

April 16, 2001

Mr. J. Morris  
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 INSPECTION REPORT 50-263-01-04(DRP)

Dear Mr. Morris:

On March 31, 2001, the NRC completed an inspection at your Monticello Nuclear Power Plant. The results of this inspection were discussed on April 6, 2001, with you and other members of your staff. The enclosed report presents the results of that inspection.

The inspection was an examination of activities conducted under your license as they relate to reactor safety, verification of performance indicators, event followup, and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC did not identify any issues which were categorized as being risk significant.

In accordance with 10 CFR 2.790 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 Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Bruce L. Burgess, Chief  
Projects Branch 2  
Division of Reactor Projects

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

Enclosure: Inspection Report 50-263-01-04(DRP)

See Attached Distribution

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cc w/encl: Plant Manager, Monticello  
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 50-263-01-04(DRP)

Licensee: Nuclear Management Company, LLC

Facility: Monticello Nuclear Power Plant

Location: 2807 West Highway 75  
Monticello, MN 55362

Dates: February 14 through March 31, 2001

Inspectors: Stephen Burton, Senior Resident Inspector  
Paul Prescott, Senior Resident Inspector - Duane Arnold  
Dan Kimble, Resident Inspector  
Mark Mitchell, Regional Inspector

Approved by: Bruce L. Burgess, Chief  
Projects Branch 2  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000263-01-04(DRP), on 02/14-03/31/2001; Nuclear Management Company, LLC; Monticello Nuclear Power Plant; Flood Protection, Operator Requalification, Maintenance Rule, Maintenance Risk and Emergent Work, Performance During Nonroutine Plant Evolutions, Operability, Plant Modifications, Post-Maintenance Testing, Refuel and Outages, and Emergency Preparedness.

The inspection was conducted by resident inspectors and regional inspectors. The report covers a 6½-week period of resident inspection. No findings were identified in any cornerstones. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

## Report Details

Summary of Plant Status: The unit began the inspection period at 100 percent power. Operation at 100 percent power continued until February 24, 2001, when a Technical Specification required shutdown was commenced (Sections 1R14 and 1R20). The unit remained shutdown for the rest of the inspection period.

### 1. REACTOR SAFETY

#### **Cornerstones: Initiating events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness**

#### 1R06 Flood Protection Measures

##### a. Inspection Scope

The inspectors reviewed the licensee's flooding mitigation plans and equipment to determine consistency with design requirements and the risk analysis assumptions. Walkdowns were conducted of the interior and exterior walls of the intake structure, pump house, cooling towers, reactor building, turbine building, and the low level radiation waste processing and storage facility. Also, the following documents were reviewed:

- Design Basis Document (DBD) T.5, "External Flooding"
- Individual Plant Examination of External Events (IPEEE)
- Operations Manual Procedure A.6, Section B, Revision 11, "External Flooding"
- Updated Safety Analysis Report (USAR), Revision 18:
  - Section 12.2.1.7.1, "External Flooding"
  - Section 2.4.1, "Surface Water"
  - Section 1.3.1.4, "Hydrology"
- Design Basis Document Follow-On Items (FOI):
  - 91-0126, "Emergency Procedure A.6, Section B (Flooding) Concerns"
  - 91-0125, "Unlocated External Flood Study Documents"
  - 91-0073, "Predicted Delivery Time for Sandbags"
- Intake Structure Drawings:
  - M-801
  - M-803
  - M-804
  - M-805

b. Issues and Findings

The inspectors reviewed the above mentioned documents and identified several discrepancies between the documents and drawings and the implementing Procedure A.6. The discrepancies are listed below:

- The USAR stated that suitable steel plates were stored onsite for possible future use in flood prevention. The steel plate would be required over various doors and ventilation ducts around the plant that would form a protective perimeter around vital plant equipment and the perimeter of the north, west, and east walls of the intake structure. These manufactured steel walls are needed to ensure protection of the ultimate heat sink and to maintain the plant in a cold shutdown condition. Licensee procedures and processes to install and secure the steel plating were somewhat ambiguous.
- Preventing flooding up through the traveling screens in the intake structure was not addressed in the Procedure A.6. The licensee's design basis documents and flooding procedure did not account for what might happen with the inability to clean the traveling screens. When river level reached 921 feet MSL, operators were to conduct an orderly plant shutdown and place the reactor in cold shutdown. At 926 feet MSL, the traveling screens would be underwater. The inspectors questioned how long the traveling screens could be expected to keep from clogging with debris in the river without being cleaned, and what impact reduced flow may have on maintaining the functional capability of shutdown cooling. Also, the licensee's design basis documents and external flood procedure did not address protecting the traveling screens from failure due to excessive debris buildup. Failure of the traveling screens could lead to material entering the suction of pumps that maintain shutdown cooling.
- Procedure A.6 required the use of two portable pumps. One would be for the diesel generator fuel oil transfer house, and the other for the diesel generator building. There were only three portable pumps onsite in the warehouse. Several areas were protected solely by sandbags, which do not form a watertight barrier. The inspectors questioned the licensee regarding the amount of expected leakage past the sandbag barriers, and the impact of leakage on equipment important to safety.
- The external flooding Procedure A.6 had no guidance for getting personnel into the plant with the elevated flood water level.
- The external flooding Procedure A.6 did not address protecting the No. 13 station black-out diesel or main transformers.
- There was no bases for the number of sandbags required. There was a recommendation in FOI 91-0073 to follow-up and revise the number of 100,000 sandbags given in the external flooding Procedure A.6. The majority of the sandbags would be needed when the flood reached 930 feet MSL.

- External flooding Procedure A.6 required doors 153 and 409 to be removed and steel plate installed. The doors were not labeled, nor was the steel plate dedicated and prepared for installations over these doors.
- The Monticello 50.54(f) response, dated February 11, 1997, listed in Attachment B-2, "Listing of Design Basis Documents and System Information Documents," that DBD T.5, "External Flooding," verification activity was completed. The DBD T.5 stated that the calculation files used by Hazra Engineering Company to determine the probable maximum flood at Monticello could not be found. The inspectors questioned what the licensee did to either: 1) reconstitute, 2) re-do, or 3) use an alternative method to meet 50.54(f) response statement that the design basis verification activity was completed. Corrective action request (CAR) FOI 91-0125 determined no further attempt would be made to take further action.
- Procedure A.6, step 9.u, stated, "Place sandbags or other high density material over the entire Emergency Diesel Generator (EDG) building floor to achieve an equivalent uniform load of 750 lb/ft<sup>2</sup>, or if bringing sandbags or other high density material into the EDG building is not desired, then the following alternative measure should be performed..." The procedure allowed for erecting a flood barrier (e.g., sandbag wall, levee, or berm) around the EDG building and use of a portable pump. The DBD T.5 stated that this was acceptable to prevent buckling of the floor. However, in the Basis for this statement no mention is made why it is suitable to build a sandbag wall around the room. The inspectors questioned that hydraulic lifting of the floor would occur by ground-water penetration, which would not be stopped by sandbagging around the building perimeter.

The licensee initiated Condition Report 20011819 to track resolution of the potential procedure deficiencies listed above. The combined effect of these potential procedure deficiencies is under review by the licensee and inspectors. This item is considered unresolved pending the licensee's review of and response to the above questions (URI 50-263/01-04-01).

#### 1R11 Licensed Operator Requalification Program

##### a. Inspection Scope

The inspectors observed a training crew during an evaluated simulator scenario and reviewed licensed operator performance in mitigating the consequences of events. The scenario included a failed EDG starting air system, a loss of one reactor recirculating pump and motor generator, a turbine trip and associated failure to scram, a stuck-open safety relief valve, and a failure of vessel level instrumentation. The transient resulted in an anticipated transient without scram (ATWS) complicated by torus temperature control problems and a loss of vessel level indication. Areas observed by the inspectors included: clarity and formality of communications, timeliness of actions, prioritization of activities, procedural adequacy and implementation, control board manipulations, managerial oversight, emergency plan execution, and group dynamics. Documents reviewed by the inspectors included:

- Monticello Simulator Scenario RQ-SS-20E, Revision 5, "Low Power ATWS With Loss of Level Indication"
- Abnormal Operating Procedures:
  - C.4-B.04.01.B, Revision 17, "Primary Containment Isolation - Group 2"
  - C.4-B.04.01.C, Revision 8, "Primary Containment Isolation - Group 3"
  - C.4-A, Revision 17, "Reactor Scram"
  - C.4.B.03.03.A, Revision 9, "Stuck Open Relief Valve"
  - C.4-F, Revision 11, "Rapid Power Reduction"
- Emergency Operating Procedures:
  - C.5 - 1100, Revision 6, "RPV [Reactor Pressure Vessel] Control"
  - C.5 - 1200, Revision 8, "Primary Containment Control"
  - C.5 - 2006, Revision 8, "RPV Flooding"
  - C.5 - 2002, Revision 4, "Emergency RPV Depressurization"
  - C.5 - 3101, Revision 2, "Alternate Rod Insertion"
  - C.5 - 3205, Revision 0, "Terminate and Prevent"
  - C.5 - 2007, Revision 9, "Failure to Scram"

b. Issues and Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the Maintenance Rule (10 CFR 50.65) to ensure rule requirements were met for the selected systems. The following systems were selected based on being designated as risk significant under the Maintenance Rule, or being in the increased monitoring (Maintenance Rule category a(1)) group:

- Alternate Shutdown System (ASDS)
- Off-gas Recombiner System
- Off-gas Holdup System
- Rod Worth Minimizer

The inspectors verified the licensee's categorization of specific issues, including evaluation of the performance criteria. The inspectors reviewed the licensee's implementation of the maintenance rule requirements, including a review of scoping, goal-setting, and performance monitoring; short-term and long-term corrective actions; functional failure determinations associated with the condition reports listed below; and current equipment performance status. The documents reviewed included:

- NUMARC [Nuclear Management and Resources Council]:
  - 93-01, Revision 2, "Nuclear Energy Institute Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"
  - 93-01, Section 11, "Assessment of Risk Resulting from the Performance of Maintenance Activities," dated February 22, 2000
- Regulatory Guides:
  - 1.160, Revision 2, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"
  - 1.182, May 2000, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants"
- Engineering Work Instruction 05.02.01, Revision 3, "Monticello Maintenance Rule Program Document"
- Monticello Maintenance Rule Periodic Assessment Report, 1<sup>st</sup> Quarter - 2000
- Operations Manual:
  - Section B.7.2.1, "Recombiner System"
  - Section B.7.2.2, "Off-Gas Holdup System"
  - Section B.5.17, "Alternate Shutdown System"
  - Section B.5.2, "Rod Worth Minimizer"
- Technical Specification Section 3/4.13, "Fire Detection and Protection Systems," and Basis
- Maintenance Rule Program System Basis Document:
  - Section B.5.17, Revision 0, "Alternate Shutdown System"
  - Section B.7.2.1, Revision 2, "Off-Gas Recombiner System"
  - Section B.7.2.2, Revision 1, "Off-Gas Holdup System"
  - Section B.5.2, Revision 1, "Rod Worth Minimizer System"
- USAR, Revision 18:
  - Section 9.3, "Gaseous Radwaste System"
  - Section 10.3.1.5.4, "Alternate Shutdown System"
  - Section 7.8, "NUMAC Rod Worth Minimizer and Plant Process Computer"
  - Section 14.7.1, "Control Rod Drop Accident Evaluation"
- Condition Reports:
  - 19991340, "Identify and Resolve Issues Associated with Off-Gas System Ignition and Associated Air Ejector Isolation"
  - 19992933, "Four Percent Hydrogen Trip on Off-Gas Compressors Due to C-252 DAS Mod Causing Unexpected Entry into LCO TS 3.8.B.4.a"
  - 20003339, "Both Recombiner Trains Will Not Transfer from Warmup to Standby"

