

January 18, 2008

Mr. Timothy J. O'Connor
Site Vice President
Monticello Nuclear Generating Plant
Nuclear Management Company, LLC
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT
NRC INTEGRATED INSPECTION REPORT 05000263/2007005

Dear Mr. O'Connor:

On December 31, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Monticello Nuclear Generating Plant. The enclosed integrated inspection report documents the inspection findings which were discussed on January 3, 2008, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based upon the results of this inspection no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Kenneth Riemer, Chief
Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000263/2007005
w/Attachment: Supplemental Information

cc w/encl: See next page

Letter to T. O'Connor from K. Riemer dated January 18, 2008

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT
NRC INTEGRATED INSPECTION REPORT 05000263/2007005

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INSPECTION REPORT 05000263/2007005

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000263/2007005

Licensee: Nuclear Management Company, LLC

Facility: Monticello Nuclear Generating Plant

Location: Monticello, Minnesota

Dates: October 1, 2007 through December 31, 2007

Inspectors: S. Thomas, Senior Resident Inspector
L. Haeg, Resident Inspector
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J. Jandovitz, Engineering Inspector
R. Jickling, Senior Emergency Preparedness Analyst

Observers: None

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

Enclosure

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SUMMARY OF FINDINGS

IR 05000263/2007005; 10/01/2007 – 12/31/2007; Monticello Nuclear Generating Plant Routine Integrated Report.

This report covered a three-month period of baseline resident inspection and announced baseline inspections of radiation protection, licensed operator requalification training, emergency preparedness, and heat sink performance. The inspections were conducted by Region III inspectors and the resident inspectors. 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-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

Summary of Plant Status

Monticello operated at full power for the majority of this assessment period except for brief down-power maneuvers to accomplish rod pattern adjustments and to conduct planned surveillance testing activities with the following exceptions:

- Power reduction on November 9th to approximately 70 percent power to perform control rod suppression testing. Power ascension to full power operation was completed on November 15th.
- Power reduction on December 14th to approximately 65 percent power to perform control rod scram testing and execute a control rod sequence exchange. Power ascension to full power operation was completed on December 16th.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Winter Seasonal Readiness Preparations

a. Inspection Scope

The inspectors reviewed the licensee's winter checklist procedure and performed a plant walkdown, specifically focusing on safety significant equipment that had the potential to be negatively impacted by extreme cold weather and the licensee's efforts to protect that equipment. The inspectors reviewed plant specific design features for the systems and implementation of the procedures for responding to or mitigating the effects of cold weather.

The inspectors evaluated readiness of seasonal susceptibilities for a total of one sample:

- site cold weather preparations

This inspection constitutes one seasonal adverse weather sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- Division I control room ventilation system with 14 emergency service water pump out-of-service for maintenance;
- 14 residual heat removal service water (RHRSW) system with 12 RHRSW out-of-service for breaker maintenance; and
- reactor core isolation cooling system with high pressure coolant injection (HPCI) out-of-service for planned maintenance.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report (UFSAR), Technical Specification (TS) requirements, Administrative TS, outstanding work orders (WOs), condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

These activities constituted three partial system walkdown samples as defined in Inspection Procedure 71111.04-05.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Fire Zone 32-B, emergency filtration train (EFT) building second floor (Division II);
- Fire Zone 1-E, HPCI room – reactor building 896’;
- Fire Zone 33, EFT building third floor (Division II);
- Fire Zone 7-A, 125V Division I battery room;
- Fire Zone 12-B, hydrogen seal area;
- Fire Zone 31B, EFT building first floor (Division II); and
- Fire Zone 9, control room.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and had implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee’s fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant’s Individual Plant Examination of External Events, with additional considerations given to fire areas which had the potential to impact equipment which could initiate or mitigate a plant transient or impact the plant’s ability to respond to a security event. Using the documents listed in the Attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee’s CAP.

These activities constituted seven quarterly fire protection inspection samples as defined in Inspection Procedure 71111.05AQ-05.

b. Findings

No findings of significance were identified.

.2 Annual Fire Protection Drill Observations (71111.05A)

a. Inspection Scope

The inspectors observed both announced and unannounced fire brigade activations for the conduct of fire brigade drills. The observations were used to determine the

readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were: (1) proper wearing of turnout gear and self-contained breathing apparatus; (2) proper use and layout of fire hoses; (3) employment of appropriate fire fighting techniques; (4) sufficient firefighting equipment brought to the scene; (5) effectiveness of fire brigade leader communications, command, and control; (6) search for victims and propagation of the fire into other plant areas; (7) smoke removal operations; (8) utilization of pre-planned strategies; (9) adherence to the pre-planned drill scenario; and (10) drill objectives.

- fire brigade response to an unannounced fire drill in the vicinity of the 1AR transformer; and
- fire brigade response to an announced fire drill in the vicinity of the 11 emergency diesel generator (EDG) room.

These activities constituted two annual fire protection inspection samples as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07B)

.1 Biennial Review of Heat Sink Performance

a. Inspection Scope

The inspectors reviewed documents associated with maintenance, performance tests, and inspection of the 13 Residual Heat Removal (RHR) Pump Motor Cooler and the 14 Residual Heat Removal Service Water (RHRSW) Pump Motor Cooler. These coolers were chosen based on their risk significance in the licensee's probabilistic safety analysis, their important safety-related mitigating system support functions and their relatively low margin. The inspectors reviewed operability determinations, completed surveillances, vendor manual information, associated calculations, performance test results and cooler inspection results. The inspectors also reviewed documentation to confirm that methods used to maintain and monitor the operational effectiveness of the heat exchangers were consistent with expected degradation and that the established acceptance criteria were consistent with design accident requirements and accepted industry standards. The inspectors walked down both the motor coolers and associated piping to ensure proper installation and configuration.

Two attributes of the ultimate heat sink were verified during the inspection. The inspectors verified that the functionality during adverse weather condition (e.g., icing and freezing temperatures). Additionally, the inspectors verified the adequate controls were in place for biotic fouling. The inspectors also performed walkdowns of accessible portions of the ultimate heat sink supply and return piping to look for possible settlement or movement and piping conditions that would indicate loss of structural integrity.

In addition, the inspectors reviewed condition reports concerning cooler or heat sink performance issues to verify that the licensee had an appropriate threshold for identifying issues and to evaluate the effectiveness of the corrective actions to the identified issues. The documents that were reviewed are included at the end of the report.

These inspection activities constituted two samples.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On November 6, 2007, the inspectors observed a crew of licensed operators in the plant's simulator during the conduct of a site emergency plan drill to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements.

This inspection constitutes one quarterly licensed operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

.2 Facility Operating History (71111.11B)

a. Inspection Scope

The inspectors reviewed the plant's operating history from September 2005 through September 2007 to identify operating experience that was expected to be addressed by the Licensed Operator Requalification Training (LORT) program. The inspectors assessed whether the identified operating experience had been addressed by the facility licensee in accordance with the station's approved Systems Approach to Training (SAT) program to satisfy the requirements of 10 CFR 55.59(c), "Requalification Program Requirements."

b. Findings

No findings of significance were identified.

.3 Licensee Requalification Examinations

a. Inspection Scope

The inspectors performed a biennial inspection of the licensee's LORT test/examination program for compliance with the station's SAT program, which would satisfy the requirements of 10 CFR 55.59(c)(4), "Evaluation." The reviewed operating examination material consisted of six operating tests, each containing two dynamic simulator scenarios and five to ten job performance measures. The six written examinations reviewed each contained approximately 30 questions. The inspectors reviewed the annual requalification operating test and biennial written examination material to evaluate general quality, construction, and difficulty level. The inspectors assessed the level of examination material duplication from week-to-week during the current year operating test. The examiners assessed the amount of written examination material duplication from week-to-week for the written examination administered in 2005. The inspectors reviewed the methodology for developing the examinations, including the LORT program 2-year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications.

b. Findings

No findings of significance were identified.

