UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

November 2, 2016

EA–16–239

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

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2—NRC INTEGRATED INSPECTION REPORT 05000282/2016003 AND 05000306/2016003

Dear Mr. Northard:

On September 30, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Prairie Island Nuclear Generating Plant, Units 1 and 2. On October 4, 2016, the NRC inspectors discussed the results of this inspection with Mr. T. Conboy, Director of Site Operations, and other members of your staff. The enclosed report represents the results of this inspection.

No NRC-identified or self-revealing findings were identified during this inspection.

However, in Section 4OA7 of this report, the inspectors documented a licensee-identified violation for which enforcement discretion was granted.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, (if any), will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response should not include any personal privacy or proprietary, information so that it can be made available to the Public without redaction.

Sincerely,

/RA/

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 05000282/2016003; 05000306/2016003

cc: Distribution via LISTSERV®

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:	05000282/2016003; 05000306/2016003
Licensee:	Northern States Power Company, Minnesota
Facility:	Prairie Island Nuclear Generating Plant, Units 1 and 2
Location:	Welch, MN
Dates:	July 1 through September 30, 2016
Inspectors:	L. Haeg, Senior Resident Inspector P. LaFlamme, Resident Inspector S. Bell, Health Physicist M. Jones, Reactor Inspector
Approved by:	K. Riemer, Chief Branch 2 Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY

Inspection Report 05000282/2016003, 05000306/2016003; 07/01/2016–09/30/2016;
Prairie Island Nuclear Generating Plant, Units 1 and 2.

This report covers a 3–month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. No NRC-identified or self-revealing findings were identified during this inspection. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process," dated July 2016.

NRC-Identified and Self-Revealed Findings

No findings were identified.

Licensee Identified Findings

Violations of very low safety or security significance or Severity Level IV that were identified by the licensee have been reviewed by the NRC. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program (CAP). The inspectors documented one licensee-identified violation for which enforcement discretion was granted. This violation and CAP tracking number are documented in Section 4OA7 of this report.

REPORT DETAILS

Summary of 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.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

1. Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- 11 component cooling (CC) water system;
- 121 motor-driven cooling water (CL) system; and
- 22 turbine driven auxiliary feedwater (AFW) system.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Safety Analysis Report (USAR), Technical Specification (TS) requirements, outstanding work orders (WOs), corrective action program (CAP) documents, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted three partial system walkdown samples as defined in IP 71111.04–05.

b. Findings

No findings were identified.

2. Semi-Annual Complete System Walkdown

a. Inspection Scope

During the week of September 12–15, 2016, the inspectors performed a complete system alignment inspection of the Unit 1 event monitoring system to verify the functional capability of the system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment lineups; electrical power availability; system configuration, as appropriate; component labeling; component and equipment cooling; hangers and supports; operability of support systems; and to ensure that ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

These activities constituted one complete system walkdown sample as defined in IP 71111.04–05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

1. Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Fire Zone 12; Unit 2 Cable Spreading Room;
- Fire Zone 88; Unit 2 Rod Drive Room;
- Fire Zone 6; D2 Diesel Generator Room; and
- Fire Zone 26; Unit 1 BUS 112M and Train A Event Monitoring Rooms.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan.
The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event.
Using the documents listed in the Attachment to this report, the inspectors verified 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 fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

These activities constituted four quarterly fire protection inspection samples as defined in IP 71111.05–05.

b. Findings

No findings were identified.

1R06 Flooding (71111.06)

1. Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the USAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The specific documents reviewed are listed in the Attachment to this report. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the corrective action program to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following plant area to assess the adequacy of watertight doors and verify drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments:

- D6 emergency diesel generator (EDG) fuel oil storage tank vault.

Documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted one internal flooding sample as defined in IP 71111.06–05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

1. Resident Inspector Quarterly Review of Licensed Operator Requalification (71111.11Q)

a. Inspection Scope

On August 11, 2016, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training. The inspectors verified that operator performance was adequate, evaluators were identifying and documenting crew

performance problems, and that training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program simulator sample as defined in IP 71111.11–05.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

1. Routine Quarterly Evaluations

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- 2RY and 10 bank transformer lockout issues; and
- Unit 1 and 2 CL systems.

The inspectors reviewed events such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspector performed a quality review for the 2RY and 10 bank transformer lockout issues as discussed in IP 71111.12, Section 02.02.

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly maintenance effectiveness sample and one quality control sample as defined in IP 71111.12–05.

b. Findings

No findings were identified.

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

1. Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Corrective measures following identification of a 24 instrument inverter high temperature issue;
- 2RY transformer; and
- Bus 14 unavailability due to grid load capacity limits.

These activities were selected based on their potential risk significance relative to the Reactor Safety cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

Documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted three maintenance risk assessment and emergent work control samples as defined in IP 71111.13–05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

1. Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- Potential voids in AFW piping;
- Heat exchanger coatings issues;
- 21 room cooling fan (D5) past operability review; and
- 2R–11, unit 2 containment building radiation monitor operability evaluation.

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and the USAR to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

This inspection constituted four operability evaluation samples as defined in IP 71111.15–05.

b. Findings

No findings were identified.

