



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

May 4, 2016

Mr. Peter A. Gardner  
Site Vice President  
Monticello Nuclear Generating Plant  
Northern States Power Company, Minnesota  
2807 West County Road 75  
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT NRC INTEGRATED  
INSPECTION REPORT 05000263/2016001

Dear Mr. Gardner:

On March 31, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Monticello Nuclear Generating Plant. The enclosed report documents the inspection finding, which was discussed on April 5, 2016 with you, and other members of your staff.

Based on the results of this inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very low safety significance (green). The NRC has also determined that a violation is associated with this issue. This violation is being treated as Non-Cited Violations (NCVs), consistent with Section 2.3.2 of the Enforcement Policy. The NCV is described in the subject inspection report.

If you contest the violation or significance of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to: (1) the Regional Administrator, Region III; (2) the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and (3) the NRC Resident Inspector at the Monticello Nuclear Generating Plant.

In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Monticello Nuclear Generating Plant.

P. Gardner

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In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records System (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

K. Riemer, Chief  
Branch 2  
Division of Reactor Projects

Docket No. 50-263  
License No. DPR-22

Enclosure:  
Inspection Report 05000263/2016001

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-263

License No: DPR-22

Report No: 05000263/2016001

Licensee: Northern States Power Company, Minnesota

Facility: Monticello Nuclear Generating Plant

Location: Monticello, MN

Dates: January 1, through March 31, 2016

Inspectors: P. Zurawski, Senior Resident Inspector  
P. LaFlamme, Acting Senior Resident Inspector  
D. Krause, Resident Inspector  
S. Bell, Health Physicist  
J. Park, Reactor Inspector

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

Enclosure

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## SUMMARY

Inspection Report 05000263/2016001; 01/01/2016—03/31/2016; Monticello Nuclear Generating Plant; Operability Determinations and Functional Assessments.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One Green finding was identified by the inspectors. This finding was considered a non-cited violation (NCV) of the U.S. Nuclear Regulatory Commission (NRC) regulations. 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 February 2014.

### Cornerstone: Mitigating Systems

Green. An NRC identified finding of very low safety significance (Green) and associated of 10 CFR 50, Appendix B, Criterion V; "Instructions, Procedures, and Drawings", was identified on February 5, 2016, as a result of the licensee's failure to use procedures while performing activities affecting quality. Specifically, the licensee failed to accomplish activities affecting quality in accordance with FP-G-DOC-03; "Procedure and Work Instruction Use and Adherence," in that documented procedures were not used to install a conduit support on safety related Emergency Filtration Train (EFT) Division II conduits. Immediate corrective actions included removal of the support and entering the issue into the licensee's Corrective Action Program (CAP) 1511349.

The finding was determined to be more than minor because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the inspectors based this determination on the fact that performing activities affecting quality without using procedures has the potential to adversely affect the design/qualification of a Structure, System, and Component (SSC) or impact the operability or functionality of a system or component. The inspectors determined the finding to have very low safety significance (Green). The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross-cutting area of Human Performance, teamwork because of the licensee's work group failures to communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained (H.4). (Section 1R15)

## **REPORT DETAILS**

### **Summary of Plant Status**

Monticello operated at, or near, 100 percent power for the inspection period with the following exceptions. On January 23, 2016, the licensee reduced power to approximately 97 percent for a scheduled control rod drive exercise. Power was returned to approximately 100 percent the same day. On February 27, 2016, the licensee reduced power to approximately 90 percent for a planned control rod drive operability check along with an attempt to recover control rod 46-19 which had been declared inoperable due to a position indication problem following the November 2015 forced outage. Power was returned to approximately 100 percent the same day. On March 5, 2016, the licensee reduced power to approximately 62 percent for a scheduled control rod pattern adjustment and turbine valve testing activities. Power was returned to approximately 100 percent on March 6, 2016.

### **1. REACTOR SAFETY**

#### **Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity**

#### **1R01 Adverse Weather Protection (71111.01)**

##### **.1 Readiness for Impending Adverse Weather Condition—Extreme Cold Conditions**

###### **a. Inspection Scope**

Since extreme cold conditions were forecast in the vicinity of the facility for January 9, 2016, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. On January 7, 2016, the inspectors walked down the intake structure and off-gas building systems because their safety-related functions could be affected or required as a result of the extreme cold conditions forecast for the facility. The inspectors observed insulation, heat trace circuits, space heater operation, and weatherized enclosures to ensure operability of affected systems. The inspectors reviewed licensee procedures and discussed potential compensatory measures with control room personnel. The inspectors focused on plant management's actions for implementing the station's procedures for ensuring adequate personnel for safe plant operation and emergency response would be available. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition sample as defined in Inspection Procedure (IP) 71111.01–05.

###### **b. Findings**

No findings were identified.

#### **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:

- 12 emergency diesel generating system;
- Reactor core isolation cooling system;
- Division II battery system;
- Division I 4kV electrical system;
- Division 1 480V electrical system; and
- B train residual heat removal 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), condition reports, 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 corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted six 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 January 18, 2016, the inspectors performed a complete system alignment inspection of the Division II 4kV and 480V Alternating Current switchgear and cabling distribution 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 pressure and temperature indications, as appropriate; component labeling; component lubrication; 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 12A; Division I lower 4kV room, 911' elevation;
- Fire Zone 01F; Torus area of reactor building, 896' elevation;
- Fire Zone 01C; Reactor core isolation cooling pump room; 896' elevation;
- Fire Zone 07-C; 125V Division II battery room;
- Fire Zone 08; Cable spreading room; and
- Fire Zone 02-C; West HCU area.