.4 Licensee Administration of Requalification Examinations

a. Inspection Scope

The inspectors observed the administration of a requalification operating test to assess the licensee's effectiveness in conducting the test to ensure compliance with 10 CFR 55.59(c)(4), "Evaluation." The inspectors evaluated the performance of one crew in parallel with the facility evaluators during two dynamic simulator scenarios. The inspectors also evaluated various licensed crew members concurrently with facility evaluators during the administration of several job performance measures. The

inspectors assessed the facility evaluators' ability to determine adequate crew and individual performance using objective, measurable standards. The inspectors observed the training staff personnel administer the operating test, including conducting pre-examination briefings, evaluations of operator performance, and individual and crew evaluations upon completion of the operating test. The inspectors evaluated the ability of the simulator to support the examinations. A specific evaluation of simulator performance was conducted and documented under Section 1R11.8, "Conformance with Simulator Requirements Specified in 10 CFR 55.46," of this report.

b. Findings

No findings of significance were identified.

.5 Examination Security

a. Inspection Scope

The inspectors observed and reviewed the licensee's overall licensed operator requalification examination security program related to examination physical security (e.g., access restrictions and simulator considerations) and integrity (e.g., predictability and bias) to verify compliance with 10 CFR 55.49, "Integrity of Examinations and Tests." The inspectors also reviewed the facility licensee's examination security procedure, any corrective actions related to past or present examination security problems at the facility, and the implementation of security and integrity measures (e.g., security agreements, sampling criteria, bank use, and test item repetition) throughout the examination process.

b. Findings

The facility identified that an instructor was signed on to the 2007 Licensed Operator Requalification (LOR) Annual Operating Test/Biennial Written Examination Master Security Agreement provided instruction to an Initial License Training class that an individual was attending for the purpose of performing a management observation. The individual was scheduled to take the LOR Annual Operating Test/Biennial Written Examination. The facility's Fleet Procedure, "NRC Exam Security Requirements," FP T SAT-71, Revision 1, Section 5.2.10.1, lists activities that are not allowed for individuals who have signed the applicable Master Security Agreement for an exam. One of the activities is providing instruction where examinees are in attendance. The facility performed interviews and identified that there was no interaction between the instructor and observer during the class. No information was presented while the management observer was present that was outside of the prepared lesson plan. The lesson plan was readily available to all site personnel. The information presented was not part of the LOR operating test or written examination. The training department documented this lapse of examination security in Document CAP 01114446.

The inspectors reviewed the licensee's investigation and assessed the overall incident for possible violation of 10 CFR 55.49, "Integrity of Examinations and Tests." The inspectors determined that no actual examination compromise had occurred. These

issues were considered minor in nature and were not subject to enforcement action in accordance with NRC enforcement policy.

.6 Licensee Training Feedback System

a. Inspection Scope

The inspectors assessed the methods and effectiveness of the licensee's processes for revising and maintaining its LORT Program up-to-date, including the use of feedback from plant events and industry experience information. The inspectors reviewed the licensee's quality assurance oversight activities, including licensee training department self-assessment reports. The inspectors evaluated the licensee's ability to assess the effectiveness of its LORT program and their ability to implement appropriate corrective actions. This evaluation was performed to verify compliance with 10 CFR 55.59(c), "Requalification Program Requirements," and the licensee's SAT program.

b. Findings

No findings of significance were identified.

.7 Licensee Remedial Training Program

a. Inspection Scope

The inspectors assessed the adequacy and effectiveness of the remedial training conducted since the previous biennial requalification examinations and the training from the current examination cycle to ensure that they addressed weaknesses in licensed operator or crew performance identified during training and plant operations. The inspectors reviewed remedial training procedures and individual remedial training plans. This evaluation was performed in accordance with 10 CFR 55.59(c), "Requalification Program Requirements," and with respect to the licensee's SAT program.

b. Findings

No findings of significance were identified.

.8 Conformance With Operator License Conditions

a. Inspection Scope

The inspectors reviewed the facility and individual operator licensees' conformance with the requirements of 10 CFR Part 55. The inspectors reviewed the facility licensee's program for maintaining active operator licenses and assessment of compliance with 10 CFR 55.53(e) and (f). The inspectors reviewed the licensee's procedural guidance and process for tracking on-shift hours for licensed operators, and which control room positions were granted watch-standing credit for maintaining active operator licenses. The inspectors reviewed the facility licensee's LORT program to assess compliance with the requalification program requirements as described by 10 CFR 55.59(c). In addition,

medical records for six licensed operators were reviewed for compliance with 10 CFR 55.53(i).

b. Findings

No findings of significance were identified.

.9 Conformance with Simulator Requirements Specified in 10 CFR 55.46

a. Inspection Scope

The inspectors assessed the adequacy of the licensee's simulation facility (simulator) for use in operator licensing examinations and for satisfying experience requirements as prescribed in 10 CFR 55.46, "Simulation Facilities." The inspectors also reviewed a sample of simulator performance test records (i.e., transient tests, malfunction tests, steady state tests, and core performance tests), simulator discrepancies, and the process for ensuring continued assurance of simulator fidelity in accordance with 10 CFR 55.46. The inspectors reviewed and evaluated the discrepancy process to ensure that simulator fidelity was maintained. Open simulator discrepancies were reviewed for importance relative to the impact on 10 CFR 55.45 and 55.59 operator actions as well as on nuclear and thermal hydraulic operating characteristics. The inspectors conducted interviews with members of the licensee's simulator staff about the configuration control process and completed the Inspection Procedure 71111.11, Appendix C, checklist to evaluate whether or not the licensee's plant-referenced simulator was operating adequately as required by 10 CFR 55.46(c) and (d).

b. Findings

No findings of significance were identified.

.10 Annual Operating Test Results and Biennial Written Examination Results

a. Inspection Scope

The inspectors reviewed the pass/fail results of the 2007 individual biennial written examinations, and the annual operating tests (required to be given annually per 10 CFR 55.59(a)(2)) administered by the licensee during calendar year 2007. The overall written examination and operating test results were compared with the significance determination process in accordance with NRC Inspection Manual Chapter (IMC) 0609, Appendix I, "Operator Re-Qualification Human Performance Significance Determination Process."

This review represented one biennial licensed operator requalification inspection sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk significant systems:

- feedwater heating and steam extraction system components.

The inspectors reviewed events where ineffective equipment maintenance resulted in control system malfunctions and independently verified the licensee's actions to address system performance issues in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components/functions classified as (a)(2) or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

This inspection constitutes one quarterly maintenance effectiveness sample as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

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

- emergent issue evaluation during fuel pool work preparation activities;
- troubleshooting of B feedwater regulator valve signal noise and M/A controller;

- failure of 'A' residual heat removal (RHR) room cooler to start when operated from the control room; and
- control of high energy line break (HELB) boundaries during emergent heating coil replacement in the ventilation system that services safety-related 4 kV switchgear rooms.

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

These activities constituted four samples as defined in Inspection Procedure 71111.13-05.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following issue:

- CAP 01114766; No. 11 recirculation motor/generator set tachometer coupling failing.

The inspectors selected these potential operability issues based on the risk-significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and Updated Safety Analysis Report (USAR) to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Documents reviewed are listed in the Attachment.

