



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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LISLE, IL 60532-4352

August 29, 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 NRC POST-APPROVAL SITE
INSPECTION FOR LICENSE RENEWAL INSPECTION REPORT
05000263/2010-008**

Dear Mr. O'Connor:

On July 16, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed a Post-Approval Site Inspection for License Renewal at your Monticello Nuclear Generating Plant. The enclosed report documents the inspection findings, which were discussed on July 16, 2010, with Mr. T. 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. On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The NRC staff did not identify any instances of incomplete commitments with respect to timeliness or adequacy.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document

T. O'Connor

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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/

Ann Marie Stone, Chief
Engineering Branch 2
Division of Reactor Safety

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

Enclosure: Inspection Report 05000263/2010008
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: 05000263/2010008

Licensee: Northern States Power Company, Minnesota

Facility: Monticello Nuclear Generating Plant

Location: Monticello, MN

Dates: June 28, 2010 – July 16, 2010

Inspectors: C. Tilton, Senior Reactor Engineer (Lead)
T. Bilik, Reactor Engineer
M. Jones, Reactor Engineer
B. Jose, Senior Reactor Engineer
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Observers: G. O'Dwyer
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Approved by: A. M. Stone, Chief
Engineering Branch 2
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000263/2010-008; 06/28/2010 – 07/16/2010; Monticello Nuclear Generating Plant; Post-Approval Site Inspection for License Renewal.

The report covers a team inspection conducted by region-based engineering inspectors. The inspectors concluded that commitments, license conditions, and regulatory requirements associated with the issuance of the renewed operating license were being met. 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

No violations of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA5 Other Activities

.1 Post-Approval Site Inspection for License Renewal (Phase 2) – Inspection Procedure 71003

a. Inspection Scope

(1) Review of Newly Identified System, Structure, and Components (SSCs)

The inspectors reviewed the licensee's process associated with determining newly identified SSC which should be considered within the lagging management program as described in 10 CFR 54.37(b). This process is executed in accordance with the instructions that implement the licensee's overall license renewal program. The inspectors also noted that the instructions include criteria for newly identified SSCs, which were consistent with the criteria in NRC Regulatory Issue Summary (RIS) 2007-16, Revision 1, "Implementation of the Requirements of 10 CFR 54.37(b) for Holders of Renewed Licenses," dated April 28, 2010.

The licensee personnel indicated that no new SSCs were identified; therefore, no updates to the Updated Safety Analysis Report (USAR) were necessary in accordance with this 10 CFR 54.37(b). The inspectors reviewed documentation associated with several plant design changes and noted that the licensee evaluated the new designs to determine whether these involve newly identified SSCs.

In RIS 2007-16, Revision 1, the NRC also communicates three NRC-identified topics concerning SSCs that met the requirements of 10 CFR 54.37(b). These topics included: (1) SSCs credited for station blackout requirements; (2) electrical fuse holders; and (3) housings for active components. The inspectors noted that these topics were addressed in the original license renewal application; therefore, were not subject to the requirements of 10 CFR 54.37(b) for Monticello Nuclear Generating Plant. No additional NRC-identified topics relating to requirements of 10 CFR 54.37(b) were identified by the end of the inspection.

Based on this review, the inspectors found no deficiencies in the licensee's compliance with the requirements of 10 CFR 54.37(b).

(2) Review of Updated Safety Analysis Report and Commitment Item Change Process

The inspectors reviewed the Aging Management Programs (AMPs) and confirmed these programs were implemented as described in the applicable USAR sections. No discrepancies were noted.

The inspectors reviewed the licensee's procedures to ensure that Commitment Item revisions would follow the guidance in Nuclear Energy Institute (NEI) 99-04, Guidelines for Managing NRC Commitment Item Changes, including the elimination of commitments, and would properly evaluate, report, and approve changes to license renewal commitments listed in the USAR in accordance with 10 CFR 50.59. The

inspectors also reviewed the licensee's Commitment Item tracking program to evaluate its effectiveness.

With respect to implementation, the inspectors reviewed changes associated with each commitment. No discrepancies identified as detailed below.

(3) Review of Commitments

The inspectors reviewed supporting documents including completed surveillance records, conducted interviews, performed visual inspection of structures and components including those not accessible during power operation, and observed the activities described below to verify the licensee completed the necessary actions to comply with the license conditions that are a part of the renewed operating license. The inspectors verified the licensee implemented the Aging Management Programs and time-limited aging analyses (TLAA) included in NUREG-1865, "Safety Evaluation Report (SER) Related to the License Renewal of the Monticello Nuclear Generating Plant," in accordance with 10 CFR Part 54, "Requirements for the Renewal of Operating Licenses for Nuclear Power Plants." The inspectors verified a selected sample of corrective actions taken as a consequence of the license renewal inspection.

When changes to these commitments were identified, the inspectors reviewed the Commitment Item Change Evaluation Form (CCEF) to verify the licensee followed the guidance in NEI 99-04 for the license renewal Commitment Item change process, including the elimination of commitments, and properly evaluated, reported, and approved where necessary, changes to license renewal commitments listed in the USAR in accordance with 10 CFR 50.59. The inspectors also reviewed the licensee's Commitment Item tracking program to evaluate its effectiveness.

The inspectors reviewed the commitments referenced in Appendix A of the SER. Specific documents reviewed are listed in the enclosure.

1. Item 1, Current Licensing Basis Changes During NRC Review

Commitment Item 1 specified each year, following the submittal of the License Renewal Application and at least 3 months before the scheduled completion of the NRC review, the licensee will submit amendments to the application pursuant to 10 CFR 54.21 (b). The commitment also stated that these revisions will identify any changes to the current licensing basis that materially affect the contents of the License Renewal Application (LRA), including the USAR supplements and any other aspects of the application.

The inspectors reviewed the two License Renewal Application Updates dated March 15, 2006, and August 18, 2006. These letters documented changes made to the current licensing basis since the LRA was submitted.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 1.

2. Item 2, Review of NUREG-0933

Commitment Item 2 specified in accordance with the guidance of Appendix A.3.2.1.2 to NUREG-1800, Appendix B to the latest issued supplement to NUREG-0933 will be reviewed for new generic safety issues (GSIs) designated as unresolved safety issue (USI), high, or medium priority. The commitment also stated that any GSIs identified that involve TLAAAs or aging effects for structures and components subject to an aging management review will be included in the annual update of the LRA.

The inspectors reviewed the two License Renewal Application Updates dated March 15, 2006, and August 18, 2006. In Section 3.0.7, "Review of NUREG-0933," included in Enclosure 1 of these documents, the licensee stated that NUREG-0933 was reviewed and no issues were identified that involve TLAAAs or aging effects for structures and components subject to an aging management review.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 2.

3. Item 3, Boiling Water Reactor (BWR) Vessel Internals

Commitment 3 specifies the inspection of the steam dryer is to be accomplished using guidance provided in BWRVIP-139, "Steam Dryer Inspection and Flaw Evaluation Guidelines, (April 2005)." Furthermore, in the event a new steam dryer is installed, the licensee will reevaluate the inspection requirements.

The BWR Vessels Internals Program is part of the ASME Section XI Inservice Inspection Program. The program provides for condition monitoring of the BWR vessel internals for crack initiation and growth.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, action requests (ARs), and previous inspection results; and interviewed plant personnel responsible for this program. The inspectors verified that licensee incorporated the enhancements described in the commitment into station procedures.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 3.

4. Item 4, Structures Monitoring

Commitment Item 4 specified because the interior of the diesel fire pump house masonry block walls are covered with insulation, the Structures Monitoring Program will require the interior surfaces of the walls to be examined if exterior wall surfaces show evidence of significant aging.

The inspectors reviewed the licensing basis, the program basis documentation, implementing procedures, planned and completed work orders, related corrective action documents, and interviewed personnel responsible for the program. The inspectors verified that the enhancement specified in the SER was incorporated into the program. The inspectors also performed a walkdown of the diesel fire pump house masonry block wall exterior surfaces with the responsible program personnel.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 4.

5. Item 5, Reactor Pressure Vessel (RPV) Circumferential Weld Examination Relief

Commitments 5 specified the procedures and training used to limit RPV cold overpressure events will be the same as those approved by the NRC when the licensee requested approval of the BWRVIP-05 technical alternative for the term of the current operating license. The commitment also stated a request for extension for the 60-year extended operating period will be submitted to the NRC before the period of extended operation.

The inspectors reviewed documentation related to the extension of permanent relief from volumetric examination of the reactor pressure vessel circumferential shell welds. The inspectors verified that commitments in this letter were the same as those approved by the NRC in letter dated July 27, 2001, "Evaluation of Relief Request Number 12 for the Third 10-Year Interval Inservice Inspection Program." The inspectors also reviewed related procedures to confirm that commitments will be implemented as specified in these documents.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 5.

6. Item 6, Quality Assurance Program and Administrative Controls

Commitment Item 6 specified the site-specific administrative work instructions will be applicable to both safety- and non-safety-related SSCs subject to an aging management review consistent with the current licensing basis during the period of extended operation.

For a selection of the licensee's aging management programs, the inspectors reviewed the licensing basis information and the work instructions and implementing procedures referenced in the associated program bases documents. The inspectors also reviewed the site-specific instructions on implementation of the licensee's overall license renewal program. In addition, the inspectors interviewed personnel responsible for the program. The inspectors noted that work instructions considered by the licensee to be "administrative" supported the implementation of, apply to, or reference this commitment.

Based on this review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 6.

7. Item 7, Quality Assurance Program and Administrative Controls

Commitment Item 7 specified site documents that implement aging management activities for license renewal will be enhanced to ensure that an action request is prepared in accordance with plant procedures whenever nonconforming conditions are found (i.e., the acceptance criteria are not met).

For each aging management program, the inspectors reviewed a sample of the associated work instructions and implementing procedures. The inspectors noted

these documents supported implementation of this commitment, for example, by including a specific step or general precaution to initiate a corrective action request if nonconforming conditions are found. The inspectors also reviewed the instructions on implementation of the licensee's overall license renewal program. The inspectors noted the licensee uses its corrective action program action request process to document and track all problems, issues, and concerns. In addition, in accordance with the corrective action program screening charter, issues are considered for age related degradation, as applicable. The inspectors interviewed responsible program personnel regarding the documents reviewed.

Based on this review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 7.

8. Item 8, Quality Assurance Program and Administrative Controls

Commitment Item 8 specified revisions will be made to procedures and instructions that implement or administer aging management programs and/or activities for the purpose of managing the associated aging effects for the duration of extended operation.

For a selection of aging management programs, the inspectors reviewed the associated licensing basis information, instructions, and implementing procedures, and interviewed personnel responsible for this program. The inspectors reviewed these documents to confirm that the licensee's aging management programs are implemented as described in the SER. The inspectors noted the instructions and procedures specified they implement the aging management programs as described in the program bases documents.

Based on this review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 8.

9. Item 9, ASME Code, Section XI, Subsection IWF

Commitment Item 9 specified the ASME Code Section XI, Subsection IWF Program will be enhanced to provide inspections of Class MC component of supports consistent with NUREG-1801, Chapter III, Section Operation B1.3. The ASME Code Section XI, Subsection IWF Program is part of the existing ASME Section XI Inservice Inspection Program, and is credited for license renewal with the enhancement to include inspection of Code Class MC Component supports.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, examination records, and related ARs; and interviewed plant personnel responsible for the program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors concluded that the existing program, with the exception and enhancement as described in the LRA, met Commitment Item 9.

10. Item 10, Bolting Integrity

Commitment Item 10 specified the guidance for performing visual bolting inspections contained in EPRI TR-104213, Bolted Joint Maintenance and Application Guide, and the Good Bolting Practices Handbook (EPRI NP-5067 Volumes 1 and 2) will be included in the Bus Duct Inspection Program, Inspection of Overhead Heavy Loads and Light Loads (Related to Refueling) Handling Systems Program, Structures Monitoring Program, and the System Condition Monitoring Program.

This commitment item, contained under the Bolting Integrity Program, an existing program, was credited for the management of aging affects associated with bolting in the scope of license renewal through periodic inspection, material selection, thread lubricant control, assembly and torque requirements, and repair and replacement requirements. The activities included updating program procedures credited for managing aging effects.

