



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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September 22, 2015

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 (MONTICELLO) – AUDIT
OF THE LICENSEE’S MANAGEMENT OF REGULATORY COMMITMENTS
(TAC NO. MF6260)

Dear Mr. Gardner:

In Regulatory Issue Summary 2000-17, “Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff,” dated September 21, 2000, the U.S. Nuclear Regulatory Commission (NRC) informed licensees that the Nuclear Energy Institute (NEI) document NEI 99-04, “Guidelines for Managing NRC Commitment Changes,” contains acceptable guidance for controlling regulatory commitments and encouraged licensees to use the NEI guidance or similar administrative controls to ensure that regulatory commitments are implemented and that changes to the regulatory commitments are evaluated and, when appropriate, reported to the NRC.

The NRC’s Office of Nuclear Reactor Regulation has instructed its staff to perform an audit of the licensees’ commitment management programs once every 3 years to determine whether the licensees’ programs are consistent with the industry guidance in NEI 99-04, and if regulatory commitments are being effectively implemented.

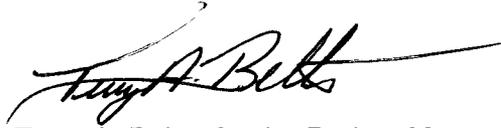
An audit of the Monticello commitment management program was performed at the plant site on August 11-13, 2015. The NRC staff concludes that, based on the audit, Monticello has (1) implemented NRC commitments on a timely basis or is tracking future implementation of regulatory commitments made to the NRC; and (2) implemented an effective program for managing regulatory commitment changes. The details of the audit are set forth in the enclosed audit report.

P. Gardner

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The NRC staff appreciates the resources that were made available by your staff, both before and during the audit. If there are any questions, I can be contacted at (301) 415-3049.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry A. Beltz". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Terry A. Beltz, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-363

Enclosure:
Audit Report

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UNITED STATES
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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION

LICENSEE MANAGEMENT OF REGULATORY COMMITMENTS

NORTHERN STATES POWER COMPANY – MINNESOTA (NSPM)

MONTICELLO NUCLEAR GENERATING PLANT (MONTICELLO)

DOCKET NO. 50-263

1.0 INTRODUCTION AND BACKGROUND

In Regulatory Issue Summary (RIS) 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML003741774), the U.S. Nuclear Regulatory Commission (NRC) informed licensees that the Nuclear Energy Institute (NEI) document NEI 99-04, "Guidelines for Managing NRC Commitment Changes" (ADAMS Accession No. ML003680088) contains acceptable guidance for controlling regulatory commitments. RIS 2000-17 encouraged licensees to use the NEI guidance or similar administrative controls to ensure that regulatory commitments are implemented and that changes to the regulatory commitments are evaluated and, when appropriate, reported to the NRC. NEI 99-04 describes a "regulatory commitment" as an explicit statement to take a specific action agreed to, or volunteered by, a licensee by a certain date and submitted in writing on the docket to the NRC.

The NRC Office of Nuclear Reactor Regulation (NRR) has instructed its staff to perform an audit of licensees' commitment management programs once every 3 years to determine whether the licensees' programs are consistent with the industry guidance in NEI 99-04, and if regulatory commitments are being effectively implemented. An audit of the Monticello commitment management program was performed at the plant site during August 11 - 13, 2015.

NRR guidelines direct the Project Manager to audit the licensee's commitment management program by assessing the adequacy of the licensee's implementation of a sample of commitments made to the NRC in past licensing actions (i.e., amendments, reliefs, exemptions, etc.) and activities (i.e., bulletins, generic letters, etc.).

2.0 AUDIT PROCEDURE AND RESULTS

The audit reviewed commitments made, changed, or closed since the previous audit conducted in August 2012, as documented in a report dated September 7, 2013 (ADAMS Accession No. ML12198A507). The audit consisted of three major parts: (1) verification of the licensee's implementation of NRC commitments that have been completed, (2) verification of the licensee's program for managing changes to NRC commitments, and (3) verification that all regulatory commitments reviewed were correctly applied in NRC staff licensing action reviews.

Enclosure

2.1 Verification of Licensee's Implementation of NRC Commitments

The primary focus of this part of the audit is to confirm that the licensee has implemented commitments made to the NRC as part of past licensing actions and activities. For commitments not yet implemented, the NRC staff determines whether they have been captured in an effective program for future implementation. The audit also verifies that the licensee's commitment management system includes a mechanism to ensure traceability of commitments following initial implementation. This ensures that licensee personnel are able to recognize that future proposed changes to the affected design features or operating practices require evaluation in accordance with the commitment change control process.

