



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

November 3, 2010

Mr. Timothy J. O'Connor
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
INTEGRATED AND POWER UPRATE INSPECTION REPORT
05000263/2010004**

Dear Mr. O'Connor:

On September 30, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Monticello Nuclear Generating Plant. The enclosed report documents the inspection findings, which were discussed on October 1, 2010, with Mr. O'Connor 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.

Based on the results of this inspection, one self-revealed finding of very low safety significance was identified. The finding involved a violation of NRC requirements. However, because of the very low safety significance, and because the issue was entered into your corrective action program, the NRC is treating the issue as a non-cited violation (NCV) in accordance with Section 2.3.2 of the NRC Enforcement Policy.

If you contest the subject or severity of this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Monticello Nuclear Generating Plant. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Monticello Nuclear Generating Plant.

T. O'Connor

-2-

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 document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/ By N. Shah Acting For/

Kenneth Reimer, Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000263/2010004
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: 05000263/2010004

Licensee: Northern States Power Company, Minnesota

Facility: Monticello Nuclear Generating Plant

Location: Monticello, MN

Dates: July 1 to September 30, 2010

Inspectors: S. Thomas, Senior Resident Inspector
L. Haeg, Resident Inspector
A. Scarbeary, Reactor Engineer
D. Sand, Acting Resident Inspector
R. Jickling, Senior Emergency Preparedness
Inspector

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

Enclosure

TABLE OF CONTENTS

SUMMARY OF FINDINGS	1
REPORT DETAILS	3
Summary of Plant Status.....	3
1. REACTOR SAFETY	3
1R01 Adverse Weather Protection (71111.01).....	3
1R04 Equipment Alignment (71111.04).....	4
1R05 Fire Protection (71111.05)	5
1R06 Flooding (71111.06)	6
1R07 Annual Heat Sink Performance (71111.07)	6
1R11 Licensed Operator Requalification Program (71111.11).....	7
1R12 Maintenance Effectiveness (71111.12).....	7
1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)	8
1R15 Operability Evaluations (71111.15)	12
1R18 Plant Modifications (71111.18).....	12
1R19 Post-Maintenance Testing (71111.19).....	13
1R22 Surveillance Testing (71111.22)	14
1EP2 Alert and Notification System Evaluation (71114.02).....	15
1EP3 Emergency Response Organization Augmentation Testing (71114.03)	16
1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05).....	16
1EP6 Drill Evaluation (71114.06).....	17
4. OTHER ACTIVITIES.....	17
4OA1 Performance Indicator Verification (71151, EP01, EP02, EP03)	17
4OA2 Identification and Resolution of Problems (71152)	20
4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)	22
4OA5 Other Activities	22
4OA6 Management Meetings.....	23
4OA7 Licensee-Identified Violations	23
SUPPLEMENTAL INFORMATION	1
Key Points of Contact.....	1
List of Items Opened, Closed and Discussed.....	1
List of Documents Reviewed	2
List of Acronyms Used	6

SUMMARY OF FINDINGS

IR 05000263/2010004; 07/01/2010 – 09/30/2010; Monticello Nuclear Generating Plant; Maintenance Risk Assessment and Emergent Work Control.

This report covers a three-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One Green finding was self-revealed. The finding was considered a non-cited violation (NCV) 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: Barrier Integrity

- Green. A finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when the licensee failed to adequately implement the requirements of their fleet tagging procedure, a procedure affecting quality, during the demolition of the 'A' train of the combustion gas control system (CGCS). This failure directly led to workers being unprotected from existing 24 Vdc, and potentially 120 Vac, during the removal of cables C259-SV40008A/1 and C259-SV4009A/1. In addition, cutting of the energized cables resulted in the loss of position indication for three primary containment isolation valves which are required by Technical Specifications. The licensee promptly took actions to restore the affected containment isolation valves to an operable status and entered this event into their corrective action program for further evaluation. 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 control components, and involving aspects associated with appropriately coordinating work activities by incorporating job site conditions which may impact human performance and plant systems and components. [H.3(a)]

The inspectors determined that the licensee's failure to adequately implement their work order planning and tagging processes to protect workers and equipment from existing electrical hazards during the demolition of the 'A' train of the CGCS system was a performance deficiency because it was the result of the failure to meet a requirement; the cause was reasonably within the licensee's ability to foresee and correct; and should have been prevented. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. Since the finding directly resulted in the loss of position indication for three containment isolation valves which are required by Technical Specifications, the inspectors evaluated the finding under the Containment Barrier Cornerstone. Utilizing Column 4 of the Table 4a worksheet, the inspectors answered "Yes" to question 1. Since the finding only resulted in the degradation of the radiological barrier function provided for the control room, auxiliary building, spent fuel pool, or standby gas treatment (SBGT) system, the finding was screened to be of very low safety significance. (Section 1R13)

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

Summary of Plant Status

Monticello operated at full power for most of the assessment period with the exception of brief downpower maneuvers to accomplish rod pattern adjustments and to conduct planned surveillance testing activities.

