UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
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August 9, 2012

Mr. Mark Schimmel
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 05000263/2012003

Dear Mr. Schimmel:

On June 30, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Monticello Nuclear Generating Plant. The enclosed report documents the inspection results, which were discussed on July 11, 2012, with Ann Ward and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Two NRC-identified findings of very low safety significance were identified during this inspection.

Both findings were determined to involve violations of NRC requirements. Further, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

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

If you disagree with a 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.

In accordance with 10 CFR 2.390 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 Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Document 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/

Kenneth Riemer, Branch Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000263/2012003;
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-263
License No:	DPR-22
Report No:	05000263/2012003
Licensee:	Northern States Power Company, Minnesota
Facility:	Monticello Nuclear Generating Plant
Location:	Monticello, MN
Dates:	April 1 through June 30, 2012
Inspectors:	S. Thomas, Senior Resident Inspector P. Voss, Resident Inspector N. Shah, Branch 2 Project Engineer T. Bilik, Reactor Inspector R. Jickling, Senior Emergency Preparedness Inspector
Approved by:	K. Riemer, Branch Chief Branch 2 Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000263/2012003; 04/01/2012 – 06/30/2012; Monticello Nuclear Generating Plant. Maintenance Effectiveness.

This report covers a three-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Two Green findings were identified by the inspectors. These findings were considered non-cited violations (NCVs) of NRC regulations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

Green. The inspectors identified a finding of very low safety significance and non-cited violation (NCV) of 10 CFR 50.65(a)(1)/(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for the licensee's failure to establish a(1) goals for the residual heat removal (RHR) system when the a(2) preventative maintenance demonstration became invalid. Specifically, in June 2011, the No. 13 RHR pump exceeded its performance criteria when it experienced a second maintenance preventable functional failure (MPFF). In February 2012, the inspectors identified both of these and a third MPFF, and while the licensee determined that the system required a(1) classification, the site failed to create goals for effective monitoring of the equipment when they inappropriately applied a(1) status exit criteria to the system. As a result, the site failed to monitor the equipment under 10 CFR 50.65(a)(1) as required. Corrective actions taken by the licensee to address this issue included revision of the a(1) action plan for the RHR system and retraining of Maintenance Rule Expert Panel members. This issue was entered into the licensee's corrective action program as CAP 01341703.

The inspectors determined that the licensee's failure to monitor the RHR system in accordance with the requirements of 10 CFR 50.65(a)(1), due to inappropriately transitioning the system from a(1) to a(2) status, was a performance deficiency because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions, and determined the finding to be of very low safety significance. 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, having resources components, and involving aspects associated with the licensee having personnel, procedures, and other resources adequate to maintain long term plant safety by maintenance of design margins and minimizing of long-standing equipment issues [H.2(a)]. (Section 1R12.1)

Green. The inspectors identified a finding of very low safety significance and non-cited violation (NCV) of 10 CFR 50.65(a)(1)/(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for the licensee's failure to evaluate a(1) goals for equipment tracked under the Safety System Failure (SSF) Plant Level Performance criterion when the plant level a(2) preventative maintenance demonstration became invalid. Specifically, in October 2011, the SSF plant level indicator exceeded its performance criterion when the plant experienced a fourth SSF in a two year period. The licensee failed to appropriately account for these failures in their Maintenance Rule program and, as a result, the site failed to evaluate the affected equipment under 10 CFR 50.65(a)(1) as required. Corrective actions taken by the licensee to address this issue included performing an apparent cause evaluation of the equipment that caused the plant to exceed its plant level performance criterion. This issue was entered into the licensee's corrective action program as CAP 01339425 and CAP 01339429.

The inspectors determined that the licensee's failure to evaluate goal setting for the equipment that caused the plant to exceed its SSF performance criteria in accordance with the requirements of 10 CFR 50.65(a)(1), due to inadequately accounting for SSF data under 10 CFR 50.65(a)(2), was a performance deficiency because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions, and determined the finding to be of very low safety significance. 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, having work practices components, and involving aspects associated with the licensee communicating human error prevention techniques, such as self and peer checking and proper documentation of activities [H.4(a)]. (Section 1R12.2)

B. Licensee-Identified Violation

A violation of very low safety significance that was identified by the licensee has been reviewed by inspectors. Corrective actions planned or taken by the licensee have been entered into the licensee's CAP. This violation and related corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Monticello operated at approximately full power for the entire evaluation period with the exception of brief reductions in power to support planned surveillance activities and control rod adjustments.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 External Flooding

a. Inspection Scope

The inspectors evaluated the design, material condition, and procedures for coping with the design basis probable maximum flood. The evaluation included a review to check for deviations from the descriptions provided in the Updated Safety Analysis Report (USAR) for features intended to mitigate the potential for flooding from external factors. As part of this evaluation, the inspectors checked for obstructions that could prevent draining, obvious loose items that could clog drains in the event of heavy precipitation, and determined that barriers required to mitigate the flood were in place and operable. Additionally, the inspectors performed a walkdown of the protected area to identify any modification to the site which would inhibit site drainage during a probable maximum precipitation event or allow water ingress past a barrier. The inspectors researched predicted projections for maximum river levels during the spring and early summer time period and evaluated if the actions taken by the licensee to address potential flooding were commensurate with the predicted river levels. The inspectors also reviewed the abnormal operating procedure for mitigating the design basis flood to ensure it could be implemented as written. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one external flooding sample as defined in Inspection Procedure (IP) 71111.01-05.

b. Findings

No findings were identified.

.2 Readiness for Impending Adverse Weather Condition – Severe Thunderstorm Watch

a. Inspection Scope

Since thunderstorms with potential tornados and high winds were forecast in the vicinity of the facility on June 20, 2012, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. On June 20, 2012, the inspectors walked down the turbine building and reactor building general areas in addition to the licensee's emergency alternating current (AC) power systems, because safety-related functions of the equipment could be affected or required as a result of high winds or water intrusion or the loss of offsite power. The inspectors evaluated the

licensee staff's preparations against the site's procedures and determined that these actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. The inspectors observed the licensee's control room response and subsequent actions to a lightning strike on the off-gas stack. The inspectors also observed control room response to equipment failures occurring as a result of a lightning strike. The inspectors reviewed the USAR and performance requirements for the associated equipment, and verified that operator actions were appropriate as specified by plant specific procedures. The inspectors also reviewed a sample of corrective action program (CAP) items to verify that the licensee identified adverse weather issues at an appropriate threshold and dispositioned them through the CAP in accordance with station corrective action procedures. Specific documents reviewed during this inspection are listed in the Attachment to this report.

This inspection constituted one readiness for impending adverse weather condition sample as defined in 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:

- Division II emergency service water (ESW) system during planned 13 ESW pump breaker work;
- alternate nitrogen system;
- instrument AC and uninterrupted AC distribution system; and
- Division I emergency filtration train (EFT) during Division II EFT work.

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, 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 CAP with the appropriate significance characterization. Documents reviewed during this inspection are listed in the Attachment to this report.

These activities constituted four partial system walkdown samples 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 3-A; recirculation motor generator set room;
- Fire Zone 33; EFT 3rd floor;
- Fire Zone 13A; lube oil storage tank;
- Fire Zones 16 and 17; corridor, turbine building east and west (elevations 911' and 931') and turbine building north cable corridor 941'; and
- Fire Zone 31-A; EFT building 1st floor (Division I).

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.

These activities constituted five quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On June 30, 2012, the inspectors observed a fire brigade activation due to a simulated fire detector alarm in the turbine building. Based on this observation, the inspectors evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner at the drill debrief; and took appropriate corrective actions. Specific attributes evaluated were:

- proper wearing of turnout gear and self-contained breathing apparatus;
- proper use and layout of fire hoses;
- employment of appropriate firefighting techniques;
- sufficient firefighting equipment brought to the scene;
- effectiveness of fire brigade leader communications, command, and control;
- search for victims and propagation of the fire into other plant areas;
- smoke removal operations;
- utilization of pre-planned strategies;
- adherence to the pre-planned drill scenario; and
- drill objectives.