This inspection constitutes one sample as defined in Inspection Procedure 71111.15-05.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following post maintenance activities for review to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- 11 emergency service water pump pre-service pump test following pump replacement;
- replacement of the 'B' feedwater regulating valve manual/auto controller;
- 12 core spray system testing following maintenance and modification of test return line motor operated valve;
- replacement of 'B' feedwater regulator valve controller; and
- operational testing of the HPCI system following a planned HPCI maintenance window.

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TS, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment.

This inspection constitutes five samples as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- reactor building to torus vacuum breaker operability check (routine);
- containment sump flow measurement instrumentation (reactor coolant system (RCS) leakage);
- 13 emergency service water comprehensive pump and valve test (inservice testing (IST)); and
- primary containment isolation valve exercise (routine).

The inspectors observed in plant activities and reviewed procedures and associated records to determine whether: preconditioning occurred; effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing; acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis; plant equipment calibration was correct, accurate, and properly documented; as left setpoints were within required ranges; and the calibration frequency were in accordance with the TS, the USAR, procedures, and applicable commitments; measuring and test equipment calibration was current; test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied; test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used; test data and results were accurate, complete, within limits, and valid; test equipment was removed after testing; where applicable, test results not meeting acceptance criteria were adequately assessed for operability or the system or component was declared inoperable; equipment was returned to a position or status required to support the performance of its safety functions; and all problems identified during the testing were appropriately documented and dispositioned in the CAP. Documents reviewed are listed in the Attachment.

This inspection constitutes four surveillance testing samples: two routine, one IST and one RCS leakage sample as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following temporary modification:

- Engineering Change (EC) 11472; Install Temporary Heating Boiler.

The inspectors compared the temporary configuration changes and associated 10 CFR 50.59 screening and evaluation information against the design basis, the UFSAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system(s). The inspectors, as applicable, performed field verifications to ensure that the modifications were installed as directed; the modifications operated as expected; modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems. Lastly, the inspectors discussed the temporary modification with operations and engineering personnel to ensure that the individuals were aware of how extended operation with the temporary modification in place could impact overall plant performance.

This inspection constitutes one sample as defined in Inspection Procedure 71111.23-05.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspectors performed a screening review of Revisions 29 and 30 of the Monticello Plant Emergency Plan to determine whether changes identified in Revisions 29 and 30 decreased the effectiveness of the licensee's emergency planning for the Monticello Nuclear Generating Plant. This review did not constitute an approval of the changes, and as such, the changes are subject to future NRC inspection to ensure that the Emergency Plan continues to meet NRC regulations.

This inspection constitutes one sample as defined in Inspection Procedure 71114.04-05.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

.1 Training Observation

a. Inspection Scope

The inspectors selected licensed operator re-qualification simulator exercises that the licensee had scheduled as providing input to the Drill/Exercise Performance Indicator (PI). The inspection reviewed classification of events by the shift manager, simulated notifications to off-site agencies, and post-exercise critiques. Observations were compared with the licensee's observations and CAP entries. The inspectors verified that there were no discrepancies between observed performance and PI reported statistics.

- simulator exercise with four drill/exercise performance opportunities (11/26/07); and
- simulator exercise with two drill/exercise performance opportunities (12/12/07).

This inspection constitutes two samples as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns and Radiation Work Permit (RWP) Reviews

a. Inspection Scope

The inspectors identified three radiologically significant work activities within radiation areas, high radiation areas (HRAs), and airborne areas in the containment and auxiliary buildings. Selected "as-low-as-is-reasonably-achievable" (ALARA) WOs and RWPs were reviewed to determine if radiological controls including surveys, postings, air sampling data, and barricades were acceptable. RWPs and ALARA work packages reviewed included but were not limited to the following:

- WOs 134819, 139885, and 291040; torus project with the associated RWP Nos. 273, 300, 674, 675, 691, and 694;
- WO 140418; recirc pump/motor activities with the associated RWP Nos. 652, 354, 682, 678, and 675; and
- WO 314220; steam dryer acoustic monitoring; RWP Nos. 678, 372, 272, and 786.

The inspectors reviewed selected WOs, RWPs, and associated radiological controls used to access these and other radiologically significant areas. Work control instructions and specified control barriers were evaluated in order to determine if the controls provided adequate worker protection. Site TS requirements for HRAs and locked HRAs were used as standards for the necessary barriers. Electronic dosimeter alarm set points for both integrated dose and dose rate were evaluated for conformity with survey indications and plant policy. The inspectors reviewed the pre-job briefing records to determine if instructions to workers emphasized the actions required when their electronic dosimeters noticeably malfunctioned or alarmed.

The inspectors reviewed job planning records and interviewed licensee representatives to determine if there were airborne radioactivity areas in the plant with a potential for individual worker internal exposures to exceed 50 millirem committed effective dose equivalent. Barrier integrity and engineering controls performance, such as high efficiency particulate filtration ventilation system operation, and the use of respiratory protection, was evaluated for worker protection. Work areas having a history of, or the potential for, airborne transuranic isotopes were reviewed to determine if the licensee had considered the potential for transuranic isotopes, and provided appropriate worker protection.

The adequacy of the licensee's internal dose assessment process for analyzing internal exposures that exceed 50 millirem committed effective dose equivalent was assessed to determine if affected personnel would be properly monitored utilizing calibrated equipment, that the data would be analyzed, and internal exposures would be properly assessed in accordance with licensee procedures.

The inspectors reviewed the licensee's physical and programmatic controls for highly activated and/or contaminated materials (non-fuel) stored within the spent fuel pool.

This inspection constitutes two samples as defined in Inspection Procedure 71121.01-05.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02)

.1 Radiological Work Planning

a. Inspection Scope

The inspectors evaluated the licensee's list of work activities, ranked by estimated exposure that were in progress and selected the four work activities of highest exposure potential.

The inspectors reviewed the ALARA work activity evaluations, exposure estimates, and integration of ALARA requirements into work procedure and RWP documents, in order to determine if the licensee had established procedures, along with engineering and

work controls that were based on sound radiation protection principles in order to achieve occupational exposures that were ALARA. This also involved determining if the licensee had reasonably grouped the radiological work into work activities, based on historical precedence, industry norms, or special circumstances.

The inspectors compared the results achieved including dose rate reductions and person-rem used with the intended dose established in the licensee's ALARA planning for WO 314220 that contained 16 work task activities. These tasks included: (1) installation of strain gauges in the drywell during refueling outage (RFO) 23; (2) installation of EC 9174 accelerometers in the drywell; (3) removal and installation of insulation in the drywell; (4) installation of strain gauge and accelerometer scaffolds in the drywell; and (5) installation of scaffold in the steam chase during RFO 23. In addition, inspectors reviewed reasons for inconsistencies between intended and actual work activity doses on these WOs and the associated tasks.

This inspection constitutes one sample as defined in Inspection Procedure 71121.02-05.

b. Findings

No findings of significance were identified.

.2 Verification of Dose Estimates and Exposure Tracking Systems

a. Inspection Scope

The licensee's process for adjusting exposure estimates or re-planning work, when unexpected changes in scope, emergent work, or higher than anticipated radiation levels were encountered, was evaluated. This included determining that adjustments to estimated exposure (intended dose) were based on sound radiation protection and ALARA principles and not adjusted to account for failures to control the work. The frequency of these adjustments was reviewed to evaluate the adequacy of the original ALARA planning process. As an example, during the steam dryer acoustic modification for an extended power up-rate on the last RFO, during the work in progress review, the radiation protection's (RP) ALARA coordinator identified that workers were getting dose at a rate greater than expected based on the approved ALARA goal by the Site ALARA Committee (SAC). During the investigation, RP identified that workers were performing work in an area of drywell that was not provided to the RP ALARA coordinator for dose estimation purposes. Work was being performed on the 951' elevation of the drywell and dose rates in the area were higher than the work areas provided to RP for planning purposes. After working with the project group, the RP revised the dose estimate that was approved by SAC.