2.1.1 Audit Scope

The audit addressed a sample of commitments made during the review period. The audit focused on regulatory commitments (as defined above) made in writing to the NRC as a result of past licensing actions (amendments, exemptions, relief requests, etc.) or licensing activities (bulletins, generic letters, etc.). Before the audit, the NRC staff searched ADAMS for the licensee's submittals since the last audit and selected a representative sample of regulatory commitments for verification. The identified list of commitments was forwarded to the licensee with a request to locate documentation for the listed regulatory commitments ahead of the NRC staff visit.

The audit excluded the following types of commitments that are internal to licensee processes:

- (1) Commitments made on the licensee's own initiative among internal organizational components.
- (2) Commitments that pertain to milestones of licensing actions/activities (e.g., respond to an NRC request for additional information by a certain date). Fulfillment of these commitments was indicated by the fact that the subject licensing action/activity was completed.
- (3) Commitments made as an internal reminder to take actions to comply with existing regulatory requirements such as regulations and Technical Specifications. Fulfillment of these commitments was indicated by the licensee having taken timely action in accordance with the subject requirements.

2.1.2 Audit Results

The NRC staff reviewed internal reports generated by the licensee's tracking program for regulatory commitments listed in Table 1 to evaluate the status of completion. The staff found that the licensee's commitment tracking program appeared to capture all the regulatory commitments that were identified prior to the audit, and that the licensee had implemented the commitments on a timely basis. Table 1 summarizes the staff's observations regarding the current status of licensee commitments.

The NRC staff reviewed Xcel Energy Nuclear Department Fleet Procedure FP-R-LIC-24, "NRC Commitment Management," Revision 3, issued in December 2014. This procedure provides

guidance for (1) identification of NRC commitments and their attributes, (2) defining how NRC commitments are tracked and traceability is to be maintained, (3) defining what is required to ensure appropriate NRC commitment closure, and (4) describing how to revise and/or retire NRC Commitments. The staff compared the guidance in FP-R-LIC-24 to the guidance in NEI 99-04. As a result of the comparison, the NRC staff found that the Monticello procedure was generally consistent with the NEI guidance for identifying, managing, and closing commitments.

The audit verified that the licensee's commitment management system includes a mechanism to ensure traceability of commitments following initial implementation. This ensures that licensee personnel are able to recognize that future proposed changes to the affected design features or operating practices require evaluation in accordance with the commitment change control process. Monticello tracks NRC regulatory commitments in its Passport database system, and the NRC staff were provided the capability to access and review information entered in the Passport system.

The documents furnished by the licensee during the audit included Action Request Record Reports (AT-0175), and summary sheets providing the status of the commitments and appropriate implementing documentation, as needed (i.e. procedure revisions, Update Safety Evaluation Report revision, engineering change closeout package reports, completed work orders, memorandums, commitment change evaluation forms, regulatory commitment tracking retirement forms, etc.). The NRC staff reviewed the documents and summarized the selected commitments in the attached Audit Summary.

Licensee personnel were able to demonstrate effective use of the commitment management database and provided status tracking to the applicable implementation documents. The NRC staff found that generally, the selected commitments in the audit sample were effectively implemented. Using the Passport system as the typical starting point, the staff sought to determine that commitments were implemented in documents such as plant procedures, or in appropriate engineering packages. In addition, the NRC audit confirmed that the process to close out commitments and provide sufficient justification for closure was adequate. The attached Audit Summary provides details of the audit and its results.

Based on the above, the NRC staff concludes that the licensee has implemented the regulatory commitments management program effectively in accordance with LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC," and consistent with NEI 99-04.

2.2 Verification of the Licensee's Program for Managing NRC Commitment Changes

The primary focus of this part of the audit is to verify that the licensee has established administrative controls for modifying or deleting commitments made to the NRC. The NRC staff compared the licensee's process for controlling regulatory commitments to the guidelines in NEI 99-04, which the NRC has found to be an acceptable guide for licensees to follow for managing and changing commitments. The process used at Monticello is contained in procedure FP-R-LIC-24. The primary focus of the audit was to ensure that the commitments are implemented without a change and if a change is made, it is in accordance with the approved plant procedures and with the approval of the plant's management. The audit also verified that the licensee's commitment management system includes a mechanism to ensure

personnel are able to recognize that future proposed changes to the affected design features or operating practices require evaluation in accordance with the commitment change control process.