2. Annual Sample: Review of Operator Workarounds

a. Inspection Scope

The inspectors evaluated the licensee's implementation of their process used to identify, document, track, and resolve operational challenges. Inspection activities included, but were not limited to, a review of the cumulative effects of operator workarounds (OWAs) on system availability and the potential for improper operation of the system, for potential impacts on multiple systems, and on the ability of operators to respond to plant transients or accidents.

The inspectors performed a review of the cumulative effects of OWAs. The documents listed in the Attachment were reviewed to accomplish the objectives of the inspection procedure. The inspectors reviewed both current and historical operational challenge records to determine whether the licensee was identifying operator challenges at an appropriate threshold, had entered them into their CAP and proposed or implemented appropriate and timely corrective actions which addressed each issue. Reviews were

conducted to determine if any operator challenge could increase the possibility of an Initiating Event, if the challenge was contrary to training, required a change from long-standing operational practices, or created the potential for inappropriate compensatory actions. Additionally, all temporary modifications were reviewed to identify any potential effect on the functionality of Mitigating Systems, impaired access to equipment, or required equipment uses for which the equipment was not designed. Daily plant and equipment status logs, degraded instrument logs, and operator aids or tools being used to compensate for material deficiencies were also assessed to identify any potential sources of unidentified operator workarounds.

This inspection constituted one operator workaround annual inspection sample as defined in IP 71111.15–02.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

1. Plant Modifications

a. Inspection Scope

The inspectors reviewed the following modification:

- EC 26588; GL 2008–01: Unit 1 RHR Recirculation; Revision 0

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the USAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system. The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modifications were installed as directed and consistent with the design control documents; the modifications operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one plant modification sample as defined in IP 71111.18–05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

1. Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following post-maintenance (PM) activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- 11 pressurizer B group heater inspection;
- CV–31339, letdown heat exchanger inlet containment isolation valve solenoid replacement testing;
- 10 bank transformer offsite safety related power supply maintenance and testing; and
- D2 jacket water expansion tank demineralized water supply valve replacement.

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the USAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted four post-maintenance testing samples as defined in IP 71111.19–05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

1. Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- SP 2093; D5 Slow Speed Start Monthly Surveillance Test (routine);
- SP 1128; Monthly Backflush of Emergency Bay Intake Pipe Surveillance Test (routine);
- SP 1714 RCS Leakage Annual Calculation Program Qualification Surveillance Test (routine); and
- SP 1106B; 22 Diesel Cooling Water Pump Monthly Surveillance Test (in-service test).

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the USAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for in-service testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted three routine surveillance testing samples and one in-service test sample as defined in IP 71111.22, Sections–02 and–05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

1. Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency tabletop drill on September 13, 2016, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the technical support center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the corrective action program. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

This emergency preparedness drill inspection constituted one sample as defined in IP 71114.06–06.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Public Radiation Safety

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

1. Walkdowns and Observations

a. Inspection Scope

The inspectors walked down select effluent radiation monitoring systems to evaluate whether the monitor configurations aligned with Offsite Dose Calculation Manual (ODCM) descriptions and to observe the material condition of the systems.

For equipment or areas associated with the systems selected for review that were not readily accessible, the inspectors reviewed the licensee's materiel condition surveillance records.

The inspectors walked down filtered ventilation systems to assess for conditions such as degraded high-efficiency particulate air/charcoal banks, improper alignment, or system installation issues that would impact the performance or the effluent monitoring capability of the effluent system.

As available, the inspectors observed selected portions of the routine processing and discharge of radioactive gaseous effluent to evaluate whether appropriate treatment equipment was used and the processing activities aligned with discharge permits.

The inspectors determined if the licensee has made significant changes to their effluent release points.

As available, the inspectors observed selected portions of the routine processing and discharging of liquid waste to determine if appropriate effluent treatment equipment was being used and that radioactive liquid waste was being processed and discharged in accordance with procedure requirements and aligned with discharge permits.

These inspection activities constituted a partial sample as defined in IP 71124.06–05.

b. Findings

No findings were identified.

2. Calibration and Testing Program

a. Inspection Scope

The inspectors reviewed calibration and functional tests for select effluent monitors to evaluate whether they were performed consistent with the ODCM. The inspectors assessed whether National Institute of Standards and Technology traceable sources were used, primary calibration represented the plant nuclide mix, secondary calibrations verified the primary calibration, and calibration encompassed the alarm set points.

The inspectors assessed whether effluent monitor alarm set points were established as provided in the ODCM and procedures.

The inspectors evaluated the basis for changes to effluent monitor alarm set points.

These inspection activities constituted one complete sample as defined in IP 71124.06–05.

b. Findings

No findings were identified.

3. Sampling and Analyses

a. Inspection Scope

The inspectors reviewed select effluent discharges made with inoperable effluent radiation monitors and assess whether controls were in place to ensure compensatory sampling was performed consistent with the ODCM and that those controls were adequate to prevent the release of unmonitored effluents.

The inspectors determined whether the facility was routinely relying on the use of compensatory sampling in lieu of adequate system maintenance.

The inspectors reviewed the results of the Inter-Laboratory Comparison Program to evaluate the quality of the radioactive effluent sample analyses and assessed whether the Inter-Laboratory Comparison Program included hard-to-detect isotopes as appropriate.

These inspection activities constituted a partial sample as defined in IP 71124.06–05.

b. Findings

No findings were identified.