Documents reviewed are listed in the Attachment to this report.

These activities constituted one annual fire protection inspection sample as defined in IP 71111.05-05.

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 April 23, 2012, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training to verify 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 sample as defined in IP 71111.11.

b. Findings

No findings were identified.

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

a. Inspection Scope

On May 25, 2012, the inspectors observed control room staff during a planned maintenance activity which resulted in the reduction of control room lighting. Also on June 6, 2012, the inspectors observed the control room staff during a power reduction and subsequent performance of turbine valve testing. These were activities that required heightened awareness or were 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.

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.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

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

- Maintenance Rule program a(3) required evaluation; and
- residual heat removal (RHR) system a(1) action plan.

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 two quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

1. Failure to Monitor Residual Heat Removal System Under 10 CFR 50.65(a)(1) due to Inappropriate a(2) Transition

Introduction

The inspectors identified a finding of very low safety significance when the licensee failed to follow the requirements of 10 CFR 50.65(a)(1)/(a)(2), “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants,” for the RHR system. Specifically, in June 2011, the No. 13 RHR pump exceeded its performance criteria when it experienced a second maintenance preventable functional failure (MPFF). In February 2012, the inspectors identified both of these and a third MPFF, and while the licensee determined that the system required a(1) classification,

the site failed to create goals for effective monitoring of the equipment when they inappropriately applied a(1) status exit criteria to the system.

Description

During a review of the licensee's Maintenance Rule program a(3) assessment, the inspectors identified some examples of inadequacies within the Maintenance Rule program which had not been addressed during or subsequent to a licensee root cause evaluation (RCE) performed in response to previous Maintenance Rule issues identified by the NRC during the first quarter of 2012. The RCE specifically contained a corrective action that directed staff to "prepare (an) a(3) report to ensure all plant level performance criteria that has not been met has been appropriately identified and documented in the CAP."

During their evaluation of the a(3) assessment and the section which discussed the licensee's review of effectiveness of a(1) action plans, the inspectors observed that shortly after the inspectors had identified the RHR No. 13 pump's performance issues, the system had quickly transitioned into and out of a(1) status. The performance issues for the pump occurred in May, June, and October of 2011, and the a(1) action plan that had allowed the equipment to transition back to a(2) status was approved by the Maintenance Rule Expert Panel (MREP) on February 27, 2012.

In addition, the inspectors noted that for dispositioning SSCs from a(1) to a(2) status, the licensee's procedure, Engineering Work Instruction (EWI)-05.02.01, "Monticello Maintenance Rule Program Document," consistent with NUMARC 93-01, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," stated:

"An a(1) action/performance improvement goal may be determined to have been met and monitoring of SSC performance against specific goals may be discontinued provided the following criteria have been satisfied and the approval of the Expert Panel has been obtained:

A. Performance is acceptable for three surveillance periods where the surveillance periodicity is equal to or less than a six month interval;
B. Performance is acceptable for 2 successive surveillances where the surveillance periodicity is greater than 6 months but no greater than 2 fuel cycles; or
C. An approved and documented technical assessment assures the cause is known and corrected and thus monitoring against goals is unnecessary."

The inspectors observed that the a(1) action plan for the RHR system stated that monitoring could be discontinued, and no goals needed to be established due to criterion 'C,' "an approved and documented technical assessment assures the cause is known and corrected and thus monitoring against goals is unnecessary." However, the inspectors noted that the causal evaluation for the breaker issues and the causal discussion in the a(1) plan stated that "the cause of the trip coil mounting bracket misalignment could not be conclusively determined." While the degraded SSC which resulted in the No. 13 RHR breaker failing to start was found, the cause of the equipment deficiency remained undetermined. The inspectors concluded that this represented an inappropriate use of the given criterion to transition the system from a(1) to a(2) status.

The inspectors also noted that in Section 9.3.4, "Determining whether an SSC level goal is required," of the NUMARC 93-01 guidance referenced in the action plan, the document states, "if the cause of the component failure has been identified and the necessary corrections made (e.g., replacement, redesign), a goal may not be needed unless it is a repetitive MPFF." The inspectors observed that one of the three RHR No. 13 pump MPFFs was a repetitive MPFF, and determined that this served as additional reasoning as to why the application of criterion 'C' was inappropriate.

The a(1) action plan also stated that no monitoring was required for the RHR system because "there have been 2 successful quarterly surveillance tests since the June 2011 breaker issue (9/5/11 and 12/4/11)." The inspectors observed that this justification disregarded the third MPFF that occurred on the No. 13 RHR pump in October of 2011, a failure that occurred between the two surveillance tests. The inspectors noted that the justification was inconsistent with the a(1) exit criteria specified in the Maintenance Rule program procedure. Specifically, criterion 'A' and 'B' allow transition to a(2) status following *three* surveillance periods of acceptable performance when the surveillance period was quarterly, which was the case for the RHR pump. With all of these factors considered, the inspectors concluded that the licensee had inappropriately transitioned the RHR system from a(1) to a(2) status and, as a result, failed to monitor and set goals for the system, as required by 10 CFR 50.65 a(1).

In addition to the RCE corrective action directing staff to complete an a(3) assessment for the program, 10 CFR 50.65 a(3) states that, "Performance and condition monitoring activities and associated goals and preventive maintenance activities shall be evaluated at least every refueling cycle provided the interval between evaluations does not exceed 24 months. The evaluations shall take into account, where practical, industrywide operating experience. Adjustments shall be made where necessary to ensure that the objective of preventing failures of structures, systems, and components through maintenance is appropriately balanced against the objective of minimizing unavailability of structures, systems, and components due to monitoring or preventive maintenance." This a(3) assessment provides an opportunity for licensees to examine the Maintenance Rule program activities as a whole. In addition, the rule requires licensees to update their program and evaluate the effectiveness of performance and condition monitoring activities and associated goals.

Further a(3) assessment guidance was provided in EWI-05.02.01, the licensee's Maintenance Rule program document, which stated that several areas should be reviewed and addressed as part of the periodic a(3) assessment. Among others, this included direction to:

- review and address plant level performance criteria, individual performance criteria (as needed), red/yellow systems, equipment out of service data; and
- finalize a(1)/a(2) determination and review and approve goal setting action plans.

The inspectors noted that neither the RCE nor the a(3) assessment, which was performed subsequent to (and as a result of) the RCE, identified the program deficiencies that the inspectors discovered during their a(3) assessment review. The inspectors determined that the licensee's evaluation, while flawed, did not represent a violation of a(3) requirements; however, the inspectors determined that this assessment, the RCE, and the original MREP approval of the a(1) action plan represented several opportunities to detect and prevent the performance deficiency from occurring.

Following receipt of additional information from the licensee regarding the cause of the inappropriate transition of the RHR system to a(2) status, the inspectors determined that the individuals involved in the decision making for the development and approval of the a(1) action plan and a(3) assessment did not have the appropriate knowledge base to ensure that their decision to transition the RHR system to a(2) status was performed in accordance with requirements. In addition, the inspectors noted that plant personnel did not fully appreciate the nature of the infrequently used criterion 'C,' which contributed to the inadequate development and evaluation of the action plan.

Analysis

The inspectors determined that the licensee's failure to monitor the RHR system in accordance with the requirements of 10 CFR 50.65(a)(1), due to inappropriately transitioning the system from a(1) to a(2) status, was a performance deficiency because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. 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, having resources components, and involving aspects associated with the licensee having personnel, procedures, and other resources adequate to maintain long term plant safety by maintenance of design margins and minimizing long-standing equipment issues [H.2(a)].