1. REACTOR SAFETY

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

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Impending Adverse Weather Condition – Thunderstorms/High Wind Conditions

a. Inspection Scope

Since thunderstorms with potential tornados and high winds were forecast in the vicinity of the facility for September 2010, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. On September 10, 2010, the inspectors walked down the areas adjacent to the switchyard and large station transformers, in addition to the licensee's emergency alternating current (AC) power systems, because their functions could be affected or required as a result of high winds, tornado-generated missiles, or the loss of offsite power. The inspectors evaluated the licensee staff's preparations against the site's procedures and determined that the staff's actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specific adverse weather conditions. The inspectors also toured the plant grounds to look for any loose debris that could become missiles during a tornado. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. Additionally, the inspectors reviewed the Updated Safety Analysis Report (USAR) and performance requirements for systems selected for inspection, 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. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings of significance 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:

- emergency diesel generator (EDG) fuel oil and air start systems;
- Division I emergency service water (ESW) system during the leak repair on Division II ESW;
- Division I core spray; and
- reactor core isolation cooling (RCIC).

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 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 of significance were identified.

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

On September 21, 2010, the inspectors performed a complete system alignment inspection of accessible portions of the 'B' residual heat removal (RHR) train to verify the functional capability of the system. This system was selected because it was considered both safety significant and risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment line ups; electrical power availability; system pressure and temperature indications, as appropriate; component labeling; component lubrication; component and equipment cooling; hangers and supports; operability of support systems; and to ensure that

ancillary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding WOs was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings of significance 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 23-A (intake structure pump room);
- Fire Zone 15-A and 15-B (11 and 12 diesel generator rooms and day tank rooms);
- Fire Zone 19-A and 19-B (essential motor control center (MCC) area);
- Fire Zone 2-A (traversing in-core probe (TIP) drive area); and
- Fire Zone 3-A (recirc motor generator set room).

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. The inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

1R06 Flooding (71111.06)

.1 Internal Flooding

a. Inspection Scope

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

- plant administrative building.

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

b. Findings

No findings of significance were identified.

1R07 Annual Heat Sink Performance (71111.07)

.1 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the licensee's testing of EDG ESW heat exchangers to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance; to identify any common cause issues that had the potential to increase risk; and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria; the correlation of scheduled testing and the frequency of testing; and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions; design conditions; and testing conditions. Documents reviewed for this inspection are listed in the Attachment to this report.

This annual heat sink performance inspection constituted one sample as defined in IP 71111.07-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On August 30, 2010, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification examinations to verify that operator performance was adequate; evaluators were identifying and documenting crew performance problems; and 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 of significance 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:

- reactor water cleanup (RWCU) system; and
- instrument and service air system.

The inspectors reviewed events in which 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

No findings of significance were identified.

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

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

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

- repair of pinhole leak on Division II ESW piping weld;
- failure of fusible link on fire door 18; and
- combustion gas control system (CGCS) demolition impacted Division I continuous air monitor (CAM) inboard isolation valve indications.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work; discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor; and verified plant conditions were

consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

Introduction

A finding of very low safety significance and non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when the licensee failed to adequately implement the requirements of their fleet tagging procedure, a procedure affecting quality, during the demolition of the 'A' train of CGCS. This failure directly led to workers being unprotected from existing 24 Vdc, and potentially 120 Vac, during the removal of cables C259-SV40008A/1 and C259-SV4009A/1. In addition, cutting of the energized cables resulted in the loss of position indication for three primary containment isolation valves which are required by TSs.

Description

Work Order 400982 was written to perform the removal of train 'A' of CGCS equipment. Two of the cables to be removed per this WO were C259-SV40008A/1 and C259-SV4009A/1. Each of these cables contained three conductors for valve position and two conductors for power to operate solenoid valves. One of the valve position conductors in each cable was energized with 24 Vdc and, for the solenoid power conductors, had the potential to be energized with 120 Vac. No cautions associated with the work plan addressed the potential for working with energized cables, nor was the clearance order associated with the WO adequate to protect the workers from existing or potential sources of electrical power. On July 13, 2010, during the demolition of abandoned CGCS equipment per WO 400982, construction personnel cut an energized 5 conductor cable which caused a short and blew a 5 amp fuse located in 24 Vdc, D15, circuit 5, which supplies the Division I CAM inboard isolation valve indicating lights. As a result of the cut cable and the blown fuse, 24 Vdc was not available for position indication for valves SV-4008A ['A' CGCS recombiner inlet to 'A' PCT H2/O2 analyzer], SV-4009A ['A' CGCS recombiner outlet to 'A' PCT H2/O2 analyzer], SV-4002A ['A' containment atmosphere monitor inboard isolation from torus], SV-4004A ['A' containment atmosphere monitor inboard return to torus], and SV-4020A ['A' drywell O2/H2 analyzer inboard isolation] and 120 Vac power was not available to the solenoid operators for SV-4008A and SV-4009A. Since the piping downstream of the SV-4008A and SV-4009A had already been physically disconnected and isolated from the containment atmosphere monitoring system, the actual impact of losing indication and operating power to these two valves was negligible. The loss of indication power to SV-4002A, SV-4004A, and SV-4020A, resulted in the operations department declaring these containment isolation valves inoperable and entering the Action statements of the applicable TSs.

