



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

April 9, 2010

EA-09-294

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 INSPECTION REPORT
05000263/2010009 AND NRC OFFICE OF INVESTIGATIONS REPORT
NO. 3-2009-023**

Dear Mr. O'Connor:

This refers to an in-office inspection conducted on November 24, 2009 through March 4, 2010, regarding the Monticello Nuclear Generating Plant. The purpose of the inspection was to review the circumstances surrounding an NRC inspector's observation on March 29, 2009, that a Non-Destructive Examination (NDE) technician did not follow a procedure in calibrating equipment in preparation for ultrasonic (UT) examination of the Reactor Core Isolation Cooling barometric condenser. The matter was documented as unresolved item 05000263/2009006-02 and the NRC Office of Investigations (OI) completed an investigation on November 24, 2009. The enclosed report documents our review of the OI investigation results, which were discussed on March 4, 2010, with Mr. John Grubb and other members of your staff.

Based on the information developed during the OI investigation, the NRC staff concluded that a willful violation of NRC requirements occurred. Specifically, the NDE technician deliberately set the amplitude of the calibration signal on the UT examination equipment outside the range specified in the examination procedure. This violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" is being dispositioned as a Severity Level IV, Non-Cited Violation (NCV) in accordance with the guidance described in Sections IV.A.4 and VI.A.1 of the NRC Enforcement Policy. Specifically, the violation was discovered while the inspector was conducting an actual observation of the equipment calibration. This calibration procedure is normally done independently by licensee staff/contractors without direct observation by the licensee. The licensee did not have an opportunity to identify the violation independently prior to the NRC observation. Additionally, the violation involved the acts of a low-level individual; the violation appears to be the isolated action of the employee without management involvement and the violation was not caused by lack of management oversight as evidenced by either a history of isolated willful violations or lack of adequate audits or supervision of employees; and significant remedial action commensurate with the circumstances was taken by the licensee. The NCV is described in the enclosed inspection report.

If you contest the NCV or its Severity Level, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, 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 characterization of 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. The information that you provide will be considered in accordance with Inspection Manual Chapter 0305.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any), will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide 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/

David E. Hills, Chief
Engineering Branch 1
Division of Reactor Safety

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

Enclosure: Inspection Report 05000263/2010009 (DRS)
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: 05000263/2010009

Licensee: Northern States Power Company, Minnesota

Facility: Monticello Nuclear Generating Plant

Location: Monticello, MN

Dates: November 24, 2009 – March 4, 2010

Inspector: T. Bilik, Senior Reactor Engineer
A. Shaikh, Reactor Engineer

Approved by: D. E. Hills, Chief
Engineering Branch 1
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000263/2010009; 11/24/09 – 03/04/10; Monticello Nuclear Generating Plant; Unresolved Item (URI) Closure

The inspection was conducted by regional based inspectors in follow-up to NRC Office of Investigations (OI) Report No. 3-2009-023. One Severity Level IV Non-Cited Violation was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Mitigating System

- Severity Level IV. A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was identified by the inspectors for a contract Non-Destructive Examination (NDE) technician's failure to follow a procedure during an Ultrasonic (UT) examination of the Reactor Core Isolation Cooling (RCIC) barometric condenser shell. Specifically, the technician failed to properly perform a calibration of the UT examination equipment. The underlying performance deficiency (PD) associated with this violation did not result in a finding due to the minor safety-significance of the PD and hence the PD was not evaluated for cross-cutting aspects. Specifically, the PD was similar to Example 4b of IMC 0612, Appendix E, "Examples of Minor Issues," in that, it involved an insignificant procedural error, failure to calibrate UT equipment per procedure. The failure had minimal impact on the UT readings (within UT test equipment tolerances). However, due to the willfulness of the violation, the violation was processed through the traditional enforcement process and assigned a Severity Level IV. Specifically, the NRC Enforcement Policy states that a violation may be considered more significant than the underlying non-compliance if it includes indications of willfulness. As part of its corrective actions, the licensee re-examined the technician's prior UT examinations and found insignificant variation between re-examined UT examination results and the technician's original UT examination results