4. Instrumentation and Equipment

a. Inspection Scope

The inspectors reviewed the methodology used to determine the effluent stack and vent flow rates to determine if the flow rates were consistent with plant documentation, and that differences between assumed and actual stack and vent flow rates did not affect the results of the projected public doses.

The inspectors assessed calibration and availability for select effluent monitors used for triggering emergency action levels or for determining protective action recommendations.

These inspection activities constituted a partial sample as defined in IP 71124.06–05.

b. Findings

No findings were identified.

5. Dose Calculations

a. Inspection Scope

The inspectors reviewed significant changes in reported dose values compared to the previous Radiological Effluent Release Report to evaluate the factors which may have resulted in the change.

The inspectors reviewed radioactive liquid and gaseous waste discharge permits to assess whether the projected doses to members of the public were accurate.

Inspectors evaluated the isotopes that are included in the source term to assess whether analysis methods were sufficient to satisfy detectability standards. The review included the current Part 61 analyses to ensure hard-to-detect radionuclides are included in the source term.

The inspectors reviewed changes in the licensee's offsite dose calculations to evaluate whether changes were consistent with the ODCM and Regulatory Guide 1.109. Inspectors reviewed meteorological dispersion and deposition factors used in the ODCM and effluent dose calculations to evaluate whether appropriate factors were being used for public dose calculations.

The inspectors reviewed the latest Land Use Census to assess whether changes have been factored into the dose calculations.

For select radioactive waste discharges, the inspectors evaluated whether the calculated doses where within the Title 10 of the *Code of Federal Regulations*, Part 50, Appendix I, and Technical Specification dose criteria.

The inspectors reviewed select records of abnormal radioactive waste discharges to ensure the discharge was monitored by the discharge point effluent monitor. Discharges made with inoperable effluent radiation monitors, or unmonitored leakages were reviewed to ensure that an evaluation was made to account for the source term and projected doses to the public.

These inspection activities constituted one complete sample as defined in IP 71124.06–05.

b. Findings

No findings were identified.

6. Problem Identification and Resolution

a. Inspection Scope

Inspectors assessed whether problems associated with the Effluent Monitoring and Control Program were being identified by the licensee at an appropriate threshold and were properly addressed for resolution. In addition, they evaluated the appropriateness of the corrective actions for a selected sample of problems documented by the licensee involving radiation monitoring and exposure controls.

These inspection activities constituted one complete sample as defined in IP 71124.06–05.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security

4OA1 Performance Indicator Verification (71151)

1. Reactor Coolant System Leakage

a. Inspection Scope

The inspectors sampled licensee submittals for the RCS Leakage performance indicator (PI), Units 1 and 2, for the period from the third quarter of 2015 through the second quarter of 2016. To determine the accuracy of the PI data reported during those

periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator logs, RCS leakage tracking data, CAP reports, event reports and NRC Integrated Inspection Reports for the period of July 1, 2015, through June 30, 2016, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two reactor coolant system leakage samples as defined in IP 71151–05.

b. Findings

No findings were identified.

2. Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors sampled licensee submittals for the reactor coolant system specific activity PI, Units 1 and 2, for the period from the fourth quarter 2015 through the second quarter 2016. The inspectors used PI definitions and guidance contained in the Nuclear Energy Institute Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 2013, to determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's reactor coolant system chemistry samples, technical specification requirements, Issue Reports, Event Reports and U.S. Nuclear Regulatory Commission Integrated Inspection Reports to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze a reactor coolant system sample. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two reactor coolant system specific activity samples as defined in IP 71151–05.

b. Findings

No findings were identified.

3. Radiological Effluent Technical Specification/Offsite Dose Calculation Manual Radiological Effluent Occurrences

a. Inspection Scope

The inspectors sampled licensee submittals for the Radiological Effluent Technical Specification/ODCM radiological effluent occurrences PI for the period from the fourth quarter 2015 through the second quarter 2016. The inspectors used PI definitions and guidance contained in the Nuclear Energy Institute Document 99–02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 2013, to

determine the accuracy of the PI data reported during those periods. The inspectors reviewed the licensee's issue report database and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspectors reviewed gaseous effluent summary data and the results of associated offsite dose calculations for selected dates to determine if indicator results were accurately reported. The inspectors also reviewed the licensee's methods for quantifying gaseous and liquid effluents and determining effluent dose. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one Radiological Effluent Technical Specification/ODCM radiological effluent occurrences sample as defined in IP 71151–05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

1. Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Some minor issues were entered into the licensee's CAP as a result of the inspectors' observations; however, they were not discussed in this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter.

b. Findings

No findings were identified.

2. Annual Follow-up of Selected Issues: Aggregate Review of Past Operability Evaluations Requiring Additional Evaluation as Identified by Inspectors during the 2016 Biennial PI&R Inspection.

a. Inspection Scope

The inspectors selected the following condition reports for in-depth reviews:

- CAP 1526144; NRC Identified Past Operability Evaluations Requiring Additional Review During the 2016 Biennial PI&R Inspection;
- CAP 01405259–03; Equipment Cause Evaluation for 1R–11 Filter Not in Motion Alarm;
- CAP 01517100; Equipment Cause Evaluation for 2R–11 Malfunction; and

- CAP 01469991; Leaks Identified on Removed 21 Fan Coil Unit System Cooler East Lower Face Operability Evaluation.