The inspectors reviewed the licensing basis, the Bolting Integrity Program basis document, implementing procedures, corrective action program documents, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 10.

11. Item 11, Buried Piping and Tanks Inspection

Commitment Item 11 specified an enhancement will be completed to update the implementing procedures to include inspections of buried components, including conduit, when they are uncovered.

This commitment was associated with an existing program, Buried Piping and Tank Inspection Program. The activities included updating program procedures for Excavation and Trenching Control and Buried Pipe and Tank Integrity Program procedures to reflect notification requirements whenever components would be uncovered for inclusion in the inspection plan.

The inspectors reviewed the licensing basis, the Buried Piping and Tank Inspection Program basis document, implementing procedures, corrective action program documents, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 11.

12. Item 12, Buried Piping and Tanks Inspection

Commitment Item 12 specified the Diesel Fuel Oil Storage Tank, T-44, internal inspections would be added to the list of scheduled inspections in the Buried Piping and Tanks inspection program.

This commitment was included in an existing program, Buried Piping and Tank Inspection program, which was revised to add internal inspections of the Diesel Fuel Oil Storage Tank T-44, to the list of scheduled inspections. The inspectors

verified that the licensee has planned inspection activities and has scheduled future internal and external inspections of the Diesel Fuel Oil Storage Tank.

The inspectors reviewed the Buried Piping and Tanks Inspection Program basis documentation, implementing procedures, corrective action program documents, Engineering Work Instructions, and interviewed personnel responsible for the program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 12.

13. Item 13, Buried Piping and Tanks Inspection

Commitment Item 13 specified the Buried Piping and Tanks Inspections Program would be updated to include a provision that if evaluations of pipe wall thickness show a susceptibility to corrosion, further evaluation as to the extent of the susceptibility would be performed.

The inspectors reviewed the Buried Piping and Tanks Inspection Program basis documentation, implementing procedures, corrective action program documents, Engineering Work Instructions, and interviewed personnel responsible for the program. The inspectors noted that the licensee has incorporated operating experience and previous inspection data into the Buried Piping and Tanks Program to determine locations of potential susceptibility.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 13.

14. Item 14, Buried Piping and Tanks Inspection

Commitment Item 14 specified the Buried Pipe and Tanks Inspection Program would be revised to specify a 10-year buried pipe inspection frequency.

The inspectors reviewed the Buried Piping and Tanks Inspection Program basis documentation, implementing procedures, planned Preventative Maintenance Requirements, corrective action program documents, and interviewed personnel responsible for the program. The inspectors noted the licensee planned and scheduled inspections at the 10-year frequency specified per the commitment.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 14.

15. Item 15, Buried Piping and Tanks Inspection

Commitment Item 15 specified the Buried Pipe and Tanks Inspection Program would be revised to specify a 10-year inspection frequency for the Diesel Fuel Oil Storage Tank T-44.

The inspectors reviewed the Buried Piping and Tanks Inspection Program basis documentation, implementing procedures, planned Preventative Maintenance Requirements, corrective action program documents, and interviewed personnel

responsible for this program. The inspector noted that the licensee planned and scheduled inspections for the Diesel Fuel Oil Storage Tank, T-44, at the 10-year interval specified per the commitment.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 15.

16. Item 16, Buried Piping and Tanks Inspection

Commitment Item 16 specified the Buried Piping and Tank Inspection Program would be revised to include a review of previous buried piping issues to determine possible susceptible locations.

The inspectors reviewed the Buried Piping and Tanks Inspection Program basis documentation, implementing procedures, Engineering Work Instruction, Corrective Action Program documents and interviewed personnel responsible for this program. The inspectors noted the licensee revised necessary procedures to review past inspection data to inform future inspections of possible susceptible locations.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 16.

17. Item 17, Bus Duct Inspection Program

Commitment Item 17 specified the licensee will implement the program consistent with the appropriate ten elements described in Appendix A of NUREG-1800, Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants.

The program included: (1) inspection of accessible normally energized non-segregated bus duct internal components such as insulation material, bus duct support pieces, gaskets, insulating boots, taped connections, and bus bar sleeves for material surface anomalies for a non-segregated bus duct that connects the 2R transformer to the 4160 V load centers and the 1R transformer to the 4160 V load centers; (2) inspection of bus bar insulation material at the accessible bolted connections of the non-segregated bus duct that connects the 2R and 1R transformers to the 4160 V load centers; and (3) a sample of accessible bolted connections (bus joints and ending devices) will be checked for proper torque, or the resistance of bolted joints will be checked using a micro-ohm meter of sufficient current capacity that is suitable for checking bus bar connections. This program will also inspect the internal portions of accessible bus ducts for cracks, corrosion, foreign debris, dust buildup, and moisture intrusion.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, completed work orders, and related corrective actions. The inspectors verified that all the above inspection activities were satisfactory completed.

Based on this review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 17.

18. Item 18, BWR Feedwater Nozzle (deleted)

Commitment Item 18 specified the existing BWR Feedwater Nozzle Program, part of and implemented by the ASME Section XI Inservice Inspection Program, will be enhanced so the parameters monitored and inspected are consistent with the recommendations of GE-NE-523-A71-0594-A, Revision 1.

The inspectors, while reviewing the commitment related documents, determined that the commitment was not an enhancement to the BWR Feedwater Nozzle program, but rather an ASME Code requirement incorporated and implemented in accordance with ASME Section XI, Appendix VIII, as mandated and modified by 10 CFR 50.55a. As a result, the licensee deleted the commitment.

19. Item 19, BWR Feedwater Nozzle (changed)

The original Commitment Item 19 stated the existing BWR Feedwater Nozzle program was part of and implemented by the ASME Section XI Inservice Inspection Program, and will be enhanced so the regions being inspected, examination techniques, personnel qualifications, and inspection schedule are consistent with the recommendations of GE-NE-523-A71-0594-A, Revision 1. The commitment was changed to state “the BWR Feedwater Nozzle Program will be enhanced so the regions being inspected are consistent with the recommendations of GE-523-A71-0594-A, Revision 1.”

The change to the commitment was made after reviewing commitment documents 18–20 in order to accommodate the deletions of Commitments 18 and 20.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, and related condition reports; and interviewed the plant personnel responsible for this program. The inspectors verified that the FW Nozzle parameters monitored and inspected were consistent with the recommendations of Report GE-NE-523-A71-0594-A, Revision 1, which was approved by the NRC staff.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 19 as changed.

20. Item 20, BWR Feedwater Nozzle (deleted)

Commitment Item 20 specified the existing BWR Feedwater Nozzle Program, part of and implemented by the ASME Section XI Inservice Inspection Program, will be enhanced so the parameters monitored and inspected are consistent with the recommendations of GE-NE-523-A71-0594-A, Revision 1.

The inspectors, while reviewing the commitment related documents, determined the commitment was not an enhancement to the BWR Feedwater Nozzle Program, but rather an ASME Code requirement incorporated and implemented in accordance with ASME Section XI, Appendix VIII, as mandated and modified by 10 CFR 50.55a. As a result, the licensee deleted the commitment.

21. Item 21, BWR Vessel Internals

Commitment 21 enhances the Vessels Internals Program through the addition of the repair/replacement guidelines in BWRVIP-16, 19, 44, 45, 50, 51, 52, 57, and 58 to the program, as applicable.

The BWR Vessels Internals Program is part of the ASME Section XI Inservice Inspection Program. The program provides for condition monitoring of the BWR vessel internals for crack initiation and growth.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, and AR's; and interviewed personnel responsible for this program. The inspectors verified that the implementation of the enhancements for the addition of the repair/replacement guidelines in BWRVIP-16, 19, 44, 45, 50, 51, 52, 57, and 58 to the program, as applicable, have been incorporated into station procedures.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 21.

22. Item 22, BWR Vessel Internals

Commitment 22 specifies that the licensee will perform top guide grid inspections using the EVT-1 method of examination, for the high fluence locations (grid beam and beam-to-beam crevice slot locations with fluence exceeding 5.0×10^{20} n/cm²). Ten percent (10 percent) of the total population will be inspected within 12 years with a minimum of 5 percent inspected within the first six years (during the period of extended operation).

The BWR Vessels Internals Program is part of the ASME Section XI Inservice Inspection Program. The program provides for condition monitoring of the BWR vessel internals for crack initiation and growth.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, inspection schedules, and AR's; and interviewed personnel responsible for this program. The inspectors verified that the implementation of the reactor vessel top guide grid inspections have been incorporated into station procedures.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 22.

23. Item 23, Closed-Cycle Cooling Water

Commitment Item 23 specified a one-time inspection will be performed to monitor the effects of corrosion on select portions of closed-cycle cooling water systems that perform a pressure-integrity intended function.

The inspectors reviewed selected samples of the one-time inspection procedures performed to monitor the effects of corrosion on select portions of closed-cycle cooling water systems, documentation of the results of licensee one-time inspections, actions for disposition of potential degradation identified, and planned follow-up inspections. The inspectors also interviewed licensee personnel,

reviewed the licensing basis, program basis document, planned, and completed work orders, corrective action program documents, EPRI documentation, and inspection procedures.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 23.

24. Item 24, Compressed Air Monitoring

Commitment Item 24 specified the Compressed Air Monitoring Program procedures would be revised to include corrective action requirements if the acceptance limits for water vapor, oil content, or particulate are not met.

The inspectors reviewed the Compressed Air Program basis documentation, implementing procedures, corrective action program documents, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 24.

25. Item 25, Compressed Air Monitoring

Commitment Item 25 specified the Compressed Air Monitoring program would be revised to include inspection of air distribution piping based on the recommendations of EPRI TR-108147.

The inspectors reviewed the Compressed Air Monitoring Program basis documentation, implementing procedures, Engineering Work Instructions, corrective action program documents; work orders, procedure change requests, and interviewed personnel responsible for this program. The inspectors noted that the licensee updated necessary procedures to ensure aging mechanisms for air distribution piping are managed per EPRI guidance.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 25.

26. Item 26, Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification (EQ) Requirements Program

Commitments 26 specified the licensee will implement the program as a new program consistent with the recommendations of NUREG-1801 Chapter XI Program XI.E1. The program will manage the aging of conductor insulation material on cables, connectors, and other electrical insulation materials that are installed in an adverse localized environment caused by heat, radiation, or moisture.

The licensee developed a program by which a representative sample of accessible electrical cables and connections installed in adverse localized environments are visually inspected for cable and connection jacket surface anomalies, such as embrittlement, discoloration, swelling, cracking, or surface contamination. The sample is based on the severity of the adverse localized environment, as

compared to the plant design environment, and other criteria such as accessibility, availability, importance-to-safety, or prior inspection results.

The inspectors reviewed licensing basis, the program basis documentation, implementing procedures and records of walkdowns for determining adverse localized environments and visual inspections for cables. The inspectors also reviewed corrective actions, which addressed and identified cable issues and their associated corrective actions. The inspector performed walkdown visual examinations of cables in several adverse environmental areas in the plant.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 26.

27. Item 27, Electrical Cables Not Subject to 10 CFR 50.49 Environmental Qualification (EQ) Requirements Used in Instrumentation Circuits Program

Commitment Item 27 specified the licensee will implement the program as a new program. With exceptions, it will be consistent with the recommendations of NUREG-1801 Chapter XI Program XI.E2.

The program specified a review of Technical Specification (TS) calibration and surveillance results, and cable testing for cable aging degradation before the period of extended operation and every 10 years thereafter. Licensee took the exception that, cables that are not covered by the TS calibration and surveillances will be tested separately for insulation integrity. The program is applied to the cables of the Nuclear Instrumentation Systems which included source range monitors (SRMs), intermediate range monitors (IRMs), local power range monitors, and Radiation Monitoring Systems, which included drywell radiation monitors, main steam line radiation monitors, and the steam jet air ejector radiation monitors.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, planned and completed work orders and related corrective actions. The inspectors verified that work orders were completed satisfactorily.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 27.