The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions, and determined the finding to be of very low safety significance. (Green)

Enforcement

Title 10 CFR 50.65 (a)(1), requires, in part, that holders of an operating license shall monitor the performance or condition of SSCs within the scope of the rule as defined by 10 CFR 50.65 (b), against licensee established goals, in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. Title 10 CFR 50.65 (a)(2) states, in part, that monitoring, as specified in 10 CFR 50.65 (a)(1), is not required where it has been demonstrated that the performance or condition of an SSC is being effectively controlled through the performance of appropriate preventive maintenance, such that the SSC remains capable of performing its intended function.

Contrary to the above, on June 6, 2011, Monticello Nuclear Generating Plant (MNGP) was unable to demonstrate that the performance or condition of the RHR system had been effectively controlled through the performance of appropriate preventive maintenance, and on February 27, 2012, the site inappropriately transitioned the system from a(1) to a(2) status, and subsequently failed to monitor the equipment against licensee-established a(1) goals. Specifically, the licensee determined that the

RHR system required a(1) classification, but failed to create goals for effective monitoring of the equipment when they inappropriately applied a(1) status exit criteria to the system. As a result, a(1) goal setting and monitoring was required, but it was not performed until the issue was identified by the inspectors in June 2012. Because the finding was of very low safety significance and has been entered into the licensee's corrective action program (CAP 01341703), this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy.
(NCV 05000263/2012003-01; Failure to Monitor Residual Heat Removal System under 10 CFR 50.65(a)(1) due to Inappropriate a(2) Transition)

2. Failure to Monitor SSF Plant Level Performance Criterion Equipment Under 10 CFR 50.65(a)(1)/(a)(2) due to Inadequate SSF Data Tracking

Introduction

The inspectors identified a finding of very low safety significance and NCV of 10 CFR 50.65(a)(1)/(a)(2), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for the licensee's failure to evaluate a(1) goals for equipment tracked under the Safety System Failure (SSF) plant level performance criterion when the plant level a(2) preventative maintenance demonstration became invalid. Specifically, in October 2011, the SSF plant level indicator exceeded its performance criterion when the plant experienced a fourth SSF in a two year period. The licensee failed to appropriately account for these failures in their Maintenance Rule program and, as a result, the site failed to evaluate the affected equipment under 10 CFR 50.65(a)(1) as required.

Description

During a review of the licensee's Maintenance Rule program a(3) assessment, the inspectors identified some examples of inadequacies within the Maintenance Rule program which had not been addressed during or subsequent to a licensee RCE performed in response to previous Maintenance Rule issues identified by the NRC during the first quarter of 2012. The RCE specifically contained a corrective action that directed staff to "prepare (an) a(3) report to ensure all plant level performance criteria that has not been met has been appropriately identified and documented in the CAP."

During the inspectors' review of the a(3) assessment and the section which discussed the licensee's review of the Plant Level Performance criteria data, the inspectors identified several instances where plant level performance data was not counted in the Maintenance Rule program, and measured against the plant level performance criteria. Specifically, the inspectors identified two instances where unplanned engineered safety feature (ESF) actuations had not been counted, and three instances where data required to be evaluated against the SSF plant level performance criterion had not been recorded.

Section 6.2, "Plant Level Performance Criteria," of the Monticello Maintenance Rule program document, EWI-05.02.01, states, "tracking of Unplanned ESF Actuations is readily accomplished since these are reported in accordance with the LER [licensee event report] process under 10 CFR 50.73(a)(2)(iv)." Similarly, for the SSF plant level performance criterion, the procedure states, "tracking of Safety System Failures is

readily accomplished since these are reported in accordance with the LER process under 10 CFR 50.73(a)(2)(v) and 10 CFR 50.73(a)(2)(vii)."

The inspectors noted that the a(3) assessment only identified a single unplanned ESF actuation associated with a Group 2 isolation which occurred on December 20, 2010, due to a high scale indication on the 'A' fuel pool and reactor building ventilation radiation monitors. However, the inspectors noted that during the two fourth quarter 2011 scrams, the plant had received Group 2 isolation signals due to low reactor vessel level. The inspectors observed that these two unplanned ESF actuations were not counted in the licensee's Maintenance Rule program, and this deficiency was not identified during the a(3) assessment. These additional ESF actuations did not result in exceeding the ESF plant level performance criterion.

The inspectors noted that the a(3) assessment only identified three safety system failures over the span of the previous two years. The assessment noted that on November 4, 2010, the plant experienced a SSF when secondary containment was briefly degraded due to simultaneous opening of the airlock doors. In addition, on November 22, 2010, a SSF occurred when the plant made a mode change with two primary containment isolation valves inoperable. The third SSF was recorded for a November 27, 2011, instance where the rod worth minimizer was bypassed when required during plant startup.

However, the inspectors identified that the licensee failed to count one instance where a SSF was reported under 10 CFR 50.73(a)(2)(v) (the SSF LER criterion). In this instance, both Divisions of the licensee's control room EFT were inoperable during a complicated reactor scram. In addition, the inspectors identified that the licensee had failed to count two instances of potential SSFs reported under 10 CFR 50.73(a)(2)(vii) (the common cause inoperability LER criterion). These instances were associated with common cause inoperability of both diesel generators, and common cause inoperability of the average power range monitors. As a result, the inspectors noted that the licensee failed to count this data in accordance with the site's Maintenance Rule program procedure requirements.

When additional SSF data was factored into the Maintenance Rule program SSF plant criterion, the performance criterion was exceeded (greater than or equal to two failures per year, averaged over two years). As a result, the licensee was required to evaluate the systems which led to exceeding the plant level criterion for a(1) monitoring and goal setting. This did not occur until the inspectors identified the issue several months later, because the licensee failed to independently validate its plant level performance criteria data. This occurred despite a renewed focus placed on validating the plant level performance criteria following the Maintenance Rule RCE, which was completed in the first quarter of 2012. The inspectors noted that the corrective action resulting from the RCE, which directed plant staff to perform the a(3) assessment, had specifically directed staff to verify the accuracy of the plant level data. Because this deficiency resulted in the licensee failing to recognize that a plant level performance criterion had been exceeded, the inspectors determined that these actions were not in accordance with the requirements of 10 CFR 50.65.

Analysis

The inspectors determined that the licensee's failure to evaluate goal setting for the equipment that caused the plant to exceed its SSF performance criteria in accordance with the requirements of 10 CFR 50.65(a)(1), due to inadequately accounting for SSF data under 10 CFR 50.65(a)(2), was a performance deficiency because it was the result of the failure to meet a requirement or a standard; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. 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, having work practices components, and involving aspects associated with the licensee communicating human error prevention techniques such as self and peer checking and proper documentation of activities [H.4(a)].

The inspectors screened the performance deficiency per IMC 0612, "Power Reactor Inspection Reports," Appendix B, and determined that the issue was more than minor because it impacted the equipment performance attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors applied IMC 0609, Attachment 4, to this finding. The inspectors evaluated the issue under the Mitigating Systems Cornerstone, and utilized Column 2 of the Table 4a worksheet to screen the finding. The inspectors answered "No" to all five questions, and determined the finding to be of very low safety significance. (Green)

Enforcement

Title 10 CFR 50.65 (a)(1), requires, in part, that holders of an operating license shall monitor the performance or condition of SSCs within the scope of the rule as defined by 10 CFR 50.65 (b), against licensee established goals, in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. Title 10 CFR 50.65 (a)(2) states, in part, that monitoring, as specified in 10 CFR 50.65 (a)(1), is not required where it has been demonstrated that the performance or condition of an SSC is being effectively controlled through the performance of appropriate preventive maintenance, such that the SSC remains capable of performing its intended function.