As appropriate, the inspectors verified the following attributes during their review of the licensee's corrective actions for the above condition reports and other related condition reports:

- complete and accurate identification of the problem in a timely manner commensurate with its safety significance and ease of discovery;
- consideration of the extent of condition, generic implications, common cause, and previous occurrences;
- evaluation and disposition of operability/functionality/reportability issues;
- classification and prioritization of the resolution of the problem commensurate with safety significance;
- identification of the apparent and contributing causes of the problem;
- identification of corrective actions, which were appropriately focused to correct the problem;
- completion of corrective actions in a timely manner commensurate with the safety significance of the issue; and
- evaluation of applicability for operating experience and communication of applicable lessons learned to appropriate organizations.

The inspectors discussed the corrective actions and associated evaluations with licensee personnel.

This inspection constituted one in-depth problem identification and resolution inspection sample as defined in IP 71152.

b. Findings

No findings were identified.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

1. Lockout of 10 Bank Transformer

a. Inspection Scope

The inspectors reviewed the plant's response to an unexpected lockout of the 10 bank transformer on July 24, 2016. Specifically, the inspectors reviewed operator response to the event, the use of abnormal operating procedures (AOPs), log-keeping, the recognition of TS LCO applicability, and recovery actions as a result of the event.

As part of the inspector's review, the inspectors questioned the apparent lack of clarity within the AOPs with respect to the adequacy of qualified offsite circuits following the loss and subsequent re-alignment of loads that were normally fed from the 10 bank transformer. The licensee documented the inspector's questions within CAP 01529367, and corrective actions were planned to revise the AOPs.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one event follow-up review sample as defined in IP 71153–05.

b. Findings

No findings were identified.

2. Unit 1 Spurious Isolation of Letdown Flow and Notice of Unusual Event

a. Inspection Scope

The inspectors reviewed the plant and licensee response to the spurious isolation of letdown flow affecting Unit 1 and declared notice of unusual event (NOUE) on August 13–14, 2016. Specifically, the inspectors reviewed operator response to the event, the use of abnormal operating procedures, log-keeping, the recognition of TS LCO applicability, emergency action level entry and exit criteria, CAP documents, and recovery actions as a result of the event. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one event follow-up review sample as defined in IP 71153–05.

b. Findings

No findings were identified.

3. (Closed) Licensee Event Report 05000282/2016–003–00: Unanalyzed Condition Procedures Credited by Appendix R Calculations not in Place

a. Inspection Scope

The inspectors reviewed information provided by the licensee regarding the January 7, 2016, identification that a cold shutdown repair procedure was not in place to allow for restoration of power to the B reactor coolant system (RCS) vent valves. Specifically, during a National Fire Protection Association (NFPA)–805 transition process review of the PINGP Appendix R safe shutdown analysis, the licensee identified that the SSA credited repair of the B RCS vent valves following a postulated fire in the Units 1 and 2 auxiliary building mezzanine areas. The licensee documented the issue in CAP 01507901, determined that the issue represented an unanalyzed condition, and immediately implemented compensatory measures in the form of hourly fire watches.

The inspectors reviewed the fire protection program documents and calculations, licensee CAPs, the apparent cause evaluation, immediate corrective actions (hourly fire watches), and longer term corrective actions. Documents reviewed are listed in the Attachment to this report. This licensee event report (LER) is closed.

This review constituted one event follow-up sample as defined in IP 71153–05.

b. Findings

One finding and non-cited violation (NCV) for which the NRC exercised enforcement discretion was identified during the review of this LER. The inspectors determined that the finding and NCV associated with the unanalyzed condition was best characterized as

a licensee-identified finding and violation. As a result, the inspectors documented information regarding this issue in Section 4OA7.2 of this inspection report.

4. (Closed) Licensee Event Report 05000306/2015–002–01: 21 Feedwater Pump Lockout, Unit 2 Reactor Trip Due to Pressure Switch Failure

The inspectors reviewed supplemented information provided by the licensee regarding the April 3, 2015, automatic actuation of the reactor protection system and AFW due to the manual reactor trip of Unit 2 following the unexpected lockout of the 21 feedwater pump. The original LER was closed in Inspection Report 05000282/2015002 and 05000306/2015002. This supplement was provided by the licensee to clarify the cause of the 21 feedwater pump lockout (suction flow pressure oscillations; not age-related degradation), and to clarify the corrective actions taken.

The inspectors did not identify any new information that changed their prior review, evaluation, or conclusions for the original LER. Documents reviewed are listed in the Attachment to this report. This LER is closed.

This review constituted one event follow-up sample as defined in IP 71153–05.

4OA6 Management Meetings

1. Exit Meeting Summary

On October 4, 2016, the inspectors presented the inspection results to Mr. T. Conboy, Director of Site Operations, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

The inspection results for the areas of in-plant airborne radioactivity control and mitigation; and occupational dose assessment with Mr. W. Paulhardt, Plant Manager, on August 19, 2016.

The inspectors confirmed that none of the potential report input discussed was considered proprietary.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee. The NRC is not taking enforcement action for this violation because it met the criteria of the NRC Enforcement Policy, "Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues (10 CFR 50.48)," as described below:

Title 10 CFR 50.48(b)(2) requires, in part, that "all nuclear power plants licensed to operate before January 1, 1979, must satisfy the applicable requirements of Appendix R to this part, including specifically the requirements of Sections III.G, III.J, and III.O." Appendix R, Section III.G.1 of 10 CFR Part 50, requires, in part, that "systems necessary to achieve and maintain cold shutdown from either the control room or emergency control station(s) can be repaired within 72 hours."