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 six 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:

- Division I 4kV electrical systems; 911' elevation.

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 Regualification Program (71111.11)

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

#### a. Inspection Scope

On March 14, 2016, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator regualification 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.

.2 Resident Inspector Quarterly Observation During Periods of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On January 23, 2016, the inspectors observed a Rod Exercise/Reactivity Adjustment. This was an activity that required heightened awareness or was related to increased risk. 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 procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications (if applicable).

The performance in these areas was compared to pre-established operator action expectations, procedural compliance and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk 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:

- Bus 15 4kV electrical 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 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 as defined in IP 71111.12-05.

b. Findings

No findings were identified.

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

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:

- 11 Emergency Diesel Generator (EDG) Truss Installation - Tornado Missile Barriers;
- 14 Emergency Service Water (ESW) Pump online outage evaluation;
- 12 Control Rod Drive (CRD) Pump Replacement;
- Refuel Floor Ceiling Scaffold & tarp (Witches Hat) removal; and
- Modification of Rod Indication for Rod 46-19.

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.

These maintenance risk assessments and emergent work control activities constituted five samples as defined in IP 71111.13–05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functional Assessments (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- 14 Residual Heat Removal (RHR) Pump Motor Oil Evaluation (water present);
- 12 EDG Anti-Motor Relay Evaluation;
- Division II Emergency Filtration Train (EFT) Seismic Evaluation;
- MSIV Closure Stroke Time Inaccurate Information Evaluation;
- Reactor Building Crane Function Step Performance Evaluation;
- Torus Vacuum Breaker Actuator Unresolved Item (URI) (05000263/2015003–04) Evaluation; and
- Division I 480V MCC Room High Energy Line Break 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 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 operability inspection constituted seven samples as defined in IP 71111.15–05.

b. Findings

Unresolved Item 05000263/2015003-04: Drywell to Torus Vacuum Breaker Past Operability

Reference Section 4AO5 for torus vacuum breaker actuator evaluation disposition.

Failure to Use Procedures While Performing Activities Affecting Quality

Introduction:

An NRC identified finding of very low safety significance (Green) and associated NCV of 10 CFR 50 Appendix B, Criterion V; "Instructions, Procedures, and Drawings", was identified on February 5, 2016, as a result of the licensee's failure to use procedures while performing activities affecting quality. Specifically, the licensee failed to accomplish activities affecting quality in accordance with FP-G-DOC-03; "Procedure and Work Instruction Use and Adherence," in that documented procedures were not used to install the conduit support on safety related EFT Division II conduits.

Description:

Early in the first Quarter of 2016, inspectors had identified issues associated with scaffold installation near or adjacent to safety-related equipment. The licensee captured the inspector's issues in CAP 1510373. As a follow-up, the licensee completed an extent of condition assessment on scaffolding, in which there were no impacts identified (CAP 1510965). On the same day this CAP was written, the inspectors identified another issue associated with scaffolding near or adjacent to safety-related equipment (CAP 1510967). As a result of this identification, the licensee expanded its extent of condition review (CAP 1511046).

On February 5, 2016, as part of an extent of condition review for CAP 1511046, the licensee determined temporary scaffolding, previously erected near safety-related EFT Division II equipment, had been modified during an October 14-19, 2015 work window, for supporting safety-related conduits. The non-seismic modification was done while the system was in-operation, was outside of the procedures, and without a 50.59 evaluation. The licensee's investigation also indicated that staff involved in the installation of the conduit support were trying to pre-emptively help the pipe replacement evolution and installed the support prior to the actual work start to aid in efficiency, believing it to be within Scaffold Control Procedure 8146. The actual installation of the conduit support was to be controlled by WO 519186-01, and since it was not used to install the support, the job supervisor was not informed of the installation. When the activity was terminated and exited, the steps in the WO to ensure the support was removed were "NA'd" resulting in the temporary support being left in-place. The immediate corrective action was the removal of the support, an action that occurred within approximately 30 minutes of discovery.

Analysis:

The inspectors determined that the failure to use procedures while performing activities affecting quality was a performance deficiency warranting further evaluation. Using the guidance in Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection

Reports,” Appendix B, “Issue Screening,” the inspectors determined the performance deficiency was more than minor, and therefore a finding, because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the inspectors based this determination on the fact that performing activities affecting quality without using procedures had the potential to adversely affect the design/qualification of an SSC or impact the operability or functionality of a system or component.

Using Exhibit 2 of IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” the finding was determined to have very low safety significance (Green) because all the screening questions were answered “No.” The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross-cutting area of Human Performance, Teamwork: Individuals and work groups communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained (H.4). Specifically, the licensee failed to coordinate the job status and applicability of procedures (WO 519186-01, or Scaffold Control Procedure 8146) between the scaffold crew and the maintenance crew on when to install a conduit support on the safety-related EFT Division II conduits in the EFT building. This resulted in the licensee failing to use any procedures, as required by fleet procedure FP-G-DOC-03; “Procedure and Work Instruction Use and Adherence,” to install the conduit support and as a result, failure to maintain an awareness of plant material conditions and failure to ensure temporary equipment installed on safety-related equipment was properly evaluated.