As part of this inspection, the inspectors reviewed the licensee's procedures for WO planning and protective tagging activities. Procedure FP-WM-PLA-01, "Work Order Planning Process," Revision 9, Step 5.14.13, requires, in part, that the maintenance planner:

- research and specify the required safety information for the job per QF 2011 and site expectations, such as electrical safety and energized equipment hazards;
- initiate the clearance request, which should include equipment to be worked, energy sources to be isolated, equipment work conditions and supplemental information to aid Operations in the development of the clearance order per FP-OP-TAG-01, "Fleet Tagging Procedure."

Fleet Tagging Procedure, FP-OP-TAG-01, Section 3.10, outlines the duties of the work planner in the tagging process. Included in these duties, in part, are the following:

- provide the clearance order preparer with enough information regarding the scope of work to ensure adequate tagging boundaries can be developed;
- identify the equipment to be worked, energy sources to be isolated, and equipment work condition on the submittal of clearance request; and
- provide any additional tagging detail (isolation points, fuse removal, electrical equipment that operates at nominal voltages of 120 Vac/125 Vdc, breaker removal position, etc.) should be recommended by the work planner to assist the operations department in developing the clearance order.

The work planning and tagging activities associated with WO 400982 failed to identify and address the existing 24 Vdc and potential for 120 Vac to exist during the removal of cables C259-SV40008A/1 and C259-SV4009A/1.

The licensee entered this issue into their corrective action program (CAPs 1241245, 1241744, and 1241386). Immediate corrective actions taken by the licensee included replacing the blown 5 amp fuse and restoring SV-4002A, SV-2004A, and SV-4020A to an operable status. Additionally, to highlight the significance of the event, the licensee reset their site event clock and assembled a team to perform a root cause evaluation. Once completed, the inspectors reviewed the licensee's root cause evaluation report, "Workers not Protected during CGCS Cable Cut," which was associated with this event. In the report, the licensee concluded that the event root cause was "inadequate interface between work order planning and operations for clearance order preparation." In addition to the root cause, the following three contributing causes were documented:

- Clearance order reviewers did not understand the work scope in enough detail. The clearance order approval and contractor supervision review did not understand that one of the cables to be removed could be energized with 120 Vac. Reviews relied too much on clearance order preparer.
- Extended power uprate is causing a high work load for work order planners on operations clearance order preparation and review/approval. This work load may have contributed to the work order planner not signing off steps as they were being completed and, as a result, working them out of order. The work order tasks and the clearance order were prepared in parallel with the design work.
- Electricians did not contact their supervisor when energized cables were discovered. No energized cables were expected to be found, however,

9 to 14 Vdc, was found during the live-dead-live check. Due to faulty training materials, the voltage found was determined to be no issue and the electricians continued to cut the cables. This was the last barrier to preventing the event.

The inspectors reviewed the licensee's corrective actions associated with this event and determined that, if successfully implemented, these should be appropriate to address the performance deficiencies that led to this event.

Analysis

The inspectors determined that the licensee's failure to adequately implement their WO planning and tagging processes to protect workers and equipment from existing electrical hazards during the demolition of the 'A' train of the CGCS system was a performance deficiency, because it was the result of the failure to meet a requirement; the cause was reasonably within the licensee's ability to foresee and correct, and should have been prevented. Therefore, the performance deficiency was more than minor and a finding. 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 control components, and involving aspects associated with appropriately coordinating work activities by incorporating job site conditions which may impact human performance and plant systems and components. [H.3(a)]

The inspectors screened the performance deficiency per Inspection Manual Chapter (IMC) 0612, Power Reactor Inspection Reports, Appendix B, and determined that the issue was more than minor because, if left uncorrected, it could have the potential to lead to a more significant safety concern. The inspectors applied IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," to this finding. Since the finding directly resulted in the loss of position indication for three containment isolation valves which are required by TSs, the inspectors evaluated the finding under the Containment Barrier Cornerstone. Utilizing Column 4 of the Table 4a worksheet, the inspectors answered "Yes" to Question 1. Since the finding only resulted in the degradation of the radiological barrier function provided for the control room, auxiliary building, spent fuel pool, or standby gas treatment (SBGT) system, the finding was screened to be of very low safety significance. (Green).