28. Item 28, Fire Protection

Commitment Item 28 specified the licensee would revise the existing fire protection program to include visual inspection of the halon fire suppression system to detect any signs of degradation, such as corrosion and mechanical damage. It also specified the visual inspection will provide aging management for external surfaces of the halon fire suppression system.

The inspectors reviewed the licensing basis, program basis document, and existing implementing procedures. The inspectors verified that the above enhancement was incorporated into the existing program documents and implementing procedures. The inspectors performed walkdown visual examinations of halon fire suppression system, which was found satisfactory.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 28.

29. Item 29, Fire Protection

Commitment Item 29 specified the licensee would revise the existing fire protection program plan document to include qualification criteria for individuals performing visual inspections of penetration seals, fire barriers, and fire doors. It also stated that qualification criteria will be based on physical capability (i.e., eye exam), education/training and experience with Fire Protection Program requirements. This included a commitment change in accordance with NEI 99-04, in that the original commitment item stated that "the qualification criteria will be in accordance with VT-1 and VT-3 or equivalent".

The inspectors reviewed the licensing basis, program basis document, and existing implementing procedures. The inspectors verified that the above commitment change was incorporated into the existing program documents and implementing procedures. The inspectors identified the licensee did not document proper justification for the commitment change. The licensee initiated AR 01239540 to properly document the commitment change. The inspectors performed walkdown visual examinations of a sample of penetration seals, fire barriers, and fire doors and found them to be satisfactorily maintained.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 29.

30. Item 30, Fire Water System

Commitment Item 30 specified the licensee would revise the existing fire water system program implementing procedures to include the extrapolation of inspection results to below grade fire water piping with similar conditions that exist within the above grade fire water piping.

The inspectors reviewed the licensing basis, program basis document, and existing implementing procedures. The inspectors performed walkdown visual examinations of a sample of Fire Water System piping and did not identify any discrepancies.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 30.

31. Item 31, Fire Water System

Commitment Item 31 specified Fire Water System Program sprinkler heads will be inspected and tested per NFPA requirements and that per the NFPA code, the sprinkler heads will be tested or replaced when the sprinklers have been in service for 50 years. It also specified testing procedures shall be repeated at 10-year intervals thereafter during the extended period of operation to ensure that signs of degradation, such as corrosion, are detected in a timely manner and if the sprinkler heads are replaced, testing is not required.

The licensee revised the original Commitment Item 31 to clarify that, if the sprinkler heads are replaced after being in service for 50 years, then testing will not be required.

The inspectors reviewed the licensing basis, program basis document, and existing implementing procedures. The inspectors performed walkdown visual examinations of a sample of Fire Water System sprinkler heads and did not identify any discrepancies.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 31.

32. Item 32, Fire Water System

Commitment Item 32 specified the Fire Water System Program will verify the procedures to be used for aging management activities of the Fire Water System apply testing in accordance with applicable NFPA codes and standards and that relevant procedures will be revised as appropriate.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, chemistry results, and related CRs; and interviewed personnel responsible for this program. The inspectors verified that the licensee conducted periodic non-intrusive wall thickness measurements of selected portions of the fire water system, established periodic inspections on the external surfaces of submerged fire pumps, outdoor fire hydrants, and outdoor transformer deluge system components, and established periodic maintenance tasks to sample sprinklers in accordance with National Fire Protection Association (NFPA) 25, "Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems."

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 32.

33. Item 33, Fuel Oil Chemistry Program

Commitment Item 33 specified the plant procedures related to the diesel fuel oil system will be revised to include requirements to check for general, pitting, crevice, galvanic, microbiologically-influenced corrosion, and cracking.

The inspectors reviewed the associated licensing basis information, program basis document, and implementing procedures, and interviewed personnel responsible for this program. The inspectors noted that the implementing procedures specify visual inspection, ultrasonic testing, or both, to detect these aging effects in diesel fuel oil system components.

In addition, the inspectors noted that the program bases document and emergency diesel generators system aging management review technical report indicate that copper components in a fuel oil environment are managed for the effects of cracking. Although the plant procedures include requirements to check for cracking consistent with the licensee's commitment, the inspectors questioned whether the licensee's program managed aging of all copper tubing components in the emergency diesel generators system.

Under its one-time inspection program, the licensee examined a piece of tubing in the emergency diesel generators system that was believed to be made of steel; however, upon inspection, the licensee discovered that the actual material was copper. The material specifications indicated that all tubing in the system was made of steel, so to determine whether other tubing in the system was actually made of copper, the licensee further inspected the system with a magnet. This inspection revealed more tubing actually made of copper.

The licensee entered this issue into its corrective action program and evaluated the effects of fuel oil on the copper tubing. Through its evaluation, the licensee determined that the function of the tubing was not impaired. The licensee also determined that there were no adverse effects on the copper resulting from use of ultra-low sulfur diesel. Nonetheless, the licensee is evaluating the option to replace all the copper tubing with stainless steel tubing, although no specific replacement schedule was implemented.

The inspectors reviewed the LRA to determine whether the licensee included an aging management review of copper tubing components with an internal fuel oil environment in the emergency diesel generators system. The aging management review information for this system is in LRA Table 3.3.2-6, "Auxiliary Systems - Emergency Diesel Generators System - Summary of Aging Management Evaluation"; however, the inspectors found no entry that adequately addressed copper tubing components with an internal fuel oil environment. As such, the inspectors determined that there was no documentation in the current licensing basis, which demonstrates that the effects of aging would be adequately managed, as required by 10 CFR 54.21(a)(3).

As a result, the licensee initiated AR 01241483, dated July 15, 2010, to provide information in the next USAR update to reflect how it manages the effects of aging on copper tubing components with an internal fuel oil environment in the emergency diesel generators system. The inspectors concluded that the licensee's corrective action is appropriate because the updated aging management information will be reported to the NRC and will reflect the actual licensing basis. Furthermore, since the application itself cannot be updated, placing the information in the USAR will provide the requisite regulatory control to ensure the efficacy of the aging management program.

Based on its review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 33.

34. Item 34, Fuel Oil Chemistry Program

Commitment Item 34 specified the Fuel Oil Chemistry Program procedures will be revised to require tank draining, cleaning, and inspection, if deemed necessary based on the trends indicated by the results of the diesel fuel oil analysis, or as recommended by the system engineer based on equipment operating experience.

The inspectors reviewed the associated licensing basis information, program basis document, and implementing procedures, and interviewed personnel responsible for this program.

Based on its review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 34.

35. Item 35, Fuel Oil Chemistry Program

Commitment Item 35 specified the existing procedures in the Fuel Oil Chemistry Program will be developed or revised to require periodic tank inspections of the diesel fuel oil tanks.

The inspectors reviewed the associated licensing basis information, program basis document, and implementing procedures, and interviewed personnel responsible for this program. The inspectors noted that the periodicity of the inspections was established through the plant PMRQ process and then implemented through issuance of model work orders. In addition, the inspectors reviewed completed work orders on recent tank inspections and confirmed that the next inspections are scheduled in the PMRQs. The inspectors also walked-down accessible portions of the diesel fuel oil system, including fuel oil tanks.

Based on its review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 35.

36. Item 36, Inaccessible Medium Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification (EQ) Requirements

Commitment Item 36 stated that, the Inaccessible Medium Voltage (2 kV to 34.5 kV) Cables Not Subject to 10 CFR 50.49 EQ Requirements program will be implemented as a new program consistent with the recommendations of NUREG-1801 Chapter XI, Program XI.E3.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, planned and completed work orders and related corrective actions. The inspectors verified that the cables were satisfactory tested every four years per existing programs. The licensee's current procedures credited the Meggering and Polarization Index and tan delta testing for detecting deterioration of insulation system due to wetting.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 36.

37. Item 37, Inspection of Overhead Heavy and Light Load (Related to Refueling) Handling Systems

Commitment Item 37 specified the Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems Program will be enhanced to specify a 5-year inspection frequency for the fuel preparation machines.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, planned, and completed work orders, and related corrective action documents. The inspectors verified that the enhancement specified in the SER was incorporated into the program.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 37.

38. Item 38, One-Time Inspection

Commitment Item 38 specified the One-Time Inspection Program will be implemented as a new program consistent with the recommendations of GALL AMP XI.M32, "One-Time Inspection." It also stated this program will include measures to verify the effectiveness of the following aging management programs: Plant Chemistry Program and Fuel Oil Chemistry Program and it will also confirm the absence of age degradation in selected components (e.g., flow restrictors, venturis) within the scope of license renewal.

The inspectors reviewed licensing basis, program basis document, implementing procedures, planned, and completed work orders, related corrective actions and interviewed personnel responsible for this program. One unresolved item as discussed in section XXX was identified.

39. Item 39, Protective Coating Monitoring and Maintenance Program

Commitment Item 39 specified the Protective Coating Maintenance and Monitoring Program procedures will be updated to include inspection of all accessible painted surfaces inside containment.

The inspectors reviewed samples of the Protective Coating Maintenance and Monitoring Program procedures and verified the procedures were updated to include inspection of all accessible painted surfaces inside containment. In addition, the inspectors interviewed licensee personnel and reviewed the licensing basis, program basis document, planned and completed work orders, corrective action program documents, EPRI documentation, and inspection procedures. The inspectors verified that the licensee has implemented a Protective Coating Maintenance and Monitoring Aging Management Program that drives the identification of adverse conditions experienced by drywell and torus interior coated surfaces. The inspectors also verified that the licensee performed appropriate evaluations commensurate with safety-significance to ensure aging mechanisms are managed throughout the period of extended operation.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 39.

40. Item 40, Protective Coating Monitoring and Maintenance Program

Commitment Item 40 specified the Protective Coating Maintenance and Monitoring Program will be revised to include a pre-inspection review of the previous two inspection reports so that trends can be identified.

The inspectors reviewed samples of the inspection procedures performed to monitor the Service Level 1 protective coatings inside containment and verified that the procedures required pre-inspection review of the previous two inspection reports so that trends would be identified.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 40.

41. Item 41, Protective Coating Monitoring and Maintenance Program

Commitment Item 41 specified the Protective Coating Maintenance and Monitoring Program implementation procedures will be revised to include provisions for analysis of suspected reasons for coating failure.

The inspectors reviewed the licensing basis, program basis document, implementing procedures, related corrective actions and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 41.

42. Item 42, Reactor Vessel Surveillance

Commitment Item 42 specified the intent to use the Integrated Surveillance Program during the period of extended operation by implementing the requirements of BWRVIP-116, "Integrated Surveillance Program (ISP) Implementation for License Renewal." BWRVIP-116 was approved by the NRC as documented in the NRC's Final SER of BWRVIP-116 issued February 24, 2006.

The inspectors interviewed licensee personnel and reviewed the licensing basis, program basis document, planned and completed work orders, corrective action program documents, EPRI documentation, and inspection procedures.

The inspectors reviewed selected samples and verified that BWRVIP-116 was appropriately implemented in accordance with requirements, e.g., the Final NRC SER on BWRVIP-116 and NUREG-1865. In 2007, as part of the ISP, the licensee was requested to remove its 300° surveillance capsule for testing. Removal and testing was completed and the licensee received the results on March 23, 2009. These results indicated that the chemistry factor associated with heat number C2220 was to increase to 180°F from 130.8°F. The licensee entered the results into the Corrective Action Program as required by initiating AR 01177862 on April 12, 2009 and performed a formal calculation to evaluate the results as required. The licensee concluded that one of the curves for the Pressure/Temperature limits in the TS would become non-conservative around year 2026. Because outside vendors' analyses are required, the licensee plans to submit a license amendment request (LAR) before the end of the year after the new curves have been calculated. The inspectors verified that the licensee had taken appropriate compensatory actions, e.g., administrative controls were put in place by modifying plant operating procedures to ensure compliance to figures 3.4.9-1 through 3.4.9-4 of the TS. The licensee verified by calculation that the operating procedures are bounding for an extended period of time (through 2026 at

the current rate of accumulation). The licensee informed the NRC of these issues associated with the results of the new 300° capsule testing information and the corrective actions including the planned LAR to change the TS. The inspectors concluded that the licensee had adequately met the guidance of NRC Inspection Manual, Part 9900, Technical Guidance, "Operability Determinations and Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety." The inspectors concluded that the licensee had also adequately met the guidance of NRC Administrative Letter 98-10, dated December 29, 1998, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety."