Contrary to the above, on January 7, 2016, the licensee failed to ensure that the Units 1 and 2 B RCS vent valves (necessary to achieve and maintain cold shutdown) could be repaired within 72 hours following a postulated fire. Specifically, the B RCS vent valves were credited within the licensee's SSA following a postulated fire in the Units 1 and 2 auxiliary building mezzanine areas and could have been rendered unavailable for operation from the control room or emergency control station(s).

Section 9.1 of the NRC Enforcement Policy allows the NRC to exercise enforcement discretion for certain fire protection related non compliances identified as a result of a licensee's transition to the new risk informed, performance based fire protection approach included in 10 CFR 50.48(c), and for certain existing non compliances that reasonably may be resolved by compliance with 10 CFR 50.48(c) as long as certain criteria are met. This risk informed, performance based approach is referred to as NFPA 805, "Performance Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants."

The licensee is in transition to NFPA 805 and therefore the licensee-identified violation was evaluated in accordance with the criteria established by Section 9.1(a) of the NRC's Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues (10 CFR 50.48) for a licensee in NFPA 805 transition. The inspectors determined that for this violation: (1) the licensee would have identified the violation during the scheduled transition to 10 CFR 50.48(c); (2) the licensee had established adequate compensatory measures (see Section 4OA3.3) within a reasonable time frame following identification and would correct the violation as a result of completing the NFPA 805 transition; (3) the violation was not likely to have been previously identified by routine licensee efforts; and (4) the violation was not willful. The finding also met additional criteria established in section 12.01.b of IMC 0305, "Operating Assessment Program." In addition, in order for the NRC to consider granting enforcement discretion the violation must not be associated with a finding of high safety significance (i.e., Red). The issue was of very low safety significance (Green) because it did not impact the licensee's ability to reach hot shutdown.

The licensee entered this issue into their corrective action program as CAP 01507901. As a result, the inspectors concluded that the violation met all four criteria established by Section 9.1 of the NRC's Enforcement Policy and the NRC was exercising enforcement discretion to not cite this violation in accordance with the Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

S. Northard, Site Vice President
T. Conboy, Director of Site Operations
S. Sharp, Director of Performance Improvement
H. Butterworth, Business Support Manager
J. Bjorseth, Engineering Director
J. Boesch, Maintenance Manager
T. Borgen, Operations Manager
B. Boyer, Radiation Protection Manager
A. Chladil, Nuclear Oversight Manager
B. Carberry, Emergency Preparedness Manager
B. Truckenmiller, Chemistry & Environmental Manager
S. Martin, Performance Assessment Manager
J. Kivi, Regulatory Affairs Manager
S. Lappegaard, Production Planning Manager
D. Lapcinski, Assistant Operations Manager
E. Baker, Chemist
P. Wildenborg, Health Physicist

U.S. Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2
R. Kuntz, Project Manager, Office of Nuclear Reactor Regulation

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

05000282/2016–003–00	LER	Unanalyzed Condition – Procedures Credited By Appendix R Calculations Not in Place (Section 4OA3.3)
00500306/2015–002–01	LER	21 Feedwater Pump Lockout, Unit 2 Reactor Trip Due to Pressure Switch Failure (Section 4OA3.4)

Discussed

None

LIST OF DOCUMENTS REVIEWED

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

1R04 Equipment Alignment

- C1.1.14–1; Unit 1 Component Cooling System; Revision 34
- CAP 01536062; CV–31411 Timed Outside Reference Range During SP 1155B; September 29, 2016
- CAP 011408753; 22 AFWP Discharge Sensing Lines Rubbing Together; December 1, 2013
- CAP 01472493; Entered Unplanned LCOs 3.7.8 and 3.8.1 Due to 12 DDCL Pump;
- April 1, 2015
- C28–15; 12 Motor Driven Auxiliary Feedwater Pump; Revision 8
- XH–106–235; Isometric Auxiliary Feedwater Unit 1; Revision 77
- DBD SYS-28B; Design Bases Document for the Auxiliary Feedwater System; Revision 8
- DBD SYS–35; Design Bases Document for the Cooling Water System; Revision 13
- C35; Cooling Water; Revision 85
- CAP 01530638; NRC Question Regarding AFW Pump Conduit; August 4, 2016
- CAP 0825556; 3/28/05 Response to RAI on 5/3/04 LAR CL Non-Seismic Branch; August 28, 2005
- Screenhouse Cooling Water Supply Drawing; Revision 1
- ENG-ME-186; Unit 1 480V and Event Monitoring Room Ventilation System Design; Revision 0
- B20.8; Instrument AC Distribution System; Revision 12
- CAP 01434286; 122 Control Room Chiller; July 12, 2016

1R05 Fire Protection

- F5 Appendix A; Fire Strategies; Revision 35
- SP 1053; Fire Protection Pumps Monthly Test; July 26, 2016
- CAP 01528964; Faulty Fire Detector; July 21, 2016
- CAP 01528818; Door 56 Will Not Close as Designed; July 19, 2016
- CAP 01528770; Door 56 Does Not Meet Requirements of F5 App K; July 19, 2016

