 04/26/2018
- AR 501000011307; Worker Neutron Dose Estimation; 04/27/2018
- AR 501000011312; New TN40HT Vent Seal Had Dents, Not Used; 04/26/2018
- AR 501000011313; CTV Upper Frame Load Path Basis Missing; 04/27/2018
- AR 501000011316; Missing Information in Procedure D95.3; 04/27/2018
- AR 501000011329; ISFSI Gamma Dose to Nearest Resident; 04/27/2018
- AR 501000011350; NRC Question of ISFSI Berm Classification; 04/27/2018
- CY-ENVR-506; Determination of Facility-Related Dose Using REMP TLD Results; Revision 1
- D58.5.1; Load Handling Using Auxiliary Building Crane (Non-Single Failure Proof Mode);
Revision 4
- D58.5.4; Auxiliary Building Crane Single Failure Proof Mode; Revision 9
- D58; Heavy Loads Program; Revision 35
- D95.1; TN-40 Cask Loading Procedure; Revision 30
- D95.2; TN-40 Cask Unloading Procedure; Revision 18
- D95.3; TN-40 Cask Removal and Storage Procedure; Revisions 0, 1, 31, 32, 33
- D95.4; TN-40 Cask Receipt Procedure; Revision 32
- D95.7; Auxiliary Building Crane Malfunction with an Empty Cask; Revision 1
- D95.8; Auxiliary Building Crane Malfunction with a Loaded Cask; Revision 1
- D95.9; Establishment of Helium Environment; Revision 1
- ENG-CS-088; TN-40 Cask Weight Determination When in Spent Fuel Pool; Revision 0

- FP-MA-COM-02; Oversight and Control of Supplemental Personnel; Revision 6
- FP-MA-LFT-01; Fleet Lifting & Rigging Program; Revision 15
- ISFSI Quarterly Doses; 09/30/1993 Through 09/30/2017
- LM-0311a Qualification Matrix; 04/17/2018
- L-PI-16-014; Independent Spent Fuel Storage Installation (ISFSI) Annual Effluent Report, January through December 2015; 02/26/2016
- L-PI-16-037; 2015 Annual Radioactive Effluent Report and Offsite Dose Calculation Manual; 05/05/2016
- L-PI-17-008; Independent Spent Fuel Storage Installation (ISFSI) Annual Effluent Report, January through December 2016; 02/22/2017
- L-PI-17-018; 2016 Annual Radioactive Effluent Report and Offsite Dose Calculation Manual; 05/08/2017
- L-PI-18-009; Independent Spent Fuel Storage Installation (ISFSI) Annual Effluent Report, January through December 2017; 02/19/2018
- MSIP 1030; Sling Inspection; Revision 5
- MSIP 4010; Calibration of an Air Torque Wrench; Revision 3
- MSIP 6010; Rigging Program; Revision 16
- NSPM-1; Quality Assurance Topical Report; 03/30/2018
- OP-2014-002; Prairie Island Spent Fuel Project Oversight Plan; Revision 3
- PINGP 1389; Crane Daily—Frequent and Functional Inspection; Revision 10
- PINGP 196; OPS/DATA: Outside Rounds; Revision 139
- PM 3562-23; Annual Sling Inspections; Revision 8
- PM 3562-4B; Miscellaneous Auxiliary Building Rigging Inspection; Revision 2
- QF1802; Rigging Lift Plan; Revision 6
- Radiation Job Protection Plan: 2018 Dry Cask 41, 42, 43 & 44 Work Rev 0; 02/13/2018
- RPIP 1050; ISFSI Cask Decontamination and Surveys; Revision 8
- RPIP 1051; ISFSI Cask Radiation and Contamination Monitoring; Revision 9
- S & L Calculation 2018-02774; Assessment of CTV Upper Arm Lifting Heavy Load Drop on TN-40HT Storage Cask; 05/06/2018
- SP 1075.HT; TH-40HT Fuel Selection and Identification; Revision 3
- SP 1077; Special Lift Fixture for TN-40 Cask; Revision 14
- SP 1079; ISFSI Dry Cask Pressure Monitoring System Calibration; Revision 24
- TN40HT-0502; TN-40HT Far Field Shielding Calculations; Revision 0
- WO 00549154; PMRQ 4311-24: PM 3560-25—Crane Hooks Nondestructive Exam; 06/29/2017
- WO 700002913; Load and Transfer Cask 41 to ISFSI; 04/18/2018
- WO 700002914; Load and Transfer Cask 42 to ISFSI; 05/03/2018
- WO 700010156; Aux Building Chainfall/Comealong Inspections; 02/27/2018
- WO 700012160; PM 3562-23 Aux Building Rig Sling Inspections; 12/27/2017
- WO 700016187; PM 3160-3 Aux Building Crane Mech/Elec Inspections; 03/07/2018
- WO 700028487; SP 1077 Special Lift Fixture—TN-40 Cask; 03/26/2018
- WO 700028488; SP 1075.HT TN-40 Fuel Selection and Identification for Cask 41; 03/23/2018
- WO 700028794; SP 1402—Aux Bldg Crane/Lift Beam Insp; 04/16/2018
- WO 700033225; SP 1075.HT TN-40 Fuel Selection and Identification for Cask 42; 03/23/2018
- WO 700033226; SP 1075.HT TN-40 Fuel Selection and Identification for Cask 43; 03/23/2018
- WO 700033227; SP 1075.HT TN-40 Fuel Selection and Identification for Cask 44; 03/23/2018
- WO 700036788; SP 1077 Special Lift Fixture—TN-40 Cask; 04/03/2018

Temporary Instruction 2690/011 - Review of Aging Management Programs at Independent Spent Fuel Storage Installations

- H24.3; Structures Monitoring Program; Revision 16
- H76.1; ISFSI Inspection and Monitoring Program; Revision 0
- H76; ISFSI License Renewal Implementation and Aging Management Programs; Revision 0
- PM 3586–13; Periodic Structures ISFSI Inspection; Revision 10
- SP 1076; ISFSI Quarterly Safety Status Surveillance; Revision 8