The inspectors also reviewed the USAR supplement for this AMP and concluded that it adequately described the program. The inspectors considered the commitment appropriately implemented.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 42.

43. Item 43, Reactor Vessel Surveillance

Commitment Item 43 specified the retention of the capsules removed from the reactor vessel as part of the Reactor Vessel Surveillance Program.

The inspectors reviewed selected samples of the inspection procedures, interviewed licensee personnel, and verified that the licensee's Reactor Vessel Surveillance AMP required the retention and storage of the capsules removed from the reactor vessel as part of the Reactor Vessel Surveillance Program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 43.

44. Item 44, Selective Leaching of Materials

Commitment Item 44 specified the Selective Leaching of Materials Program will be implemented as a new program consistent, with exceptions, to the recommendations of GALL AMP XI.M33. The program will be developed and implemented before the start of the period of extended operation. The program includes a one-time visual inspection and hardness measurement of selected components that are susceptible to selective leaching. In situations in which hardness testing is not practical, a qualitative method by other non-destructive examination (NDE) or metallurgical methods will be used to determine the presence and extent of selective leaching. The program will determine whether selective leaching is occurring for selected components.

As noted above, there are two exceptions taken to recommendations identified in NUREG 1801; 1) hardness testing, other than Brinell hardness testing, may be used at the to identify the presence of selective leaching of material, and 2) qualitative methods will be used in lieu of hardness testing to determine if selective leaching has occurred in situations where hardness testing is not practical.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, metallurgical laboratory reports, completed work orders, related CRs, and interviewed the personnel responsible for this program.

Because selective leaching was identified based on a test that represented a group of components, the inspectors reviewed the associated CRs and interviewed the responsible plant personnel to assure corrective actions were in-place for aging management of components that are or may be susceptible to selective leaching of materials. No concerns were identified.

Based on this review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 44.

45. Item 45, Structures Monitoring

Commitment Item 45 specified the existing Structures Monitoring Program implementing procedures will be enhanced to ensure that structural inspections are performed on submerged portions of the intake structure from the service water bays to the wing walls.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, planned work orders, and interviewed personnel responsible for this program.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 45.

46. Item 46, Structures Monitoring

Commitment Item 46 specified the existing Structures Monitoring Program will be expanded, as necessary, to include inspections of structures and structural elements within the scope of license renewal that are not inspected as part of another aging management program.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, completed and planned work orders, related CRs, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 46.

47. Item 47, Structures Monitoring

Commitment Item 47 specified the existing Structures Monitoring Program implementing procedures will be revised to include the monitoring/inspection parameters for structural components within the scope of license renewal.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, completed and planned work orders, related CRs, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 47.

48. Item 48, Structures Monitoring

Commitment Item 48 specified the existing Structures Monitoring Program will be enhanced to include a requirement to sample groundwater for pH, chloride concentration, and sulfate concentration.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, planned work orders, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 48.

49. Item 49, Structures Monitoring

Commitment Item 49 specified the existing Structures Monitoring Program will be enhanced to include concrete evaluations of inaccessible areas if degradation of accessible areas is detected.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, planned work orders, and interviewed personnel responsible for this program.

Based on the examples reviewed and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 49.

50. Item 50, Structures Monitoring

Commitment Item 50 specified the existing Structures Monitoring Program implementing procedures will be enhanced to include acceptance criteria for structural inspections of submerged portions of the intake structure.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, completed and planned work orders, related CRs, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 50.

51. Item 51, System Condition Monitoring

Commitment Item 51 specified the implementing instructions and procedures for the System Condition Monitoring Program will be revised to describe specific age degradation parameters to be monitored and inspected. Acceptance criteria will also be included.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, completed and planned work orders, related CRs, and interviewed personnel responsible for this program.

The inspectors also attended a pre-job briefing and witnessed the associated visual surveillance walkdown of selected portions of the residual heat removal (RHR) system with the RHR System Engineer. Plant locations included the East Shutdown cooling room, West Shutdown cooling room, RHR A room, RHR B room, and torus area. The surveillance was performed using Attachment 5, "MNGP Focused System Walkdowns Guidelines," of Procedure FP-E-SE-04 which specified actions related to license renewal commitments. No concerns were identified.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 51.

52. Item 52, Metal Fatigue of the Reactor Coolant Pressure Boundary

Commitment Item 52 specified existing Metal Fatigue of the Reactor Coolant Pressure Boundary Program will be enhanced to incorporate the requirements for inclusion of NUREG/CR-6260 locations into the implementing procedures for the Thermal Fatigue Monitoring Program.

During review of Section 3.0.3.2.24 of the SER, the inspectors noted that the licensee identified components, in addition to those specified in NUREG/CR-6260, which had a fatigue cumulative usage factor that exceeded those of NUREG/CR-6260. The SER indicated that the licensee would include these components in their fatigue management program. However, these components are not part of a commitment identified in Appendix A of the SER.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, planned work orders, related CRs, and interviewed personnel responsible for this program. The inspectors also verified that the enhanced implementing procedures included components, in addition to those specified in NUREG/CR-6260, which had a fatigue cumulative usage factor that exceeded those of NUREG/CR-6260.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 52.

53. Item 53, Flow Accelerated Corrosion (FAC)

Commitment Item 53 specified the existing fleet procedure for the Flow Accelerated Corrosion Program will be revised to include the accepted 87.5 percent of nominal pipe wall thickness for non-safety-related piping as a trigger point for engineering analysis.

The inspectors reviewed the licensing basis, program basis documents, enhanced implementing procedures, FAC program outage summary reports, planned work orders, related CRs, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 53.

54. Item 54, Protective Coating Monitoring and Maintenance Program

Commitment Item 54 specified prior to the period of extended operation, coating inspectors will meet the requirements of ANSI N45.2.6.

The inspectors interviewed licensee personnel, reviewed coating inspector qualification documentation, completed inspection procedures, and verified that coating inspectors met the requirements of ANSI N45.2.6.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 54.

55. Item 55, Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification (EQ) Requirements

Commitment Item 55 specified the licensee will implement a program which is consistent with NUREG-1801, Revision 1, XI.E6 "Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification (EQ) Requirements"

The licensee developed a program to visually inspect all accessible electrical cables connections including connectors, splices, terminal blocks, and fuse holders installed in adverse localized environments for signs of accelerated age-related degradation. Additional inspections, repairs, or replacements are to be initiated as appropriate.

The inspectors reviewed licensing basis, the program basis documentation, implementing procedures and records of walkdowns for determining adverse localized environments and thermography results. The inspectors also reviewed corrective actions, which addressed and identified over heating of connections and their associated corrective actions.

Based on the review of the timeliness and adequacy of the licensee's actions, the inspectors determined that the licensee met Commitment Item 55.

56. Item 56, BWR Vessel Internals

Commitment 56 specified the licensee has inspected the in-core monitoring dry tubes on an every-other refueling outage periodicity and will continue to perform this operation during the period of extended operation, in accordance with the guidance provided in GE SIL-409.

The BWR Vessels Internals Program is part of the ASME Section XI Inservice Inspection Program. The program provides for condition monitoring of the BWR vessel internals for crack initiation and growth.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, inspection schedules, AR's, and previous inspection reports; and interviewed personnel responsible for this program. The inspectors

verified that inspection of the in-core monitoring dry tubes has been incorporated into station procedures.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 56.

57. Item 57, BWR Vessel Internals

Commitment Item 57 specified the licensee is an active member of the BWRVIP and will continue to follow applicable inspection guidelines and recommendations, which have been reviewed and approved by the executive committee of the BWRVIP, throughout the period of extended operation.

The inspectors reviewed the licensing basis, program basis document, BWRVIP membership document, and interviewed personnel responsible for this program.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 57.

58. Item 58, BWR Vessel Internals

Commitment 58 specified the licensee will add inspections requirements for the P1, P2, and P3 Core Spray piping welds at MNGP in accordance with BWRVIP-18, or subsequent revisions.

The BWR Vessels Internals Program is part of the ASME Section XI Inservice Inspection Program. The program provides for condition monitoring of the BWR vessel internals for crack initiation and growth.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, inspection plan, previous inspection results, and AR's; and interviewed personnel responsible for this program. The inspectors verified that the inspections requirements for the P1, P2, and P3 Core Spray piping welds, to be performed in accordance with BWRVIP-18, have been incorporated into station procedures.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 58.

59. Item 59, BWR Vessel Internals

Commitment 59 specified adherence to the BWRVIP inspection guidelines for core plate hold-down bolts by implementing one or more of three specific approaches prior to the period of extended operation. The licensee elected to adopt the first approach only, specifically, to develop an alternative to the inspections identified in the BWRVIP which will, at a minimum, satisfy the intent of the BWRVIP in terms of assuring core plate functional integrity throughout the period of extended operation. Further, the licensee will provide the alternative to the inspection program to the NRC staff for their review and approval at least one year prior to entering the period of extended operations.

The BWR Vessels Internals Program is part of the ASME Section XI Inservice Inspection Program. The program provides for condition monitoring of the BWR vessel internals for crack initiation and growth.

The inspectors reviewed the licensing basis, program basis documents, implementing procedures, AR's, and evaluation results; and interviewed personnel responsible for this program. The inspectors verified that the commitment to develop an alternative to the inspections identified in BWRVIP-25 has been implemented.

Based on this review of the timeliness and adequacy of the licensee actions, the inspectors determined that the licensee met Commitment Item 59.

b. Findings and Observations

(1) Potential concern with the one-time inspection program related to butt welds

In the March 25, 2006, license renewal annual update (ML060800360), the licensee provided details of changes made to the original license renewal application. With respect to Class 1 Small-Bore piping, the licensee committed to the following:

“Upon further review subsequent to submitting the LRA to identify inspection locations, it was determined that all piping in this inspection group is of actual diameter 2 inches and less. In accordance with the plant piping specification, only socket weld connections are used in such applications and no butt welds. Therefore, inspections of this piping for the One-Time Inspection Program will consist of VT-2 examinations during pressure testing for system leaks upon return to service from outages and destructive examinations of any socket welds removed from service prior to the period of extended operation.”

In a letter dated May 14, 2010 (ML101370259), the licensee notified the NRC of the existence of a limited number of small-bore stainless-steel butt weld connections (less than 4 inches in diameter) which are contrary to the requirements of plant piping specifications. As a result, the licensee changed the one-time inspection commitment again and committed to perform augmented ISI volumetric examinations of ASME Class I stainless steel small-bore piping butt welds with a 2-inch nominal pipe size through less than 4-inch nominal pipe size in accordance with the ISI aging management program.

The inspectors questioned whether the identification of stainless-steel butt welds constituted a newly identified component or whether the commitment change was appropriate. This is considered an unresolved item (URI 05000263/2010008-01) pending further discussions with the NRC program office.

(2) (Closed) Unresolved Item (URI) URI 05000263/2009006-01: One Time Inspection Program Implementation

During the observation of outage-related license renewal commitments, the inspectors identified a concern involving the conduct of one-time inspections with personnel and procedures that did not appear consistent with licensee commitments. Specifically, the

inspectors were concerned that the One-Time Inspection Program implementation to date had not been entirely consistent with the licensee's commitment.

The inspectors noted the SER approving Monticello's License Renewal Application documented that the licensee agreed to develop an aging management program consistent with NUREG-1801 Rev 0, Generic Aging Lessons Learned, Section XI.M32. This section describes a program where inspections are performed by qualified personnel following procedures consistent with the ASME Code and 10 CFR 50, Appendix B. The licensee implemented this as a requirement in Monticello procedures including "License Renewal One Time Inspection Methods" and 4 AWI-07.03.01, "Nondestructive Examination Techniques," which required that personnel conducting NDE in support of license renewal to be certified in accordance with FP-PE-NDE-03.