The inspectors reviewed the licensee's exposure tracking system in order to determine whether the level of exposure tracking detail, exposure report timeliness, and exposure report distribution was sufficient to support control of collective exposures. In addition, the inspectors reviewed whether RWPs contained too many work activities that may cause a dose control problem. During the conduct of exposure significant maintenance work, the inspectors assessed whether licensee management was aware of the

exposure status of the work and would intervene if exposure trends increased beyond exposure estimates.

This inspection constitutes one sample as defined in Inspection Procedure 71121.02-05.

b. Findings

No findings of significance were identified.

.3 Declared Pregnant Workers

a. Inspection Scope

The inspectors reviewed dose records of declared pregnant workers for the current assessment period to verify that the exposure results and monitoring controls employed by the licensee complied with the requirements of 10 CFR Part 20.

These activities were a partial review and did not represent an inspection sample.

b. Findings

No findings of significance were identified.

.4 Problem Identification and Resolutions

a. Inspection Scope

The inspectors reviewed the licensee's self-assessments, audits, and special reports related to the ALARA program since the last inspection to determine if the licensee's overall audit program's scope and frequency for all applicable areas under the Occupational Cornerstone met the requirements of 10 CFR 20.1101(c).

These activities were a partial review and did not represent an inspection sample.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

.1 Onsite Inspection

a. Inspection Scope

The inspectors reviewed the records of abnormal releases or releases made with inoperable effluent radiation monitors and reviewed the licensee's actions for these releases to ensure an adequate defense-in-depth was maintained against an unmonitored, unanticipated release of radioactive material to the environment.

The inspectors observed that the licensee did not make any abnormal releases during the inspection period.

The inspectors assessed the licensee's understanding of the location and construction of underground pipes and tanks, and spent fuel pool that contain radioactive contaminated liquids. The inspectors evaluated the licensee's ability to identify unmonitored leakage of contaminated fluids to the groundwater as a result of degrading material conditions or aging of facilities. The licensee's capabilities such as monitoring wells of detecting spills or leaks and of identifying groundwater radiological contamination both on site and beyond the owner controlled area was reviewed along with the licensee's technical bases for its onsite groundwater monitoring program. The inspectors discussed with the licensee its understanding of groundwater flow patterns for the site and, in the event of a spill or leak of radioactive material, whether the licensee's staff had the capabilities necessary to estimate the pathway of a plume of contaminated fluid, both onsite and beyond the owner controlled area.

This inspection constitutes two samples as defined in Inspection Procedure 71122.01-05.

4. OTHER ACTIVITIES

4OA1 PI Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the data submitted by the licensee for the 3rd Quarter 2007 Performance Indicators (PIs) for any obvious inconsistencies prior to its public release in accordance with IMC 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings of significance were identified.

.2 Mitigating Systems Performance Index (MSPI) - RHR System

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI – RHR system PI for the period from the 3rd Quarter 2006 through the 2nd Quarter 2007. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Revision 5 of the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, and MSPI derivation reports to validate the accuracy of the submittals. The inspectors reviewed the MSPI

component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection and, if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's corrective action database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the Attachment to this report.

This inspection constitutes one MSPI RHR system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.3 MSPI - Cooling Water Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI - Cooling Water Systems PI for the period from the 3rd Quarter 2006 through the 2nd Quarter 2007. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in Revision 5 of the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, and MSPI derivation reports to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection and, if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's corrective action database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the Attachment to this report.

This inspection constitutes one MSPI cooling water system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

Cornerstone: Occupational Radiation Safety

.4 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors reviewed the licensee's determination of the PI for the Occupational Radiation Safety Cornerstone to verify that the licensee accurately determined this PI and had identified all occurrences required by the indicator. Specifically, the inspectors reviewed the licensee's CAP records for 2007 Occupational Exposure PI data to ensure

that there were no PI occurrences that were not identified by the licensee. Additionally, as part of plant walkdowns, the inspectors selectively examined the adequacy of posting and controls for locked HRAs, to determine if barriers and postings met TS requirements. The inspectors interviewed members of the licensee's staff who were responsible for PI data acquisition, verification and reporting, to determine whether their review and assessment of the data was adequate.

This inspection constitutes one occupational exposure control effectiveness sample as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

4OA2 Problem Identification and Resolution (71152)

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

.1 Routine Review of Items Entered Into the CAP

a. Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's CAP at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: the complete and accurate identification of the problem; that timeliness was commensurate with the safety significance; that evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the attached list of documents reviewed.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

.2 Daily CAP Reviews

a. Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of

items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

.3 Semi-Annual Trend Review

a. Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 40A2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the six month period of June 2007 through November 2007, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside the normal CAP in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

This inspection constitutes one semi-annual trend sample as defined in Inspection Procedure 71152-05.

b. Assessment and Observations

The inspectors evaluated the licensee trending methodology and observed that the licensee had performed a detailed review. The licensee routinely reviewed cause codes, involved organizations, key words, and system links to identify potential trends in their CAP data. The inspectors compared the licensee process results with the results of the inspectors' daily screening and did not identify any discrepancies.

The licensee's CAP identified a potential adverse trend related to untimely revisions of test procedures and work plans. In one instance, a reactor building-to-torus vacuum breaker (valve) was tested with incorrect acceptance criteria due to an extension of a procedure change request (PCR). The licensee determined that, due to inadequate attention to detail, the wrong priority was assigned to the particular PCR after a change was requested during RFO 23. Although the incorrect acceptance criteria was used to test the valve, there was no impact on the valve's ability to perform its' safety function. The change was due, in part, to a separate issue involving the pneumatic source used to test the valve. The inspectors questioned whether an extent-of-condition review was performed to ensure that similar conditions did not exist with other procedures and/or

valves tested during RFO 23. The licensee promptly evaluated all IST-related procedures and valves tested during the timeframe in question to ensure that the correct priorities were in place and that procedures were quarantined as necessary.

.4 Selected Issue Follow-up Inspection: Troubleshooting of Feedwater Regulating Valve Signal Noise

a. Scope

On October 3, 2007, the licensee observed the 'B' feedwater regulating valve (FRV) demand signal fluctuating via plant process computer indication. Because no actual valve movement was observed, the licensee attributed the fluctuating signal to noise in the control system. The licensee established a troubleshooting plan to systematically identify and repair any faulty components. The licensee first determined that the electric-to-pneumatic transducer located near the valve was the likely cause of the noise due to past internal operating experience. After locking the FRV and replacing the transducer, the noise was still apparent. Next, the licensee replaced the auto/manual control station unit in the control room and again, the noise was not reduced. During these replacement activities, various signals within the control system were monitored to assist in identifying any extraneous noisy signals. Finally, on October 13, analog module (AM) 35, associated with computer point CFW 207, among others, was replaced after it was identified as contributing signal noise while the point was bypassed in the control system. Thermal power was reduced to 1773.5 megawatts (MW) thermal per procedural requirements and the computer points associated with feedwater flow were "zapped," or locked. Replacement of AM 35 resolved the noise; however, after unlocking the computer points, core thermal power indicated 1777 MW thermal (2 MW above the licensed thermal power limit of 1775 MW thermal). Operators immediately reduced power to below required limits and a CAP document was initiated to determine whether the licensed thermal power level was violated.