Enforcement:

10 CFR 50, Appendix B, Criterion V states, in part: “Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.”

Contrary to the above, on February 5, 2016, activities affecting quality were identified as not performed per documented instructions, procedures, or drawings, of a type appropriate to the circumstances. Specifically, the licensee failed to accomplish activities affecting quality by installing a conduit support on safety related EFT Division II conduits without using procedures.

Since this issue was entered into the licensee’s CAP (1511349), this violation of 10 CFR 50, Appendix B, Criterion V, is being treated as a Non-Cited Violation (NCV) consistent with Section 2.3.2 of the U.S. Nuclear Regulatory Commission (NRC) Enforcement Policy (**NCV 05000263/2016001-01: Failure to Use Procedures While Performing Activities Affecting Quality**).

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

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

- 14 RHR Pump Motor Cooling Coil Replacement;
- 14 ESW Pump Check Valve;
- V-FU-3 A & B Secondary Containment Verification;
- 12 CRD Pump Replacement;
- Bank 4; K32 & K38 Relays Bus Connections; and
- Rod Sequence Testing/Reactivity Adjustment.

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 six post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

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:

- Reactor Manual Control System (RMCS) Functional Test / CRD Exercise [Routine];
- RCIC Quarterly Pump and Valve Test (Inservice Test [IST]);
- 12 Core Spray Pump and Valve Test [Routine];
- MO2373, Main Steam Drain Valve Quarterly Exercise Tests [Routine];
- Main Steam Line Isolation Closure Scram Tests [Routine];
- Main Turbine Stop Valve Closure Scram Tests [Routine]; and
- Condenser Low Vacuum SCRAM Instrument Tests [Routine].

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 inservice 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 six routine surveillance testing samples and one in-service test sample as defined in IP 71111.22, Sections–02 and–03.

b. Findings

No findings were identified.



## 1EP6 Drill Evaluation (71114.06)

### .1 Training Observation

#### a. Inspection Scope

The inspectors observed a simulator training evolution for licensed operators on March 21, 2016, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the CAP. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the Attachment to this report.

This inspection of the licensee's training evolution with emergency preparedness drill aspects constituted one sample as defined in IP 71114.06–06.

#### b. Findings

No findings were identified.

## 2. **RADIATION SAFETY**

Cornerstones: Occupational and Public Radiation Safety

## 2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

### .1 Radiological Hazard Assessment (02.02)

#### a. Inspection Scope

The inspectors assessed whether changes to the station's radiological profile due to operating protocols, primary chemistry changes, and plant modifications were adequately addressed in the licensee's radiation protection survey program. The inspectors conducted walk-downs of various locations and reviewed surveys to evaluate radiological conditions.

These inspection activities constituted one sample as defined in IP 71124.01-05.

#### b. Findings

No findings were identified.

### .2 Instructions to Workers (02.03)

#### a. Inspection Scope

The inspectors assessed whether workers were adequately informed of radiological hazards present through radiation work permits, alarming dosimeter set points, area postings, and labelling of containers.

These inspection activities constituted one sample as defined in IP 71124.01-05.

b. Findings

No findings were identified.

.3 Contamination and Radioactive Material Control (02.04)

a. Inspection Scope

The inspectors determined whether workers and materials were adequately assessed for radioactive contamination before leaving the radiologically controlled area(s). Additionally, the inspectors assessed whether sealed sources were adequately identified, stored, and did not leak.

These inspection activities constituted one sample as defined in IP 71124.01-05.

b. Findings

No findings were identified.

.4 Radiological Hazards Control and Work Coverage (02.05)

a. Inspection Scope

The inspectors observed work in progress and reviewed processes to ensure adequate implementation of:

- Radiological controls;
- Radiation protection job coverage;
- Dosimeter selection and placement;
- Airborne radioactive materials monitoring and controls; and
- Controls for highly activated materials stored in the spent fuel pool.

These inspection activities constituted one sample as defined in IP 71124.01-05.

b. Findings

No findings were identified.

.5 High Radiation Area and Very High Radiation Area Controls (02.06)

a. Inspection Scope

The inspectors observed the physical controls for high radiation areas and very high radiation areas. The inspectors ensured the controls prevented an individual from gaining unauthorized access to very high radiation areas.

These inspection activities constituted one sample as defined in IP 71124.01-05.

b. Findings

No findings were identified.

.6 Radiation Worker Performance and Radiation Protection Technician Proficiency (02.07)

a. Inspection Scope

The inspectors observed radiation workers and radiation protection technicians to assess whether they were aware the radiological conditions in their workplace and whether their performance reflected the radiological hazards that were present.

These inspection activities constituted one sample as defined in IP 71124.01-05.

b. Findings

No findings were identified.

.7 Identification and Resolution of Problems (02.08)

a. Inspection Scope

The inspectors assessed whether problems associated with radiation surveys, radiological controls, and exposure control are being identified by the licensee at an appropriate threshold and are properly addressed for resolution. For selected issues, the inspectors assessed the appropriateness of the corrective actions. Additionally, the inspectors reviewed events that were caused by radiation worker error or radiation protection technician error to assess whether the corrective action approach taken by the licensee was adequate to resolve the reported problems.