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

Cornerstone: Mitigating System

4OA5 Other Activities

.1 (Closed) Unresolved Item (URI) 05000263/2009006-02: Failure of an NDE Technician to Follow an Ultrasonic Thickness Examination Procedure

a. Inspection Scope

The inspectors reviewed the information and conclusions provided in OI Report 3-2009-023 and associated exhibits and processed the results in accordance with the NRC Enforcement Policy.

b. Findings and Observations

Introduction: The NRC inspectors identified a performance deficiency (PD) of minor safety-significance and an associated Severity Level IV Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, for the licensee's failure to accomplish an activity affecting quality in accordance with the prescribed procedure. Specifically, an NDE technician failed to follow the UT examination procedure while examining the Reactor Core Isolation Cooling (RCIC) condenser shell.

Description: On March 29, 2009, an NRC inspector while conducting a license renewal one-time inspection, in accordance with NRC Inspection Procedure 71003, Section 4OA5.2.3(3), observed a contract NDE technician perform a UT examination to obtain wall thickness measurements on the RCIC barometric condenser shell. The RCIC system is a safety-related system as described in the plant's Quality Assurance (QA) Program Q-list. During this UT, the NRC inspector observed the NDE technician fail to calibrate his UT equipment in accordance with the required procedure. Specifically, the technician failed to properly perform a calibration by setting the amplitude of the calibration signal between 50-80 percent of the full screen height (FSH) prior to the UT examination. The UT examination procedure FP-PE-NDE-425 states in Section 5.1.1 that this procedure shall be qualified for examinations by the performance of a successful calibration. The Section 5.5.2 of the procedure further states that the amplitude of the calibration signal shall be between 50-80 percent of the FSH. The NDE technician set the amplitude of the calibration signal outside the range of 50-80 percent specified in the examination procedure.

The licensee documented this incident in Condition Evaluation Corrective Action Program (CAP) report 1175537. As part of its corrective actions, the licensee re-examined the technician's prior UT examinations and found insignificant variation between re-examined UT results and the technician's original examination results.

The NRC Office of Investigations (OI) completed an investigation on November 24, 2009, and concluded that the contract NDE technician deliberately failed to calibrate his UT examination equipment in accordance with the required procedure.

Analysis: The inspectors determined that the failure to calibrate the UT equipment in accordance with the prescribed procedure was a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," and was a PD that affected the Mitigating Systems Cornerstone.

The inspectors determined that this PD was of minor significance. Specifically, the PD was similar to Example 4b of IMC 0612, Appendix E, "Examples of Minor Issues," in that, it involved an insignificant procedural error; failure to calibrate UT equipment per procedure. This failure had minimal impact on the UT readings (within UT test equipment tolerances). Furthermore, there was no actual safety consequences associated with this violation. Because the PD was minor, the PD was not a finding and was not evaluated for cross-cutting aspects in accordance with Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening." However, because of the willful determination, the violation was processed in accordance with the traditional enforcement process.

Enforcement: On March 29, 2009, an NRC inspector identified a violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."

Criterion V of 10 CFR Part 50, Appendix B, "Instructions, Procedures, and Drawings," states 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."

Procedure FP-PE-NDE-425, "Ultrasonic Thickness Examination – Localized Corrosion," Revision 1, Section 5.1.1 states in part that "This procedure **SHALL** be qualified for examinations by the performance of a successful calibration."

Section 5.5.2 of Procedure FP-PE-NDE-425, "Instrument Calibration – 0° Longitudinal Wave, Step (b.), states that "Amplitude of the calibration signal **SHALL** be between 50-80 percent of full screen height (FSH)."

Contrary to the above, on March 29, 2009, an activity affecting quality was not accomplished in accordance with the prescribed procedure. Specifically, while performing a calibration prior to the one time NDE of the RCIC barometric condenser shell as part of a license renewal commitment, a contract NDE technician failed to correctly calibrate the UT examination equipment by **NOT** setting the amplitude of the calibration signal between 50-80 percent of the FSH as required by procedure FP-PE-NDE-425.

Section IV.A.4 of the Enforcement Policy states that a violation may be considered more significant than the underlying non-compliance if it includes indications of willfulness. Accordingly, after review of the facts, the NRC determined that the PD warranted a Severity Level IV Non-Cited Violation.