2.2.1 Audit Results

Based on the review of the reports provided by the licensee as described above, the accompanying change review and tracking forms provided during the audit, the NRC concludes that the licensee has established effective administrative controls for managing NRC commitment changes.

2.3 Review to Identify Misapplied Commitments

The commitments reviewed for this audit were also evaluated to determine if they had been misapplied. A commitment is considered to be misapplied if the action comprising the commitment was relied on by the NRC staff in making a regulatory decision such as a finding of public health and safety in an NRC safety evaluation associated with a licensing action. Reliance on an action to support a regulatory decision must be elevated from a regulatory commitment to a legal obligation (e.g., license condition, condition of a relief request, regulatory exemption limitation or condition). A commitment is also considered to have been misapplied if the commitment involves actions that were safety significant (i.e., commitments used to ensure safety).

Each of the commitments selected for the audit sample were reviewed to determine if any had been misapplied. No misapplied commitments were identified within the audit scope.

2.3.1 Review of Safety Evaluation Reports for Licensing Actions since the Last Audit to Determine if They Are Properly Captured as Commitments or Obligations

In addition to the commitments selected for the audit sample, all license amendment safety evaluations, exemptions, and relief request safety evaluations that have been issued for a facility since the last audit were identified. These documents were evaluated to determine if they contained any misapplied commitments as described above. There were no misapplied commitments found in the NRC staff evaluations for amendments, exemptions, relief requests, or other licensing tasks since the last commitment management audit.

3.0 CONCLUSION

Based on the results of the audit, the NRC staff concludes that the licensee has implemented the regulatory commitment management program effectively, and implemented regulatory commitment changes appropriately, in accordance with LIC-105 and consistent with NEI 99-04. The specific observations and recommendations identified during the audit are detailed in Section 3.0 of the report.

4.0 LICENSEE PERSONNEL CONTACTED FOR THIS AUDIT

Richard Loeffler
Carrie Fosaaen
John Fields

Principal Contributor: Terry A. Beltz

Date: September 22, 2015

Attachment:
Regulatory Commitments and
Summary of Audit Results

**REGULATORY COMMITMENTS AND SUMMARY OF AUDIT RESULTS
MONTICELLO NUCLEAR GENERATING PLANT**

| Licensee Correspondence | TAC No. | NRC Correspondence | Commitment No. (AR No. or COMM No.) | Description of Commitment | Implementation Status & NRC Document Reviews and Validation |
|---|---------|--|--|---|---|
| <p>L-MT-09-046 dated 06/12/2009 (ADAMS Accession No. ML091670410)</p> <p>L-MT-11-044 dated 08/30/2011 (ADAMS Accession No. ML11249A045)</p> <p>L-MT-13-020 dated 20/27/2013 (ADAMS Accession No. ML130640494)</p> <p>L-MT-13-092 dated 09/30/2013 (ADAMS Accession No. ML13275A063)</p> | MD9990 | <p>Amendment No. 166 dated 07/29/2011</p> <p>(ADAMS Accession No. ML13316B298)</p> | <p>M09003A (01185618)</p> | <p>Prior to EPU implementation NSPM will revise operating procedures for Condensate/Feedwater (CFW) transient events, to take prudent actions to recover CFW flow, and place the reactor in a stable condition.</p> <p>Previous commitment description: NSPM will perform an analysis prior to RFO25 to predict combined Condensate and Feedwater system performance for normal operation and for transients including Single Feedwater pump trip, Feedwater Control System Failure and Single Condensate Pump Trip. Acceptance criteria will include adequate margin to preclude loss of both reactor feedwater pumps from low suction pressure or flow.</p> | <p>Complete</p> <p>Procedure C.4-B.06.05.A, Revision 14, "FEEDWATER OR CONDENSATE PUMP TRIP"</p> <p>Procedure C.4-B.09.06.A, Revision 10, "LOSS OF BUS 11 OR BUS 12"</p> |
| <p>L-MT-09-046 dated 03/23/2009 (ADAMS Accession No. ML091670410)</p> <p>L-MT-10-072 dated 12/21/2010 (ADAMS Accession No. ML103570026)</p> <p>L-MT-13-092 dated 09/30/2013 (ADAMS Accession No. ML13275A063)</p> | MD9990 | <p>Amendment No. 166 dated 07/29/2011</p> <p>(ADAMS Accession No. ML13316B298)</p> | <p>M09004A (01185618)</p> | <p>Prior to RFO25, the USAR will be revised to indicate that the emergency heat load of 24.7 MBTU/hr occurs approximately 192 hours after shutdown.</p> <p>Previous commitment description: Prior to RFO25, the USAR will be revised to indicate that the emergency heat load of 24.7 MBTU/hr occurs approximately 168 hours after shutdown.</p> | <p>Complete</p> <p>Verified incorporation in Section 10.2.2.3 of USAR</p> |