These inspection activities constituted one sample as defined in IP 71124.01-05.

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 Unplanned Scrams per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams per 7000 Critical Hours performance indicator (PI) for the period from the first quarter 2015 through the fourth quarter 2015. 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 narrative logs, issue reports, event reports and NRC Integrated Inspection Reports for the period of January 2015 through December 2015 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 one unplanned scrams per 7000 critical hours sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.2 Unplanned Scrams with Complications

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams with Complications performance indicator for the period from the first quarter 2015 through the fourth Quarter 2015. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports and NRC Integrated Inspection Reports for the period of January 2015 through December 2015 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 one unplanned scrams with complications sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.3 Unplanned Transients per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Transients per 7000 Critical Hours performance indicator for the period from the first quarter 2015 through the fourth quarter 2015. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, maintenance rule records, event reports and NRC integrated inspection reports for the period of January 2015 through December 2015 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 one unplanned transients per 7000 critical hours 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 part of the various baseline inspection procedures 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 CAP at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to 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 and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

#### 4OA5 Other Activities

##### .1 (Closed) Unresolved Item 05000263/2015003–04: Drywell to Torus Vacuum Breaker Past Operability

Introduction: The inspectors closed a URI, which was discussed in NRC IR 05000263/2015003, and was related to the licensee's past operability reviews (PORs) of drywell to torus vacuum breakers resulting from inspections conducted during RFO 27. The inspectors determined that this issue represented a URI because more information was required to complete their operability review and the associated licensee response had not been completed by the end of the third quarter of 2015 inspection period.

Description: During the operating cycle preceding the 2015 refueling outage, two evaluations associated with torus to drywell vacuum breaker operation were developed due to issues identified in the first quarter of 2014. These included: CAP 1417977, "Failure of drywell-torus vacuum breaker to close," which identified dual indication during the performance of procedure 0143, "Drywell-Torus Monthly Vacuum Breaker Check," and CAP 1418471, "AO-2382A Torus-to-DW vacuum breaker closed indication anomaly." The licensee evaluations for these issues concluded the drywell to torus vacuum breakers were operable. However, neither evaluation specifically considered the effects of an interference between the vacuum breaker test lever and vacuum breaker test actuator stem. As a result, the licensee performed and completed a POR on June 26, 2015, associated with CAPs 1479198, "Evaluation 1420318 OPR for 2015 RFO Learnings," and 1478212, "Interference Observed on AO-2382A Vacuum Breaker Actuator." The inspectors reviewed the POR and questioned whether it was possible for the bottom of the lever arm to be at an elevation above the top of the actuator stem at valve disc full open. If possible, the inspectors questioned whether it was possible for the valve test lever arm to rest on top of the actuator stem, potentially impacting the ability of the vacuum breaker valve to close. In response, the licensee requested external input to address the inspectors' questions and documented the information results within CAP 1490632, "NRC Question on Re-Eval of 2014-2015 RFO Vacuum Breakers."

The inspectors noted that CAP 1490632 determined that although the bottom of the lever arm could move to an elevation above the top of the actuator stem, the lever arm would not come to rest on top of the actuator stem. Specifically, the licensee's evaluation stated that the limited range of motion in the shaft axial direction for each of the associated vacuum breakers coupled with an absence of sustained lateral loading during normal and accident conditions would prevent the lever arm from coming to a rest on the actuator stem during valve closure. Based on the additional information documented in CAP 1490632, the inspectors concluded that the drywell to torus vacuum breakers closure capability would not be adversely impacted during actuation. As a result, no findings were identified. Therefore, this URI is closed.

**(URI 05000263/2015003-04: Drywell to Torus Vacuum Breaker Past Operability).**

#### 4OA6 Management Meetings

##### .1 Exit Meeting Summary

On April 5, 2016, the inspectors presented the inspection results to Mr. P. Gardner, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issue presented.

.2 Interim Exit Meeting

Interim exit was conducted for:

- The inspection results for the area of radiological hazard assessment and exposure controls (via teleconference) with Mr. H. Hanson, Plant Manager, on March 17, 2016.

The inspectors confirmed that none of the potential report input discussed was considered proprietary. Any proprietary material received during the inspections were returned to the licensee.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

P. Gardner, Site Vice President  
K. Scott, Site Operations Director  
H. Hanson, Jr., Plant Manager  
T. Witschen, Operations Manager  
M. Lingenfelter, Director of Engineering  
B. Olson, Maintenance Manager  
S. Quiggle, Chemistry Manager  
C. England, Radiation Protection Manager  
A. Ward, Regulatory Affairs Manager

#### Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2



## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

05000263/2016001-01	NCV	Failure to Use Procedures While Performing Activities Affecting Quality (1R15)
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### Closed

05000263/2016001-01	NCV	Failure to Use Procedures While Performing Activities Affecting Quality (1R15)
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05000263/2015003-04	URI	Drywell to Torus Vacuum Breaker Past Operability
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### Discussed

05000263/2015003-04	URI	Drywell to Torus Vacuum Breaker Past Operability
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## 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 inspector 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.