- Work Order 09302692, "Left Side Power Low Voltage Power Supply Failed"
- Licensee Event Report (LER) 99-005, "Manual Scram Inserted When Pressure Transient Causes Air Ejector Isolation"

b. Issues and Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed and observed emergent work, preventive maintenance, or planning for risk significant maintenance activities. The inspectors observed maintenance or planning for the following activities or risk significant systems undergoing scheduled or emergent maintenance:

- Weekly Scheduling and Planning Meetings
- Outage Planning and Emergent Work Review

The inspectors also reviewed the licensee's evaluation of plant risk, risk management, scheduling, and configuration control for these activities in coordination with other scheduled risk significant work. The inspectors verified that the licensee's control of activities considered assessment of baseline and cumulative risk, management of plant configuration, control of maintenance, and external impacts on risk. In-plant activities were reviewed to ensure that the risk assessment of maintenance or emergent work was complete and adequate, and that the assessment included an evaluation of external factors. Additionally, the inspectors verified that the licensee entered the appropriate risk category for the evolutions. The documents reviewed included:

- Procedures:
  - 4 AWI-04.01.01, Revision 28, "General Plant Operating Activities"
  - SWI-14.01, Revision 0, "Risk Management of On-line Maintenance"

b. Issues and Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions and Events

a. Inspection Scope

On February 23, 2001, the inspectors reviewed personnel performance and licensee response to the plant shutdown required by Technical Specifications due to noncompliance with ASME Boiler & Pressure Vessel Code, Section XI, (hereafter referred to as the Code) inservice testing requirements for several safety-related check

valves. To evaluate the occurrence, the inspectors reviewed operator logs, equipment records, licensee response, applicability to the significance determination process (SDP), and contingency plans. Documents reviewed included:

- Technical Specification Section 3/4.15.A, "Inservice Inspection and Testing - Inservice Inspection," and Basis
- Procedures:
  - 4 AWI-09.04.03, Revision 1, "ASME Section XI Repair/Replacement Program"
  - 4 AWI-10.01.03, Revision 14, "Inservice Testing Program"
  - 3186-G-01-01, Revision 2, "Quality Control Inspection"
- Licensee corrective action plan to regain Code compliance for snubbers, and associated flow chart

b. Issues and Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the technical adequacy of an operability evaluation associated with the drywell to torus vacuum breakers to determine the impact on Technical Specifications, and the significance of the evaluations, and to ensure that adequate justifications were documented. The operability evaluation was selected based upon the relationship of the components to overall plant risk. The documents reviewed included:

- Calculations:
  - CA-00-057, "Drywell to Torus Differential Pressure Decay Curve for a One Inch Diameter Orifice"
  - M23447, FluiDyne Engineering Corporation No. C0418010 (Job No. 0988), "18 Inch Check Valve Tests," November 1973
- Work Order 0106480, "Master Post-Maintenance Test for Torus to Drywell Vacuum Breakers"
- ASME/ANSI OMa-1988, "Operation & Maintenance of Nuclear Power Plants"
- Condition Report 20011427, "Acceptance Criteria in Procedure 0127 Does Not Ensure that Torus to Drywell Vacuum Breakers will meet Analysis Assumptions"

b. Issues and Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

.1 High Energy Line Break (HELB) Wall and Fuel Zone Level Instrumentation Modifications

a. Inspection Scope

The inspectors reviewed the following modifications to verify that the design basis, licensing basis, and performance capability of risk significant systems were not degraded by the installation of the modification. The inspectors also verified that the modifications did not place the plant in an unsafe configuration.