Contrary to the above, on October 21, 2011, MNGP was unable to demonstrate that the equipment tracked under the SSF plant level performance criterion had been effectively controlled through the performance of appropriate preventive maintenance, and failed to evaluate the equipment for a(1) goal setting and monitoring. Specifically, the site failed to properly account for data associated with one SSF and two common cause failure events, the last of which occurred in October 2011, which demonstrated that the performance or condition of SSCs tracked under the SSF plant level criterion were not being effectively controlled through appropriate preventive maintenance. As a result, an a(1) goal setting and monitoring evaluation was required to be performed, but it was not done until the issue was identified by the inspectors on May 29, 2012. Because the finding was of very low safety significance and has been entered into the licensee's

corrective action program (CAP 01339425, CAP 01339429), this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy. **(NCV 05000263/2012003-02; Failure to Monitor SSF Plant Level Performance Criterion Equipment Under 10 CFR 50.65(a)(1) due to Inadequate SSF Data Tracking)**

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:

- thermography identified infrared anomaly in rod position indication system (RPIS) panel;
- 16 battery, 'B' half battery voltage found below operability setpoint;
- mechanical pressure regulator relay piston position drifting; and
- rod sequence exchange unexpected rod worth minimizer rod block.

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

These maintenance risk assessments and emergent work control activities constituted four 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:

- CAP 1332567; thermal overloads may trip with degraded voltage;

- CAP 01332429; component design basis inspection (CDBI) incorrect acceptance criteria in CA 06-104;
- CAP 01298765; spent fuel pool cooling heat exchangers last eddy current last performed in April 1988;
- CAP 01338164; rotation observed on V-SF-10 No. 11 emergency diesel generator (EDG) supply fan; and
- CAP 01337178; control rod drive (CRD) hydraulic control unit (HCU) piston accumulators do not meet high energy line break (HELB) environment).

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 inspection constituted five operability samples as defined in IP 71111.15-05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Plant Modifications

a. Inspection Scope

The inspectors reviewed the following modifications:

- EC 20076; removal of the 1AR transformer essential bus auto transfer; and
- EC 20288; engineering evaluation of load tap changer (LTC) note in B.09.06-05, "4.16KV station auxiliary system operation."

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 systems. 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 plant operation with the modification in place could impact overall plant performance. Documents reviewed in the course of this inspection are listed in the Attachment to this report.

This inspection constituted one temporary modification sample and one permanent 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:

- 5A-K8A relay (control valve fast closure) contact burnishing;
- RHR shutdown cooling suction line bypass installation;
- V-EF-40A, Division II battery room exhaust fan—replacement of thermal overloads;
- 11 residual heat removal service water (RHRSW) pump rebuild;
- D10 battery charger preventive maintenance; and
- reactor manual control system relay 3A-K6 replacement.

These activities were selected based upon the SSCs 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 PM 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 PM 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:

- emergency core cooling system (ECCS) high drywell pressure sensor surveillance [routine];
- anticipated transient without scram (ATWS)-recirc trips for reactor pressure and level trip unit test and calibration [routine];
- ECCS pump start permissive sensor test [routine];
- safeguards bus degraded voltage protection unit relay calibration [routine];
- containment sump flow measurement instrumentation [reactor coolant system (RCS) leakage]; and
- core spray 'B' quarterly pump and valve test [inservice test (IST)].

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

- did preconditioning occur;
- were the effects of the testing adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- were acceptance criteria clearly stated, demonstrated operational readiness, and 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 IST 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 four routine surveillance testing samples, one IST sample, and one RCS leak detection sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

1EP2 Alert and Notification System Evaluation (71114.02)

.1 Alert and Notification System Evaluation

a. Inspection Scope

The inspectors reviewed documents and conducted discussions with emergency preparedness (EP) staff and management regarding the operation, maintenance, and periodic testing of the Alert and Notification System (ANS) in the MNGPs plume pathway Emergency Planning Zone. The inspectors reviewed monthly trend reports and the monthly operability records from January 2011 through May 2012. Information gathered during document reviews and interviews was used to determine whether the ANS equipment was maintained and tested in accordance with EP commitments and procedures. Documents reviewed are listed in the Attachment to this report.

This ANS evaluation inspection constituted one sample as defined in IP 71114.02-05.

b. Findings

No findings were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03)

.1 Emergency Response Organization Staffing and Augmentation System

a. Inspection Scope

The inspectors reviewed and discussed with plant EP management and staff the EP commitments and procedures that addressed the primary and alternate methods of

initiating an Emergency Response Organization (ERO) activation to augment the on shift staff, as well as the provisions for maintaining the station's ERO qualification and team lists. The inspectors reviewed reports and a sample of CAP records of unannounced off-hour augmentation tests and drills, which were conducted between December 2010 and April 2012, to determine the adequacy of the drill critiques and associated corrective actions. The inspectors also reviewed a sample of the EP training records of approximately 12 ERO personnel, who were assigned to key and support positions, to determine the status of their training as it related to their assigned ERO positions. Documents reviewed are listed in the Attachment to this report.

This ERO staffing and augmentation system inspection constituted one sample as defined in IP 71114.03-05.

b. Findings

No findings were identified.

1EP5 Maintenance of Emergency Preparedness (71114.05)

.1 Maintenance of Emergency Preparedness

a. Inspection Scope

The inspectors reviewed the nuclear oversight staff's 2011 and 2012 audits of the MNGP EP program to determine that the independent assessments met the requirements of 10 CFR 50.54(t). The inspectors also reviewed samples of CAP records associated with the 2011 biennial exercise, as well as various EP drills conducted in 2010, 2011, and 2012, in order to determine whether the licensee fulfilled drill commitments and to evaluate the licensee's efforts to identify and resolve identified issues. The inspectors reviewed a sample of EP items and corrective actions related to the station's EP program and activities to determine whether corrective actions were completed in accordance with the site's CAP. Documents reviewed are listed in the Attachment to this report.

This correction of maintenance of EP inspection constituted one sample as defined in IP 71114.05-05.

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 June 18, 2012, which required EP implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator (PI) data regarding drill/exercise performance (DEP). 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 EP drill aspects constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

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

4OA1 Performance Indicator Verification (71151)

.1 Safety System Functional Failures

a. Inspection Scope

The inspectors sampled licensee submittals for the Safety System Functional Failures (SSFF) PI for the period from the 2nd Quarter 2011 through the 1st Quarter 2012. 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 6, dated October 2009, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73," definitions and guidance were used. The inspectors reviewed the licensee's operator narrative logs, operability assessments, Maintenance Rule records, maintenance WOs, issue reports, event reports and NRC Integrated Inspection Reports for the period of April 2011 through March 2012 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 SSFF sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.2 Reactor Coolant System Leakage

a. Inspection Scope

The inspectors sampled licensee submittals for the RCS Leakage PI for the period from the 2nd Quarter 2011 through the 1st Quarter 2012. 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 6, dated October 2009, were used. The inspectors reviewed the licensee's operator logs, RCS leakage tracking data, issue reports, event reports and NRC Integrated Inspection Reports for the period of April 2011 through March 2012 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 RCS leakage sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.3 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the DEP PI for the period from the 3rd Quarter 2011 through 1st Quarter 2012. 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 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; assessments of PI opportunities during pre-designated control room simulator training sessions; performance during the 2011 exercise; and performance during other drills. Documents reviewed are listed in the Attachment to this report.

This inspection constitutes one DEP sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.4 Emergency Response Organization Drill Participation

a. Inspection Scope

The inspectors sampled licensee submittals for the ERO Drill Participation PI for the period from the 3rd Quarter 2011 through 1st Quarter 2012. 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 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; performance during the 2011 biennial exercise and other drills;

and revisions of the roster of personnel assigned to key ERO positions. Documents reviewed are listed in the Attachment to this report.

This inspection constitutes one ERO drill participation sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.5 Alert and Notification System

a. Inspection Scope

The inspectors sampled licensee submittals for the ANS PI for the period from the 3rd Quarter 2011 through 1st Quarter 2012. 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 6, were used. The inspectors reviewed the licensee's records associated with the PI to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI and results of periodic ANS operability tests. Documents reviewed are listed in the Attachment to this report.

This inspection constitutes one ANS as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

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

.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 that 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.