Enforcement

Title 10 CFR 50, Appendix B, Criterion V requires, in part, that activities affecting quality shall be prescribed by documented procedures, of a type appropriate to the circumstances, and shall be accomplished in accordance with these procedures. Contrary to this requirement, the licensee failed to adequately implement the requirements of their fleet tagging procedure, a procedure affecting quality, during the demolition of the 'A' train of CGCS. This failure directly led to workers being unprotected from existing 24 Vdc and potentially 120 Vac during the removal of cables C259-SV40008A/1 and C259-SV4009A/1. In addition, cutting of the energized cables resulted in the loss of position indication for three primary containment isolation valves which are required by TSs. Because the violation was of very low safety significance and was entered into the licensee's corrective action program (ARs 1241245, 1241744, 1241386), this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy. (NCV 05000263/2010004-01, Inadequate Electrical Isolation during Demolition Activity).

1R15 Operability Evaluations (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues:

- ODMI 10-18, 15B feedwater heater tube leak, Revision 0;
- ODMI 10-18, 15B feedwater heater tube leak, Revision 4;
- ODMI 1207441-05, 12 recirc pump elevated vibration levels;
- CAP 1226968, cell 52 of 13 battery has a cracked top abnormality; and
- EC 16846, demonstrate secondary containment safety function was not lost when door 72 and door 82 for airlock 413 to the 985' pump room were inadvertently simultaneously opened on June 3, 2010, and August 5, 2010.

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.

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

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modification:

- EC 16342, install temporary battery to supply emergency seal oil pump and emergency lube oil pump during 17 battery replacement.

The inspectors compared the temporary configuration changes and associated 10 CFR 50.59 screening and evaluation information against the design basis; the USAR; and the TS; as applicable, to verify that the modification did not affect the operability or

availability of the affected system. The inspectors also compared the licensee's engineering documents to applicable operating experience information to ensure that lessons learned from other utilities had been incorporated into the licensee's decision to implement the temporary modification. The inspectors, as applicable, performed field verifications to ensure that the modifications were installed as directed; the modifications operated as expected; 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. Lastly, the inspectors discussed the temporary modification with operations, engineering, and training personnel to ensure that the individuals were aware of how extended operation with the temporary modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one temporary modification sample as defined in IP 71111.18-05.

b. Findings

No findings of significance 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:

- residual heat removal service water (RHRSW) quarterly pump and valve test subsequent to maintenance on BS-1955;
- RCIC quarterly pump and valve test subsequent to maintenance on MO-2096;
- core spray loop 'B' quarterly pump and valve test subsequent to maintenance on MO-1750; and
- RHRSW quarterly pump and valve test subsequent to maintenance on BS-1953.

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 TS, 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 four PM testing samples as defined in IP 71111.19-05.

b. Findings

No findings of significance 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:

- 0465-01; emergency filtration treatment system (routine);
- 0002; reactor high pressure scram function test (routine);
- 0255-0401A-1-1; RHR loop 'A' quarterly pump and valve test (in-service test (IST));
- 0255-05-1A-1 RHRSW loop 'B' quarterly pump and valve test (routine);
- 0255-01-1A Division II core spray (routine); and
- 0255-03-1A Division I core spray (routine).

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 were 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

(ASME) 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 five routine surveillance testing samples, and one IST sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings of significance 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 Monticello Plant's plume pathway Emergency Planning Zone. The inspectors reviewed monthly trend reports and the daily and monthly operability records from July 2008 through March 2010. Information gathered during document reviews and interviews was used to determine whether the ANS equipment was maintained and tested in accordance with Emergency Plan commitments and procedures. Documents reviewed are listed in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization Augmentation Testing (71114.03)

.1 Emergency Response Organization Augmentation Testing

a. Inspection Scope

The inspectors reviewed and discussed with plant EP management and staff the emergency plan commitments and procedures that addressed the primary and alternate methods of initiating an Emergency Response Organization (ERO) activation to augment the on-shift ERO as well as the provisions for maintaining the station's ERO qualification and team lists. The inspectors reviewed reports and a sample of corrective action program records of unannounced off-hour augmentation tests and pager test, which were conducted between July 2008 and April 2010, 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 16 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 augmentation testing inspection constituted one sample as defined in IP 71114.03 05.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

.1 Correction of Emergency Preparedness Weaknesses and Deficiencies

a. Inspection Scope

The inspectors reviewed a sample of Nuclear Oversight (NOS) staff's 2009 and 2010 audits of the Monticello Plant's 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 2009 biennial exercise, as well as various EP drills conducted in 2008, 2009, and 2010, 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 facility'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 EP weaknesses and deficiencies inspection constituted one sample as defined in IP 71114.05 05.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on August 11, 2010, to identify any weaknesses and deficiencies in classification; notification; and protective action recommendation development activities. The inspectors observed ERO in the simulated control room and emergency operations facility (EOF) to determine whether the event classification; notifications; and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any weakness identified by the inspectors with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

This EP drill inspection constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES**

4OA1 Performance Indicator Verification (71151, EP01, EP02, EP03)

.1 Mitigating Systems Performance Index - Emergency AC Power System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI) - Emergency AC Power System Performance Indicator (PI) for the period from the 3rd Quarter 2009 to 2nd Quarter 2010. 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, were used. The inspectors reviewed the licensee's operator narrative logs; MSPI derivation reports; issue reports; event reports; and NRC Integrated Inspection Reports for this period to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. 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.