### Section 1R01

- 1151; Winter Checklist; Revision 86
- 1444; Pre and Post Severe Weather Inspection Checklist, Part D; Revision 10
- A.6; Acts of Nature; Revision 53
- B.06.04-05; Circulating Water System – System Operation (E.13); Revision 73
- B.08.07-05; Heating and Ventilating – System Operation (G.9); Revision 45
- CAP 1366959; Extreme Weather Proc Steps Need Review for Applicability
- CAP 1409482; Degrading River Conditions
- CAP 1426597; 1151; Revision 79 Notes to Put Portable htrs. in Ops trucks

### Section 1R04

- 8036; Air In-leakage Search Procedure; Revision 6
- 8158-C-064; Monticello Nuclear Generating Plant Elect. Equip. Anchorage; Revision 1
- B1127003; Response to Supplement 1 to Generic Letter 87-02 Submittal of US1A-46 Seismic; No Date
- CA-97-114; Resolution of SQUG Outliers; Revision 5
- CAP 1509815; Generator H2 Detraining Tank High Level, Alarm
- DBD-S.01; Reactor Building, Revision 4
- DBD-S.5; Design Bases Document: EDG Building; Revision 4
- DOC 369460; Plant-Specific Safety Evaluation for USI A-46 Program Implementation at Monticello Nuclear Generating Plant; Revision 0
- Evaluation Report (TAC M69460); November 20, 1995
- MNGP-995-75-M02; Evaluation of Pipe Stress, Support and Anchorages for STC Improvements; Revision 0
- NF-36303; Turbine Building Floor Plan at Elevation 931'-0"; Revision 77
- NF-36310; Office & Control Building Floor Plans; Revision 78
- NH-36050; P & ID Turbine Lube Oil System; Revision 80
- NH-36052; P&ID Stator Cooling System; Revision 1
- NX-8435-37; Gas Control Piping Diagram; Revision 77
- Prioritization of Issues from Phase II of the Systematic Evaluation Program; October 2, 1990
- Report 91C2687.A46; USNRC USI A-46 Resolution Seismic Evaluation Report Monticello Nuclear Generating Plant; November 1995
- SECY-77-561; Systematic Evaluation of Operating Reactors-Phases I and II; October 26, 1977

### Section 1R05

- A.3-02-C; Fire Strategy for Fire Zone 2-C; West HCU Area; Revision 11
- A.3-07-C; Fire Strategy for Fire Zone 7-C; 125V Division II Battery Room; Revision 8
- A.3-08; Fire Strategy for Fire Zone 8; Cable Spreading Room; Revision 14
- CAP 1473674; Fire Penetrations found degraded in Cable Spreading Room

- CAP 1497740; Maintenance Rule A1 Determination, RHR Low Pressure Coolant Injection Function; March 7, 2016
- CAP 1508635; Procedure 4 AWI-08.01.01 Fire Impairment Evaluation
- CAP 1509039; Fire Extinguishers Not Mounted to Wall as Required
- Monticello Maintenance Rule Program System Basis Document; Residual Heat Removal (RHR); Revision 8
- NX-16991-4; Fire Hazards Analysis Plan View Reactor Building Elevation 935'-0"; Revision B
- QUAD-5-80-009; MPS-0924 Specification; Revision 9
- USAR Appendix J.04; Fire Protection Program; Revision 34p
- USAR Appendix J.05; Fire Hazards Analysis; Revision 34p
- USAR Appendix J; Fire Protection Program; Revision 22

#### Section 1R06

- ANSI B31.1; Power Piping Code; 1977 Edition
- CA-07-021; Reactor Building, Turbine Building & Intake Structure Water Height – Internal Flooding; Revision 0
- Calculation MN.9015.0100-01, Operability Analysis of 8" and 10" Fire Protection Header Inside the Standby Diesel Generator Building; Revision 1

#### Section 1R11

- 0074; Control Rod Drive Exercise; Revision 64
- 2300; Reactivity Adjustment; Revision 17
- Attachment to the 2300 Procedure for Reactivity Maneuver – Lower Flow for CRD Exercise; Revision 0
- CAP 1415422; Near Miss of Level 4 Reactivity Management Event
- CAP 1422764; 2300 Reactivity Adjustment, Not Tied to Work Order
- CAP 1432306; OE:IER L3-14-27, Licensed Operators did not Maintain Adequate Control
- CAP 1489628; Reactivity FSA, RE/Operations Interface Enhancement
- CAP 1493060; Potential area for Improvement, 2300 Reactivity Adjustment
- RQ-SS-24E; Simulator Exercise Guide – LOCA With LONOP Requiring Blowdown; March 14, 2016

#### Section 1R12

- CAP 1446684; MNGP Relay Program Issues
- CAP 1477937; Bus 15 Exceeded MR Unavailability During May 1, 2015 Event
- CAP 51510117; SR Relays Misclassified as NSR in Passport
- FP-MA-FME-01; Foreign Material Exclusion and Control; Revision 11
- FP-PE-RLY-01; Relay Program; April 9, 2015
- TB-A12; Cable and Conduit Raceway Review Plant Area Summary Sheet; Revision 0