1R06 Flooding

- CAP 01534215; D6 FOST Inspection 2016; September 9, 2016
- NF–116989; D5/D6 Bldg.—Concrete Misc. Plans, Sect's & Dets; Revision 77
- NF–117027; Fuel Oil Storage Vault Plans; Revision A
- NF–D5/D6 Bldg. Conc. Misc. Wall Sections and Details; Revision A
- NF–117028; Fuel Oil Storage Vault Sections and Details; Revision A
- H36; Plant Flooding; Revision 10
- CAP 01533730; D6 DSL Gen 22 D6 Dirty Oil Sump Lvl Hi; September 8, 2016
- CAP 01534263; Water Leaks on South Wall of the D6 Basement; September 9, 2016
- NF–39215–1; Circulation Water Unit 1 & 2 Flow Diagram; Revision 82
- NF–NF–39264–1; Circulating Water Piping Plan Unit 1; Revision 76
- CAP 01534396; D5 FOST Inspection 2016; September 12, 2016

1R12 Maintenance Effectiveness

- WO 550419; TD: 2RY Transformer, Troubleshoot Transformer Alarms
- PE 6037; 34.5/4.16 kV 2RY Transformer Maintenance; Revision 8
- WO 549163; TD: Breaker 1H1 VCB, Perform PE 5050
- PE 50501; Breaker 1H1 VCB Relay Testing and Trip Test; Revision 4
- PE 50501; Breaker 1H2 ACB Relay Testing and Trip Test; Revision 4
- CAP 01495583; 121 MD CLG WTR PMP; October 4, 2015
- H21; Generic Letter 89–13 Implementing Program; Revision 24
- CAP 01530489; NRC Question on Cooling Water Emergency Intake Line; August 3, 2016
- CAP 01529285; SP 1128 Could Not Be Performed Due to Plant Conditions; July 24, 2016
- CAP 01530494; How is the Commitment for Emergency Intake Line Backflush Met; August 3, 2016
- CY–Admin–003; Strategic Water Chemistry Plan Closed Cooling Water Systems; Revision 1
- NRC Commitment No. P–766; Emergency Intake Bay and Pipe—In Response to Generic Letter 89–13, Flush the Bay and Pipe Monthly; January 29, 1990
- CAP 01534284; Intentionally Abbreviated Maintenance Performed; September 9, 2016
- CAP 01533701; SP1128 Does Not Accurately Reflect Commitment Change #01–03; September 3, 2016

1R13 Maintenance Risk Assessment and Emergent Work Control

- CAP 01528758; Elevated Temperature on Capacitor Connection in Inverter 24; June 19, 2016
- CAP 01528821; Thermography Readings Exceed Design Limits on 24 Inverter; June 19, 2016
- PM 4910; Thermographic Inspection of Prairie Island Components; Revision 7
- H32.3; Thermography Program; Revision 4
- WO 525894; PM 4910–17–DC and Battery Thermography Inspection
- CAP 01532318; 2RY Transformer Locked Out; August 21, 2016
- C20.3; Electrical Power System Security Analysis; Revision 23

1R15 Operability Determinations and Functionality Assessments

- CAP 01530185; Potential Voids in AFW Piping; August 2, 2016
- CAP 01526168; Coatings SSA: Some Quality Controls not Applied for 21 CC Heat Exchanger; June 23, 2016
- CAP 01526175; Coatings SSA: D1 EDG Heat Exchanger Endbell Lining Deficiencies; June 23, 2016
- GAR 01505172; 2016 Tracking GAR for Operator Burdens; December 8, 2015
- FP–OP–OL–01; Operability/Functionality Determination; Revision 16
- CAP 01526144; NRC Comment for Past Operability Evaluations; June 23, 2016
- CAP 01529744; NRC Question Related to OBD Clearance for AR–1495583; July 27, 2016
- CAP 01501036; Torn Paper Alarm 2RE–11; November 14, 2015
- CAP 01480979; 2R–11 Torn Paper Alarm After Filter Paper Change Out; June 4, 2015
- CAP 01405259; IR–11 Filter Not in Motion Alarm; September 5, 2014
- CY–PLNT–303; 1R–11 Filter Paper Inspection and Change Out; Revision 6
- CAP 01492834; Unplanned LCO on 2R–11; September 10, 2015
- CAP 01535904; NRC Questions Regarding AR 1517705-06; September 27, 2016
- CAP 01517705; D5 Diesel Room Cooling Fan did not Start; April 4, 2016

1R18 Plant Modifications

- EC 26588; GL 2008–01: Unit 1 RHR Recirculation; Revision 0
- TP 1468; Unit 1 GL–08–01 Inspections; Revision 8