This inspection constituted one MSPI emergency AC power system sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.2 Mitigating Systems Performance Index - High Pressure Injection Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - High Pressure Injection Systems PI for the period from the 3rd Quarter 2009 to the 2nd Quarter 2010. 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 narrative logs; issue reports; MSPI derivation reports; event reports; and NRC Integrated Inspection Reports for this period to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. 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.

This inspection constituted one MSPI high pressure injection system sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.3 Mitigating Systems Performance Index - Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Heat Removal System PI for the period from the 3rd Quarter 2009 to the 2nd Quarter 2010. 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 narrative logs; issue reports; event reports; MSPI derivation reports; and NRC Integrated Inspection Reports for this period to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. 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.

This inspection constituted one MSPI heat removal system sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.4 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill/Exercise Performance (DEP) PI for the period from the 3rd Quarter 2009 through 1st Quarter 2010. 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 DEP 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 2009 biennial exercise, and performance during other drills. Specific documents reviewed are described in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

.5 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 2009 through 1st Quarter 2010. 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 2009 biennial exercise and other drills; and revisions of the roster of personnel assigned to key emergency response organization positions. Specific documents reviewed are described in the Attachment to this report.

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

b. Findings

No findings of significance were identified.

.6 Alert and Notification System (ANS)

a. Inspection Scope

The inspectors sampled licensee submittals for the ANS PI for the period from the 3rd Quarter 2009 through 1st Quarter 2010. 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. Specific documents reviewed are described in the Attachment to this report.

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

b. Findings

No findings of significance 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: the complete and accurate identification of the problem; that timeliness was commensurate with the safety significance; that 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 attached List of Documents Reviewed.

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 of significance 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 of significance were identified.

.3 Selected Issue Follow-Up Inspection: Unplanned Limiting Condition for Operation (LCO) Entries

a. Inspection Scope

Following a baseline Reactor Oversight Program Inspection of items entered in the licensee's CAP regarding an adverse trend in local leak rate test (LLRT) failures for various safety and nonsafety-related motor-operated valves (MOVs), the inspectors reviewed other CAP documents related to these failures as a contributing cause for entry into unplanned LCO entries. Upon further review, it was revealed that there was additional documentation of weaknesses in work practice and oversight of supplemental and contractor personnel, separate from the MOV program, which had resulted in several other unplanned LCO entries since 2008.

The inspectors questioned the licensee about adequate station staffing; measures to improve contractor oversight; valve maintenance and work procedural changes; as well as other corrective actions documented in the CAP to prevent similar issues. (CAPs 1202466, 1247197 and 1249158)

Through interviews with applicable departments, as well as licensee management, the inspectors observed levels of awareness of this issue and noted that several effectiveness reviews needed to determine if the corrective actions were adequate would not be complete until 2011, after Refueling Outage 25.

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

b. Findings

No findings of significance were identified.

40A3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

.1 (Closed) Licensee Event Report (LER) 05000263/2010-001-00: Missed Safety Relief Valve Lift Test Surveillance Interval

On April 20, 2010, during a licensee review of industry operating experience (OE) associated with the testing requirements for Class 1 safety relief valves, the licensee discovered that their IST program guidance did not reflect current industry practices, in that it specified the five year testing interval for safety relief valve testing began at the time the valves were installed in the plant instead of starting when last tested. As a result of this oversight, the licensee determined that five of their eight safety relief valves had exceeded the five year testing periodicity, as required by the ASME Code and Surveillance Requirement 3.4.3.1. Upon discovery of this condition, the licensee declared the surveillance missed for these five valves and entered Surveillance Requirement 3.0.3. The subsequent risk assessment determined that the risk associated with this issue was minimal.

The licensee determined that the apparent cause which led to this event was a lack of clear formal guidance in their IST program regarding the review and use of interpretations when implementing code requirements. The licensee determined that the many collateral duties assigned to the IST program owner and a deficiency in how applicable OE was identified and screened also contributed to the occurrence of this event. The licensee entered this issue into their corrective action program as CAP 01228141. The inspectors evaluated this event and determined the LER to be closed.

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

.2 Failure of Y91 Uninterruptable Power Supply

On September 25, 2010, the site experienced a loss of the Y91 uninterruptable power supply, which resulted in a loss of power the safety parameter display system and the site computer servers, which, in turn, disabled the emergency response data system. In addition, in-house technical support center (TSC) telephones were lost, rendering the TSC non-functional. The licensee reported this event under 10 CFR 50.72(b)(3)(xiii).