This inspection constitutes one in-depth problem identification and resolution sample as defined in Inspection Procedure 71152-05.

b. Assessment and Observations

The inspectors reviewed documentation and interviewed licensee personnel to determine whether the event was properly evaluated and assigned corrective actions in accordance with plant procedures and regulatory requirements. The licensee performed a root cause evaluation and determined that the thermal power limit was not exceeded. This conclusion was based on the determination that during the AM 35 card replacement, component signal tolerances and averaging inherent to the computer system components maintained thermal power below 1775 MW thermal. The decrease in power performed by the operators on October 13 was deemed conservative, and the root cause of the event was determined to be organizational insensitivity to work being performed on the process computer. Because the individuals involved in the computer module replacement were unaware of the effect on the thermal power calculation, compensatory measures were not addressed during the work planning and pre-job briefings performed prior to the work being conducted. Corrective actions included procedure updates for monitoring core thermal power during process computer work and

more detailed instructions for zapping computer points during planned or corrective work activities.

The inspectors reviewed the licensee's root cause evaluation conclusions and corrective actions. Overall the inspectors determined that the troubleshooting plan focused heavily on the causes of the noise, but did not adequately understand the impact the noise could have on the system (i.e., AM 35 effect on calculated thermal power). This observation was conveyed to the licensee and was captured in the final root cause report. The inspectors concluded that the licensee's evaluation was reasonably detailed and contained corrective actions that were in place or planned, and were appropriate to preclude recurrence.

4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 Non-Routine Isolation of 'A' Offgas System Recombiner to Support Flow Indicator Replacement

On October 3, 2007, the licensee initiated a planned evolution to isolate the 'A' offgas system recombinder in order to inspect, clean or replace, and test a degraded flow instrument that was not indicating expected flowrates. This work involved a reduction of hydrogen water chemistry injection rate and non-routine isolation of a normally-aligned system. The inspectors observed the licensee's planning, isolating, and troubleshooting activities to ensure that the overall impact on the plant was minimized.

Although the flow instrument was replaced, post maintenance testing did not resolve the flow indication issue. The licensee restored system flow and resumed normal hydrogen injection rates. The licensee determined that additional troubleshooting was required and resolution would occur at a later date. The inspectors determined that the licensee followed approved and reviewed procedures during isolation activities, and demonstrated an overall conservative approach by restoring normal system alignment in order to evaluate the cause further. No findings of significance were identified.

This inspection constitutes one event follow-up sample as defined in Inspection Procedure 71153-05.

.2 Operator Response to Elevated Offgas Activity, Power Suppression Testing and Reactivity Maneuvers, and Recovery from Potential Fuel Pin Leak

On October 30, 2007, an offgas pre-treatment radiation monitor alarm was received. The licensee determined that activity levels spiked to approximately five times normal levels and then quickly lowered to an elevated steady state value. Per procedure, the licensee initiated sampling of the offgas system and implemented 4 AWI-05.05.02; "Fuel Integrity Monitoring and Failed Fuel Action Plan." Per this procedure, various subsequent actions were taken to troubleshoot and prepare for power suppression testing activities. During this process, the licensee monitored critical parameters including fuel operating limits, RCS and offgas chemistry, and other limits as designated in the action plan.

On November 8, 2007, the licensee reduced reactor power to perform power suppression testing in order to facilitate the identification of suspect leaking fuel bundles. During the down power, issues were identified with the performance of a high pressure feedwater heater drain valve. The issue was resolved by making repairs and revising the reactivity management and power suppression test in order to perform testing within a wider power band. Testing was completed on November 11, 2007, and the suspect bundle containing the leaking fuel pin was suppressed by fully inserting one control rod.

The inspectors determined that the licensee demonstrated an overall conservative and cautious approach to monitoring critical parameters; performed the testing within a reasonable timeframe; and utilized appropriate procedures. Additionally, the appropriate attention was given by the licensee to simulator training and pre-job briefs to ensure that the testing could be conducted successfully. Several issues identified by the licensee were entered into the CAP for further evaluation and resolution. No findings of significance were identified.

This inspection constitutes one event follow-up sample as defined in Inspection Procedure 71153-05.

.3 (Closed) LERs 50-263/2007-002-00 and 50-263/2007-002-01: "Unexpected De-Energizing of Bus 16 during Refuel Outage 23"

The initial evaluation of this event was performed by the inspectors and documented in Inspection Report 05000263/2007002. Inspection Report 05000263/2007003 opened the review of event, initially reported on May 15, 2007, as LER 50-263/2007-002-00. This LER discussed the preliminary root cause of the event and planned and completed corrective actions. The LER also committed to issuance of a supplement following further investigation into causes of the event. The information contained in the LER was reviewed by the inspectors and no findings of significance were identified.

Supplement 1, reported on September 27, 2007, discussed in further detail an additional root cause of the event and additional corrective actions. The LER supplement was reviewed by the inspectors and no findings of significance were identified.

Documents reviewed as part of this inspection are listed in the Attachment. These LERs are closed.

This inspection constitutes one LER review sample as defined in Inspection Procedure 71153-05.

.4 (Closed) LER 50-263/2007-006: "HELB Door Found in Closed Position Due to Fusible Link Failure"

On July 26, 2007, at 0902, a plant operator discovered that a normally open fire door, located adjacent to the condenser room, had closed due to the failure of its fusible link. In addition to being a fire door, this open door also serves a HELB mitigation function of providing a drain path from the turbine to the condenser room during certain HELB scenarios in the turbine building. With the door closed, the drain path was blocked and the licensee determined that the plant was in an unanalyzed condition in which, during

certain HELB scenarios, both divisions of essential switchgear could become inoperable. The licensee determined that the door had been closed a maximum of 24 hours and, upon discovery of the failed fusible link, initiated prompt compensatory actions to mitigate the door's fire protection function and restore the door's HELB function. By 1302 the same day, the licensee fully had restored the fire protection and HELB functions of the door by replacing the fusible link.

The inspectors observed the licensee's initial response to the event and reviewed the corrective actions, applicable cause evaluation, and LER associated with this event, and identified no findings of significance.

Documents reviewed as part of this inspection are listed in the Attachment. This LER is closed.

This inspection constitutes one LER review sample as defined in Inspection Procedure 71153-05.

40A6 MANAGEMENT MEETINGS

.1 Exit Meeting Summary

On January 3, 2008, the inspectors presented the inspection results to Mr. O'Connor and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meetings

Interim exits were conducted for:

- Access Control to Radiologically Significant Areas, ALARA Planning and Control under the Occupational Radiation Safety Cornerstone, and Performance Indicator Verification of Occupational Control Effectiveness, with Mr. B. Sawatzke on October 5, 2007. On October 19, 2007, the inspectors conducted a re-exit to discuss a change in characterization of an issue;
- Licensed Operator Requalification Training Program Inspection results with Mr. B. Sawatzke, Plant Manager, on October 19, 2007;
- Licensed Operator Requalification Training Biennial Written Examination and Annual Operating Test results with Mr. P. Adams, Acting Training Manager, on November 1, 2007, via telephone;
- Emergency Preparedness Inspection with Mr. D. Pedersen on December 18, 2007; and
- The results of the heat sink biennial inspection were presented to Mr. John Grubb and other members of licensee management and staff at the conclusion of the inspection on December 14, 2007.