| Licensee Correspondence | TAC No. | NRC Correspondence | Commitment No. (AR No. or COMM No.) | Description of Commitment | Implementation Status & NRC Document Reviews and Validation |
|---|---------|--|---|--|---|
| <p>L-MT-09-048 dated 07/13/2009 (ADAMS Accession No. ML092170404)</p> <p>L-MT-11-044 dated 08/30/2011 (ADAMS Accession No. ML11249A045)</p> <p>L-MT-11-059 dated 11/16/2011 (ADAMS Accession No. ML12075A246)</p> <p>L-MT-13-092 dated 09/30/2013 (ADAMS Accession No. ML13275A063)</p> | MD9990 | <p>Amendment No. 166 dated 07/29/2011</p> <p>(ADAMS Accession No. ML13316B298)</p> | <p>M9005A</p> <p>(00950183) (01189237)</p> | <p>NSPM commits to evaluating the changes in condensate and feed pump area heat loads to confirm temperatures remain with design limits prior to EPU implementation. If necessary, modifications to the HVAC [heating, ventilation, and air conditioning] system for this area will be implemented to maintain these areas with the design limits.</p> <p>Previous commitment description: NSPM commits to evaluating the changes in condensate and feed pump area heat loads to confirm temperatures remain with design limits prior to RFO25. If necessary, modifications to the HVAC system for this area will be implemented to maintain these areas with the design limits.</p> | <p>Complete</p> <p>Calculation 11-095, R0; Calc. No. 2011-03101, Rev. 2, "Turbine Building Elevation 911'-0" Reactor Feed Water Pump (RFW) Area HVAC System Heat Load Calculation"</p> <p>EC No. 16307, Rev. 0A, "Condensate Pump Room HVAC Modification</p> <p>Confirmed modification installed in Turbine Building</p> |
| <p>L-MT-09-044 dated 08/21/2009 (ADAMS Accession No. ML092390332)</p> <p>L-MT-11-044 dated 08/30/2011 (ADAMS Accession No. ML11249A045)</p> | MD9990 | <p>Amendment No. 166 dated 07/29/2011</p> <p>(ADAMS Accession No. ML13316B298)</p> | <p>M09011A</p> <p>(00950189) (01236506)</p> | <p>Confirmation that modification of support TWH-143 (spring can which is part of Residual Heat Removal Loop B) is complete will be provided to the NRC prior to implementation of the EPU license amendment request.</p> | <p>Complete</p> <p>EC No. 11125, Rev. 0, "EPU - Mod 7 – Torus Attached Piping Support Modification"</p> |
| <p>L-MT-10-037 dated 05/14/2010 (ADAMS Accession No. ML101370259)</p> | ME4087 | <p>Letter dated 05/10/2011</p> <p>(ADAMS Accession No. ML11122A096)</p> | <p>M11008A</p> <p>(00950210) (01293769)</p> | <p>Licensee Renewal Commitment:</p> <p>MNGP will perform augmented inservice inspection volumetric examinations of ASME Class 1 stainless steel small-bore piping butt welds with a 2-inch nominal pipe size (NPS) through less than 4-inch NPS in accordance with MNGP ASME Section XI Inservice Inspection Subsections IWB, IWC, and IWD Aging Management Program.</p> | <p>Complete</p> <p>Verified incorporation in Appendix K of the USAR</p> |