1R19 Post-Maintenance Testing

- PM 3115–1–11; 11 Pressurizer Refueling Inspection; Revision 22
- SP 1320B; Pressurizer Heaters Group B Operation from Hot Shutdown Panel 18 Month Test; Revision 3
- CAP 01531586; Enter Level 3 Troubleshooting for Letdown Isolation Valve; August 15, 2016
- WO 550161; Troubleshooting Plan for CV–31339; August 14, 2016
- WO 550161–07; OPS: SV–33674; PMT/RTS; August 16, 2016
- CAP 01531539; 10 Bank Transformer Switch Not in Expected Position; August 13, 2016
- CAP 01527402; U2 D5 Eng #1, 2TISH–5400, Avg Cyl Exh Temp Hi Alarm; July 6, 2016
- CAP 01527205; D2 DSL Gen Expansion Tank, Overflow Leak at 20 Drops/Min; July 5, 2016
- WO 00531439–02; DE–55–2 D2 Expansion Tank Drain Will Not Allow Flow; September 1, 2016
- CAP 01533420; FME Found in Chromated Water Barrels for D2 Work; August 31, 2016
- CAP 01533410; Doble Test Results are Unacceptable for 2R-YS Bus Duct; August 31, 2016
- CAP 01533123; 2Y-YS/3000BD Bus Duct Test Results Indicates Low Megger; August 29, 2016
- CAP 01533415; PMT for SV–33189 Delayed Due to Inadequate PMT Instructions; August 31, 2016
- WO 00530752–03; D2 DSL Gen Expansion Tank Overflowing; September 1, 2016
- WO 00536203–03; OPS: PMT MV–32105 Stem Lubrication; September 16, 2016
- WO 00536203–03; OPS: 145–102, Perform RTS / P MT for 12 CS Pump; September 1, 2016
- WO 00539850–02; OPS: PMT, 12 CS Pump; September 1, 2016
- CAP 01532866; 10 Bank Transformers is Leaking Oil From the Main Sample VLV; August 26, 2016
- WO 549163–24; 10 Bank Transformer Lock Out B US 2 Deenergized Test; August 10, 2016
- CAP 01533231; Adverse Trend in 2RY Transformer Arrester Doble Test Results; August 30, 2016
- CAP 01533159; 2RY Transformer Dog House Breathers Found Clotted; August 30, 2016

1R22 Surveillance Testing

- SP 1128; Monthly Backflush of Emergency Bay Intake Pipe; July 28, 2016
- SP 2093; D5 Diesel Generator Monthly Slow Start Test; Revision 97
- WO 534831–01; SP 2093 D5 Diesel Generator Monthly Slow Start; July 6, 2016
- SP 1106B; 22 Diesel Cooling Water Pump Monthly Test; Revision 91
- CAP 01531522; FE–27185 Has Excessive Vibration; August 13, 2016
- WO 536353–01; SP 1106B 22 Diesel Cooling Water Pump Monthly Test; July 29, 2016
- CAP 01530076; Performance of SP 1128 Monthly Bay Intake Backflush; July 30, 2016
- CAP 01529169; Bistable Not Lit During Performance of SP 1035B; July 22, 2016
- SP 1053; Fire Protection Pumps Monthly Test; Revision 48
- OI 16-13; 21 RCP Seal 2nd Stage Differential Pressure Monitoring Operating Information; Revision 1
- CAP 01530250; NRC: 21 RCP DP2 Dropped Below 645 psid on 7/15/16 ODMI Action; August 2, 2016
- CAP 01533195; Spare RCP Spoolpiece as-Found TIR Unacceptable; August 30, 2016

- CAP 01533234; 12 RCP Large Shifts in Phase Angle Vibes; August 30, 2016
- SP1714; RCS Leakage Annual Calculation Program Qualification; August 29, 2016
- H60; RCS Leakage Monitoring Program; Revision 3
- CAP 01533004; Nightly RCS Leak Rate SP1001AA False Deviation; September 1, 2016

1EP6 Drill Evaluation

- Prairie Island Nuclear Generating Plant; Emergency Preparedness Tabletop Drill 2016–05
- CAP 01534527; Two Potential DEP Failures During EP Drill; September 13, 2016
- CAP 01534528; ORO Notification Issue; September 13, 2016

2RS6 Radioactive Gaseous and Liquid Effluent Treatment

- 2014 Annual Radioactive Effluent Report and Offsite Dose Calculation Manual (ODCM); May 5, 2015
- 2015 Annual Radioactive Effluent Report and Offsite Dose Calculation Manual (ODCM); May 5, 2016
- Offsite Dose Calculation Manual (ODCM); Revisions 29–30
- Offsite Dose Calculation Manual Change Package; Revision 30
- Snapshot Self-Assessment; Radioactive Gaseous and Liquid Effluent Treatment; May 27, 2016
- Plant System Health Report; August 2016
- F3–23–2C; U–2 Post Accident Containment Atmosphere Filtered Gas, Particulate, Iodine and Liquid Sample; Revision 14
- Interlaboratory Comparison Data; 2015–2016
- Land Use Census; 2015
- CY–PLNT–872; Liquid Source Calibration of R–21; Revision 0
- FP–CY–ODC–01; Offsite Dose Calculation Manual Change Process; Revision 1
- Special Report: Timely Restoration of Operability of Explosive Gas Monitoring Instrumentation; July 22, 2016
- High Range Stack Gas Monitor Calibration 1R–50 and 2R–50; July 6, 1981
- Letter; Special Report: Timely Restoration of Operability of Explosive Gas Monitoring Instrumentation; July 22, 2016
- 10 CFR 61 Dry Active Waste Analysis; October 21, 2015
- CAP 01493626; U2 TBS Sample Compositor Out of Service; September 18, 2015
- CAP 015000512; NRC Comment; Radiation Monitor Program has no Owner; November 6, 2015
- CAP 01521062; Discrepancies Between ODCM Reporting Requirements; May 5, 2016
- CAP 01521661; NOS: ODCM Ownership – Potential NRC Reporting not met; May 11, 2016
- CAP 01521664; NOS: Potential ODCM Channel Checks not Completed as Required; May 11, 2016
- CAP 01522935; NOS Finding: ODCM Reporting Requirements not met; May 23, 2016
- CAP 01523652; Program Owner of Radiation Monitoring System; May 31, 2016
- CAP 01523682; Discrepancy Between OOS Log and AER 1R-37; May 31, 2016
- CAP 01531047; NOS: ACE Quality Issues Identified; August 9, 2016
- CAP 01531839; NRC Question on TS Filter Testing; August 17, 2016
- CAP 01531847; 122 Recombiner OOS for Extended Period of Time; August 17, 2016
- CAP 01531897; Inconsistency in Recirc Mixing of Waste Liquid Tanks; August 17, 2016
- Radiological Effluent Data; Fourth Quarter 2015
- Radioactive Liquid Batch Tank Release Permit; August 15, 2016
- Radioactive Gas Waste Gas Decay Tank Release Permit; February 5, 2016