- HELB Wall Modifications to Upgrade Inadequate Design
- Fuel Zone Reference Leg Modification

The inspectors considered the design adequacy of the modification by performing a review, or partial review, of the modification's impact on plant electrical requirements, material requirements and replacement components, response time, control signals, equipment protection, operation, failure modes, and other related process requirements. The documents reviewed included:

- Procedures and Forms:
  - 3655, Revision 4, "Monticello Plant Design Change Package - Turbine Building HELB Wall Reinforcement," Design Change 01Q065
  - 3655, Revision 4, "Monticello Plant Design Change Package - Turbine Building Wall Reinforcement for HELB," Design Change 01Q070
  - 3655, Revision 4, "Monticello Plant Design Change Package - Fuel Zone Level Instrumentation," Design Change 01Q075
- Work Orders:
  - 0106738, "Recalibrate Instrumentation Moved to POT 2-3-2A (Mod 01Q075)"
  - 0106739, "Recalibrate Instrumentation Moved to POT 2-3-2B (Mod 01Q075)"

b. Issues and Findings

No findings of significance were identified.

.2 Alternate Shutdown System Modifications to Resolve Hot Short Issues

a. Inspection Scope

The inspectors reviewed a modification performed on the ASDS installed to correct original design deficiencies that made the system susceptible to a single hot short. The

inspectors reviewed the modification to verify that the design basis, licensing basis, and performance capability was not degraded by the installation of the modification nor did the modification place the plant in an unsafe configuration. The inspectors considered the design adequacy of the modification by performing a review, or partial review, of the modification's impact on plant electric power requirements, material requirements and replacement components, response time, control signals, equipment protection, operation, failure modes, and other related process requirements. The documents reviewed included:

- Operations Manual, Section B.5.17, "Alternate Shutdown System"
- Procedure 3655, Revision 4, "ASDS Hot Short Improvements,"
- Design Change 01Q055
- USAR, Revision 18, Section 10.3.1.5.4, "Alternate Shutdown System"
- Condition Report 20011046, "ASDS Design Deficiency Results in Vulnerability to a Single Hot Short During Control Room / Cable Spreading Room Fire"
- Work Orders:
  - 0106489, "Breaker 152-602 Control Logic Change (Hot Short)"
  - 0106536, "Breaker 152-408 Control Logic Change (Hot Short)"
  - 0106533, "Breaker 152-603 Control Logic Change (Hot Short)"
  - 0106534, "Breaker 152-606 Control Logic Change (Hot Short)"
  - 0106535, "Breaker 152-607 Control Logic Change (Hot Short)"
  - 0106580, "Pre-operational Testing for 01Q055"
- Technical Specification Section 3/4.13, "Fire Detection and Protection Systems," and Basis

b. Issues and Findings

A modification was initiated to remove vulnerabilities that existed in the ASDS panel design that would prevent the system from functioning during a fire in either the cable spreading or control rooms. The failure mechanism existed when powering the associated bus from the EDG or when the diesel was transferred to the ASDS panel and a load shed signal was applied to certain components. One or both scenarios must occur simultaneously with the postulated fire.

Associated with the past operability of the system, the inspectors identified that both conditions can affect the EDG's ability to carry loads or supply loads on the vital 4160 Vac bus. The more risk significant condition arises when the EDG is powering the associated vital bus. During this scenario, the postulated hot-short has the possibility to impact existing circuit designs and render 12 residual heat removal (RHR) pump, 12 core spray pump, and 12 RHR service water pump inoperable. Because this impacts the operability of multiple safety-related pumps, the inspectors concluded that it had a credible impact on safety and, if left uncorrected, would become a more significant safety concern. Therefore, the inspectors determined that the issue was more than

minor. The inspectors also identified that the condition could affect the operability, availability, and reliability of multiple safety systems during the postulated event and evaluated the issue using the SDP. Because this issue is not explicitly addressed by the SDP worksheets, nor by the associated tables or appendix in Inspection Manual Chapter 0609, "Significance Determination Process," a Phase 3 SDP was initiated. This issue is considered unresolved pending the results of the Phase 3 SDP analysis (URI 50-263/01-04-02).

#### 1R19 Post-Maintenance Testing

##### a. Inspection Scope

The inspectors selected the following post-maintenance activities for review. Activities were selected based upon the structure, system, or component's ability to impact risk.