The inspectors were concerned that procedures used in work order (WO) 0157972 and WO 284608 were not the procedures specified in the One Time Inspection Methods program document. The licensee also documented instances where inspections were conducted by personnel who were not certified in accordance with station procedures. The licensee entered this issue into the corrective action program as CAP 01175477. This issue was opened as an unresolved item (URI) to be reviewed in context during this team inspection.

During this inspection period, the inspectors reviewed related implementing procedures, completed work orders, and had numerous interviews with plant personnel responsible for the One-Time Inspection Program. After further study, the inspectors determined that the one-time inspections conducted by unqualified personnel and procedures did not result in components that would exceed their acceptance criteria. In addition, the One-Time Inspection Program had sufficient samples to gather the necessary information without taking into account these inspection results.

The inspectors concluded that the failure to conduct one-time inspections with unqualified personnel and procedures as required by the One-Time Inspection Program was a performance deficiency of minor significance. This performance deficiency is similar to example 6d of Inspection Manual Chapter (IMC) 0612 Appendix E where a task was performed with unqualified personnel but the overall effort of the Program provided reasonable assurance that inspection results would be adequate.

No finding of significance was identified and this item is closed.

(3) (Closed) Unresolved Item (URI) URI 05000263/2009006-03: Adequacy of the One-Time Inspection Program

During the observation of outage-related license renewal commitments, the inspectors identified a concern involving potential inadequacies in the One-Time Inspection Program. The inspectors were concerned that indication of degradation had not been evaluated in context of the on-time inspection program. The inspectors identified two work orders where measured wall thickness was below the evaluation threshold. The equipment was evaluated to be acceptable, based upon minimum wall thickness, but the indicated degradation was not further evaluated in the context of demonstrating the extent of aging effects.

The inspectors were also concerned about the adequacy of procedures used to identify pitting corrosion. WO 346293-01 dealt with the one-time ultrasonic thickness (UT) examination of the Reactor Core Isolation Cooling system barometric condenser using UT procedure FP-PE-NDE-425 (Revision 1).

This examination measured the thickness of the material to detect the aging effect of "loss of material" due to corrosion, including pitting corrosion. The examination performed consisted of linear, circumferential checks, every six inches along the length of the condenser with a 0 degree transducer. The diameter of the transducer used, and therefore the approximate width of each scan, was roughly 0.30". The inspectors were also concerned that this examination was not likely to detect pitting due to the small area examined and type of transducer used.

This issue was opened pending review of the entire one time inspection program in context during the IP 71003 team inspection.

The inspectors reviewed program documentation, implementing procedures, completed work orders, and interviewed plant personnel responsible for the One-Time Inspection Program. After further study, the inspectors determined the components that were dispositioned without a proper aging degradation evaluation would not exceed their engineering evaluation minimum wall thickness value during the entire period of extended operation and the components would perform their intended functions based on a linear degradation analysis. In addition, after rigorous research, the inspectors could not locate an industry accepted method to detect pitting corrosion.

As a result, the inspectors concluded that failure to adequately implement the One-Time Inspection Program as required by Commitment 38 by not performing an aging degradation evaluation to a component as required was a performance deficiency. Of minor significance. Consequently, if left uncorrected, this performance deficiency would not have affected the intended function of the components during the entire period of extended operation.

No finding of significance was identified and this item is closed.

c. Overall Conclusions

The inspectors did not identify any other substantive instances of incomplete license renewal commitments with respect to timeliness or adequacy. The licensee has implemented corrective actions for those findings detailed above; therefore, the inspectors concluded that commitments, license conditions, and regulatory requirements associated with the issuance of the renewed operating license were being met.

4OA6 Management Meetings

.1 Exit Meeting Summary

On July 16, 2010, the inspectors presented the inspection results to the Site Vice-President, Mr. T. 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

T. O'Connor Site Vice President
J. Grubb Plant Manager
N. Haskell Engineering Director
D. Neve Regulatory Assurance Manager
S. Porter Program Engineering Manager
P. Young Program Engineering Supervisor

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

5000263/2010008-01	URI	Potential concern with the one-time inspection program related to butt welds (Section 4OA5.1b(3))
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Closed

5000263/2009006-01	URI	One-Time Inspection Program Implementation (Section 4OA5.1b(3))
5000263/2009006-03	URI	Adequacies of the One-Time Inspection Program (Section 4OA5.1b(3))

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.

Newly Identified SSCs under 10 CFR 54.37(b)

4 AWI-08.11.04; License Renewal Implementation; Revision 0
AR 01223696; Leak discovered on SLC Tank T-200; March 22, 2010
CD 5.37; License Renewal Implementation Standard; Revision 3; June 17, 2010
Design Description Form EC Number 11006; Replacement of Condensate Demineralizers; Revision 0
Design Input Consultation Form; EC11006 / Condensate Demineralizer Replacement; July 25, 2008
EC Number 9655; Polymer Injection Skid for RW Iron Removal; Revision 0
EC Number 9619; Sodium Hypochlorite System Changes for Service Water Injection; Revision 0
FP-PE-RLP-01; License Renewal Implementation; Revision 3; June 17, 2010
Monticello Updated Safety Analysis Report; Revision 27P
Regulatory Issue Summary 2007-16; Implementation of the Requirements of 10 CFR 54.37(b) for Holders of Renewed Licenses; Revision 1; April 28, 2010

Commitment Item 1 and 2

L-MT-06-018; Monticello Nuclear Generating Plant - License Renewal Application Annual Update (TAC No. MC6440); March 15, 2006
L-MT-06-060; Monticello Nuclear Generating Plant - License Renewal Application Update (TAC No. MC6440); August 18, 2006

Commitment Item 3

AR 00829838; NRC Commitment M05005A – Inspection of Steam Dryer for LRA; April 6, 2005
EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13
EWI-08.01.02; BWRVIP Implementation Guidelines; Revision 7
PBD/AMP-040; Aging Management Program Basis Document BWR Vessel Internals; Revision 3
PO 00009579; In-Vessel Visual Examination Final Report; Revision 2
4AWI-09.04.00; Inservice Inspection Licensee Control Program; Revision 6
4 AWI-07.03.01; Nondestructive Examination; Revision 11

4 AWI-09.04.03; ASME Section XI Repair/Replacement Program; Revision 18
II.05; Chemistry Limits and Sampling Frequencies; Revision 22
EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual;
Revision 13
PEI-02.05.05; Visual Examination of Monticello Reactor Vessel Inspection; Revision 3
WO 00267341-01; Perform In-Vessel Visual Inspections; January 21, 2007
AR 01083169; Crack Like Indication on Steam Dryer Found in 2007 RFO; March 20,
2007
CE 01083168-01; Engineering Evaluation of Steam Dryer Cracking; March 28, 2007

Commitment Items 4, 45, 46, 47, 48, 49, and 50 (Structures Monitoring Program)

4 AWI-07.04.02; Administrative Work Instruction: Plant Chemistry Program; Revision 6
4 AWI-07.04.04; Administrative Work Instruction: Plant Chemistry Program; Revision 6
1385; Periodic Structural Inspections; Revision 6
1396; Equipment/Structures Settling Check; Revision 8
4057-PM; Intake Bay/Traveling Screen Forebays Inspection; Revision 8
Procedure 4125-PM; East Service Water Bay Inspection/Dredging; Revision 14
Procedure 4126-PM; West Service Water Bay Inspection/Dredging; Revision 14
AR 1071661; Concrete Base Is Cracked for Diesel Fire Pump Discharge Pipe; dated
January 13, 2007
AR 1081412; Chlorides on Safety Related Concrete; dated March 9, 2007
AR 1091108; Recombiner Building – Cracks in Concrete; dated May 4, 2007
AR 1175339; Broken Bolt for Structural Steel Found on Scaffold; March 27, 2007
AR 1232653; MR Structural Deficiency WOs Not Completed In Timely Manner; dated
May 13, 2010
AR 1235133; Aging Management Minor EFT Items; dated May 28, 2010
AR 1235184; Aging Management Minor Cracks in REC M/G Set Room Floor; dated
May 28, 2010
AR 1239495; LR – NRC Question About Procedure 1396; dated June 29, 2010
AR 1239594; Crack in Masonry Wall of Diesel Fire Pump House; dated June 30, 2010
AR 1241302; LR – PMRQ 8836-14 Shows Past 125% Due Date; dated July 14, 2010
AR 1241305; LR – 0126823 Processed Without Appropriate Reviews; dated July 14,
2010
AR 1241486; LR – Procedure 1396 Requires Further Enhancements; dated July 15,
2010
AR 1241497; 4057-PM, Potential Deficiency Not Evaluated; dated July 15, 2010
AR 1241567; LR – NRC Observation of 1385 – Diesel Oil Transfer House; dated
July 16, 2010

EWI-05.02.01; Engineering Work Instruction: Monticello Maintenance Rule Program Document; Revision 15

I.05.50; Sampling Ground Water Monitoring Wells; Revision 5

II.05; Chemistry Limits & Sampling Frequencies; Revision 22

PMRQ 8592-01; Hydraulically Dredge Intake Bay with Divers; due date April 1, 2012

PMRQ 8836-14; PM 4057, Inspect Circ Water System for Macrofouling; due date April 13, 2010

PMRQ 9337-12; PM 4125, Inspect East Service Water Bay; due date March 5, 2011

PMRQ 9337-13; PM 4126, Inspect West Service Water Bay; due date March 5, 2011

PMRQ 9344-01; 1385, Periodic Structural Inspection; due date June 15, 2010

PMRQ 9344-02; 1396, Equipment/Structures Settling Check; due date June 22, 2010

WO 150971; 1396, Equipment/Structures Settling Check; completed June 20, 2006

WO 286651; 1385, Periodic Structural Inspection; completed June 14, 2007

WO 288959-02; 4125-PM, Inspect East Service Water Bay; completed April 4, 2007

WO 288960; 4126-PM, Inspect West Service Water Bay; completed March 21, 2007

WO 307214; 1396, Equipment/Structures Settling Check; completed June 21, 2007

WO 342811; 4057-PM, Intake Bay/Traveling Screen Forebays Inspection; completed April 19, 2008

WO 343936; 4125-PM, Inspect East Service Water Bay; completed April 1, 2009

WO 350488; 1396, Equipment/Structures Settling Check; completed June 18, 2008

WO 359060-05; 4057-PM, Intake Bay/Traveling Screen Forebays Inspection; completed April 13, 2009

WO 373773; 1396, Equipment/Structures Settling Check; completed June 24, 2009

WO 399872; 4057-PM, Intake Bay/Traveling Screen Forebays Inspection; completed April 16, 2010

Commitment 5

0255-20-IIC-1; Reactor Coolant Pressure Boundary Leakage Test; Revision 33

L-MT-1 0-014; 10 CFR 50.55a Request 17: Extension of Permanent Relief from Volumetric Examination of Reactor Pressure Vessel Circumferential Shell Welds for the Renewed Operating License Term; March 12, 2010

Ops Man B.06.05-05; Condensate and Reactor Feedwater System Operation; Revision 15