Radioactive Gas Unit 2 Containment Release Permit; October 19, 2015

4OA1 Performance Indicator Verification

- Radioactive Effluent Dose Information; Fourth Quarter 2015 through Second Quarter 2016
- Reactor Coolant System DEI Data; Fourth Quarter 2015 through Second Quarter 2016

4OA2 Identification and Resolution of Problems

- CAP 01405259-03; 1R–11 Filter Not in Motion Alarm; April 13, 2013
- CAP 01517100; 2R–11 Malfunction; March 28, 2016
- CAP 01511409; Inadequate CA Closures Under CAP 1492834; February 7, 2016
- CAP 01529014; Stripped Bolt on Cover Plate of 2R–11; July 21, 2016
- CAP 01469991; Leaks Identified on Removed 21 FCU East Lower Face; July 7, 2016
- CAP 01469164; Leak Identified on 21 FCU During Walkdown; March 7, 2015
- CAP 01531455; Unsatisfactory Completed SP1229B Due to IR–10; August 12, 2016
- CAP 01435451; 1S1–15X Failed to Close; July 24, 2014

4OA3 Follow-Up of Events and Notices of Enforcements Discretion

- CAP 01529295; 10 Bank Transformer Lock Out/Bus 2 De-energized; July 24, 2016
- CAP 01529296; 2R–50 Caused 47022–0309 Alarm; July 24, 2016
- CAP 01529292; Breaker 512BT, Bus 510 to 520 Bus Tie Did Not Automatically Close; July 24, 2016
- CAP 01529293; 122 Intake Screenhouse Bypass Gate Did Not Open on Loss of Power; July 24, 2016
- CAP 01529367; Delayed Entry Into LCO on U–1 After Loss of 10 Bank Transformer; July 25, 2016
- Operations Narrative Logs, July 24, 2016
- C20.3 AOP7; Electric Power System Operating Restrictions and Limitations Loss of 10 Transformer; Revision 13
- C20.3 AOP11; Electric Power System Operating Restrictions and Limitations Loss of 345 kV Bus 2; Revision 9
- SP 1118; Verifying Paths From The Grid to U–1 Buses; Revision 30
- CAP 01507901; Legacy: CA to Develop a Cold Shutdown Repair Not Timely; January 7, 2016
- CAP 01531617; NUE 8-13-16–Classification Timeliness; August 15, 2016
- CAP 01531616; NUE 8/13/16 Completion of ORO Notification Not Timely; August 15, 2016
- CAP 01531605; 8/13/16 NUE Error in Initiating Mission Mode; August 15, 2016

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
AFW	Auxiliary Feedwater
ALARA	As-Low-As-Is-Reasonably-Achievable
AOP	Abnormal Operating Procedure
CAP	Corrective Action Program
CC	Component Cooling
CFR	Code of Federal Regulations
CL	Cooling Water
EC	Engineering Change
EDG	Emergency Diesel Generator
IMC	Inspection Manual Chapter
IP	Inspection Procedure
LCO	Limiting Condition for Operation
LER	Licensee Event Report
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
NOUE	Notice of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OWA	Operator Workaround
PI	Performance Indicator
PM	Planned or Preventative Maintenance
RCS	Reactor Coolant System
RHR	Residual Heat Removal
TS	Technical Specification
USAR	Updated Safety Analysis Report
WO	Work Order

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, (if any), will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response should not include any personal privacy or proprietary, information so that it can be made available to the Public without redaction.

Sincerely,

/RA/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

Docket Nos. 50–282; 50–306; 72–010
License Nos. DPR–42; DPR–6

0; SNM–2506

Enclosure:
IR 05000282/2016003; 05000306/2016003

cc: Distribution via LISTSERV®

DISTRIBUTION:
Jeremy Bowen
RidsNrrPMPrairieIsland Resource
RidsNrrDorlLpl3-1 Resource
RidsNrrDirsIrib Resource
Cynthia Pederson
Darrell Roberts
Richard Skokowski
Allan Barker
Carole Ariano
Linda Linn
DRPIII
DRSIII
ROPreports.Resource@nrc.gov

ADAMS Accession Number: ML16307A269
☒ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☒ Non-Sensitive
To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII		RIII		RIII			
NAME	NShah:bw		KRiemer		RSkokowski			
DATE	10/29/2016		11/02/2016		11/02/2016			

OFFICIAL RECORD COPY