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

November 18, 2016

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

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT—NRC BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000263/2016007

Dear Mr. Gardner:

On October 7, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution biennial inspection at your Monticello Nuclear Generating Plant. The enclosed inspection report documents the inspection results which were discussed on October 7, 2016, with you and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to problem identification and resolution and compliance with the Commission's rules and regulations and the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the inspection samples, the inspection team determined that your staff's implementation of the corrective action program (CAP) supported nuclear safety. Specifically, the station had a low threshold for identifying problems and entering them into the CAP. Items entered into the CAP were generally screened and prioritized in a timely manner using established criteria; were generally evaluated commensurate with their safety significance; and in most cases, corrective actions were implemented in a timely manner, commensurate with the safety significance.

The team also evaluated other processes your staff used to identify issues for resolution. These included your use of audits and self-assessments to identify latent problems and your incorporation of lessons-learned from industry operating experience into station programs, processes, and procedures. The team determined that your station's performance in each of these areas supported nuclear safety. However, the team was unable to make a complete assessment of your Department Action Request process, as this program was only recently implemented.

Finally, the team determined that your station's management maintains a safety-conscious work environment adequate to support nuclear safety. Based on the team's observations, your employees are willing to raise concerns related to nuclear safety.

One NRC-identified finding of very low safety significance (Green) was identified which 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 this 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 the findings 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 and 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 Agency wide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

Docket No. 50–263
License No. DPR–22

Enclosure:
Inspection Report 05000263/2016007

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50–263
License No:	DPR–22
Report No:	05000263/2016007
Licensee:	Northern States Power Company, Minnesota
Facility:	Monticello Nuclear Generating Plant
Location:	Monticello, MN
Dates:	September 19 through October 7, 2016
Inspectors:	N. Shah, Project Engineer (Team Lead) A. Dahbur, Senior Reactor Inspector D. Krause, Resident Inspector J. Park, Reactor Inspector
Approved by:	K. Riemer, Chief Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

Inspection Report 05000263/2016007, 09/19/2016–10/7/2016; Monticello Nuclear Generating Plant; Problem Identification and Resolution.

This inspection was performed by a resident inspector and three NRC regional inspectors. One Green finding was identified by the inspectors. The finding was considered a non-cited violation of NRC regulations. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process," Revision 5, dated February 2014.

Problem Identification and Resolution

On the basis of the samples selected for review, the team concluded that implementation of the corrective action program (CAP) at the Monticello Nuclear Generating Plant was effective. The licensee had a low threshold for identifying problems and entering them into the CAP. Items entered into the CAP were screened and prioritized in a timely manner using established criteria; were properly evaluated commensurate with their safety significance; and corrective actions were implemented in a timely manner, commensurate with the safety significance. Operating experience was integrated into daily activities and entered into the CAP and evaluated for applicability to station activities and equipment. Audits and self-assessments were performed at appropriate frequencies and at an appropriate level to identify issues. The assessments reviewed were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. Based on several interviews conducted by the inspectors, workers at the site expressed freedom to enter safety concerns into the CAP. The inspectors did not identify any impediments to the establishment of a safety conscious work environment at the Monticello Nuclear Generating Plant.

Previously, all issues were handled through the CAP, allowing for a consistent process for screening, prioritizing, and cross-referencing of issues for resolution. However, the licensee recently implemented a non-CAP Action Request process to resolve issues or track work items that do not correct potential conditions adverse to quality. This was done to reduce the CAP burden and allow for more efficient focus on actionable items. The inspectors noted that some of these items may include issues that while not being conditions adverse to quality, may be significant in part, due to their potential impact on plant operation. Additionally, the inspectors noted that this process did not have controls over screening, prioritization and cross-referencing of items similar to the CAP. For example, non-CAP items were not required to be screened by a multi-disciplinary group (as required for CAP items) for disposition; instead, they went directly to the appropriate department(s). There were also no metrics or clear instructions in the audits and self-assessment programs to appropriately evaluate whether non-CAP items were being properly addressed. This introduced a vulnerability in that potentially significant items could be inappropriately handled.

Given the recent implementation, the inspectors could not fully evaluate the effectiveness of the non-CAP process; however, during a selective review of non-CAP issues identified since implementation the inspectors did not find any examples which were inappropriately handled.