- Main Steam Line Drain Valve Positioner Hardening
- Stack "B" Wide Range Gas Monitor (WRGM) Timer Replacement
- Torus to Drywell Vacuum Breaker Operating Cylinder Replacement
- 11 Recirc Motor-Generator Tachometer Replacement
- Disassembly and Inspection of High Pressure Coolant Injection (HPCI) Check Valve AO-23-18
- Alternate Shutdown System (ASDS) Appendix "R" Modifications
- Control Rod 46-35 Scram Valve Seat Replacement

The inspectors observed the performance of post-maintenance testing activities which included, but were not limited to, integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use and compliance, control of temporary modifications or jumpers required for test performance, documentation of test data, technical specification applicability, system restoration, and evaluation of test data. The inspectors verified that maintenance and post-maintenance testing activities were adequate and would detect deficiencies prior to returning equipment to service. The documents reviewed included:

- Purchase Order PT 0277CQ, "Nickel Plating of Vacuum Breaker Cylinders"
- Material Requirements Evaluation (MRE) 0667, Revision 0, "Nickel Plating for Atwood & Morrill Cylinder, Part No. 454112032901"
- Calculations:
  - CA-00-057, "Drywell to Torus Differential Pressure Decay Curve for a One Inch Diameter Orifice"
  - M23447, FluiDyne Engineering Corporation No. C0418010 (Job No. 0988), "18 Inch Check Valve Tests," November 1973

- Work Orders:
  - 0106579, "Install Valve Positioner Hardening Kits"
  - 0106512, "Stack "B" WRGM Mid/High Timer Failed Functional"
  - 0106479, "Disassemble and Inspect AO-23-18 for Section XI"
  - 0106480, "Master Post-Maintenance Test for Torus to Drywell Vacuum Breakers"
  - 0004963, "Replace 11 Motor-Generator Set Tachometer"
  - 0106609, "Scram Valve Leaks Past Seat"
  
- Equipment Isolation:
  - 01-06579, "Install Valve Positioner Hardening Kits"
  - 01-06609, "Scram Valve Leaks Past Seat"
  
- ASME/ANSI OMa-1988, "Operation & Maintenance of Nuclear Power Plants"
  
- Modification Package 00Q290, Revision 0, "Project Description and 10 CFR 50.59 evaluation, Moisture Separator Drain Tank Level Controls Upgrade"
  
- Procedures and Forms:
  - 3069, Revision 8, "Post-maintenance Testing Activities Control Cover Sheet for Work Order 0106579"
  - CV-1002/P, "Instrument Calibration Work Sheet"
  - 4264, Revision 7, "I&C Pre-job Briefing Checklist for Work Order 0106579"
  - 3069, Revision 8, "Post-maintenance Testing Activities Control Cover Sheet for Work Order 0106512"
  - 0612-A, Revision 19, "Stack Gas Wide Range Gas Monitor Functional Test"
  - 3186-G-01-03, Revision 4, "Quality Control Inspection for Work Order 0106512"
  - 0255-06-IA-7, Revision 2, "AO-23-18 HPCI Injection Testable Check Valve Refueling Operability Test"
  - 4001-11-02, Revision 5, "Tilting Disc Check Valve Inspection"
  - 3533, Revision 3, "Confined Space Entry Permit for Torus"
  - 0127, Revision 8, "Drywell - Torus Vacuum Breaker Inspection, Functional Tests, and Calibration of Position Indication and Alarm System"
  - 3006, Revision 8, "Stores Requisition for 11 Recirc Motor-Generator Tachometer"
  - 3069, Revision 8, "Post-maintenance Testing Activities Control Cover Sheet for Work Order 0106609"
  - 2188, Revision 12, "Scram Accumulator Charging"
  - 0081, Revision 31, "Control Rod Drive Scram Insertion Time Test"

b. Issues and Findings

No findings of significance were identified.