Ops Man C.4-A; Abnormal Procedures Reactor Scram, Revision 33

Commitment 6

0136; Integrated Primary Containment Leak Rate Test; Revision 20

0137; Master Local Leak Rate Test; Revision 33

0138; Drywell Personnel Airlock Pressure and Leak Test; Revision 20
0255-20-IIC-2; Reactor Coolant Pressure Boundary Leakage Test; Revision 27
0446-B; Type B and C Combined Leakage Check; Revision 6
0515; Primary Containment Visual Examination for Structural Problems; Revision 5
1132; Pressure Suppression Chamber Internal Structural Visual Inspection; Revision 17
1368; Suppression Chamber External Inspection; Revision 6
4 AWI-07.03.01; Nondestructive Examination; Revision 11
4 AWI-07.04.02; Plant Chemistry Program; Revision 6
4 AWI-08.11.01; Environmental Qualification; Revision 6
4 AWI-08.11.04; License Renewal Implementation; Revision 0
4 AWI-09.04.00; Inservice Inspection Licensee Control Program; Revision 6
4 AWI-09.04.02; System and Component Pressure Testing Program; Revision 19
4 AWI-09.04.03; ASME Section XI Repair/Replacement Program; Revision 19
9001; Reactor Well & Dryer-Separator Storage Pool Filling Procedure; Revision 22
9210; Master RPV Disassembly Procedure; Revision 10
AR 00829849; NRC Commitment M05008A – Applicability of Station AWIS for LRA;
April 6, 2005
CD5.11; Equipment Environmental Qualification Standard; Revision 3; January 19, 2010
EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual;
Revision
EWI-08.01.03; Augmented Reactor Vessel Inspections; Revision 5
EWI-08.06.01; MNGP Primary Containment Leakage Rate Testing Program; Revision 8
EWI-08.06.02; LLRT Extended Eligibility Determination; Revision 1
EWI-08.06.03; Option B Test Interval Determination; Revision 1
EWI-08.11.01; Equipment Qualification User's Manual; Revision 18
EWI-09.04.00; ASME Section XI Inservice Inspection Program; Revision 7
FP-PE-NDE-401; Ultrasonic Examination of Ferritic Pipe Welds – Supplement 3;
Revision 3; February 26, 2010
FP-PE-NDE-408; Straight Beam Ultrasonic Examination of Bolts and Studs; Revision 2;
March 4, 2010
FP-PE-NDE-510; Visual Examination, VT-1; Revision 3; June 23, 2010
FP-PE-NDE-540; IWE Visual Examination; Revision 1; June 7, 2010
I.06.01; Data Review; Revision 4
II.01; Strategic Chemistry Plan; Revision 14
II.03; Control and Diagnostic Parameters; Revision 3
II.05; Chemistry Limits & Sampling Frequencies; Revision 23

II.08; Chemistry QA/QC Program; Revision 22
II.14; Conduct of Chemistry; Revision 6
Monticello Updated Safety Analysis Report; Revision 27P
PBD/AMP-001; Aging Management Program Basis Document: Plant Chemistry Program; Revision 3; May 27, 2010
PBD/AMP-004; Aging Management Program Basis Document: Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless (CASS) Steel Program; Revision 3; June 2, 2010
PBD/AMP-022; Aging Management Program Basis Document: Primary Containment In-Service Inspection Program; Revision 3, June 8, 2010
PBD/AMP-025; Aging Management Program Basis Document: 10 CFR 50, Appendix J Program; Revision 4; May 26, 2010
PBD/AMP-033; Aging Management Program Basis Document: ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD; Revision 3; May 29, 2010
PBD/AMP-034; Aging Management Program Basis Document: Reactor Head Closure Studs; Revision 3; May 24, 2010
PBD/AMP-035; Aging Management Program Basis Document: BWR Vessel ID Attachment Welds; Revision 3; May 24, 2010
PBD/AMP-037; Aging Management Program Basis Document: BWR Control Rod Drive Return Line Nozzle; Revision 3; May 19, 2010
PBD/AMP-038; Aging Management Program Basis Document: BWR Stress Corrosion Cracking; Revision 4; June 8, 2010
PBD/AMP-039; Aging Management Program Basis Document: BWR Penetrations; Revision 3; May 25, 2010
PBD/AMP-042; Aging Management Program Basis Document: Electrical Equipment Subject to 10 CFR 50.49 Environmental Qualification (EQ) Requirements; Revision 3; April 30, 2010
PEI-02.05.05; Visual Examination of Monticello Reactor Vessel Inspection; Revision 3
PEI-02.08.03; Inservice Inspection Flaw Evaluation; Revision 1

Commitment Item 7

0275-03; Fire Door Inspections; Revision 34
0319; Fire Protection System – Yard Hydrant Barrel Inspection; Revision 18
1132; Pressure Suppression Chamber Internal Structural Visual Inspection; Revision 17
1253; Underground Piping Inspection; Revision 7
1362; Air Quality Test for the Instrument Air System; Revision 14
1367; Pressure-Suppression Chamber Below Water Line Painted Surface Internal Inspection; Revision 7
1385; Periodic Structural Inspections; Revision 6
1396; Equipment/Structures Settling Check; Revision 8

1404-01; EDG ESW Heat Exchanger Performance Test; Revision 13
1475; Equipment Cycles Surveillance; Revision 6
4057-PM; Intake Bay/Traveling Screen Forebays Inspection; Revision 8
4125-PM; East Service Water Bay Inspection/Dredging; Revision 14
4126-PM; West Service Water Bay Inspection/Dredging; Revision 14
4245-01-PM; Separator/Dryer Pool Lower Cavity SBLS Inspection Procedure;
Revision 11
4245-PM; Dryer and Steam Separator Sling Lifting Device Inspection Procedure;
Revision 9
4250-01-PM; Reactor Building Crane, Bridge Drive System; Revision 28
4250-02-PM; Reactor Building Crane, Trolley Drive System; Revision 26
4250-03-PM; Reactor Building Crane, Main Hoist System; Revision 26
4250-04-PM; Reactor Building Crane, Auxiliary Hoist System; Revision 26
4260-PM; Refueling Platform Inspection and Lubrication; Revision 29
4261; Procedure for Routine Inspection of the Fuel Preparation Machine; Revision 6
4270-01-PM; Turbine Building Crane, Bridge Drive System; Revision 21
4270-02-PM; Turbine Building Crane, Trolley Drive System; Revision 21
4270-03-PM; Turbine Building Crane, Main Hoist System; Revision 24
4270-04-PM; Turbine Building Crane, Auxiliary Hoist System; Revision 24
4361-PM; Reactor Building Crane, Inspection Checklist; Revision 8
4864-PM; Reactor Vessel Head Lifting Device Inspection Procedure; Revision 10
4 AWI-06.06.01; Administrative Work Instruction: Site Rigging, Lifting, and Material
Handling Program; Revision 27
4 AWI-07.03.01; Nondestructive Examination; Revision 11
4 AWI-07.04.02; Plant Chemistry Program; Revision 6
4 AWI-08.11.01; Environmental Qualification; Revision 6
4 AWI-09.04.03; ASME Section XI Repair/Replacement Program; Revision 19
8199; Generator Rotor Lift & Associated Crane Inspection Procedure; Revision 7
AR 01228174; April 20, 2010
AR 00829851; NRC Commitment M05009A – Ensure AR for LRA Non-Conformances;
April 6, 2005
EWI-04.05.01; Thermography Program; Revision 10
EWI-05.02.01; Engineering Work Instruction: Monticello Maintenance Rule Program
Document; Revision 15
EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual;
Revision 13

EWI-08.01.03; Augmented Reactor Vessel Inspections; Revision 5

EWI-08.07.01; Engineering Work Instruction: Thermal Fatigue Monitoring Program; Revision 6

EWI-09.04.00; ASME Section XI Inservice Inspection Program; Revision 7

EWI-11.01.01; Metal Enclosed Bus Aging Management Program; Revision 3

EWI-11.01.02; Inaccessible Medium Voltage (2KV to 34.5KV) Cables Not Subject to 10 CFR 50.49 EQ Requirements Program; Revision 2

EWI-11.01.03; Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program; Revision 2

EWI-11.01.04; Electrical Cables Not Subject to 10 CFR 50.49 EQ Requirements Used in Instrumentation Circuits; Revision 1

FP-E-SE-04; Conduct of System Engineering; Revision 6

FP-PA-ARP-01; CAP Action Request Process; Revision 27; July 8, 2010

FP-PE-FAC-01; Xcel Energy Fleet Procedure: FAC Program; Revision 9

FP-PE-NDE-510; Visual Examination, VT-1; Revision 1

FP-PE-NDE-510; Visual Examination, VT-1; Revision 2

FP-PE-NDE-530; Visual Examination, VT-3; Revision 4

I.05.25; Zebra Mussel Inspection; Revision 5

II.01; Strategic Chemistry Plan; Revision 14

II.05; Chemistry Limits & Sampling Frequencies; Revision 23

MMP-008; Bolting Practices; Revision 7

Monticello Updated Safety Analysis Report; Revision 27P

NSP-DOL-0598; Diesel Fuel Oil Tank Inspections; Revision 1

PBD/AMP-002; Aging Management Program Basis Document: Flow Accelerated Corrosion (FAC) Program; Revision 4

PBD/AMP-010; Aging Management Program Basis Document: Inspection of Overhead Heavy and Light Load (Related to Refueling) Handling Systems Program; Revision 2

PBD/AMP-020; Aging Management Program Basis Document: Selective Leaching of Materials; Revision 3

PBD/AMP-027; Aging Management Program Basis Document: Structures Monitoring Program; Revision 2

PBD/AMP-043; Aging Management Program Basis Document: Metal Fatigue of the Reactor Coolant Pressure Boundary; Revision 3

PEI-02.05.05; Visual Examination of Monticello Reactor Vessel Inspection; Revision 3

PEI-02.08.03; Inservice Inspection Flaw Evaluation; Revision 1

Commitment Item 8

3283; Regulatory Process Applicability Determination; Revision 9; Screening Number SCR-10-0182; Revision 0; USAR Appendix K Refers to Older Version of BWRVIP; May 19, 2010

AR 01233502; May 19, 2010

EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13

EWI-08.06.01; MNGP Primary Containment Leakage Rate Testing Program; Revision 8

EWI-09.04.00; ASME Section XI Inservice Inspection Program; Revision 7

FP-PE-FAC-01; FAC Program; Revision 9; June 2, 2010

Monticello Updated Safety Analysis Report; Revision 27P

NUREG-1865; Safety Evaluation Report Related to the License Renewal of Monticello Nuclear Generating Plant; October 2006

PBD/AMP-043; Aging Management Program Basis Document: Metal Fatigue of the Reactor Coolant Pressure Boundary; Revision 3

Commitment Item 9

PBD/AMP-024; Aging Management Program Basis Document, ASME Section XI, Subsection IWF; Revision 3

AR 00829856; NRC Commitment M05011A – Enhance ASME Section XI, Subsection IWF; April 6, 2005

AR 01071387; 2 Rod Hanger Supports are Bowed o D23-2-EB Piping; February 12, 2007

AR 01068649; Equipment IDs for Most System Piping and Hangers not in Passport; February 12, 2007

FP-PE-NDE-530; Visual Examination, VT-3; Revision 4

NUREG-1865; Safety Evaluation Report Related t the License Renewal of the Monticello Nuclear Generating Plant; October, 2006

4 AWI-03.04.00; Inservice Inspection Licensee Control Program; Revision 6

A AWI-07.03.01; Nondestructive Examination; Revision 11

EWI-09.04.00; ASME Section XI Inservice Inspection Program; Revision 6

Inservice Inspection Plan; 4th Interval, May 1, 2003 Through May 31, 2012; June 5, 2010

2007-002-5-016; Nuclear Oversight Observation Report, Inservice Inspection Program; June 13, 2007

Code Case: N-491-2; Alternative Rules for Examination of Class 1, 2, 3, and MC Component Supports of Light-Water Cooled Power Plants Section XI, Division 1; March 12, 1997

Codes Case N-598; Alternative Requirements to Required Percentages of Examination Section XI, Division 1; March 2, 1998

Commitment Item 10

1385; Periodic Structural Inspection; Revision 6

AR 829859; NRC Commitment M05012A – Inclusion of Visual Bolting Inspection; April 6, 2005

FP-E-SE-04; Conduct of System Engineering; Revision 6

FP-PE-NDE-510, Visual Examination, VT-1; Revision 2

MDI-09.01; Torque Determination Guide; Revision 3

MMP-008; Bolting Practices; Revision 7

Commitment Item 11, 12, 13, 14, 15 and 16

0268; Fire Protection System Flow Test; Revision 20

1253; Underground Piping Inspection; Revision 7

1350; Underground Storage Tank Liquid Level Correlation; Revision 7

1404-01; EDG ESW Heat Exchanger Performance Test; Revision 13

1435-01; Underground Storage Tank Monitoring; Revision 3

AR 829864; NRC Commitment M05013A – Update Buried Pipe and Tank Insp; April 6, 2005

AR 829867; NRC Commitment M05014A – Add DG FO Storage Tank to Scheduled Inspections; April 6, 2005

AR 829873; NRC Commitment M05015A – Revise Buried Pipe and Tank Inspection Program; April 6, 2005