Cornerstone: Mitigating Systems

Green. The inspectors identified a finding of very low safety significance and non-cited violation of Title 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings,” for the licensee’s failure to prescribe a procedure appropriate to the circumstances with respect to the identification of a significant condition adverse to quality (SCAQ). Specifically, FP–PA–ARP–01, “CAP Action Request Process,” provided an overly restrictive definition of what constituted a SCAQ. Consequently, the failure to provide an adequate definition of a SCAQ could result in a failure to identify a SCAQ and therefore, failure to implement corrective actions that preclude repetitive failures of safety-related equipment. The licensee entered this issue into the CAP as action request (AR) 1536735.

The inspectors determined that the licensee’s failure to prescribe a procedure appropriate to the circumstances under FP–PA–ARP–01 was a performance deficiency. The performance deficiency was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," because, if left uncorrected the performance deficiency would have the potential to lead to a more significant safety concern. Although, this issue could potentially affect each of the Reactor Safety Cornerstones, the inspectors elected to evaluate this issue under the Mitigating Systems Cornerstone because inspectors concluded it impacted the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage) more than the attributes of the other Cornerstones. The inspectors utilized IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Initial Characterization of Findings,” and IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” and determined that the finding screened as very low safety significance (Green) since the inspectors answered “No” to each of the questions in Exhibit 2, Section A, “Mitigating Systems Screening Questions.” The inspectors determined that the performance characteristic of the finding that was the most significant causal factor of the performance deficiency was associated with the cross-cutting aspect of Problem Identification and Resolution, Self-Assessment, and involving the organization routinely conducting self-critical and objective assessments of its programs and practices. Specifically, the failure to identify the overly restrictive definition of SCAQ during previous audits of the CAP was caused by an insufficiently self-critical audit focus. [P.6] (Section 4OA2.1.b(2))

Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152B)

The activities documented in Sections .1 through .4 constituted one biennial sample of problem identification and resolution as defined in Inspection Procedure 71152.

.1 Assessment of the Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program (CAP) implementing procedures and attended CAP meetings to assess the implementation of the CAP by site personnel.

The inspectors reviewed risk and safety significant issues in the licensee's CAP since the last U.S. Nuclear Regulatory Commission (NRC) problem identification and resolution inspection in May 2014. The selection of issues ensured an adequate review of issues across NRC cornerstones. The inspectors used issues identified through NRC generic communications, department self-assessments, licensee audits, operating experience reports, and NRC documented findings as sources to select issues. Additionally, the inspectors reviewed issue reports (IRs) generated as a result of facility personnel's performance in daily plant activities. In addition, the inspectors reviewed IRs and a selection of completed investigations from the licensee's various investigation methods, which included root cause evaluations, apparent cause evaluations (ACEs), equipment apparent cause evaluations, causal evaluations, and human performance investigations.

In addition, the inspectors performed a 5-year review to assess the licensee staff's efforts in monitoring for system degradation due to aging aspects.

During the reviews, the inspectors determined whether the licensee staff's actions were in compliance with the facility's CAP and 10 CFR Part 50, Appendix B requirements. Specifically, the inspectors determined if licensee personnel were identifying plant issues at the proper threshold, entering the plant issues into the station's CAP in a timely manner, and assigning the appropriate prioritization for resolution of the issues. The inspectors also determined whether the licensee staff assigned the appropriate investigation method to ensure the proper determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions for selected IRs. This included completed investigations and NRC findings, including non-cited violations (NCVs).

b. Assessment

(1) Effectiveness of Problem Identification

Based on the results of the inspection, the inspectors concluded that problem identification was generally effective. Based on the information reviewed, the inspectors determined that licensee personnel had a low threshold for initiating CAP items; station personnel appropriately screened issues from both the NRC and industry operating

experience at an appropriate level and entered them into the CAP when applicable; and identified problems were generally entered into the CAP in a complete, accurate, and timely manner.

The inspectors determined that the station was generally effective at trending low level issues to prevent larger issues from developing. The licensee also used the CAP to document instances where previous corrective actions were ineffective or were inappropriately closed.

The licensee recently implemented a non-CAP Action Request process to resolve issues or track work items that do not correct potential Conditions Adverse to Quality. This was done to reduce the CAP burden and allow for more efficient focus on actionable items. While most of these issues were low level items (such as procedural change requests or other administrative actions), the inspectors noted that other, potentially more significant items could be included in this process. Some of these items could involve issues affecting plant operation even if not specifically defined as Conditions Adverse to Quality. Because the non-CAP process was less rigorous than the CAP in that it did not have similar controls for screening, prioritizing and cross-referencing, it was possible for these more significant issues to be inappropriately handled. Additionally, the inspectors noted that there were no clear metrics or instructions in the licensee audit or self-assessment programs to evaluate the implementation of the non-CAP process.