.3 Semiannual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the six month period of December 2012 through May 2012, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside the normal CAP in major equipment problem lists; repetitive and/or rework maintenance lists; departmental problem/challenges lists; system health reports; quality assurance audit/surveillance reports; self-assessment reports; and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

This review constituted a single semiannual trend inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

.4 Selected Issue Followup Inspection: Diverging Reactor Feedwater Loop Flowrates

a. Inspection Scope

During a review of items entered in the licensee's CAP, the inspectors recognized a corrective action item documenting a diverging trend in reactor feedwater flowrates between the 'A' and 'B' feedwater loops. During this inspection period, the inspectors reviewed historical and recent corrective action documents associated with this issue; reviewed the licensee's evaluation of the issue's potential impact on their ability to accurately monitor core thermal power; and monitored available plant parameters associated with reactor feedwater flow throughout the quarter to ensure that the condition was not degrading. Based on this review, the inspectors concluded that the licensee had an adequate understanding of the cause of the indicated differences in reactor feedwater flows between the two feedwater loops and were appropriately monitoring the condition for further degradation.

This review constituted one in-depth problem identification and resolution sample as defined in IP 71152-05.

b. Findings

No findings were identified.

4OA5 Other Activities

.1 Temporary Instruction (TI) 2515/182 - Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks

a. Inspection Scope

Leakage from buried and underground pipes has resulted in ground water contamination incidents with associated heightened NRC and public interest. The industry issued a guidance document, NEI 09-14, "Guideline for the Management of Buried Piping Integrity," (ADAMS Accession No. ML1030901420), to describe the goals and required actions (commitments made by the licensee) resulting from this underground piping and tank initiative. On December 31, 2010, NEI issued Revision 1 to NEI 09-14, "Guidance for the Management of Underground Piping and Tank Integrity," (ADAMS Accession No. ML110700122), with an expanded scope of components, which included underground piping that was not in direct contact with the soil and underground tanks. On November 17, 2011, the NRC issued TI-2515/182, "Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks," to gather information related to the industry's implementation of this initiative.

The inspectors reviewed the licensee's programs for buried pipe, underground piping, and tanks in accordance with TI-2515/182 to determine if the program attributes and completion dates identified in Sections 3.3 A and 3.3 B of NEI 09-14, Revision 1, were contained in the licensee's program and implementing procedures. For the buried pipe

and underground piping program attributes with completion dates that had passed, the inspectors reviewed records to determine if the attribute was, in fact, complete and to determine if the attribute was accomplished in a manner which reflected good or poor practices in program management.

Based upon the scope of the review described above, Phase I of TI-2515/182 was completed.

b. Observations

The licensee's buried piping and underground piping and tanks program was inspected in accordance with Paragraphs 03.01.a through 03.01.c of TI-2515/182 and was found to meet all applicable aspects of NEI 09-14, Revision 1, as set forth in Table 1 of the TI.

c. Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On July 11, 2012, the inspectors presented the inspection results to Ms. Ward, 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 review of the Industry Initiative to Control Degradation of Underground Piping and Tanks (TI -2515/182) with Mr. N. Haskell, Engineering Director, and other members of the licensee staff on May 14, 2012; and
- The results of the EP Program Inspection with Mr. J. Grubb, conducted at the site on June 8, 2012.

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

4OA7 Licensee-Identified Violation

The following violation of very low significance (Green) or Severity Level IV was identified by the licensee and is a violation of NRC requirements, which meets the criteria of the NRC Enforcement Policy for being dispositioned as an NCV.

- The licensee identified a finding of very low safety significance (Green) and associated NCV of planning standard 10 CFR 50.47(b)(4). This regulation states that, "A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided

by facility licensees for determinations of minimum initial offsite response measures." Contrary to this, the emergency action level (EAL) classification scheme contained an initiating condition that had been rendered ineffective, such that an Alert would not have been declared. Specifically, the licensee's EAL RA1.2 specified an instrument setpoint beyond the limit of the process radiation monitor's capability. This event was documented in the licensee's CAP as apparent cause evaluation (ACE) 1242696. Revision 43 of Procedure A.2-101, "Classification of Emergencies," was revised to include an Alert value that was on scale of the instrumentation and fleet procedure (FP)-R-EP-05, "Revision and Control of the Emergency Plan and Emergency Actions," was revised to provide direction on future EAL setpoint changes.

The performance deficiency was determined to be more than minor because it could reasonably be viewed as a precursor to a significant event, due to the potential for a delayed Alert declaration. Using IMC 0609, Appendix B, for EP SDP, Figure 5.4-1, "Significance Determination for Ineffective EALs," the event would be declared in a degraded manner (not timely). The inspectors determined the finding to be of very low significance.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

M. Schimmel, Site Vice President
J. Grubb, Plant Manager
W. Paulhardt, Operations Manager
N. Haskell, Site Engineering Director
K. Jepson, Assistant Plant Manager
S. Mattson, Maintenance Manager
M. Holmes, Chemistry Manager
A. Zelie, Radiation Protection Manager
P. Kissinger, Regulatory Affairs Manager
P. Saueressig, Buried Pipe Program Owner
B. Cesnik, Buried Pipe Program Owner (Backup)
L. Anderson, Emergency Preparedness Manager
S. Hafen, Nuclear Oversight Manager
T. Shortell, Training Manager

Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000263/2012003-01	NCV	Failure to Monitor Residual Heat Removal System under 10 CFR 50.65(a)(1) Due to Inappropriate a(2) Transition (Section 1R12.1)
05000263/2012003-02	NCV	Failure to Monitor SSF Plant Level Performance Criterion Equipment Under 10 CFR 50.65(a)(1) Due to Inadequate SSF Data Tracking (Section 1R12.2)

Closed

05000263/2012003-01	NCV	Failure to Monitor Residual Heat Removal System under 10 CFR 50.65(a)(1) Due to Inappropriate a(2) Transition (Section 1R12.1)
05000263/2012003-02	NCV	Failure to Monitor SSF Plant Level Performance Criterion Equipment Under 10 CFR 50.65(a)(1) Due to Inadequate SSF Data Tracking (Section 1R12.2)

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 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

National Weather Service Advanced Hydrological Prediction Service River Data for the Mississippi River (St. Cloud, MN) for the Time Period of March 26, 2012, to June 24, 2012; report dated March 19, 2012
1478; Annual Flood Surveillance; Revision 4
A.6; Acts of Nature; Revision 41
1444; Post Severe-weather Checklist; Revision 19
3853; Equipment Important to EP; Revision 0
CAP 01342299; R1-7612, F1 Storage Building Low Failed Downscale
CAP 01342527; Minor Roof Leakage Encroached upon MCC-142B
CAP 01342323; Skirting on North Side of 10-wide is Damaged

Section 1R04

2212; Plant Prestart Checklist – Alternate Nitrogen System; Revision 7
1292-01; Operability Testing of the UPS Division 1; Revision 12
1292-02; Operability Testing of the UPS Division 2; Revision 12
2154-34; Emergency Service Water System Prestart Valve Checklist; Revision 27
CAP 1334562; CDBI – Panel Y70 and Y80 Voltages in Nonconformance with USAR
FP-OP-PEQ-01; Protected Equipment Program; Revision 7

Section 1R05

Strategy A.3-03-A; Fire Zone 3-A; Recirc MG Set Room; Revision 5
Strategy A.3-33; Fire Zone 33; EFT Building Third Floor; Revision 6
Operations Manual B.08.05-01; Fire Protection—Function and General Description of System; Revision 10
Strategy A.3-13-A; Fire Zone 13-A; Lube Oil Storage Tank Room; Revision 5
Strategy A.3-13-B; Fire Zone 13-B; Rx Feedpump and Lube Oil Reservoir Room; Revision 11
CAP 01336029; Housekeeping Issue in Lube Oil Storage Tank Rm
Monticello Combustible Loading Manager; Fire Zone Loading Details—13A-Lube Oil Storage Tank Room; May 1, 2012
Operator Rounds Module—Turbine Lube Oil Tank Level Module; April 25-May 1, 2012
Operations Manual B.08.05-05; Fire Protection—System Operation; Revision 55
Strategy A.3-31-A; EFT Building 1st Floor (DIV I); Revision 8
Strategy A.3-16; Corridor, Turbine Building East and West (Elevations 911' and 931'); Revision 12
Strategy A.3-17; Turbine Building North Cable Corridor 941'; Revision 5
Strategy a.3-14-A; Upper 4KV Bus Area (12, 14, and 16); Revision 13
Fire Brigade Drill Guide 14-A.01