4OA7 Licensee-Identified Violations

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee:

T. O'Connor, Site Vice President
B. Sawatzke, Plant Manager
J. Grubb, Site Engineering Director
W. Guldemond, Nuclear Safety Assurance Manager
S. Sharp, Operations Manager
S. Radebaugh, Maintenance Manager
B. Cole, Radiation Protection/Chemistry Manager
R. Baumer, Compliance Engineering Analyst
J. Sabados, General Supervisor of Chemistry
P. Vitalis, Radiation Protection, Health Physicist
B. Weller, Radiation Protection Supervisor
K. Pederson, Chemistry
R. Nuelk, System Engineer Radiation/Process Monitors
P. Saueressig, GL 89-13 Program Owner
E. Fogarty, SW System Engineer
R. Latsch, Chemistry
S. Kibler, Engineering Programs Supervisor

Nuclear Regulatory Commission

K. Riemer, Chief, Reactor Projects Branch 2

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

| | | |
|--------------------|-----|---|
| 50-263/2007-002-00 | LER | Unexpected De-Energizing of Bus 16 During Refuel Outage 23 (Section 4OA3.3) |
| 50-263/2007-002-01 | LER | Unexpected De-Energizing of Bus 16 During Refuel Outage 23 (Section 4OA3.3) |
| 50-263/2007-006 | LER | HELB Door Found in Closed Position Due to Fusible Link Failure (Section 4OA3.4) |

LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

1R01 Adverse Weather Protection

- 1151; Winter Checklist; Revision 54
- CAP 01115108; Thermostat Found Off (NRC-identified)
- CAP 01115716; Unit Heater Setpoint Does Not Meet Labeling Standard (NRC-identified)

1R04 Equipment Alignment

- 2201; Plant Prestart Checklist CRV-EFT System; Revision 7
- CAP 01083160; Abnormal Compressor Discharge Reading for V-EAC-14A
- CAP 01087440; V-EAC-14 Oil Pressure below Low Spec During Rounds
- CAP 01088884; V-EAC-14A Tripped During ECCS Test
- CAP 01114333; Worn Sheaves and Less Than Desired Belt Tension on V-EAC-14A
- CAP 01117463; Air Leak on Signal Air Regulator for the I/P for CV-1729
- 2154-23; RHR Service Water System Prestart Valve Checklist; Revision 27
- 2154-13; Reactor Core Isolation Cooling Prestart Valve Checklist; Revision 25

1R05 Fire Protection

- Strategy A.3-37; Transformers; Revision 5
- Strategy A.3-32-B; EFT Building Second Floor (Division II); Revision 6
- Strategy A.3-01-E; HPCI Room – Reactor Building Elevation 896'; Revision 6;
- Strategy A.3-33; EFT Building Third Floor (Division II); Revision 6;
- Strategy A.3-07-A; 125V Division I Battery Room; Revision 5
- Strategy A.3-12-B; Hydrogen Seal Area; Revision 7
- Strategy A.3-09; Control Room; Revision 7
- Strategy A.3-31-B; EFT Building 1st Floor (DIV II); Revision 11
- Strategy A.3-15-B; No. 11 DG Room and Day Tank Rooms; Revision 9
- 2176; Fire Drill Procedure; Revision 18
- Fire Brigade Drill Guide 22; 1AR Transformer Fire; Revision 0
- CAP 01115400; Improvement Opportunities Identified During Fire Drill
- CAP 01115373; 24V Battery Replacement

1R07 Heat Sink Performance

- WO 0309278; PM 4058-1 "A" RHR Motor Cooler Cleaning and Test; test completed March 17, 2005
- WO 00150870; PM 4058-4 Clean 14 RHRSW Motor Cooler; dated January 24, 2006

- WO 00293703 01; 1456-02 RHRSW Pump 12 and 14 Motor Cooler Flush Quarterly; test completed February 9, 2007
- WO 00270489; PM 4058-1 "A" RHR Motor Cooler Cleaning and Test; test completed April 6, 2007
- Procedure 1456-02; RHRSW Pump 12 and 14 Motor Cooler Flush Quarterly Surveillance, test completed May 11, 2007
- Procedure 0255-05-IA-1-2; "B" RHRSW Quarterly Pump and Valve Tests; test completed May 11, 2007
- Procedure 1456-02; RHRSW Pump 12 and 14 Motor Cooler Flush Quarterly Surveillance, test completed June 1, 2007
- WO 00334581 01; 0255-05-IA-1-2 "B" RHRSW Quarterly Pump and Valve Test; dated August 7, 2007
- Procedure 1456-02; RHRSW Pump 12 and 14 Motor Cooler Flush Quarterly Surveillance; test completed August 10, 2007
- Procedure 0255-05-IA-1-2; "B" RHRSW Quarterly Pump and Valve Tests; test completed August 10, 2007
- WO 00338063 01; 0255-11-III-3 -13 ESW Pump Flow Test; dated August 15, 2007
- Procedure 0255-05-IA-1-1; "A" RHRSW Quarterly Pump and Valve Tests; test completed December 6, 2007
- WO 00332281 04; 1136 - RHR Heat Exchanger Efficiency Test, dated December 12, 2007
- Calculation AS-07-045; RHR Pump Motor Model 5K511DT5410 Cooling Coil Minimum Flow Evaluation; dated July 23, 2007
- Calculation 98-137; RHRSW Pump Motor Cooling Coil Pressure and Minimum Flow Evaluation; Revision 1
- Calculation 97-450; RHRSW Motor Cooling Water Flow Analysis; Revision 0
- Calculation 99-178; RHRSW Pump Motor Upper Bearing Lubrication Heat-Up without Motor Cooling; Revision 1
- AR 01119995, As-found Condition of SW-21-1/SW-21-2 Would Not Move Freely; dated December 4, 2007
- AR 01108564, NRC Questions on SW-21-1, SW-21-2, SW-22-1, and SW-22-2; dated August 24, 2007
- AR 01109329, Ops Challenge, 14 ESW Accelerated Testing; dated August 27, 2007
- RCE 01100115-02; Emergency Service Water; dated August 03, 2007
- Operability Recommendation 01100115; Low Flow Condition in the "A" RHR Room; dated July 24, 2007
- AR 01120846; NRC Inspector Questioned the Effectiveness of the Visual Inspection of the ECCS Motor Cooling Components; dated December 11, 2007
- Work Order 335333; Work Plan to Perform PM for SW-21-1 RHRSW Motor; dated November 29, 2007
- Non-Oxidizing Biocide Trend Plots – previous 361 days; dated December 11, 2007
- DBD B.8.1.3; Design Basis Document for Residual Heat Removal Service Water System; Revision 4
- DBD B.08.01.04; Design Basis Document for Emergency Service Water System; Revision 4
- System Health Report for FSW – Emergency Service Water; dated August 28, 2007
- System Health Report for Residual Heat Removal Service Water; dated August 27, 2007
- Focused Self-Assessment; Service Water Assessment; May 14 through May 23, 2007
- Procedure 1136; RHR Heat Exchanger Efficiency Test; Revision 27
- Fleet Procedure FP-PE-SW-01; SW/MIC Program; Revision 3

- Procedure FP-PE-NDE-425; Ultrasonic Thickness Examinations – Localized Corrosion; dated November 19, 2007
- Procedure A.6; Acts or Nature; Revision 26
- Procedure II.01; Strategic Chemistry Plan; Revision 9
- Procedure EWI-08-22-01; Generic Letter 89-13; Revision 2
- NH-36665-CC; Service Water System and Make-Up Intake Structure; Revision 80
- NH-36664-CC; RHR Service Water and Emergency Service Water Systems; Revision 78