#### Section 1R13

- 3D Lift Plan - Grove GMK5165; A&B Welding Lift Plan; December 11, 2015
- 50.59 Evaluation, (QF-0502, Revision 5); Disconnect Faulty 46-19 PIP Over-travel Input
- CAP 1297734; CRD Pump Alignment Required
- CAP 1321700; 12 CRD Pump Skid East Anchor Plate Gussets Show Cracking
- CAP 1374302; Crack in 11 CRD Pump Skid Gusset Plate Weld
- CAP 1376422; 11 CRD Pump Motor Leads Degraded

- CAP 1435996; Movement of Heavy Equipment without Spotter
- CAP 1464302, QF0931, Revision 02; PMRQ9492-01, Move to On-line (B Loop ESW Service Water Supply Check Valve)
- CAP 1465661; Institute of Nuclear Power Operations (INPO) OPRV – Heavy Lifts Not addressed by Safe Shutdown Plan
- CAP 1475673; Fuel Pool Floor, Lack of FME Control Equipment
- CAP 1486361; Spent Fuel Pool FME Barrier Dropping Down
- CAP 1498788; Need to Evaluate New Designated Heavy Equipment Parking Spot
- CAP 1500838; Remove Unused Scaffolding in the Plant
- CAP 1503450; Material Not Ready for Issue from the Warehouse
- CAP 1510373; NRC Question: Scaffold Pick Installed in RF Floor Overhead
- CAP 1511008; Work Plan Deficiencies for 12 CRD Pump Motor Replacement
- CAP 1511012; Temporary Scaffolding is Used as a Permanent Access Platform
- EC 26642; Temporary Modification (QF-0540, Revision 6); Disconnect Faulty PIP 46-19 Overtravel Input; February 24, 2016
- WO 486306-01; PM 4200-2 12 Control Rod Drive Pump P 201B; January 13, 2016
- WO 490929-01; PM 12 Control Rod Drive Pump Motor (P 201B); January 13, 2016
- WO 490929-02; PM 12 Control Rod Drive Pump Motor (P 201B); January 13, 2016
- WO 501014-04; Install #11 EDG Trusses on Lower Roof; January 11, 2016
- WO EC23982; Tornado Missile Barriers on EDG Building; January 11, 2016

#### Section 1R15

- ANSI B30.2.0; Overhead and Gantry Cranes; 1976
- Calculation 10-014; Reactor Building Crane Structural Seismic and Rated Load (105 ton) Calculation, Revision 0
- CAP 1477916; Invalid AO-2382A Full Open Torque
- CAP 1478212; Interference Observed on AO-2382A Vacuum Breaker Actuator
- CAP 1478212; Interference Observed on AO-238A Vacuum Breaker Actuator
- CAP 1479198; Eval 1420318 OPR for 2015 RFO Learnings
- CAP 1490632; NRC Question on Re-Eval of 2014-2015 RFO Vacuum Breakers
- CAP 1503124; AO-2-86D (14 OTBD MSIV) Slow to Close
- CAP 1508421; Water in the Oil from P-202D; 14 RHR Motor Upper Reservoir
- CAP 1511349; Scaffold Found Attached to Operating Safety Related System
- CAP 1512423; Reactor Building Crane Functional Step Performance Question
- CAP 1512510; B Level CAP AR ECE Contains Inaccurate Technical Information
- CAP 1514858; Reactor Building Crane Hoist Speed
- CAP 635067; Reactor Building Crane Lift Speed Too Fast on Low Speed Setting
- CMAA Specification No. 70; Specification for Electric Overhead Traveling Cranes; 1975 Edition
- EC-1098/ECN-9423; Reactor Crane Upgrade to 105T for ISFSI Electrical Improvements, Revision 2
- EC-784/Mod No. 04Q162; Reactor Building Structural Upgrades for ISFSI; Revision 0
- EC-785, Reactor Building Crane Upgrade for ISFSI; Revision 2
- Equipment Cause Evaluation (QF450, Revision 4) CAP 01503124; AO-2-86D (14 OTBD MSIV) Slow to Close; December 21, 2015
- NRC Commitment M76084A; AR 00950553, January 25, 1977
- NRC Commitment M76090A; AR 00950559; May 19, 1978
- NX-8685-4; Full Bore Vacuum Breaker Valve w/Side Air Cyl Limits SW's; Revision 4
- Procedure 1131; Reactor Building Crane; Revision 18
- Procedure 8146; Scaffold Control; Revision 37

- QF 0565; Maintenance Rule Functional, MSPI, and Equipment Reliability Clock Reset Failure Evaluation; Revision 11; Water in the Oil from P-202D; January 21, 2016
- QF 1146; Revision 2; Past Operability Review, Division II EFT System; February 17, 2016
- QF-0754; Revision 1; Reportability Determination Evaluation, Scaffold Found Attached to Operating Safety Related System; February 23, 2016
- QF1146; Past Operability Review; Revision 2; Water in the Oil from P-202D
- Technical Specification 3.6.1.3; Primary Containment Isolation Valves; Amendment No. 148
- Technical Specification Bases 3.6.1.3; Primary Containment Isolation Valves; Revision 29
- USAR Section 12.2; Plant Principal Structures and Foundations; Revision 32
- W/O TASK: 00497230-10; MECH: AO-2382 Vac Bkrs, Investigate/Repair as Required; August 17, 2015
- Work Plan ESW5-3-HBD; Work Order 519186-01; Mech – ESW5-3-HBD, Replace Piping; October 21, 2015