Because of its recent implementation, the inspectors could not fully evaluate the effectiveness of the non-CAP process; however, a selective review of recent non-CAP issues did not identify any examples which were inappropriately handled. The licensee documented the inspectors' observations as CAP items 1535376 and1535381.

The inspectors identified two examples where potential operability/design issues were identified during cause evaluations, but there was no corresponding CAP item to address them. One of the examples concerned a potential design deficiency in which both trains of residual heat removal could be lost if suction valve indication power was lost; the other concern was the failure to evaluate the effect of temperature rise on the rating for the thermal overload for the emergency diesel generator fuel transfer pumps, after identifying errors in the calculations for maximum room temperatures. The licensee subsequently determined that there was no immediate operability concerns and documented these issues as CAP items 1537040 and 1537019 for further evaluation.

Findings

No findings were identified.

(2) Effectiveness of Prioritization and Evaluation of Issues

Based on the results of the inspection, the inspectors concluded that identified problems were generally prioritized and evaluated commensurate with their safety significance, including an appropriate consideration of risk. Higher level evaluations, such as root cause evaluations and ACEs were generally technically accurate; of sufficient depth to effectively identify the cause(s); and adequately considered extent of condition, generic implications, and previous occurrences.

The inspectors determined that the CAP screening meetings were generally thorough, that issues were accurately prioritized issues, and that meeting participants were actively engaged and well-prepared. The inspectors also determined that licensee personnel evaluated equipment operability and functionality requirements adequately after a degraded or non-conforming condition was identified, and that appropriate actions were assigned to correct the degraded or non-conforming condition.

Findings

Inadequate Procedure for Identification of Significant Conditions Adverse to Quality

Introduction: The inspectors identified a Green finding and NCV of Title 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," for the licensee's failure to prescribe a procedure appropriate to the circumstances with respect to the identification of a SCAQ. Specifically, FP–PA–ARP–01, "CAP Action Request Process," provided an overly restrictive definition of what constituted a SCAQ. Consequently, the failure to provide an adequate definition of a SCAQ could result in a failure to identify a SCAQ and therefore, failure to implement corrective actions that preclude repetitive failures of safety-related equipment.

Description: On October 3, 2016, the inspectors identified that licensee procedure FP–PA–ARP–01, "CAP Action Request Process," provided an overly restrictive definition of SCAQ as compared to the definition identified in ASME NQA–1, "Quality Assurance Requirements for Nuclear Facility Applications." The inspectors were concerned that failure to provide a procedure, appropriate to the circumstances with respect to identification of a SCAQ could result in the failure to implement corrective actions that preclude repetitive failures of safety-related components.

In the licensee's QATR (NSPM–1), Section B.13 "Corrective Action," the licensee committed to compliance with the 1994 Edition of NQA–1, "Quality Assurance Requirements for Nuclear Facility Applications," in establishing provisions for corrective actions and control of non-conforming items. In NQA–1, a SCAQ was defined as "one which, if uncorrected, could have a serious effect on safety or operability." However, in Step 4.31 of FP–PA–ARP–01, the licensee defined a SCAQ as "a condition (CAQ) that, if uncorrected, could have a serious effect on safety or operability. That is, the CAQ could reasonably prevent the assurance of the following:

- Integrity of the reactor coolant pressure boundary;
- Capability to shut down the reactor and maintain it in a safe shutdown condition; and
- Capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the guideline exposures of 10 CFR Part 100 or 10 CFR50.67, as applicable."

The inspectors noted that the FP–PA–ARP–01 SCAQ definition added three specific bulleted criteria to the NQA–1 definition which further defined the SCAQ. With these changes, the inspectors concluded that the licensee had created an overly restrictive definition of what constituted a SCAQ at the station. The inspectors did not identify an example where an item was not identified as a SCAQ, if appropriate. The licensee subsequently entered this issue into the CAP as AR 1536735.

Analysis: The inspectors determined that the licensee's failure to prescribe a procedure appropriate to the circumstances with respect to identification of a SCAQ was a performance deficiency. The performance deficiency was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," because, if left uncorrected the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the failure to provide an adequate definition of a SCAQ could result in a failure to identify a SCAQ and therefore, failure to implement corrective actions that preclude repetitive failures of safety-related equipment. Although, this issue could potentially affect each of the Reactor Safety Cornerstones, the inspectors elected to evaluate this issue under the Mitigating Systems Cornerstone because inspectors concluded it impacted the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage) more than the attributes of the other Cornerstones.