1R11 Licensed Operator Regualification Program

- CAP 0111446; SAT 71 NRC Exam Security Requirement Not Met
- Crew Simulator Examination Summary, QF-1073-02, Revision 1
- Curriculum Review Committee, M-9100 Licensed Operator Requal, 2007 Meeting Minutes, QF 1060-10; Revision 1
- Curriculum Review Committee, M-9300 Shift Manager, 2007 Meeting Minutes, QF 1060 10; Revision 1
- Classroom/Laboratory Instructor Evaluation; February 28, 2006 – August 2, 2007
- Individual Operator Simulator Examination Summary, QF-1073-03; Revision 1
- Integration of Probabilistic Risk Assessment in Operations Training, MTCP-03.33; Revision 1
- Licensed Operator Medical Records (Six)
- Licensed Operator Regualification Annual Operating Tests; 2007
- Licensed Operator Regualification Biennial Written Examinations; 2007
- Licensed Operator Regualification Program Examinations, FP-T-SAT-73; Revision 2
- Licensed Operator Regualification Training Attendance Records; 2007
- Licensed Operator Regualification Training Feedback Summary Forms Cycles 06B 07C, QF 050-01a; Revisions 2 and 3; dated February 2, 2006 - July 27, 2007
- Management Observation of Training; January 18, 2006 - September 28, 2007
- NMC Fleet Licensed Operator Regualification Training Program Description; Revision 0
- NRC Exam Security Requirements, FP-T-SAT-71; Revision 1
- NRC IP-71111.11B Focused Self-Assessment (FSA01077526), FL-LOR-TPD; June 11 - 14, 2007
- NRC License Active Status Maintenance; Revision 8
- NRC License Maintenance Responsibilities, OWI-01.08; Revision 11
- Nuclear Oversight Observation Reports-Training, Quarterly Reports; 2006 and 2007
- Operations Department Organization/Qualification; September 10, 2007
- Regualification Exam Summary 2007, MTF-8100-028, One Crew with Two Individual Failures on Scenarios; Revision 2
- Regualification Written Cycle Exam Question Development, MTCP-03.34; Revision 9
- Sample Plan Cycles 6B-7C; 2006-2007
- Simulator Configuration Management, FP-T-SAT-80; Revision 2
- Simulator Instructor Evaluation; April 10, 2006 – June 5, 2007
- Simulator Observations; January 30, 2006 - September 6, 2007
- Simulator Testing and Documentation, FP-T-SAT-81; Revision 3
- Snapshot Report-Operations Department (FP-PA-SA-03), QF-0406 R01, Snapshot/AR Number 1071611; January 10-18, 2007
- Time Critical Operator Actions; September 21, 2007
- Training Advisory Committee, Operations M-9100, 2007 Meeting Minutes, QF-1060-08; Revision 1
- Walkthrough Exam Summary, QF-1073-01; Revision 1

1R12 Maintenance Effectiveness

- Monticello Maintenance Rule Program; Plant Level Basis Document; Revision 0
- Plant Level Status Data Taken from Maintenance Rule Database on November 1, 2007
- CAP 00878096; Feedwater Heaters' Drain Valves and Positioners Require Replacement per Modification 05Q070
- CAP 01107579; 'C' Moisture Separator Drain Valve LC-1004 Shows Full Open
- CAP 01110075; Identified Parameter Out of Specification during 1181 Monthly Surveillance

1R13 Maintenance Risk Assessments and Emergent Work Control

- CA-04-041; MNGP AST-FHA Radiological Consequence Analysis
- Engineering Evaluation EC 11688; Fuel Handling Accident Involving De-Channeled Fuel
- SCR-07-0436; Support GE in Measuring/Sampling Bowed Fuel Channels; Revision 1
- 4 AWI-06.06.01; Material Handling and Control of Heavy Loads; Revision 19
- CAP 01114911; Fuel Handling Accident Calculation for De-Channeled Fuel
- CAP 01115153; Possible FHA Scenario That Has Not Been Considered
- CAP 01116387; USAR Doesn't Mention 7X7 in Fuel Handling Accident Discussion
- CAP 01120865; V-AC-5 Failure Due to Blown Line Fuses
- CAP 01120793; No Bulb in V-AC-5 Red Light Socket
- CAP 01121461; NRC Senior Resident Concerns With temp V-MZ-1 Enclosure
- EC 11894; Evaluation of HELB Barrier for V-MZ-1 Coil Repair
- WO 350392-03; Install and Remove HELB Enclosure

1R15 Operability Evaluations

- CAP 01114766; No. 11 Recirc MG Set Tach Coupling Failing
- CAP 01116181; NRC Comments on #11 REC M/G Tach ODMI
- WO 00293459; 2007 Outage Inspect M/G Generator Bearings

1R19 Post Maintenance Testing

- CAP 01118587; Grease Found Behind Spring Pack Cap Cover on MO-1750
- CAP 01118595; MO-1750 Found in Overthrust Condition
- CAP 01118596; MO-1750 As-Left Settings Do Not Meet Desired Values
- EC 10870; Convert Mo-1750 Control from Close on Limit to Close on Torque
- EC 11878; MO1750 Test Data Reconciliation
- 8154; Installation of Electrical Jumpers/Boots to Allow Stroking of MOVs; Revision 4
- 0255-06-IA-1; HPCI Quarterly Pump and Valve Tests; Revision 79
- WO 00293778; P-111A, Perform Preservice and PMT Tests
- WO 00330913; MO-1750 – Set Valve Actuator Up to Close on Torque

1R22 Surveillance Testing

- 0141; Reactor Building to Torus Vacuum Breaker Operability Check; Revisions 28 and 29
- 3108; Pump/Valve/Instrument Record of Corrective Action; Revision 13 for WO 323714
- 0533; Containment Sump Flow Measurement Instrumentation; Revision 12
- CAP 01115054; AO-2379, Closing Time Outside of IST Acceptance Criteria
- CAP 01115133; Untimely PCR Completion - Impacting SR Acceptance Criteria

- CAP 01115260; IST Process Issue Regarding Plant Conditions
- CAP 01115278; 0141-AO-2379 Close Stroke Time Less Than Acceptance Criteria
- 0255-11-III-7; 13 Emergency Service Water Comprehensive Pump and Valve Test; Revision 13
- 0255-10-IA-1; Primary Containment Isolation Valve Exercise; Revision 35
- WO 00141140; Perform Baseline Testing of AO-2379
- WO 00141151; AO-2379, Replace Unacceptable Bolding on Actuator

1R23 Temporary Plant Modifications

- EC 11472; Install Temporary Heating Boiler (Revision to T-Mod 04-016)
- WO 136671-07; S-1, Install Temporary Boiler, Electric, Piping, Hoses
- WO 136671-08; S-1, Startup and Operate the Temporary Heating Boiler

1EP4 Emergency Action Level and Emergency Plan Changes

- MNGP Emergency Plan; Revisions 29 and 30

1EP6 Drill Evaluation

- A.2-101; Classification of Emergencies; Revision 38
- A.2-102; Notification of Unusual Event; Revision 18
- A.2-103; Alert; Revision 17
- A.2-104; Site Area Emergency; Revision 17
- Simulator Exercise Guide M-8117S-087; Revision 0
- CAP 01121041; Unexpected EAL Classification during Simulator Training

2OS1 Access Control to Radiologically Significant Areas

- CAP 01089460; RFO 23 Outage Dose Goal was Established at 155 rem and End of Outage Dose was 166 rem
- CAP 01113482; Lifting Device Found Outside RCA with Fixed Contamination
- CAP 01074629; Routine Dose in Work Week March 2007, Higher than the Estimated
- CAP 01105025; Personnel Contamination Found on Worker Knee
- CAP 01105024; Camera was Placed on Clean Platform in the Access Control Prior RP Survey
- CAP 01060217; Tritium Concentration Exceed Bioassay Program Threshold 2007-03-002; A Radiation Protection Assessment at Monticello during Third Quarter of 2007
- Pool Inventory Test 1479 for November 2006
- 4AWI-04.05.13; Control of Item in the Spent Fuel Pool; Revision 7
- CAP 01086571; Worker Received Dose Alarm Working in the RHR
- FP-RP-DP-01; Dosimetry Program; Fleet Procedure, Revision 0