The inspectors evaluated the licensee's actions to restore power to the loads served by Y91 and verified that the requirements of their Emergency Plan could be fulfilled by ensuring the availability of their alternate TSC.

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

40A5 Other Activities

.1 Institute of Nuclear Power Operations (INPO) Plant Assessment Report Review

a. Inspection Scope

The inspectors reviewed the final report for the INPO plant assessment conducted in November/December 2009. The inspectors reviewed the report to ensure that issues identified were consistent with the NRC perspectives of licensee performance and to verify if any significant safety issues were identified that required further NRC follow-up.

b. Findings

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On October 1, 2010, the inspectors presented the inspection results to Mr. O'Connor 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 Meeting

An interim exit was conducted for:

- The results of the Emergency Preparedness Program Inspection with Mr. O'Connor was conducted at the site on July 2, 2010.

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 Violations

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

T. O'Connor, Site Vice President
J. Grubb, Plant Manager
W. Paulhardt, Assistant Plant Manager
N. Haskell, Site Engineering Director
K. Jepson, Business Support Manager
S. Radebaugh, Maintenance Manager
M. Holmes, Radiation Protection/Chemistry Manager
D. Neve, Regulatory Affairs Manager
T. Blake, Fleet Emergency Preparedness Manager
J. Earl, Emergency Preparedness Manger
M. Holmes, Radiation Protection and Chemistry Manager
S. Sharp, Operations Manager

Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

05000263/2010004-01	NCV	Inadequate Electrical Isolation during Demolition Activity (Section 1R13)
---------------------	-----	--

Closed

05000263/2010004-01	NCV	Inadequate Electrical Isolation during Demolition Activity (Section 1R13)
05000263/2010-001-00	LER	Missed Safety Relief Valve Lift Test Surveillance Interval (Section 4OA3)

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

4 AWI-04.02.01; Housekeeping; Revision 17
1487; Site Housekeeping Quarterly Inspection; Revision 5

Section 1R04

2154-28; Diesel Generator Air Start System Prestart Valve Checklist; Revision 9
2124; Plant Prestart Checklist, Diesel Generators and Fuel Oil System; Revision 7
2154-34; ESW System Prestart Valve Checklist; Revision 26
2154-11; Core Spray System Prestart Valve Checklist; Revision 18
2154-13; RCIC System Prestart Valve Checklist; Revision 13
2154-12; RHR System Prestart Valve Checklist; Revision 44

Section 1R05

Strategy A.3-15-B; 11 DG Room and Day Tank Rooms; Revision 9
Strategy A.3-15-A; 12 DG Room; Revision 7
Strategy A.3-23-A; Intake Structure Pump Room; Revision 11
Strategy A.3-02-A; TIP Drive Area; Revision 4
Strategy A.3-19-A; Makeup Demin Area; Revision 7
Strategy A.3-19-B; Essential MCC Area; Revision 10
Strategy A.3-03-A; Recirc Motor Generator Set Room; Revision 5

Section 1RO6

PRA-CALC-04-001; Flood Areas
PRA-CALC-04-003; Flood Source Identification
PRA-CALC-04-004; Flood Initiating Event Frequencies
PRA-CALC-04-005; Equipment Vulnerabilities to Flooding
PRA-CALC-04-006; Flood Scenarios and Effects
C.4-I; Plant Flooding; Revision 5

Section 1RO7

1401-01; EDG ESW Heat Exchanger Performance Test; Revision 13
EWI-08.22.01; Generic Letter 89-013; Revision 5

Section 1R11

Simulator Exercise RQ-SS-67E

Section 1R12

MNGP System Health Report for RWCU; July 31, 2010
Ops Manual B.02.02-01; Revision 15
Ops Manual B.02.02-02; Revision 8
3494; RWCU System MOV Functional Analysis; Revision 7
AR 01202466; Adverse Trend in LLRTs for ADDDGV's; October 10, 2009
MNGP System Health Report for Instrument and Service Air; August 26, 2010

Section 1R13

CAP 1243027; Leakage at Weld on FSW Piping
WO 00409394; Repair Leak from Weld on FSW Piping
CAP 1248310; DOOR-18 Fusible Link Melted Requiring an Unplanned TS Entry
EC 15445; Potential LOOP Evaluation for Lower 4KV Room Flood
EC 15339; Lower 4KV Room Flood Affects on Offsite Power and 4KV
EC 15726; HELB Effect if Door 18 Closed
AR 1241245; Light Indication Lost on C-259 H2O2 Inboard Isolation Valves
AR 1241744; Relays Listed ss Retired Should be Inactive
AR 1241386; Cause of Entry into Unplanned Technical Specification Action
FW-WM-PLA-01; Work Order Planning Process; Revision 9
FP-OP-TAG-01; Fleet Tagging; Revision 9