Using the Initiating Events Cornerstone, Exhibit 2 of IMC 0609, Appendix A, "The SDP for Findings At-Power," Mitigating Systems Screening Questions; the inspectors concluded the finding to have very low safety significance (Green) because all the screening questions were answered "No." Specifically, the inspectors did not identify an example where the failure to provide a procedure appropriate to the circumstances with respect to identification of a SCAQ had resulted in repetitive failures of safety-related equipment. The finding was determined to have a cross-cutting aspect in the area of problem identification and resolution, self-assessment component, because the licensee failed to perform sufficiently self-critical assessments of the CAP process. Specifically, the failure to identify the overly restrictive definition of a SCAQ during previous audits of the CAP was caused by an insufficiently self-critical audit focus. [P.6]

Enforcement: Title 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," requires in part, that activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances.

Contrary to this requirement, prior to October 3, 2016, the licensee had not prescribed a procedure appropriate to the circumstances for identification of a SCAQ. Specifically, the procedure FP–PA–ARP–01, "CAP Action Request Process," definition of a SCAQ was not appropriate for the circumstances. Because this violation is of very low safety significance was entered into the corrective action program, this violation is being treated as a non-cited violation consistent with Section 2.3.2 of the NRC Enforcement Policy. **(NCV 05000263/2016007–01; Inadequate Procedure for Identification of Significant Conditions Adverse to Quality)**

(3) Effectiveness of Corrective Actions

Based on the results of the inspection, overall, the corrective actions reviewed were found to be appropriately focused to correct the identified problem and were generally implemented in a timely manner commensurate with the issues' safety significance. Problems identified through root or apparent cause evaluations were generally resolved in accordance with the CAP procedures and regulatory requirements. Corrective actions intended to prevent recurrence were generally comprehensive, thorough, and timely.

The corrective actions associated with selected NRC documented findings and violations, as well as licensee-identified violations, were generally appropriate to correct the problem and were implemented in a timely manner.

The inspectors identified several examples where items were inappropriately documented in the CAP making it difficult to determine whether issues were being properly addressed. The examples included, but were not limited to, incorrect cross-referencing of CAPs, failure to assign action items and inaccurate/incorrect info. In most cases, the inspectors eventually determined that the respective issues were properly resolved. However, the inspectors noted one example, involving a condition adverse to quality associated with a potential unanalyzed high energy line break on the reactor core isolation cooling system (AR 1185959), where it was unclear if the issue had been resolved. Although the inspectors eventually concluded that the issue was addressed, the incomplete documentation was partially responsible for the issue remaining open in the CAP since June 2009. The licensee documented the overall concerns as CAP items 1536953 and 1536960. Additionally, separate CAP items were also generated for the individual examples identified by the inspectors. These CAP items are listed in the attached "List of Documents Reviewed" to this report.

The inspectors also noted that several examples where numerous due date extensions were often granted, often unnecessarily delaying the timely resolution of issues. Although the extensions were granted in accordance with the CAP procedures, the inspectors questioned whether the extensions were rigorously challenged by the station. One example concerned CAP 1351259, regarding whether the licensee's initial operating licensing training program complied with the Technical Specifications. The inspectors noted that although the licensee determined that the program was compliant, a recommended corrective action to clarify the program requirements remained unimplemented for 4 years due to various extensions. As part of a self-assessment conducted prior to the NRC inspection, the licensee identified the delay and was able to promptly correct the issue within 10 days. The licensee documented the overall issue regarding the adequacy of due date extensions as CAP item 1538798.

Findings

No findings were identified.

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's Operating Experience (OE) program. Specifically, the inspectors reviewed implementing OE program procedures, attended CAP meetings to observe the use of OE information, completed evaluations of OE issues and events, and selected monthly assessments of the OE composite performance indicators. The inspectors' review was performed to determine whether the licensee was effectively integrating OE experience into the performance of daily activities, whether evaluations of issues were proper and

conducted by qualified personnel, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE experience, were identified and effectively and timely implemented.

b. Assessment

In general, OE was appropriately used at the station. The inspectors observed that OE was discussed as part of the daily station and pre-job briefings. Industry OE was disseminated across the various plant departments. No issues were identified during the inspectors' review of licensee OE evaluations. The inspectors also verified that the use of OE in formal CAP products such as root cause evaluations and equipment apparent cause evaluations was appropriate and adequately considered. Generally, OE that was applicable to Monticello was thoroughly evaluated and actions were implemented in a timely manner to address any issues that resulted from the evaluations.

Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors assessed the licensee staff's ability to identify and enter issues into the CAP program, prioritize and evaluate issues, and implement effective corrective actions, through efforts from departmental assessments and audits.

b. Assessment

Based on the results of the inspection, the inspectors did not identify any issues of concern regarding the licensee's ability to conduct self-assessments and audits. Assessments were conducted in accordance with plant procedures, were generally thorough and intrusive, adequately covered the subject area, and were effective at identifying issues and enhancement opportunities at an appropriate threshold. Identified issues were entered into the CAP with an appropriate significance characterization and corrective actions were completed and/or scheduled to be completed in a timely manner commensurate with their safety significance.

Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors assessed the licensee's safety conscious work environment through the reviews of the facility's employee concern program implementing procedures, discussions with coordinators of the employee concern program, interviews with

personnel from various departments, and reviews of issue reports. In order to assess Monticello safety culture, interviews were conducted with a representative group of station employees over the course of the first and third weeks of the inspection. Additionally, the site's most recent safety culture assessment was reviewed and the Employee Concerns Program coordinators were interviewed.

b. Assessment

Based on the results of the inspection, the inspectors did not identify any issues that suggested conditions were not conducive to the establishment and existence of a safety conscious work environment at Monticello. Information obtained during the interviews indicated that an environment was established where licensee employees felt free to raise nuclear safety issues without fear of retaliation; were aware of and generally familiar with the CAP and other processes, including the Employee Concerns Program and the NRC, through which concerns could be raised; and safety significant issues could be freely communicated to supervision.

The inspectors performed a selective review of issues identified through the Employee Concerns Program since 2014, and did not identify any significant trends or issues.

Findings

No findings were identified.

4OA6 Management Meeting

Exit Meeting Summary

On October 7, 2016, the inspectors presented the inspection results to Mr. P. Gardner 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

Don Bosnic, Business Support Director
Dan Crofoot, Corporate Functional Area Manager
Gene Foote, Performance Improvement Manager
Peter Gardner, Site Vice-President
Harlan Hanson, Plant Manager
Michelle Kelly, Human Performance and Organizational Effectiveness Manager
Mark Lingenfelter, Director of Engineering
Kevin Nyberg, Security Manager
Kent Scott, Director of Site Operations
Rick Stadtlander, System Engineering Manager
Anne Ward, Regulatory Affairs Manager

U.S. Nuclear Regulatory Commission

P. Zurawski, Senior Resident Inspector, Monticello
K. Riemer, Branch Chief

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000263/2016007–01;	NCV	Inadequate Procedure for Identification of Significant Conditions Adverse to Quality (Section 4OA2.1.b (2))

Closed

05000263/2016007–01;	NCV	Inadequate Procedure for Identification of Significant Conditions Adverse to Quality (Section 4OA2.1.b (2))

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections of 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.

Procedures

Number	Description or Title	Revision
4066-PM	D10 Battery Charger Preventive Maintenance	03
ACAD 10-001	Guidelines for Initial Training and Qualification of Licensed Operators	00
FL-ILT	Initial License Training Program	14
FP-NO-AS-03	Selection and Scheduling of Independent Assessments	05
FP-NO-IA-12	Nuclear Oversight Issue Characterization and Tracking	06
FP-OP-PEQ-01	Protected Equipment Program	14
FP-PA-ACE-01	Apparent Cause Evaluation Manual	03
FP-PA-ARP-01	CAP Action Request Process	46
FP-PA-ARP-01	CAP Action Request Process	45
FP-PA-HU-02	Human Performance Tools	10
FP-PA-OE-01	Operating Experience Program	24
FP-T-SAT-74	NRC Operator License Application and Renewal Requirements	10
FP-T-SAT-80	Simulator Configuration Management	08
NSPM-1	Quality Assurance Topical Report	09
QF107402	Licensed Operator Exam Review Checklist	03
9506	Dry Shielded Canister Sealing	09
FP-NO-SAS-08	Project Oversight	02
FP-PA-HU-01	Human Performance Program	16
FP-OP-OL-01	Operability/Functionality Determination	17
CD 2.1	Nuclear Oversight	11
FP-PA-DRUM-01	Department/Functional Area Roll-up Meeting (DRUM) & Fleet Analysis Manual	7
FP-EC-ERB-01	Employee Concerns Program	7
FP-PA-ARP-03	Non-CAP Action Request Process	10
FP-PA-OE-01	Operating Experience Program	23