| Licensee Correspondence | TAC No. | NRC Correspondence | Commitment No. (AR No. or COMM No.) | Description of Commitment | Implementation Status & NRC Document Reviews and Validation |
|---|---------|---|--|--|--|
| L-MT-12-074 dated 09/18/2012 (ADAMS Accession No. ML112630063) | ME9600 | Amendment No. 173 dated 07/15/2013 (ADAMS Accession No. ML13168A025) | M12014A (01350983) | <p>Procedure changes will be made prior to implementation of TSTF-476, Rev. 1, "Improved BPWS [Banked Position Withdrawal Sequence] Control Rod Insertion Process (NEDO-33091)," to include the following:</p> <p>Before reducing power to the low power setpoint (LPSP), operators shall confirm control rod coupling integrity for all rods that are fully withdrawn. Control rods that have not been confirmed coupled and which are in intermediate positions must be fully inserted prior to power reduction to the LPSP. No action is required for fully-inserted rods.</p> <p>If a shutdown is required and all rods which are not confirmed coupled cannot be fully inserted prior to the power dropping below the LPSP, then the original/standard BPWS must be adhered to.</p> | <p>Complete</p> <p>Procedure 8048, Rev. 6, "Bypass of RWM During Plan Shutdown Using Improved BPWS Control Rod Insertion Process"</p> |
| L-MT-12-074 dated 09/18/2012 (ADAMS Accession No. ML112630063) | ME9600 | Amendment No. 173 dated 07/15/2013 (ADAMS Accession No. ML13168A025) | M12015A (01350983) | <p>Procedure changes will be made prior to implementation of TSTF-476, Rev. 1 "Improved BPWS [Banked Position Withdrawal Sequence] Control Rod Insertion Process (NEDO-33091)," to include the following:</p> <p>After reactor power drops below the LPSP, rods may be inserted from notch position 48 to notch position 00 without stopping at the intermediate positions. However, it is recommended that operators insert control rods in the same order as specified for the original/standard BPWS as much as reasonably possible. When in the process of shutting down following improved BPWS with the power below the LPSP, no control rods shall be withdrawn unless the control rod pattern is in compliance with standard BPWS requirements.</p> | <p>Complete</p> <p>Procedure 8048, Rev. 6, "Bypass of RWM During Plan Shutdown Using Improved BPWS Control Rod Insertion Process"</p> |

| Licensee Correspondence | TAC No. | NRC Correspondence | Commitment No. (AR No. or COMM No.) | Description of Commitment | Implementation Status & NRC Document Reviews and Validation |
|---|---------|--|--|---|--|
| L-MT-13-113 dated 11/15/2013 (ADAMS Accession No. ML13319B204) | ME9601 | Amendment No. 178 dated 01/28/2014 (ADAMS Accession No. ML13218A061) | M13011A (1413471) | Revise USAR to reflect the specific Emergency Diesel Generator (EDG) fuel oil volumes contained in the diesel storage tank (equivalent to duration-based requirements) are calculated using Section 5.4 of American Standards Institute (ANSI) N195 - 1976, "Fuel Oil Systems for Standby Diesel-Generators," and are based on applying the conservative assumption that the EDG is operated continuously at rated capacity. This fuel oil calculation methodology is one of the two approved methods specified in Regulatory Guide (RG) 1.137, Revision 1, "Fuel-Oil Systems for Standby Diesel Generators," Regulatory Position C.1.c. | Complete Verified incorporated in Section 8.4.1.2 of the USAR, Rev. 31, in March 2014. The supplement dated 11/15/2013 characterizes this as a "commitment" by the licensee; however, this item was treated as an obligation to be implemented by incorporation in the USAR. |
| L-MT-13-096 dated 10/04/2013 (ADAMS Accession No. ML13282A141) | ME3145 | Amendment No. 180 dated 03/28/2014 (ADAMS Package Accession No. ML14070A042) | M13009A (1400045) (1457570) (1415431) | NSPM commits to train and test licensed reactor operators to initiate Monticello Nuclear Generating Plant feedwater flow reduction in less than or equal to 90 seconds to support the MELLLA+ Anticipated Transient without Scram Instability analysis. In Amendment No. 180: The MNGP commitment to train the operators to take immediate actions (within 90 seconds) to reduce reactor water level ensures the power level during an ATWS event is promptly reduced so that the probability of unstable power oscillations is minimized. The commitment has been entered into the licensee's commitment tracking system, and will continue to remain part of the licensing basis. The NRC staff will review this commitment to verify implementation. Any future changes to this operator response time will require the licensee to perform a review and evaluation (e.g., 10 CFR 50.59). | Complete/Ongoing Procedure OWI-03.07, Rev. 10, "TIME CRITICAL OPERATOR ACTIONS" Simulator Exercise Guide #MT-OPS-TCA-008S, Rev. 0, "Turbine Trip with 100% ATWS" for licensed operator requalification training USAR updates (still in progress): * Section 14.8.2.1, "ATWS Licensing Basis Analysis" * Section 14.8.2.2, "ATWS with Depressurization Analysis" * Section 14.8.2.3, "ATWS with Core Instability (ATWSI) Analysis" |

P. Gardner

- 2 -

The NRC staff appreciates the resources that were made available by your staff, both before and during the audit. If there are any questions, I can be contacted at (301) 415-3049.

Sincerely,

/RA/

Terry A. Beltz, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-363

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