1R20 Outage Activities

a. Inspection Scope

The inspectors evaluated outage activities for an unscheduled outage that began on February 24, 2001, and continued through the end of the inspection period. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances, control and monitoring of decay heat removal, control of containment activities, startup and heatup activities, and identification and resolution of problems associated with the outage. The documents reviewed included:

- Forms:
  - 2167, Revision 38, "Startup Checklist"
  - 2181, Revision 5, "Control Rod Movement Log"
  - 2204, Revision 22, "Shutdown Checklist"
  - 3560, Revision 5, "Infrequent Test or Evolution Briefing Guide"
- Technical Specifications:
  - Section 3/4.2, "Protective Instrumentation," and Basis
  - Section 3/4.3, "Control Rods System," and Basis
- Procedures:
  - C.1, Revision 30, "Startup Procedure"
  - C.3, Revision 24, "Shutdown Procedure"
  - B.5.1, "Area Radiation Monitoring System Operation"
- Cycle 20 Core Operating Limits Report, Revision 0
- Electrical Diagram, NF-36298-1, Revision M, "Monticello Plant Electrical Load Plow One Line Diagram"

b. Issues and Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope

The resident inspectors reviewed a simulator-based training evolution to evaluate drill conduct and the adequacy of the licensee's critique of performance to identify

weaknesses and deficiencies. The inspectors selected simulator scenarios that the licensee had scheduled as providing input to the Drill/Exercise Performance Indicator. The inspectors observed, when applicable, the classification of events, notifications to off-site agencies, protective action recommendation development, and drill critiques. Observations were compared to the licensee's observations and corrective action program entries. The inspectors verified that there were no discrepancies between observed performance and performance indicator reported statistics. The simulator scenario observed resulted in an unusual event and alert classifications. Documents reviewed included:

- Monticello Simulator Scenario RQ-SS-20E, Revision 5, "Low Power ATWS With Loss of Level Indication"
- Operations Manual A.2 - 101, Revision , "Classification of Emergencies"
- Forms:
  - 5790-104-04, Revision 73, "Emergency Call List - Alert/Site Area/General"
  - 5790-102-02, Revision 25, "Monticello Emergency Notification Report"
  - 3195, Revision 22, "Event Notification Worksheet"
  - 5790-501-03, Revision 3, "Emergency Communicator Checklist"

b. Issues and Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA6 Meetings, including Exit

Exit Meeting Summary

The inspectors presented the inspection results to Mr. J. Morris and other members of licensee management on April 6, 2001. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Morris, Site Vice President  
B. Day, Plant Manager  
J. Grubb, General Superintendent, Engineering  
K. Jepson, General Superintendent, Chemistry and Radiation Services  
B. Linde, Superintendent, Security  
D. Neve, Acting Licensing Project Manager  
B. Sawatzke, General Superintendent, Maintenance  
C. Schibonski, General Superintendent, Safety Assessment  
E. Sopkin, General Superintendent, Operations  
L. Wilkerson, Manager, Quality Services

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-263/01-04-01	URI Flood Protection Potential Deficiencies (1R06)
50-263/01-04-02	URI Alternate Shutdown System Modifications to Resolve Hot Short Issues (1R17.2)

Closed

None

Discussed

None

## LIST OF ACRONYMS USED

ASDS	Alternate Shutdown System
ASME	American Society of Mechanical Engineers
ATWS	Anticipated Transient Without Scram
AWI	Administrative Work Instruction
CAR	Corrective Action Request
DBD	Design Basis Document
DRP	Division of Reactor Projects
EDG	Emergency Diesel Generator
FOI	Follow-On Item
HELB	High Energy Line Break
HPCI	High Pressure Core Injection
I&C	Instrumentation and Controls
LER	Licensee Event Report
MRE	Material Requirements Evaluation
MSL	Mean Sea Level
NUMARC	Nuclear Management and Resources Council
PMF	Probable Maximum Flood
RHR	Residual Heat Removal
RPV	Reactor Pressure Vessel
SDP	Significance Determination Process
SWI	Scheduling Work Instruction
URI	Unresolved Item
USAR	Updated Safety Analysis Report
Vac	Volts Alternating Current
WRGM	Wide Range Gas Monitor