Action Requests

Number	Description or Title
01351259	Discrepancy Between Fleet Process and Tech Spec
01414164	2014 Operator Burden Tracking GAR
01437742	MO-2373 MSLD has Packing Leak
01447881	Improper Closing of Assignment in EPU HELB ACE 01131913
01448769	C&D Tech Identified Issue with Battery Separator Plates

01476012	Enforcement Guidance Memo Invoked for OPDRV
01477253	Complete an LER for OPDEV Activity Implementing EGM 11-003
01479284	NRC RI OPDRV Comment
01481621	MO-2003; 12 RHR Hx Bypass Won't Open with Handswitch
01483971	SVOS-4 Failed during 0009 Stop Valve Test
01486730	Potential Trend in Violations in Program Engineering Functional Area
01505696	V-AC-8A, HPCI Room Cooler, Has a Cooling Coil Leak
01506875	RC-8 Water Leakage has Increased
01507516	2016 Operator Burden Tracking GAR
01518988	Hot Spot – 2RS XFMR Secondary B-Phase Bushing 34.5KV
01457891	Tubing Support for 12 EDG FO Pressure Indicator Is Broken
01456958	Vehicle Allowed Access Past OCA Checkpoint Without Search
01472302	Potential Adverse Trend In Partial IMUX Failures
01485847	Improperly Stored Flammable Liquid in the SAF
01476400	RFO27 IVVI: Shroud Welds Need Addtl Analysis for Acceptance
01243258	PIR FSA – Level B CAP 1131704 w/o CA to Track WO Completion
01248071	PI&R FSA Common Issue: Timeliness of Actions
01447383	OE: SOE 14-079 X-Ray Search Equipment PM
01453744	Potential Gap Identified in X-Ray Calibration Procedure
01457375	OE: NRC LER 2472013004 Pin Hole Leaks in Code Class 3 SW Pipe
01462542	Ineffective Tracking of Recommended Corrective Actions
01462405	Service Water RAD Monitor Piping is Nearing Minimum Wall Thickness
01505552	OE: NRC Preliminary White Finding at Dresden – EDG Maintenance
01459910	V-MZ-1 Has a Heating Coil Leak
01524516	Door-142 Has Hole Between Frame and Wall
01474434	Missed QC Hold Points in WO 505386-23
01477412	Anchor Bolts Not Installed According to MWI
01447016	Insulation Inappropriately Applied to RHRSW Pipe
01474993	ESW-1-2, Disc Stud Found with Fracture
01500353	Configuration of the T-44 Diesel Tank Vent Line is Incorrect
01446727	Loss of Power to Security UPS
01455831	Inadequate Thread Engagement
01483250	Safeguards Information (SGI) Control Issue
01471070	Security T-Wall Barrier Obstructed
01185959	RCIC HELB at MO-2078 and its Effect on MCC-311
01496761	Potential Non-Conservative TS for EDG Voltage
01351819	11 Critical Relays Installed by EPU With No PMs
01477810	Preliminary Draft of CA 94-017 Increases TS SR 3.5.1.3.b
01478074	Ineffective Corrective Action for NRC Identified Issue
01505395	NOS Finding: MRs for NSR Parts for SR Applications
01512859	NOS Finding: No Causal Evaluation for an LER Event
01474070	Tygon Tubing Burst During LLRT Test

01490492	EP Exercise—Incomplete OSC Staffing
01485963	Error in CALC 10-016 for Support HDH-93
01446075	CAPR Not Implemented as Written
01507333	NRC Question Regarding Pipe Class on Core Spray Piping
01474155	RBCC-108-1, Drippage of RBCCW from Valve Bonnet
01519574	CW-4-1Valve Tag Broken
01467445	Drawing Does Not Reflect Changes Made Under SRI/MRE
01484294	Several Problems Noted with RV-6096
01517399	Unidentified Valve Installed on PS21-8-HB Near CDR Conn #41
01525486	Excessive Work Caused by Repetitive CAPs
01525826	Control Valves not Properly Labeled
01526003	HPCI P&ID and Line Designation Table Conflict
01523429	MSR Action: Review A&B CAP Causal Evaluation Downgrading
01502621	Molded Case Circuit Breaker Left Off PM Equip List
01462092	Additional ODCM Revisions Not Reviewed IAW TS 5.5.1
01496114	NRC Identified Severity Level IV 50.9 Violation
01445165	OE: ICES 308074 Group 1 Isolation Received During Bypass Valve Verification
01467721	OE: Monticello OE Screening Results for the Week of 2/23/15
01445505	OE: Byron Green NCV 2011005-05 Offsite Dose Calculation