#### Section 1R19

- 1068; RMCS Functional Test; Revision 19
- CAP 1151413; Low Low Water Level Signal Received During CRD Pump Start
- CAP 1160184; V-FU-3A/B Restoration Activity Causes Rework
- CAP 1217527; V-FU-3 Filter Door Leak
- CAP 1226522; Observation – PU Procedure Use and Adherence
- CAP 1336420; 14 ESW Pump Not Protected per Fleet Procedure
- CAP 1425931; 13 ESW Pump Flow Test Not Performed as Scheduled
- CAP 1456158; Operations Signatures Missing from 2300 Procedure
- CAP 1485147; Vibration Levels Exceeded the IST Alert Range on 13 ESW Pump
- CAP 1493060; Potential Area for Improvement, 2300 Reactivity Adjustment
- CAP 1501349; 12 CRD Pump has High Discharge Pressure PI-4375B
- CAP 1510998; Motor Current Data Not Collected for 12 CRD Pump Start
- NH-36267 P&ID; MNGP Plant Air Flow Diagram, Sheet 1; Revision 76
- Procedure 2300; Reactivity Adjustment; Revision 17
- WO 486306-02; PM 4200-2 12 Control Rod Drive Pump P 201B; February 3, 2016
- WO 488633-02; Chem Lab Fume Hood & Mask Decon Filter Unit B, Mech – V-FU-3B, Perform Mechanical PM; February 1, 2016
- WO 488633-04; Chem Lab Fume Hood & Mask Decon Filter Unit B, ESYS V-F – U-3B, PMT/RTS; February 1, 2016
- WO 488634-02; Chem Lab Fume Hood & Mask Decon Filter Unit A, Mech – V-FU-3A, Perform Mechanical PM; February 1, 2016
- WO 488634-04; Chem Lab Fume Hood & Mask Decon Filter Unit A, ESYS – V-FU-3A, PMT/RTS; February 1, 2016
- WO 490929-06; PM 12 Control Rod Drive Pump Motor (P 201B); January 13, 2016
- WO 514442-02; Bank 4, K32 & K38 Relays Bus Connections, PMT Instructions; January 23, 2016
- WO 514442-03; Bank 4, K32 & K38 Relays Bus Connections, PMT Instructions for Selected Rods; January 23, 2016
- WO 523981-01; OPS-FSW 0255-11-III-4, 14 ESW Pump Flow Test; January 20, 2016
- WO 524505-01; P 201B/MTR, Perform 4948-PM 4kV/480V Motor Online Testing; January 13, 2016
- WO 531425-01; Replace 14 RHR Motor Cooling Coil, Mech P-202D/MTR; Replace Cooling Coil – EC25344; January 17, 2016

- WO 531425-02; Replace 14 RHR Motor Cooling Coil, Mech P-202D/MTR; Inspect Existing Cooling Coil; January 16, 2016
- WO 531425-03; Replace 14 RHR Motor Cooling Coil, OPS P-202D/MTR; January 17, 2016

#### Section 1R22

- 1068; RMCS Functional Test; Revision 19
- CAP 1216881; RMSRO Duties Challenge the Duty CRS
- CAP 1367158; Control Rod was Double Notched During 0074 Procedure
- CAP 1492910; Burnish Contacts for 5A-K10D Turbine Stop Valve Closure
- CAP 1503166; Peer Check not Performed
- CAP 1505242; PMT for WO 514440 had Mistaken in Rods Tested
- CAP 1507248; Support for Changes to Low Vacuum SCRAM
- CAP 1511280; EC26165, Changes to Low Condenser Vacuum Scram and Alarms
- CAP 1471724; Dead Band Requirements for Condenser Low Vacuum SCRAM
- EC26165; Change to Condenser Low Vacuum Annunciator and Low Vacuum SCRAM Setpoints to Increase Margin for Summer Operations and All Related Documentation Changes; March 24, 2016
- Fleet Procedure FP-PA-HU-02; Human Performance Tools, Revision 11
- Procedure 0007-A; Condenser Low Vacuum SCRAM Instruments Test and Calibration Procedure ( $\geq 600$  PSIG); Revision 27
- Procedure 0008; Main Steam Line Isolation Valve Closure SCRAM Test Procedure; Revision 26
- Procedure 009; Turbine Stop Valve Closure SCRAM Test Procedure; Revision 25
- WO 525370-01; 0008 MSIV SCRAM Closure Test, Parts A - E; Revision 26
- WO 527174-01; 0009 TRB Stop Valve Closure SCRAM Test Procedure, Parts A – E; Revision 25
- CAP 01512692; Document Discrepancies for RCIC System Components
- Procedure 0255-07-IA-7; Main Steam Drain Valve Exercise Tests; Revision 36
- WO 525702-01; 0255-07-IA-7, MO-2373, Quarterly Exercise Test; Revision 36
- 0255-03-IA-1-2; Core Spray Loop B Quarterly Pump and Valve Tests; Revision 58
- CAP 1511284; Correct USAR 07.06 for Low Condenser Vacuum SCRAM Bases
- CAP 1515659; Correct USAR 07.07 for Low Condenser Vacuum SCRAM Bases
- B.05.05-05; Reactor Manual Control – System Operation; Revision 20

#### Section 1EP6

- RQ-SS-24E; Simulator Exercise Guide – LOCA With LONOP Requiring Blowdown; March 14, 2016