2OS2 As Low As Is Reasonably Achievable Planning And Controls

- CAP 01083762; Dose Estimate for WO 141352 Required Revision
- CAP 01086663; Work Order Continued to Accumulate Dose After Job was Reported Done
- CAP 01085780; Dose Estimate was Exceeded on WO 00280574
- CAP 01085251; Dose Estimate was Exceeded by 142 Percent on WO 00297973

- CAP 01114116; Weakness Identified in Job Planning by NRC Inspectors
- CAP 01072130; Actual Dose on H213 Panel for WO 306071 is not Correct, This Could Have a Direct Impact on the Total Exposure Reports
- 2007-002-5-001; Nuclear Oversight Observation Report; 2007 Refuel Outage Radiation Protection Assessment; April 28, 2007
- RWP 652-01, 354-03, 682-00, 678-00, 675-00, 786-00, Radiation Protection Requirements and Special Instructions and Hold Points for Locked High Radiation Rates Less than 500 mrem/hour
- FP-RP-JPP-01; RP Job Planning, Revision 3; March 28, 2007
- 4 AWI-08.04.08; ALARA Plan, Revision 9
- WO 314220; Radiological Work Assessment Form ALARA Review Checklist on Steam Dryer Acoustic Monitoring for EPV Project
- WO 314220; Radiological Work Assessment Form Post Job Review for Steam Dryer Acoustic Monitoring
- WO 00141006; Radiological Work Assessment Form ALARA Review Checklist on Drywell Shielding
- WO 00288426; Radiological Work Assessment Form ALARA Review Checklist on ISI Nozzle Examinations
- WO 00288426; Radiological Work Assessment Form Post Job Review on ISI Examinations of Nozzle Windows
- WO 00291882; Radiological Work Assessment Form ALARA Review Checklist on Change-Out on Entire Safety Relief Valves (SRV)
- WO 00322070; Radiological Work Assessment Form Post Job Review on SRV Master WO
- WOs 134819, 139885, 291040; Radiological Work Assessment Form ALARA Review Checklist on Torus Project
- WO 00134819; Radiological Work Assessment Form Post Job Review on Repair Torus Internal Coating
- WO 140418; Radiological Work Assessment Form ALARA Review Checklist on Recirc Pump Motor Activities
- WO 00140418; Radiological Work Assessment Form Post Job Review on Number 12 Recirc Pump Motor Activities

2PS1 Radioactive Gaseous And Liquid Effluent Treatment And Monitoring Systems

- Priority Index Worksheet; Guideline for Implementing a Groundwater Protection Program at Nuclear Power Plant; Likelihood and Consequence of Component Failure
- NEI GPI L3; Schedule - Remaining Work Activities Associated with Groundwater Well Drilling
- SAR 1028891-Monticello; Snapshot Assessment Checklist for Groundwater Protection Program
- Project No. 11972-016; Groundwater Monitoring for Tritium Monitoring Plan; Sargent & Lundy, LLC; January 29, 2007

4OA1 Performance Indicator Verification

- Licensee Unreliability Index, Unavailability Index, and Performance Limit Exceeded MSPI Derivation Reports for the Residual Heat Removal System (July 2006 through June 2007)
- Licensee Unreliability Index, Unavailability Index, and Performance Limit Exceeded MSPI Derivation Reports for the Cooling Water System (July 2006 through June 2007)

- 3530-06; NRC Performance Indicator Radiation Safety Exposure, Revision 4; Reporting Period Third Quarter of 2006; dated October 4, 2006
- 3530-06; NRC Performance Indicator Radiation Safety Exposure, Revision 4; Reporting Period Fourth Quarter of 2006; dated January 5, 2007
- 3530-06; NRC Performance Indicator Radiation Safety Exposure, Revision 4; Reporting Period First Quarter of 2007; dated April 4, 2007
- 3530-06; NRC Performance Indicator Radiation Safety Exposure, Revision 4; Reporting Period Second Quarter of 2007; dated July 6, 2007

4OA2 Problem Identification and Resolution

- CAP 01110281; CV-1728, Valve Fails to Meet IST Requirements
- CAP 01084946; Lack of Procedure Revision Questioned by NRC
- CAP 01095060; Procedure Changes Not Being Completed in a Timely Manner
- CAP 01116132; Untimely Implementation of EC10936 with Respect to TS Equipment
- CAP 01115054; AP-2379, Closing Time Outside of IST Acceptance Band
- CAP 01115133; Untimely PCR Completion - Impacting SR Acceptance Criteria
- CAP 01115260; IST Process Issue Regarding Plant Conditions
- CAP 01115278; 0141-AO-2379 Close Stroke Time Less Than Acceptance Criteria
- CAP 01115293; Procedure 0026 Setpoints do not Match CML Records
- CAP 01114724; Change in Reactor Power Indication after Replacement of Module
- Operations Manual C.2-05; Power Operation, System Operation; Revision 32
- WO 00347238; MTS-6-84B, E/P-6-12B, Noisy Output Signal

4OA3 Followup of Events and Notices of Enforcement Discretion

- Operations Manual B.07.02.01-05; Recombiner System; Revision 14
- CAP 01113838; HWC System Tripped During Reduction per B.02.06-05.E.1
- CAP 01113843; Rx Water Recirc Conductivity High Following HWC Trip
- CAP 01116586; Unplanned Rise in Offgas Radiation and Stack WRGM's
- 2300; Reactivity Adjustment; Various, Associated with the Suppression Testing
- 4 AWI-05.05.02; Fuel Integrity Monitoring and Failed Fuel Action Plan; Revision 8
- Operations Memo 07-49; Operational Decision-Making Issue Evaluation for Indicated Fuel Clad Failure
- 8037; Power Suppression Testing; Revision 5
- WO 0339524; FI-7502A Failed Downscale
- CAP 01103584; Door-18 Found Closed

LIST OF ACRONYMS USED

| | |
|-------|--|
| ALARA | As Low As is Reasonably Achievable |
| AM | Analog Module |
| AWI | Administrative Work Instruction |
| CAP | Corrective Action Program |
| CFR | Code of Federal Regulations |
| DRP | Division of Reactor Projects |
| DRS | Division of Reactor Safety |
| EC | Engineering Change |
| EDG | Emergency Diesel Generator |
| EFT | Emergency Filtration Train |
| ESW | Emergency Service Water |
| FRV | Feedwater Regulating Valve |
| HELB | High Energy Line Break |
| HPCI | High Pressure Core Injection |
| HRA | High Radiation Area |
| IMC | Inspection Manual Chapter |
| IR | Inspection Report |
| IST | Inservice Testing |
| JW | Jacket Water |
| kV | Kilovolt |
| LER | Licensee Event Report |
| LOR | Licensed Operator Requalification |
| LORT | Licensed Operator Requalification Training |
| MIC | Microbiological Induced Corrosion |
| MNGP | Monticello Nuclear Generating Plant |
| MOD | Modification |
| MSPI | Mitigating Systems Performance Index |
| MW | Megawatt |
| NDE | Non Destructive Examination |
| NEI | Nuclear Energy Institute |
| NMC | Nuclear Management Company |
| NRC | U.S. Nuclear Regulatory Commission |
| PARS | Publicly Available Records |
| PCR | Procedure Change Request |
| PI | Performance Indicator |
| RA | Risk Assessment |
| RCE | Root Cause Evaluation |
| RCS | Reactor Coolant System |
| RFO | Refueling Outage |
| RHR | Residual Heat Removal |
| RHRSW | Residual Heat Removal Service Water |
| RP | Radiation Protection |
| RWP | Radiation Work Permit |
| SAC | Site ALARA Committee |
| SAT | Systems Approach to Training |
| SDP | Significance Determination Process |
| SW | Service Water |

TS
UFSAR
USAR
WO

Technical Specification
Updated Final Safety Analysis Report
Updated Safety Analysis Report
Work Order