Root Cause Reports

Number	Description or Title
01460675	# 11 EDG Governor Control Switch Inadvertently Lowered
01477351	RFO 27 Loss of Shutdown Cooling
01487368	Past Operability Review of Turbine Stop Valve
01503122	Reactor Scram # 134
01402246	NRC Question on DSC PT Examination Times
01446848	MFLCPR Exceeded During Start of 12 Reactor Recirculation Pump

Apparent Cause Evaluations

Number	Description or Title
01427529	60-day LER Required for PTLR Violation
01446598	Lockout of 12 Recirc Pump *[ECE]*
01455581	D10 Division 1 125VDC Charger Undervoltage Alarm Received
01456839	TS SR 3.8.4.2 Non Conservative for the 125 VDC Charger
01462588	Outstanding USAR Changes not Incorporated Timely
01465736	Trace Anomalies during MO-3502 Diagnostic Testing
01476157	PCV-7939 Failure *[ECE]*
01479704	Circuit Protective Device Operation – Sustained Degraded Voltage
01479851	Ops. Dept. Recent Human Performance Shortfalls
01484243	Normally Closed Breaker Found Open/Tripped

01493218	"A" CS Discharge Pressure Low *[ECE]*
01498917	CO 59275 Boundary not Properly Tagged
01517339	EDG Room and Cabinet Temperature Calculation Issues
01505696	V-AC-8A, HPCI Room Cooler, Has a Cooling Coil Leak
01475767	Welding Performed on EDG Support Didn't Check Interpass Temp.
01517089	Work Performed Without Signing Onto C/O
01484286	NOS Finding – Insufficient Control of M&TE
01458521	Adverse Trend in Security Human Performance
01131704	TREND CAP Breaker Racking or Alignment Issues
01456497	V-MZ-1 Has a Heating Coil Leak
01444120	High Radiation Area Improperly Posted
01449995	DW CAM Spiking
01518017	LERs Not Completed In Accordance With FP-PA-ARP-01
01503123	Group 1 Isolation During Reactor Scram 134
01463920	Four EP Drill Objective Frequencies Not Met In 2014

Self-Assessments and Observation Reports

Number	**Description or Title**
01458147	Operating Experience Evaluation: 11 CWP Trip
01473123	Ops. Dept. Monthly HU Error Rate KPI March Turned Red
01476025	Response Report IER-2; IER L2-15-16, Loss of Unit 3 Inst. Air …
01486261	EP Drill: Potential Trend in Communications/Notification
01511937	Potential Adverse Trend: CAP Evaluation Due Date Extensions
A-INSP/TEST-MNGP-2015-1	2015 Nuclear Oversight MNGP Inspection/Testing Audit
A-MAINT-MNGP-2015-1	2015 Nuclear Oversight MNGP Maintenance Audit
A-SEC-MNGP-2015-1	2015 Nuclear Oversight Monticello Security Audit
2015-01-018	NOS Observation Report, Maintenance
2016-02-005	NOS Observation Report, PI&R Readiness Assessment
01517968-07	Department/Functional Area DRUM – Security (1nd Quarter 2016)
01525196	Department/Functional Area DRUM – Security (2nd Quarter 2016)
A-CAP-MNGP-2016-1	2016 Nuclear Oversight Monticello Nuclear Generating Plant Corrective Action Program Audit
2015-01-014	NOS Observation Report: Self-Assessment
2015-01-008	NOS Observation Report: Operating Experience
2016-02-005	NOS Observation Report: PI&R Readiness Assessment
SAR 01525196	DRUM: Emergency Preparedness 2nd Quarter 2016
SAR 01525196	DRUM: Site Drum 2nd Quarter 2016
01461134	SnapShot Report: Performance Assessment/Operating Experience
01429722	SnapShot Report: New ECP Governance Documents