AR 829876; NRC Commitment M05016A – Revise Program to Include 10-Year Buried Pipe Insp ; April 6, 2005

AR 829881; NRC Commitment M05017A – 10-Year Inspection for DG FO Storage Tank T-44; April 6, 2005

AR 829883; NRC Commitment M05018A – Include Review of Previous Buried Pipe; April 6, 2005

EWI-08.25.01; Buried Piping and Tanks Integrity Program; Revision 4

FP-IH-EXC-01; Excavation and Trenching Controls; Revision 7

I.01.72; Operation of the Organic Vapor Monitor; Revision 6

I.05.30; Sampling the Underground Fuel Oil Tanks Monitoring Points; Revision 7

NSP-DOL-0598; Diesel Fuel Oil Tank Inspection; Revision 1

Commitment Item 17

PBD/AMP-045; Bus Duct Inspection Program; Revision 4

EWI-11.01.01; Metal Enclosed Bus Aging Management Program, Revision 3

4858-48-PM; 2R Transformer and Associated Bus PM: Revision 16

4858-59-PM; 1R Transformer and Associated Bus PM; Revision 13

AR 01139836; Heating noted at 2R Transformer X2 connection; June 3, 2008

Commitment Item 18

PBD/AMP-036; Aging Management Program Basis Document, BWR Feedwater Nozzle; Revision 3

Topical Report: GE-NE-523-A71-0594-A; Alternate BWR Feedwater Nozzle Inspection Requirements ;Revision 1

AR 00829890; NRC Commitment M05020A – Enhance BWR Feedwater Nozzle Program; April 6, 2005

AR 01139266; Implement BWR Feedwater Nozzle LR AMP; May 30, 2008

PEI-02.08.03; Inservice Inspection Flaw Evaluation; Revision 1

2009UT027; UT Examination of Inner Radius for Feedwater Nozzle N-4B; April 9, 2009

2009CA031; UT Calibration Report; April 9, 2009

2009CA032; UT Calibration Report; April 9, 2009

2009CA033; UT Calibration Report; April 9, 2009

Completion Code Compliance Summary; 4th Interval; June 30, 2010

EWI-09.04.00; ASME Section XI Inservice Inspection Program; Revision 7

4 AWI-09.04.00; Inservice Inspection Licensee Control Program; Revision 6

4 AWI-09.04.03; ASME Section XI Repair/Replacement Program; Revision 18

4 AWI-07.03.01; Nondestructive Examination; Revision 11

Commitment Item 19

PBD/AMP-036; Aging Management Program Basis Document, BWR Feedwater Nozzle; Revision 3

Codes Case N-552; Alternative Requirements to Required Percentages of Examination Section XI, Division 1; March 2, 1998

AR 00829893; NRC Commitment M05021A – Enhance BWR Feedwater Nozzle Program per GE Recommendation; April 6, 2005

AR 01139266; Implement BWR Feedwater Nozzle LR AMP; May 30, 2008

2009UT027; UT Examination of Inner Radius for Feedwater Nozzle N-4B; April 9, 2009

Completion Code Compliance Summary; 4th Interval; June 30, 2010

EWI-09.04.00; ASME Section XI Inservice Inspection Program; Revision 7

4 AWI-09.04.00; Inservice Inspection Licensee Control Program; Revision 6

4 AWI-09.04.03; ASME Section XI Repair/Replacement Program; Revision 18

4 AWI-07.03.01; Nondestructive Examination; Revision 11

Commitment Item 20

PBD/AMP-036; Aging Management Program Basis Document, BWR Feedwater Nozzle; Revision 3

Codes Case N-552; Alternative Requirements to Required Percentages of Examination Section XI, Division 1; March 2, 1998

AR 00829895; NRC Commitment M05022A – Enhance Inspection Schedule for BWR FW Nozzles; April 6, 2005

AR 01139266; Implement BWR Feedwater Nozzle LR AMP; May 30, 2008

Completion Code Compliance Summary; 4th Interval; June 30, 2010

EWI-09.04.00; ASME Section XI Inservice Inspection Program; Revision 7

4 AWI-09.04.00; Inservice Inspection Licensee Control Program; Revision 6

Commitment Item 21

AR 01176818; Minor Indentation in the Control Rod Guide Tube; April 5, 2009

AR 01177677; Indications Discovered in Shroud Support Legs; April 10, 2009

AR 00829897; NRC Commitment M05023A – Revise BWRVIP Program; April 6, 2005

EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13

EWI-08.01.02; BWRVIP Implementation Guidelines; Revision 7

PBD/AMP-040; Aging Management Program Basis Document BWR Vessel Internals; Revision 3

PO 00009579; 2007 RFO-23 Refueling Outage In-Vessel Visual Examination Final Report; April 1, 2007

4 AWI-09.04.03; ASME Section XI Repair/Replacement Program; Revision 18

II.05; Chemistry Limits and Sampling Frequencies; Revision 22

Commitment Item 22

PBD/AMP-040; Aging Management Program Basis Document BWR Vessel Internals; Revision 3

PCR01233561; BWRVIP Inspection Plan; Revision 1

AR 00859707; NRC Commitment M05057A – NRC Commitment to Perform Top Guide Grid Inspections; June 22, 2005

EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13

Commitment Item 23

AR 00829898; NRC LR commitment for one-time inspection for corrosion on Closed-Cycle Cooling Water systems; April 6, 2005

AR 01240094; EC 9561 identified as lacking license renewal & AOV reviews in response to NRC; July 2, 2010

AR 01221315; WO 0351698 identified RBCCW piping below expected value; March 4, 2010

WO 00351698 01; One-time inspection for corrosion on 11 Control Rod Drive Pump; March 4, 2010

WO 00351698 02; One-time inspection for corrosion on 12 Control Rod Drive Pump; May 25, 2010

WO 00363130 01; replace outboard pump bearing on P-201A & inspection; August 22, 2008

WO 00366409 04; replace P-210A & B gear box coolers for LR; April 7, 2010

WO 00372297 01; OTI for External UT On Piping Near P-202c (RHR); June 10, 2009
1404-01; EDG ESW HX performance test completed on July 13, 2010

Commitment Item 24 and 25

1362; Air Quality Test for the Instrument Air System; Revision 14

4159-PM; Instrument and Service Air Leak Survey; Revision 4

4953-PM; Instrument And Service Air System - Air Compressors (K-1E, K-1F, OR K-1G)

4954-PM; Instrument & Service Air System – Air Dryers (S-121, S-122, or S-123);
Revision 0

AR 829900; NRC Commitment M05025A – Revised Compressed Air Monitoring Prog
Procedures; April 6, 2005

AR 829902; NRC Commitment M05026A – Revise Program to Include Inspection Air
Distribution Pipe; April 6, 2005

FP-E-SE-04; Conduct of System Engineering; Revision 6

Commitment Item 26

PBD/AMP-030; Electrical cables and connections program; Revision 3

EWI-11.01.03; Electrical cables and connections administrative procedure; Revision 2

AR 01071373; Cracked and nicked cable identified on 11 Recirc. MG set; December 1,
2007

AR 01168989; Cracked insulation on SBLC squib valve cables; February 11, 2009

Commitment Item 27

PBD/AMP- 031; Electrical Cables Not Subject to 10 CFR 50.49 Environmental
Qualification Requirements Used in Instrumentation Circuits Program; Revision 3

1414; Main steam line radiation monitor test and calibration; Revision 10

0071; Offgas pretreatment monitor calibration procedure; Revision 32

0461; Control room air intake monitor calibration; Revision 17

Commitment Item 28

PBD/AMP-013; Fire Protection Program, Revision 3

0265; Diesel Fire pump engine inspection; Revision 3

4AWI-08.01.00; Fire Protection program plan; Revision 12

0328; Cable spreading room halon system inspection; Revision 21

Commitment Item 29

0275-01; Fire Barrier Penetration Seal visual inspection; Revision 16

0275-02; Fire Barrier wall, damper and floor inspection; Revision 16

0275-03; Fire door inspection; Revision 34

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PBD/AMP-014; Fire water system program; Revision 3

0267; Fire protection system header flush; Revision 17

0268; 3 year Fire protection system flow test; Revision 20

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0269; Fire Protection System Valve Check; Revision 29

0273; Fire Hose Station Valve Operability and Flow blockage test; Revision 19

0324; Fire Protection System Sprinkler Nozzle Air Flow; Revision 40

Commitment Item 32

1078-01; Fire Protection Main Transformer Deluge Test; Revision 9

1320-01; Turbine Generator Sprinkler Test; Revision 6

0319; Fire Protection System – Yard Hydrant Barrel inspection; Revision 17

Commitment Item 33

4106-01-PM; Emergency Diesel 1 Cycle Maintenance; Revision 27

4107-01-PM; Emergency Diesel 2 Cycle Maintenance; Revision 19

4108-01-PM; Emergency Diesel Generator 6 Year Maintenance; Revision 18

4109-01-PM; 11 Emergency Diesel Generator 12 Year Maintenance; Revision 22

4190-PM; Diesel Engine, Fire Protection Pump; Revision 26

AMR-DGN; Emergency Diesel Generators System; Revision 4; February 11, 2005

Application for Renewed Operating License; March 2005

AR 00830077; NRC Commitment M05034A – Revise DG FO Procedures; April 7, 2005

AR 01226525; Copper Tubing in 11 and 12 EDG Fuel Oil System; April 9, 2010

AR 01241483; Copper Tubing in Fuel Oil System Not in LRA; July 15, 2010

ASTM D975-10; Standard Specification for Diesel Fuel Oils

Information Notice 2006-22; New Ultra-Low-Sulfur Diesel Fuel Oil Could Adversely Impact Diesel Engine Performance; October 12, 2006

L-MT-06-018; Monticello Nuclear Generating Plant - License Renewal Application Annual Update (TAC No. MC6440); March 15, 2006

L-MT-06-060; Monticello Nuclear Generating Plant - License Renewal Application Update (TAC No. MC6440); August 18, 2006

Monticello Updated Safety Analysis Report; Revision 27P

MPS-0049; Monticello Fuel Oil Specification; Revision 3; May 30, 2008

NSP-DOL-0598; Diesel Fuel Oil Tank Inspections; Revision 1

NUREG-1865; Safety Evaluation Report Related to the License Renewal of Monticello Nuclear Generating Plant; October 2006

OSP-DOL-0543; Fuel Oil Receiving Quality Check; Revision 5

PBD/AMP-017; Aging Management Program Basis Document: Fuel Oil Chemistry Program; Revision 3; May 25, 2010

PMRQ 00024601-01; SV-3338C, Diesel Fire Pump Fuel Solenoid Replacement; June 24, 2008

Work Request 00055675; MM-Perform OTI Inspection on Removed SS Fuel Oil Tubing; April 6, 2010

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0192; Diesel Fuel Quality Check; Revision 28

4190-PM; Diesel Engine, Fire Protection Pump; Revision 26

AR 00830080; NRC Commitment M05035A – Revise MNGP FO Chemistry Program for Tank Draining; April 7, 2005

Monticello Updated Safety Analysis Report; Revision 27P

NUREG-1865; Safety Evaluation Report Related to the License Renewal of Monticello Nuclear Generating Plant; October 2006

PBD/AMP-017; Aging Management Program Basis Document: Fuel Oil Chemistry Program; Revision 3; May 25, 2010

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4106-01-PM; Emergency Diesel 1 Cycle Maintenance; Revision 27