Section 1R15

ODMI 10-18; 15B Feedwater Heater Tube Leak; Revisions 0, 1, 2, 3, and 4
ODMI AR1207441-05
Ops Manual; B.03.04-05; Revision 55
AR 01249558
AR 1226968; Cell 52 of 13 Battery has Cracked Top Abnormality
EC 16846; Demonstrate Secondary Containment Safety Function was not Lost When Door-72 and Door 82 for Airlock 413 to the 985' Pump Room were Inadvertently Simultaneously Opened on June 3, 2010, and August 5, 2010
8136; Secondary Containment Penetrations; Revision 17

Section 1R18

EC 16342; Install Temp 250 VDC Battery to Supply ESOP and EBOP during #17 Battery Replacement

Section 1R19

0255-08-1A-1; Quarterly Pump and Valve Test; Revision 65
0062; RCIC Steam Line High Area Temperature Test; Revision 24
0060; RCIC Hi Steam Flow and Low Steam Pressure Sensor Test; Revision 41
4900-01; PM for Limit Torque MOVs; Revision 30
WO 404787; MO-1750, Perform 4700-01
WO 399424; 0255-08-1A-1 RCIC Quarterly Pump and Valve Tests
WO 399254; PM 4900-01 for MO-2096
WO 406376; Perform PM for SW-22-2 12 RHRSW MTR
WO 398696; BS-1953, Clean and Inspect P-109A Motor Cooling Supply Strainer

Section 1R22

0465-01; Emergency Filtration Treatment System; Revision 35
0255-04-IA-1-1; RHR Loop 'A' Quarterly Pump and Valve Test; Revision 79
0002; Reactor High Pressure Scram Instrument Test and Calibration Procedure; Revision 25
4 AWI-09.04.01; IST Program; Revision 36
0255-03-1A-1-1; Core Spray Loop 'A' Quarterly Pump and Valve Tests; Revision 51
0255-05-1A-1-2; 'B' RHRSW Quarterly Pump and Valve Tests; Revision 71

Section 1EP2

Form 1359; Public Alert Notification Systems (PANS) Weekly Cancel Signal Test; Revision 14
Form 1409; Public Alert Notification Systems (PANS) Monthly Siren Activation Testing;
Revision 14
Test 1359; Public Alert Notification Systems (PANS) Weekly Cancel Signal Test Results;
July 2009 - March 2010
Surveillance 1409; Public Alert Notification Systems (PANS) Monthly Siren Activation Testing
Results; July 2008 – March 2010
AR 01239635; ERO Roster Incorrectly Indicated EOF EM was Qualified; June 30, 2010
AR 01239634; Ensure Repair and Damage Control Team Members Training is Documented;
June 30, 2010
AR 01239298; Lost Ultrahigh Frequency [UHF] Communications with Sirens; June 29, 2010
AR 01237718; Inadvertent Siren Activation in Sherburne County; June 17, 2010
AR 01237583; Sherburne County Sirens Failed Weekly Cancel Test; June 16, 2010
AR 01202554; Siren S-28 Battery Issue; October 14, 2009

Section 1EP3

Emergency Plan, Section 5.0; Organizational Control of Emergencies; Revision 33
Form 5790-001-01; Emergency Response Organization Staffing; Revision 82
QF-1020-03; Monticello Emergency Plan Training Program Description; Revision 1
Test 1317; Emergency Alert Notification Systems Test Surveillance; Revision 17
Emergency Alert Notification Systems Test Records; July 2008 through April 2010
AR 01239635; TSC Emergency Manager on Form 5790-01-01 had not Received Annual
Requalification Training; June 30, 2010
AR 01217042; Individual did not Respond to EP Call-Out Page Test; February 5, 2010
AR 01204634; ERO Augmentation Test - Notable Vulnerabilities; October 28, 2009

Section 1EP5

FP-EP-SURV-05; Requirements for Annual Independent Review of EP Program; Revision 0
2010-01-010; NOS Observation Report, Emergency Planning State and Local Interface
Adequacy; March 17, 2010
2010-01-007; NOS Observation Report, Emergency Preparedness Assessment;
February 11, 2010
2009-01-029; NOS Observation Report, EP State and Local; April 7, 2009
2009-01-028; NOS Observation Report, Emergency Planning Assessment; April 7, 2009
Event Summary Report; September 17, 2008, Unusual Event; Revision 2
AR 01215924; Site EP Precursors to Further Declining Performance; January 29, 2010
AR 01215719; Shift Emergency Communicator Position not Dedicated during All Emergency
Events; January 28, 2010

AR 01195104; Adverse Trend-Missed DEP Classification Opportunities; August 25, 2009
AR 01206017; SnapShot Report, Pre-NRC EP Program Inspection Readiness; June 21, 2010