Condition Reports Generated During the Inspection

Number	Description or Title
01535190	Documentation Error on 01460675-32
01535783	No Velcro on Hose Covers *[RB NLO Observation]*
01535948	PI&R 2016: Incorrect ECE Revision Provided to NRC
01536194	RO MUD Caustic Leak *[TB NLO Observation]*
01536294	PI&R Inspection Question Requires >24 hours to Answer
01536505	PI&R 2016: Revised Response Required for NRC Question 84
01536797	PI&R Question 152 > 24 hours to Answer
01536798	PI&R 2016: Possible Gap in Fleet & Site RP Procedures
01536809	PI&R 2016: No Eval Assigned for Untimely Corrective Action
01536864	PI&R 2016: Untimely Resolution of AR 01185959, RCIC HELB RM
01536905	Potential Need to Clarify FP-OP-PEQ-01
01536960	2016 PI&R CAP Issue Resolution Difficult to Determine
01537014	PI&R D10 Charger Backplane Contacts not Inspected
01537019	PI&R 2016: Potential Design Issue - Loss of SDC
01537029	2016 PI&R Resolution of Needed RCIC HELB Analysis Untimely
01537040	EDG Overload Relay Omitted from Calculations 05-111
01535268	PI&R 2016: Record not Created for CAP AR01457375
01535295	PI&R 2016: Next Level Action Backlog Contains Error
01535376	PI&R 2016: Needs Assessment Referenced Wrong Tracking Item
01535376	Improvements for ARP-01, 03 (Cross-Ref non-CAP Definition)
01535381	Vulnerability with DARs Not Going To CAP Screen
01535431	PI&R 2016: Action Completion Not Completed Timely
01535514	PI&R 2016: QF0447 for AR 01447383 Has Typo
01536031	RCE Table of Rev's Has Incorrect Date
01536735	PI&R SCAQ Definition Opportunity for Clarification
01536921	PI&R 2016: OBN Action Detail is Not Specific
01536953	PI&R 2016: X-refs and Closure Documentation Clarity Issues
01538798	PI&R 2016: NRC Comment on Extensions

Miscellaneous

Number	Description or Title	Date or Revision
05-111	Evaluation to Determine if the Electrical Components in the Control Panel in the EDG Rooms will Perform their Function at a Temperature of 131	May 12, 2015
98-051	EQ File – Reliance Motors	Rev. 00
E-212 sheet 9	Schematic Diagram - Exhaust Fan V-EF-40B Control	Rev. 05
EC 26904	Evaluation to Determine Maximum Temperature in Cabinets C91, C92, C93 and C94	Rev. 00

EGM 11-003	Dispositioning BWR Licensee Non-Compliance …	Rev. 02
L-MT-15-033	LER 2015-002-00	6/29/2015
L-MT-15-034	LER 2015-001-00	6/16/2015
L-MT-15-052	LER 2015-003-01	9/11/2015
L-MT-15-054	LER 2015-003-00	7/13/2015
L-MT-15-079	LER 2015-005-00	10/2/2015
NF-36298-1	Electrical Load Flow – One Line Diagram	Rev. 111
NH-36246	P&ID - Residual Heat Removal System	Rev. 84
QF0429	NSPM CAP Screen Team Meeting Template	Rev. 19
WO 00503174	MO 2373 – Workorder	4/25/2015
N/A	Nuclear Fuel Fabrication and Design Oversight Plan	Rev. 6
N/A	Monticello Spent Fuel Project Oversight Plan	Rev. 0
WO 513688-01	MECH – G-3B, Weld Bracket for High Pressure Fuel Line	04/22/2015
SE0025	Conduct of Security Operations	Rev. 13
WO 547119-01	Reseal Door Frame to Concrete on Door-142	06/13/2016
WO 490628-01	MECH – ESW-1-2, BS-2414, Perform Operability Test and Inspection	04/14/2015
EC 25673	Extent of Condition Review for ESW-1-2 Disc Stud Failure	Rev. 0
WO 501019-12	EC-23981-Missile Protection for T-44 Tank, Arrestor Removal	11/13/2015
LER 2015-002	Loss of Shutdown Cooling Due to Improperly Landed Jumper Wire	Rev. 1
LER 2014-002-01	Torus to Drywell Vacuum Breaker Did Not Indicate Closed During Testing	Rev. 1

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
CAP	Corrective Action Program
CAQ	Condition Adverse to Quality
CDF	Core Damage Frequency
CFR	Code of Federal Regulations
CLB	Current Licensing Basis
DRP	Division of Reactor Projects
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
OE	Operating Experience
OFR	Operability/Functionality Determination
PIR	Problem Identification and Resolution
POD	Prompt Operability Determination
POR	Past Operability Review
SCAQ	Significant Condition Adverse to Quality
SDP	Significance Determination Process
SRA	Senior Reactor Analyst
TS	Technical Specification
USAR	Updated Safety Analysis Report

One NRC-identified finding of very low safety significance (Green) was identified which 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 this 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 the findings 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 and 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 Agency wide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

Docket No. 50–263
License No. DPR–22

Enclosure:
Inspection Report 05000263/2016007

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Letter to P. Gardner from K. Riemer dated November 18, 2016.

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT—NRC BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000263/2016007

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