Section VI.A.1.d of the Enforcement Policy states that a willful violation will result in a consideration of Notice of Violation requiring a formal response from the licensee. However, notwithstanding willfulness, an NCV may still be appropriate if:

- the licensee identified the violation and the information concerning the violation, if not required to be reported, was promptly provided to appropriate NRC personnel, such as a resident inspector or regional branch chief;
- The violation involved the acts of a low-level individual (and not a licensee official as defined in Section IV. A);
- The violation appears to be the isolated action of the employee without management involvement and the violation was not caused by lack of management oversight as evidenced by either a history of isolated willful violations or lack of adequate audits or supervision of employees; and
- Significant remedial action commensurate with the circumstances was taken by the licensee such that it demonstrated the seriousness of the violation to other employees and contractors, thereby creating a deterrent effect within the licensee's organization.

This violation meets three of the four criteria described above. The first criterion was not met because the violation was NRC identified. The violation was discovered while the inspector was conducting an actual observation of the equipment calibration. This calibration procedure is normally done independently by licensee staff/contractors without direct observation by the licensee. The licensee did not have an opportunity to identify the violation independently prior to the NRC observation. Therefore, the NRC determined that this Severity Level IV violation would be processed as an NCV (NCV 05000263/2010009-01).

4OA6 Management Meetings

.1 Exit Meeting Summary

On March 4, 2010, the inspectors presented the inspection results, to Mr. John Grubb 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

J. Grubb, Plant Manager
W. Paulhardt, Assistant Plant Manager
G. Salamon, Director, Nuclear Licensing
N. Haskel, Director, Engineering
M. Hutting, Programs Director, Engineering
S. Porter, Manager, Engineering Programs
P. Young, Supervisor, Regulatory Programs
S. Speight, Manager, Regulatory Affairs
S. Oswald, Regulatory Affairs Analyst

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

05000263/2010009-01	Severity Level IV NCV	Failure of an NDE Technician to Follow an Ultrasonic Thickness Examination Procedure (Section 4OA5.2.3(3))
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Closed and Discussed

05000263/2009006-02	URI	Potential Failure to Follow Procedures (Section 4OA5.2.3(3))
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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.

4OA5 Other Activities

Condition Reports

1175537; NDE Examiner Procedure Non-Compliance; dated March 29, 2009

License Renewal Program Basis Documents

PBD/AMP-019; One-Time Inspection; Revision 2

Inspections Observed

WO 346293; Perform LR OTI UT Examination of E-203; dated March 29, 2009

Procedures

PEI-02.03.05; Ultrasonic Thickness Measurement; Revision 1

4AWI-07.03.01; Nondestructive Examination; Revision 9

FP-PE-NDE-03; Written Practice for Qualification and Certification of NDE Personnel; Revision 6

FP-PE-NDE-425; Ultrasonic Thickness Examination – Localized Corrosion; Revision 1

4 AWI-01.03.01; Quality Assurance Program Boundary; Revision 16

Miscellaneous

One Time Inspection Program Inspection Methods; Revision 0

LIST OF ACRONYMS

CAP	Corrective Action Program
CFR	Code of Federal Regulations
IMC	Inspection Manual Chapter
IR	Inspection Report
IP	Inspection Procedure
ISI	Inservice Inspection
NDE	Nondestructive Examination
NRC	U.S. Nuclear Regulatory Commission
PADS	Personnel Access Database System
URI	Unresolved Item
UT	Ultrasonic
OI	Office of Investigations
PD	Performance Deficiency
RCIC	Reactor Core Isolation Cooling
QA	Quality Assurance
FSH	Full Screen Height
NCV	Non-Cited Violation

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Sincerely,

/RA/
 David E. Hills, Chief
 Engineering Branch 1
 Division of Reactor Safety

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

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OFFICIAL RECORD COPY

Letter to Mr. Timothy J. O'Connor from Mr. David E. Hills dated April 9, 2010.

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT INSPECTION
REPORT 05000263/2010009 AND NRC OFFICE OF INVESTIGATIONS
REPORT
NO. 3-2009-023

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