4107-01-PM; Emergency Diesel 2 Cycle Maintenance; Revision 19

4108-01-PM; Emergency Diesel Generator 6 Year Maintenance; Revision 18

4109-01-PM; 11 Emergency Diesel Generator 12 Year Maintenance; Revision 22

4190-PM; Diesel Engine, Fire Protection Pump; Revision 26

Model Work Order 00363123; T-44, Clean and Inspect Diesel Fuel Oil Storage Tank

Model Work Order 00363050; CONST – T-45A, Clean and Inspect T-45A Day Tank

Model Work Order 00363119, CONST – T-45B, Clean and Inspect T-45B Day Tank

Model Work Order 00363018, EPRO – T-100, Perform UT Measurements

Model Work Order 00363486, EPRO – G-3A, Take Ultrasonic Thickness Measurements

Model Work Order 00363490, EPRO – G-3B, Take Ultrasonic Thickness Measurements

Monticello Updated Safety Analysis Report; Revision 27P
NSP-DOL-0598; Diesel Fuel Oil Tank Inspections; Revision 1
NUREG-1865; Safety Evaluation Report Related to the License Renewal of Monticello Nuclear Generating Plant; October 2006
PBD/AMP-017; Aging Management Program Basis Document: Fuel Oil Chemistry Program; Revision 3; May 25, 2010
PMRQ 00009517-02; T-44, Cleaning and Internal Visual Inspection
PMRQ 00009820-09; G-3A, EDG Base Tank NDE Ultrasonic Thickness
PMRQ 00009821-09; G-3B, EDG Base Tank NDE Ultrasonic Thickness
PMRQ 00024596-01; T-45A, Perform Internal Visual Inspection
PMRQ 00024597-01; T-45B, Perform Internal Visual Inspection
PMRQ 00024595-01; T-100, Perform UT Measurements
Work Order 377004-01; G-3A, EDG Base Tank NDE Ultrasonic Thickness Measurements; July 28, 2009
Work Order 377003-01; Perform UT Thickness Measurement of 12 EDG Base Tanks; June 5, 2009
Work Order 374092-01; T-100, Perform UT Measurements; June 24, 2009

Commitment Item 36

PBD/AMP-032; Inaccessible Medium Voltage (2kV to 34.5kV) Cables Not Subject to 10 CFR 50.49 EQ Requirements Program; Revision 3
AR 01151315; Water found in manhole containing cables for 2R feed; September 20, 2008
WO 0036888901; Test main power cables from 1AR to bus 15 and 16, September 24, 2008
WO 0039178201; Perform LR testing of feeder cable to X107 Transformer; April 25, 2010

Commitment Item 37

4 AWI-06.06.01; Administrative Work Instruction: Site Rigging, Lifting, and Material Handling Program; Revision 27
4261; Procedure for Routine Inspection of the Fuel Preparation Machine; Revision 6
AR 1219060; Five Year Inspection of Fuel Prep Machines Per Procedure 4261 Not Done; dated February 19, 2010
B0814008; 4261 Routine Preventative Maintenance of Fuel Preparation Machine; completed August 12, 1997
PMRQ 26350-01; 4261PM, 8-50A/B Fuel Preparation Machine; due date February 1, 2011

Commitment Item 38

AR 01232110; Application for Renewed Operating License (LRA), 3/16/05 and L-MT-06-018, Monticello Nuclear Generating Plant - License Renewal Application Annual Update, 3/15/06; May 7, 2010

FP-PE-NDE-425; Ultrasonic Thickness Examination – Localized Corrosion; February 6, 2009

L-MT-10-037; License Renewal Submittal Correction and Commitment Changes; May 14, 2010

WO 00346293-01; Perform LR OTI UT Examination of E-203; January 28, 2009

Commitment Item 39

AR 00829898; LR commitment for Protective Coating Maintenance and Monitoring Program procedures to include inspection of all accessible painted surfaces inside containment; April 7, 2005

4 AWI-08.1 1.03; Nuclear Coatings Program; Revision 8

CD 5.34; Safety Related Coatings Standard; June 30, 2009

0135; Pressure-Suppression Chamber Painted Surface Internal Inspection; Revision 15

0140; Drywell Interior Surface Inspection; Revision 13

1367; Pressure-Suppression Chamber Below Water Line Painted Surface Internal Inspection; Revision 7

Commitment Item 40

AR 00830112; LR commitment for Protective Coating inspection procedures will be revised to include pre-inspection review of previous two inspection reports so that trends can be identified; April 7, 2005

4 AWI-08.1 1.03; Nuclear Coatings Program; Revision 8

CD 5.34; Safety Related Coatings Standard; June 30, 2009

0135; Pressure-Suppression Chamber Painted Surface Internal Inspection; Revision 15

0140; Drywell Interior Surface Inspection; Revision 13

1367; Pressure-Suppression Chamber Below Water Line Painted Surface Internal Inspection; Revision 7

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0135; Pressure Suppression Chamber Painted Surface Internal Inspection; Revision 15

0140; Drywell Interior Surface Inspection; Revision 13

1367; Pressure Suppression Chamber Below Water Line painted Surface; Revision 7

Commitment Item 42

AR 00830112; MNGP LR commitment to use the Integrated Surveillance Program during the period of extended operation by implementing the requirements of BWRVIP-116; April 7, 2005

EWI-08.01-01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13

0121; Testing Of Reactor Vessel Specimens; Revision 5

PCR 01237910; Temporary Revision 064A to C.1 Startup Procedure to correct PT curves; June 18, 2010

PCR 0123886; Temporary Revision 059A to C.3 Shutdown Procedure to correct PT curves; June 18, 2010

AR 01177862; New capsule test results affect TS fig 3.4.9-1; April 12, 2009

Condition Evaluation 01177862; determination of corrective actions for new test results; April 18, 2009

Commitment Item 43

AR 00859716; MNGP LR commitment to retain the capsules removed from the MNGP reactor vessel as part of the Reactor Vessel Surveillance Program; June 22, 2005

EWI-08.01-01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13

0121; Testing Of Reactor Vessel Specimens; Revision 5

8123; Removal Of Reactor Vessel Specimens; Revision 5

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AR 1226439; Corrosion Discovered on Removed Fire Protection Valve FP-13; dated April 8, 2010

AR 1228174; FP-13, License Renewal, Evidence of Selective Leaching; dated April 20, 2010

AR 1229335; License Renewal – Clarification of Environments for Selective Leaching; dated April 26, 2010

FP-PE-NDE-510; Visual Examination, VT-1; Revision 2

L-3186A; Engel Metallurgical Inc. Lab Report; dated April 15, 2010

L-3187A-R1; Engel Metallurgical Inc. Lab Report; dated April 23, 2010

L-3207A; Engel Metallurgical Inc. Lab Report; dated May 24, 2010

PEI-03.01.01; Niton XL3T 900 Analyzer; Revision 0

PEI-03.01.02; Hardness Testing Procedure: Using EQUOTIP 2 Portable Hardness Tester; Revision 0

WO 376054-04; FP-134 CKV: License Renewal Selective Leaching Inspection of Removed Valve; completed May 26, 2010

WO 393772-04; Valve FP-170, , License Renewal Selective Leaching Inspection; completed April 29, 2010

WO 401899-01; Filter BS-1969, Screen Wash Pump P-104, One Time Inspection for License Renewal; completed May 13, 2010

WO 403793-03; Steam Trap ST-9006, License Renewal Selective Leaching Inspection; completed May 28, 2010

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FP-E-SE-04; Conduct of System Engineering; Revision 6

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1475; Equipment Cycles Surveillance; Revision 6

AR 1126722; FatiguePro Implementation; dated February 8, 2008

AR 1163813; Perform Evaluation NRC Regulatory Issue Summary (RIS) 2008-30 (Fatigue Analysis); dated December 29, 2008

CD 5.24; Excel Energy Corporate Directive: Reactor Vessel Integrity Program Standard; Revision 2

EWI-08.07.01; Engineering Work Instruction: Thermal Fatigue Monitoring Program; Revision 6

PMRQ-10437-23; 1475 Equipment Cycles Surveillance; due date February 2, 2011

Commitment Item 53

AR 1159429; Establish Repetitive Tasks for ISI, MIC, and FAC Inspections; dated November 17, 2008

CD 5.17; Corporate Directive: Flow Accelerated Corrosion and Service Water Inspection Program Standard; Revision 5

FAC Program RFO 23 Outage Summary Report; July 8, 2007

FAC Program RFO 24 Outage Summary Report; May 8, 2009

FP-PE-FAC-01; Xcel Energy Fleet Procedure: FAC Program; Revision 9

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- AR 874824; Prior to the period of extended operation, coating inspectors will meet the requirements of ANSI N45.2.6; August 8, 2005
- MWI-8-M-5.05; Nuclear Coating Applicator and Application Inspector Performance Qualification and Certification Program; Revision 8

Commitment Item 55

PBD/AMP-046; Electrical cable connections program; Revision 1
EWI-04.05.01; Thermography program; Revision 10

Commitment Item 56

PBD/AMP-040; Aging Management Program Basis Document BWR Vessel Internals; Revision 3
AR 01019146; Track NRC Commitments Made in Annual LRA Letter (LMT-06-018)
NUC-04.02; Dry Tube Inspections; Revision 2
GE SIL-409; Incore Dry Tube Cracks; Revision 2
WO 00344166-01; Perform Dry Tube Inspection as Specified by Nuc Engineer; March 9, 2009
3749-02; Monticello Impact Statement – Outage; Revision 2

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PBD/AMP-040; Aging Management Program Basis Document BWR Vessel Internals; Revision 3
AR 01019146; Track NRC Commitments Made in Annual LRA Letter (LMT-06-018)
EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 12
EWI-08.01.02; BWRVIP Implementation Guidelines; Revision 7
EPRI Letter; Storage of Monticello 300 Degree Surveillance Capsule Specimens; June 18, 2010
L-MT-06-018; Monticello Nuclear Generating Plant – Licensee Renewal Application Annual Update (TAC No. MC6440); March 15, 2006

Commitment Item 58

PBD/AMP-040; Aging Management Program Basis Document BWR Vessel Internals; Revision 3
AR 01019146; Track NRC Commitments Made in Annual LRA Letter (LMT-06-018)
EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13
EWI-08.01.02; BWRVIP Implementation Guidelines; Revision 8
PCR 01233561; BWRVIP Inspection Plan; Revision 1

PO 00009579; 2007 RFO-23 Refueling Outage In-Vessel Visual Examination Final Report; April 1, 2007

Commitment 59

PBD/AMP-040; Aging Management Program Basis Document BWR Vessel Internals; Revision 3

AR 01032319; Track NRC Commitments Made in Letter L-MT-06-019; May, 25 2006

LR-TR-014; Time Limited Aging Analysis Report for Monticello Nuclear Generating Plant; Revision 2

EWI-08.01.01; Boiling Water Reactor Vessel Internals Project Administrative Manual; Revision 13

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
AR	Action Request
AMP	Aging Management Program
ASME	American Society of Mechanical Engineers
ATWS	Anticipated Transient Without Scram
BWR	Boiling Water Reactor
CASS	Cast Austenitic Stainless Steel
CCEF	Commitment Item Change Evaluation Form
CCSW	Component Cooling Service Water
CFR	Code of Federal Regulations
CR	Condition Report
CSCS	Core Standby Cooling System
EDG	Emergency Diesel Generator
EPRI	Electric Power Research Institute
EPU	Extended Power Uprate
ESS	4160 V Essential Service
FAC	Flow Accelerated Corrosion
GALL	NUREG-1801 "Generic Aging Lessons Learned"
IMC	Inspection Manual Chapter
INPO	Institute of Nuclear Power Operations
IP	Inspection Procedure
IR	Inspection Report
IR	Issue Report
ISI	Inservice Inspection
MNGP	Monticello Nuclear Generating Plant
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
NMC	Nuclear Management Company
NRC	U.S. Nuclear Regulatory Commission
NRR/DRL	Office of Nuclear Reactor Regulation, Division of License Renewal
NUMARC	Nuclear Management and Resources Council
PARS	Publicly Available Records
psid	Pounds Per Square Inch Differential
psig	Pounds Per Square Inch Gauge
P/T	Pressure Temperature
RAT	Reserve Auxiliary Transformer
RHR	Residual Heat Removal System
RWCU	Reactor Water Cleanup
SBLC	Standby Liquid Control
SDP	Significance Determination Process
SER	Safety Evaluation Report
TLAA	Time Limited Aging Analysis
TR	Technical Report
USAR	Updated Safety Analysis Report
URI	Unresolved Item
Vac	Volts Alternating Current
Vdc	Volts Direct Current
WO	Work Order

T. O'Connor

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Sincerely,

/RA/

Ann Marie Stone, Chief
Engineering Branch 2
Division of Reactor Safety

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