Section 4OA1

MSPI Derivation Report; Unreliability Index; Emergency AC Power Systems; June 2010
MSPI Derivation Report; Unavailability Index; Emergency AC Power Systems; June 2010
MSPI Derivation Report; Performance Limit Exceeded; Emergency AC Power Systems;
June 2010
MSPI Derivation Report; Unreliability Index; Heat Removal System; June 2010
MSPI Derivation Report; Unavailability Index; Heat Removal System; June 2010
MSPI Derivation Report; Performance Limit Exceeded; Heat Removal System; June 2010
MSPI Derivation Report; Unreliability Index; High Pressure Injection System; June 2010
MSPI Derivation Report; Unavailability Index; High Pressure Injection System; June 2010
MSPI Derivation Report; Performance Limit Exceeded; High Pressure Injection System;
June 2010
Quarterly ANS Reliability Performance Indicator Summaries; July 2009 - March 2010
Quarterly Drill and Exercise Performance Indicator Opportunities; July 2009 – March 2010
Quarterly ERO Participation Sheets; September 2009 - March 2010
Form 3695; Weekly EP Performance Records and Documents; July 2009 - March 2010
AR 01217290; EP DEP Opportunity Cancelled for SM Unavailability; February 8, 2010
AR 01216118; ERO Personnel Make Knowledge Based Errors; January 30, 2010

Section 4OA2

AR 01247197; Work Practices/Oversight-Supplemental Personnel; August 8, 2010
AR 01249158; Contractor Oversight Insufficient to Prevent Perf Issues; September 9, 2010
AR 01228190; Weak Barriers in Work Management; April 20, 2010
AR 01202466; Adverse Trend in LLRTs for ADDDGV's; October 10, 2009
AR 01231269; Adverse Trend – Unplanned Shutdown LCO Entries; May 5, 2010
AR 01130834; Adverse Trend in Important Equipment Failures; March 12, 2008
AR 01184941; Adverse Trend – Work Plan Changes Made Without Review; June 9, 2009
MMP-005; Valve Repair Instructions; Revision 17
New Station Work Plan Template for Anchor Darling Double Disc Gate Valves

Section 4OA3

CAP 1228141; Safety Relief Valve [SRV] Lift Test Surveillance Interval Potentially Missed
CAP 1236079; Improper Interlock Testing on Secondary Containment Doors
CAP 1078818; Both 985' RW Pump Room Airlock Doors Opened Simultaneously
CAP 1235877; Secondary Containment Lost at 985' Rad Waste Pump/Tank Room
CAP 1244459; Door 72 and Door 82 (Secondary Containment Airlocks) Opened Simultaneously
CAP 1251383; Y91 (480V AC UPS) Failure

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
ANS	Alert and Notification System
AR	Action Request
ASME	American Society of Mechanical Engineers
CAM	Continuous Air Monitor
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CGCS	Combustion Gas Control System
DEP	Drill/Exercise Performance
DRP	Division of Reactor Projects
EDG	Emergency Diesel Generator
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
ESW	Emergency Service Water
IMC	Inspection Manual Chapter
INPO	Institute of Nuclear Power Operations
IP	Inspection Procedure
IST	In-Service Test
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LLRT	Local Leak Rate Test
MCC	Motor Control Center
MOV	Motor-Operated Valve
MSPI	Mitigating Systems Performance Index
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NOS	Nuclear Oversight
NRC	U.S. Nuclear Regulatory Commission
OE	Operating Experience
PARS	Publicly Available Records System
PCT	Primary Containment
PI	Performance Indicator
PM	Planned, Preventative Maintenance, or Post-Maintenance
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
RWCU	Reactor Water Cleanup
SBGT	Standby Gas Treatment
SDP	Significance Determination Process
SSC	Structure, System, and Component
TIP	Traversing In-Core Probe
TS	Technical Specification
TSC	Technical Support Center
USAR	Updated Safety Analysis Report
Vac	Volts Alternating Current
Vdc	Volts Direct Current
WO	Work Order

T. O'Connor

-2-

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 document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/ By N. Shah Acting For/

Kenneth Reimer, Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000263/2010004
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

DISTRIBUTION:
See next page

DOCUMENT NAME: G:\DRPIII\1-Secy\1-Work In Progress\MON 2010 004.docm
 Publicly Available Non-Publicly Available Sensitive Non-Sensitive
To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII	E	RIII	N	RIII		RIII
NAME	NShah for KRiemer:cs		NShah for CScott				
DATE	11/03/10		11/03/10				

OFFICIAL RECORD COPY

Letter to T. O'Connor from K. Riemer dated November 3, 2010

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT
INTEGRATED AND POWER UPRATE INSPECTION REPORT
05000263/2010004

DISTRIBUTION:

Daniel Merzke
RidsNrrDorLp3-1 Resource
RidsNrrPMMonticello
RidsNrrDirslrib Resource
Steven West
Steven Orth
Jared Heck
Allan Barker
Carole Ariano
Linda Linn
DRPIII
DRSIII
Patricia Buckley
Tammy Tomczak
[ROPreports Resource](#)