Section 1R11

FP-OP-COO-21; Reactivity Control; Revision 0
C.2-05; Load Following; Revision 46
2300; Reactivity Adjustment; Revision 6
Attachment to the 2300 Procedure; Reactivity Maneuvering Steps—June 2, 2012; Revision 0
1040-01; Turbine-Generator; Revision 76
OSP-TRB-0570; Exercise Main Turbine Bypass Valves; Revision 8
Simulator Guide RQ-SS-01E

Section 1R12

Maintenance Rule a(3) Evaluation for period April 2010 to March 2012; March 28, 2012
EWI-05.02.01; Monticello Maintenance Rule Program Document; Revision 18
RHR (a)(1) Action Plan Timeline and engineering evaluation; July 1, 2012
NUMARC 93-01; Monitoring the Effectiveness of Maintenance at Nuclear Power Plants; Revision 4A
3784; Maintenance Rule (a)(1) Action/Performance Improvement Plan; Revision 1
Maintenance Rule (a)(1) Action/Performance Improvement Plan—Residual Heat Removal System; Form 3784; February 27, 2012
Maintenance Rule Focused Self-Assessment Plan and Checklist—AR Number 01340215; June 7, 2012
CAP 01321711; Program Eng. Future Risk Recommendations
CAP 01341703; Inappropriate Transition of RHR System to (a)(2) Status
CAP 01339426; MR Plant Level Criteria was Missed
CAP 01339429; MR Plant Level Safety System Failure has Exceeded Criteria
CAP 01340883; MR EWI Implies Missed Surv Counted as Functional Failures in the MR Program
CAP 01339585; a(3) Assessment not Performed Annually as Required by Procedure
RCE 01323429-01; Maintenance Rule Program Implementation Degraded
CAP 01339104; 1AR will go Maintenance Rule (a)(1) on 5/28/12
CAP 01339106; 4KV System Health will Turn Red on 5/28/12
Maintenance Rule Program System Basis Document—RHR; Revision 5
CAP 01331097; QF-0450 Revision 0—Adding Reviewer and Approver Requirements
CAP 01325200; MR (a)(1) Plan Needs to be Generated for No. 13 RHR Pump
CAP 01309430; P-202C; 13 RHR Pump, Oil Level High
CAP 01288036; Unplanned TS Action No. 13 RHR Pump
CAP 01289462; BKR 152-503 (13 RHR Pump) Failed to Close
CAP 01323429; Maintenance Rule Program Implementation Degraded

Section 1R13

CAP 01336098; Thermography Identified Infrared Anomoly in RPIS Panel C-27
WO 458565-03; Investigate/As-built of RPIS Bus Wiring
CAP 01336770; No. 16 Battery – 'B' Half Voltage Found Below Operability Setpoint
0193-02; No. 16 250 VDC Battery Operability Check (Div II); Revision 26
CAP 01331692; Mechanical Pressure Regulator Relay Piston Position Drifting
Operations Manual B.05.09-05; Main Steam Pressure Control—System Operation; Revision 13
WO 454662; Troubleshooting Plan—Received Computer Alarm Trb (MPR Position Change); April 2, 2012

Operations Manual C.4-B.05.09.B; Abnormal Procedures—Main Steam Pressure Regulator Failure Causing Increased Pressure; Revision 9
Operations Manual B.5.9-01; Main Steam Pressure Control—Function and General Description of System; Revision 1
WO 461972; Relay 3A-K6 Replacement; June 26, 2012
NX-7866-74-11; MNGP Elementary Diagram—Reactor Manual Control System; Revision D
CAP 01342677; Unable to Withdraw Control Rod Following Scram Testing
0081; Control Rod Drive Scram Insertion Time Test; Revision 62
FP-OP-COO-21; Reactivity Control; Revision 0
C.2-05; Load Following; Revision 46
2300; Reactivity Adjustment; Revision 6
Attachment to the 2300 Procedure; Reactivity Maneuvering Steps—June 23, 2012; Revision 0
June 23 Sequence Exchange and Scram Time Testing—Power to Flow Map; Revision 0
CAP 01342679; Level in Fuel Pool Skimmer Tank Rising Causing High Level Alarm

Section 1R15

CAP 01332373; 2012 CDBI – Motor Overloads May Trip with Degraded Voltage
CAP 01332567; CDBI TOL Coordination with Degraded Voltage Relay Time Delay
CAP 01332429; CDBI Incorrect Acceptance Criteria in CA 06-104
OPR 01332429; Analysis for Non-valve, 480V Essential MCC Loads Operability at or Above 426V at Respective MCCs
EC 19935; Engineering Evaluation for 480 VAC Essential Non-motor Loads; Revision 000
DBD-B.04.02; Design Basis Documents: SCTMT/SBGT Systems; Revision 3
DBD-B.08.13; Design Basis Document: CRV/EFT System; Revision 2
AR130K150; Battery Charger Test Record; April 5, 2012
CA-06-104; 480V MCC to Motor Terminal Voltage Drop; Revision 2
Operations Manual B.09.13-06 Figure 1; Instrument AC and Uninterruptible AC Distribution System Single Line Diagram; Revision 6
CAP 01298765; E-6A/E-6B, Last Eddy Current Test was April, 1988
C.4-B.02.01.A; Loss of Fuel Pool Cooling; Revision 5
B.03.04-05; RHR System – System Operation; Revision 60
C.4-B.02.05.B; Leak into RBCCW; Revision 5
OSP-FPC-1062; SFP Time to Reach 200F with Plant Online; Revision 0
B.02.01-05; Fuel Pool Cooling – System Operation; Revision 39
A.7-TSG-06; Technical Support Guidelines – Abnormal System Configuration; Revision 4
Special Procedure 8147; Alternate Fuel Pool Cooling While RBCCW Unavailable; Revision 4
CAP 01338164; Rotation Observed on V-SF-10 No. 11 EDG Supply Fan
OPR 1338164-01; EDG Supply Fan Backwards Rotation
CAP 01339727; Inadequate OPR License Basis Information
CAP 01031396; V-SF-10, EDG Room Ventilation Fan Windmilling
NX-9290-5; MNGP H&V Centrifugal Fans; Revision A
Engineering Evaluation—V-SF-9 and V-SF-10 Motors Windmilling in Reverse; June 19, 2006
CAP 01337178; CRD HCU Piston Accumulators do not Meet HELB Environment
OPR 01337178-01; CRD/HCU Piston Accumulators Exceed ASME Stamped Temperature When in a HELB Environment
MPR Associates Inc. Engineers Letter to MNGP; Impact of Increased Temperature on CRD HCU Accumulator Pressure Boundary; May 10, 2012
Gothic HELB Model CRD/HCU Accumulators; May 10, 2012
Accumulator Assembly Equivalency Evaluation; September 2009—Revision 3