#### Section 2RS1

- 4 AWI-08.01.06; Area Control; Revision 24
- Air Sampling Records and Analysis; Various Records/Dates
- CAP 1438662; Basis for Using WBCM in-lieu of WBC Inadequate
- CAP 1471219; RP SSA: Rad Survey Documentation Issues
- CAP 1473809; Procedure Adherence Issues Regarding Percon Reports
- CAP 1475453; In-Plant Area Dose Rate Maps not Updated
- CAP 1476958; 2 Unexpected Dose Rate Alarms in Torus Bay 14
- CAP 1476961; Unexpected Airborne Levels in Reactor Water Cleanup
- CAP 1488446; Unposted Contam Found 935' RX East

- CAP 1493932; Source Listed as Present in Inventory in Error
- CAP 1500089; RP SSA: Rad Survey Documentation Issues
- CAP 1500131; RP SSA: Alpha Level Classification Status not Maintained
- CAP 1510860; NRC Question on PM-7 Sensitivity
- Electronic Dosimeter Alarm Records; Various Records/Dates
- FP-RP-SEN-02; Radiological Work Planning and Controls; Revision 3
- FP-WM-IRM-01; Integrated Risk Management; Revision 12
- General Area Alpha Classification Spreadsheet; Undated
- National Source Tracking System Reconciliation Report; January 7, 2016
- NOS Observation Report 2015-01-016; Radiation Protection; March 23-April 30, 2015
- Plant Contaminated Area Matrix; Undated
- R.01.04; Control of Personnel in High Radiation and Airborne Areas; Revision 28
- R.06.02; Unconditional Release of Equipment or Material; Revision 29
- R.07.03; Posting, RWP and/or Equipment Changes Due to Plant Operational Status; Revision 24
- Radioactive Source Inventory and Leak Tests; May 12, 2015
- Radiological Surveys; Various Records/Dates
- RWP 160008; General Valve Repair Work; Revision 0
- RWP 160009; General Pump Repair Work; Revision 0
- RWP 160032; Contaminated Floor Drain Work Activities; Revision 0
- RWP 160099; Radiography; Revision 0
- Self-Assessment; RP Radiological Hazards Assessment; October 2015
- Small Article Monitor; Calibrations and Setpoints; Various Records/Dates
- Unconditional Release Gamma Spectroscopy Analysis; Various Records/Dates
- Weekly High Radiation Area Posting and Boundary Checklist; January 24, 2016

#### Section 4OA1

- FP-PA-PI-02; NRC/INPO/WANO Performance Indicator Reporting; Revision 11
- FP-R-PI-01; Preparation of NRC Performance Indicators; Revision 4
- Monticello Station Log Entries; January 2015 through December 2015
- NEI 99-02; Regulatory Assessment PI Guideline; Revision 7
- QF0445; NRC Data Collection and Submittal – 1<sup>st</sup> Quarter 2015; April 10, 2015
- QF0445; NRC Data Collection and Submittal – 2<sup>nd</sup> Quarter 2015; July 17, 2015
- QF0445; NRC Data Collection and Submittal – 2<sup>nd</sup> Quarter 2015; July 9, 2015
- QF0445; NRC Data Collection and Submittal – 2<sup>nd</sup> Quarter 2015; June 16, 2015
- QF0445; NRC Data Collection and Submittal – 3<sup>rd</sup> Quarter 2015; October 8, 2015
- QF0445; NRC Data Collection and Submittal – 4<sup>th</sup> Quarter 2015; December 11, 2015
- QF0445; NRC Data Collection and Submittal – 4<sup>th</sup> Quarter 2015; January 7, 2016
- QF0445; NRC Data Collection and Submittal – 4<sup>th</sup> Quarter 2015; November 9, 2015

#### Section 4OA2

- CAP 01512957; NRC Question on 0255-08-IA-1 RCIC Quarterly Testing
- CAP 01512982; Oil Results Came Back Abnormal for 12 EDG
- CAP 01512995; Additive Package Not as Expected for 13 DG
- CAP 01513036; RCIC Turbine Oil Particle Counts Still Higher Than Desired
- CAP 1382652; OE: GESIL 438 Rev. 2, Main Steam Line High Flow Trip Setting
- CAP 1413353; Unclear Guidance in Extreme Cold Weather Procedure
- CAP 1416429; Turbine Stop Valve Closure Times Slow Out-of-Spec

## LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
ANSI	American National Standards Institute
AR	Action Request
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CRD	Control Rod Drive
EC	Engineering Change
EDG	Emergency Diesel Generator
EFT	Emergency Filtration Train
ESW	Emergency Service Water
FME	Foreign Material Exclusion
IMC	Inspection Manual Chapter
INPO	Institute of Nuclear Power Operations
IP	Inspection Procedure
IST	Inservice Test
MNGP	Monticello Nuclear Generating Plant
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
PI	Performance Indicator
POR	Past Operability Review
RHR	Residual Heat Removal
RMCS	Reactor Manual Control System
SSC	Structure, System, and Component
TS	Technical Specification
USAR	Updated Safety Analysis Report
URI	Unresolved Item
WO	Work Order



P. Gardner

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Sincerely,

/RA/

K. Riemer, Chief  
Branch 2  
Division of Reactor Projects

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