Section 1R18

EC 20076; Removal of the 1AR Transformer Essential Bus Auto Transfer
NE-36399-9; MNGP Essential Bus Transfer Circuits – Division 1; Revision N
NE-36858-4; MNGP No. 1AR Reserve Transformer Secondary ACB 152-511 Control; Revision T
NE-36399-7; MNGP No. 13 Bus to No. 15 Bus Tie ACB 152-308; Revision Q
NE-36403-2; MNGP Standby Diesel Generator ACB 152-502 Control; Revision 76
NE-36399-9B; MNGP Essential Bus Transfer Circuits – Division II; Revision B
NE-36399-7A; MNGP No. 14 Bus to No. 16 Bus Tie ACB 152-408 Control; Revision Q
NE-36403-2A; Standby Diesel Generator ACB 152-602 Control; Revision 77
NE-36403-3A; MNGP No. 12 Standby Diesel Generator Start Circuits 1 & 2, Schematic Diagrams; Revision J
NE-36403-3; MNGP Schematic Diagrams, Standby Diesel Generators; Revision H
Modification 85Z014; No. 11 Auxiliary Transformer Replacement; March 25, 1985
FG-E-SE-03; 50.59 Resource Manual; Revision 3
License Amendment Request dated October 3, 1986; Addition of Third Offsite Power Source
Safety Evaluation of Technical Specification Changes for Additional Course of Offsite Power; September 2, 1987
EC 20288; Engineering Evaluation of LTC Note in B.09.06-05, 4.16KV Station Auxiliary System Operation; June 22, 2012
CAP 01322022; Potential USQ when Operating the 2R LTC
Operations Manual B.09.06-05; 4.16 KV Station Auxiliary—System Operation; Revision 37
CA-97-219; Effects of Transmission System Performance on Offsite Source Operability; Revision 3
MWI-3-M-2.01; AC Electrical Load Study; Revision 13
DBD-B-09.06; 4160V AC System; Revision 76
Safety Evaluation Related to Amendment 102 to Facility Operating License No. DPR-22; September 4, 1998
Information Related to Actuation of Degraded Voltage Protection Logic on August 1, 1983 at the MNGP; August 24, 1983
Confirmatory Action Letter—Plant Operation with Reduced Power Supply Voltage; August 15, 1983
3274; Procedure Preparation Checklist B.09.06-05 4.16KV Station Auxiliary—System Operation; December 20, 2000
Operations Manual B.09.06-05; 4.16 KV Station Auxiliary—System Operation; Revision 10
4 AWI-05.06.01; Safety Review Item; Revision 8; January 31, 2001
4 AWI-05.06.02; 10 CFR 50.59 Applicability Screening; Revision 3; February 3, 1999
3278; 10 CFR 50.59 Applicability Screening; Revision 2; November 10, 2000
Operations Manual B.09.06-01; 4.16 KV Station Auxiliary—Function and General Description of System; Revision 10
Operations Manual B.09.06-02; 4.16 KV Station Auxiliary—Description of Equipment; Revision 12
Operations Manual B.09.06-03; 4.16 KV Station Auxiliary—Instrumentation and Controls; Revision 6

Section 1R19

WO 434894-01; Work Plan - Burnish Contacts in 5A-K8A Relay
WO 434894-02; PMT – 5A-K8A
WO 450936; Modification to Relieve SDC Suction Pressurization; Revision 0
EC 19350; RHR SDC Suction Line Pressure Relief; Revision 1
WO 455157; V-EFA, Div 2 250VDC Btry Rm Exh Fan—Replace Mtr Overloads and PMT
FP-OP-PEQ-01; Protected Equipment Program; Revision 7
EC 19903-TBL-01; Restoration of Overload Margin; April 12, 2012
93503-B Sheet 9; Exhaust Fan V-EF-40A Control (Channel 1); Revision Q
EC 19903; Restoration of Motor Overload Margins in MCC-134 & MCC-144; Revision 000
WO 449142-11; 11 RHRSW Pump—Perform Comprehensive Test; Revision 1
Operations Manual 08.01.03-05; RHRSW System—System Operation; Revision 79
0255-05-III-1A; Comprehensive 11 RHRSW Pump and Valve Tests; Revision 021-A
LCO Tracking Record Module; 11 RHRSW Pump Rebuild; April 9, 2012
4214-PM; RHR Service Water Pump Replacement; Revision 007-A
CAP 01334970; 11 RHRSW Pump Task not Completed in WW 1216
4066-PM; D10 Battery Charger Preventive Maintenance; Revision 1
ESP-ELE-0549-01; D10 125 VDC Charger 24 Month Capacity Test; Revision 5
WO00447529; D10, 11 Battery 125 VDC Charger Ground Voltage Out of Spec
0074; CRD Exercise; Revision 58
WO 461972; Relay 3A-K6 Replacement; June 26, 2012
NX-7866-74-11; MNGP Elementary Diagram—Reactor Manual Control System; Revision D
CAP 01342677; Unable to Withdraw Control Rod Following Scram Testing

Section 1R22

0030; ECCS High Drywell Pressure Sensor; Revision 17
ICM-01.01; Instrument Control Manual; Revision 20
0278-A; ATWS-Recirc Trips for Reactor Pressure and Level Trip Unit Test and Calibration; Revision 18
0032; ECCS Pump Start Permissive Sensor Test; Revision 19
0533; Containment Sump Flow Measurement Instrumentation; Revision 19
0000-J; Operations Daily Log – Part J Outplant; Revision 105
0302; Safeguards Bus Degraded Voltage Protection Unit Relay Calibration; Revision 26
CAP 01339626; WW 1222 B Sched Level Task 0302 not Performed as Scheduled
0255-03-IA-1-2; Core Spray 'B' Quarterly Pump and Valve Test; Revision 52
WO 445294; Perform 0255-03-IA-1-2 CSP 'B' Quarterly Pump and Valve Tests; May 25, 2012
CAP 01339012; Oil Weepage Coming from Core Spray Pump and Motor Union

Section 1EP2

MNGP Emergency Plan; Section 7.7, Public Alert and Notification System; Revision 36
FEMA Approved Monticello Area Public ANS Design Report; June 1984
FEMA Public ANS Upgrade Approval Letters; October 2011, February 2010, June 2009, May 2006, and March 2003
Nelcom Siren Post-Maintenance and Post Service Operability Procedure; Revision 5
Surveillance 1359; Public Alert Notification Systems (PANS) Weekly Cancel Signal Test Records; January 26, 2011 – May 23, 2012
Surveillance 1408; Annual 2011 PANS Performance Reviews; January 2011 and 2012

Surveillance 1409; Public PANS Monthly Siren Activation Test Records; January 2011 – February 2012
Surveillance 1410; Semiannual Auto-Dialing Telephone Notification System Testing and Maintenance Verification; June – December 2011
Evacuation Time Estimates for the Plume Exposure Pathway EPZ; November 2008
AR 1332677; EP Assessment-ANS Documentation and City Watch System; April 8, 2012
AR 1325086; Sherburne County Inadvertent Siren Activation; February 15, 2012
AR 1323286; Siren Indicated False Activation during Monthly Test; February 1, 2012
AR 1314472; Siren Monitoring System Reported Communication Failures; November 23, 2011
AR 1202770; Siren Primary Activation System for Sherburne County Is Inop; September 7, 2011

Section 1EP3

XCEL Energy Monticello EP Off-Hours Unannounced December 2, 2010, Drill Report
MNGP Emergency Plan, Section 5; Organizational Control of Emergencies; Revision 36
MNGP Emergency Plan, Table 5.0-1; Minimum Shift Staffing and Capability for Additions for Nuclear Power Plant Emergencies; Revision 36
Form 5790-001-01; Emergency Response Organization; Revision 90
Form 5790-104-04; Emergency Call List – Alert/Site Area/General; Revision 119
Surveillance 1317; Emergency Alert Notification System Quarterly Tests; January 26, 2010 – April 18, 2012
ERO Qualification List; June 7, 2012
ERO Team Duty Roster; June 7, 2012
AR 1329181; EP Drill Chemistry Coordinator Position Not Staffed; March 14, 2012
AR 1326948; ERO Augmentation Drill Run Differently Than Actual Event Process; February 28, 2012
AR 1261462; Drive-In-Drill Notification Form Not Accurate; December 3, 2010
AR 01291532; RP/Chem ERO 30 Minute Responders Not Qualified For All Tasks; June 22, 2011
AR 01291409; EPlan Not Clear For Augmentation Timeliness; June 21, 2011
AR 01261477; Drive-In-Drill 30 Minute Responders Not Timely; December 3, 2010

Section 1EP5

Emergency Plan, Annex A; MNGP Emergency Action Levels; Revision 34
NOS Report 2012-01-021; Emergency Planning – 50.54(t) Annual Assessment; April 17, 2012
NOS Report 2012-01-024; Emergency Preparedness – State and Local Interface Adequacy; April 4, 2012
NOS Report 2011-01-005; Annual Assessment of Emergency Planning; April 25, 2011
NOS Report 2011-01-021; Emergency Planning – Monticello State and Local Interface Adequacy; April 2, 2011
Letters of Agreement; March 2010 – March 2012
A.2-101; Classification of Emergencies; Revision 43
AR 1332681; EP Readiness Assessment Two Errors Identified In PI Documentation; April 8, 2012
AR 1329306; EP Drill Site Evacuation Confusion between ED and REC; March 15, 2012
AR 1329244; EP Drill Inaudible Announcements in Security Building; March 14, 2012
AR 1329210; EP Drill TSC Accountability Card Reader Problems; March 14, 2012
AR 1321129; Monticello NRC EP Inspection Pre-Assessment; April 6, 2012
AR 1242696; EAL RA 1.2 Initiating Condition Beyond Instrument Scale ACE

AR 1300686; EP Drill Identified Anomaly with MIDAS Dose Projection; August 24, 2011
AR 1301089; EP Drill Core Damage Assessment Objective Not Demonstrated; August 26, 2011

Section 1EP6

Simulator Guide RQ-SS-63E
CAP 01342069; NRC Questions SEC Arrival in Simulator during Eval

Section 4OA1

Surveillance 3695; EP Drill and Exercise Performance Records; July 2011 – March 2012
Monthly Siren Failure Matrix; July 2011 – March 2012
Quarterly Qualified Key ERO Participants; September 2011 – March 2012
EP Drill and Exercise Calendar; July 2011 – March 2012
2012 Integrated Operations Schedule – Cycle 12A Focus Area
AR 1322255; 2011 Fourth Quarter 3 DEP Failures; January 25, 2012
AR 1318656; DEP Failure – Wrong Classification Date; December 27, 2011
AR 1317502; Drill Notification Not Completed In Timely Manner; December 15, 2011
AR 1294665; EP Drill Notification Form Not Accurate; July 14, 2011
AR 1294663; EP Drill Classification Not Timely; July 14, 2011
AR 1294353; EP Drill Scenario Rad Conditions Missing/Not Realistic; July 13, 2011
RCS Leakage Data Sheets; April 2011 through March 2012
0000-J; Data Sheets for Selected Dates of Operations Daily Log – Part J Outplant; Revision 105
NEI 99-02; Regulatory Assessment Performance Indicator Guideline; Revision 6
Various CAP Equipment Issue Documents Selected between April 2011 and March 2012
Various Licensee-submitted LERs Documenting Potential SSFs; April 2011 through March 2012
Various Maintenance Rule Records; April 2011 through March 2012

Section 4OA2

CAP 01336420; 14 ESW Pump not Protected Per Fleet Procedure
CAP 01248921; Identified Out of Tolerance Points in 1181 Surveillance Procedure
CAP 01262209; 1181 Procedure Feedwater Flow Loop Differences Out of Spec
CAP 01289394; 1181 Procedure Feedwater Flow Loop Differences Out of Spec
CAP 01290567; A/B Feedwater Flows Differ By More Than 1 Percent
CAP 01338534; Feedwater Loop Flow Divergence Trend
Department DRUM Report: Radiation Protection; 1st Quarter 2012
Department DRUM Report: Radiation Protection; 4th Quarter 2011
Department DRUM Report: Maintenance; 1st Quarter 2012
Department DRUM Report: Maintenance; 4th Quarter 2011
Department DRUM Report: Operations; 1st Quarter 2012
Department DRUM Report: Operations; 4th Quarter 2011
Management Review Meeting Package; June 27, 2012 Meeting
CAP 01289067; Deficient Critical and Noncritical Maintenance Backlog KPI
CAP 01290430; NOS Finding: Unexpected Transients (Plant Impacts)
CAP 01292810; Potential Trend in Reliability of Core Thermal Power Inputs
CAP 01293813; Reactivity Management Indicator Significant Decline
CAP 01295002; Adverse Trend – Wrong Oil in Equipment
CAP 01296895; Adverse Trend in HWC Reductions
CAP 01298392; Adverse Trend in PCE's in Non-contaminated Areas
CAP 01299993; Increase in Components Out of Position

CAP 01311051; Potential Adverse Trend in Unplanned LCO Entries
CAP 01314222; Potential Adverse Trend in Raw Water Pump Performance
CAP 01320714; NOS AAF – Shortfalls with the Implementation of the OE Program
CAP 01322466; Some Critical Equipment is Failing before Schedule PMs
CAP 01323429; Maintenance Rule Program Implementation Degraded
CAP 01332525; Potential Adverse Trend in Operator Burdens
CAP 01338534; FW Loop Flow Divergence Trend
CAP 01248921; Identified Out of Tolerance Points in 1181 Surveillance
CAP 01262209; 1181 Procedure FW Flow Loop Differences Out of Tolerance
CAP 01289394; 1181 Procedure FW Flow Loop Differences Out of Tolerance
CAP 01290567; A/B Feedwater Flows Differ By More Than 1 Percent

Section 4OA5

EWI-08.25.01; Underground Piping and Tank Integrity Program; Revision 7
BP-PLAN; MNGP Buried Piping Inspection Plan; Revision 0
01325923; Snap Shot Report, Underground Piping and Tank Integrity Program; March 7, 2012
1253; Underground Piping Inspection; Revision 7
FL-ESP-PGM-063M; Underground Piping and Tank Integrity (UPTI) Program Owner (Mentoring/Position Specific Guide); Revision 2
CD 5.26; Program Engineering; Revision 5
AR01212245; Buried Piping Integrity Initiative Required Action; December 31, 2009
AR01337474; Procedural Requirement not Completed as Written; May 14, 2012
AR01267747; NEI 09-14 Guideline for the Management of Buried Piping; January 25, 2011

LIST OF ACRONYMS USED

AC	Alternating Current
ACE	Apparent Cause Evaluation
ADAMS	Agencywide Document Access Management System
ANS	Alert and Notification System
ATWS	Anticipated Transient without Scram
CAP	Corrective Action Program
CDBI	Component Design Basis Inspection
CFR	Code of Federal Regulations
CRD	Control Rod Drive
DEP	Drill/Exercise Performance
DRP	Division of Reactor Projects
EAL	Emergency Action Level
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EFT	Emergency Filtration Train
EP	Emergency Preparedness
ERO	Emergency Response Organization
ESF	Engineered Safety Feature
ESW	Emergency Service Water
EWI	Engineering Work Instruction
FP	Fleet Procedure
HCU	Hydraulic Control Unit
HELB	High Energy Line Break
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IST	Inservice Test
LER	Licensee Event Report
LTC	Load Tap Changer
MNGP	Monticello Nuclear Generating Plant
MPFF	Maintenance Preventable Functional Failure
MREP	Maintenance Rule Expert Panel
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
NUMARC	Nuclear Management and Resources Council
PARS	Publicly Available Records System
PI	Performance Indicator
PM	Post-Maintenance
RCE	Root Cause Evaluation
RCS	Reactor Coolant System
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
RPIS	Rod Position Indication System
SDP	Significance Determination Process
SSC	Structure, System, and Component
SSF	Safety System Failure
SSFF	Safety System Functional Failure
TI	Temporary Instruction

TS	Technical Specification
USAR	Updated Safety Analysis Report
WO	Work Order

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Sincerely,

/RA/

Kenneth Riemer, Branch Chief
Branch 2
Division of Reactor Projects

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

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Letter to M. Schimmel from K. Riemer dated August 9, 2012

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT
NRC INTEGRATED INSPECTION REPORT 05000263/2012003

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