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 50-263-01-05(DRP)

Dear Mr. Morris:

On May 15, 2001, the NRC completed an inspection at your Monticello Nuclear Generating Plant. The results of this inspection were discussed on May 22, 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 identified two issues of very low safety significance (Green) involving two violations of NRC requirements. The violations involved instances of: (1) a lack of fire protection administrative controls as required by 10 CFR, Part 50, Appendix "R" and (2) the failure of an operator to follow procedures in accordance with Technical Specification 6.5. If you deny these Non-Cited Violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois 60532-4351, the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspectors' Office at the Monticello Nuclear Generating Plant.

J. Morris -2-

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Sincerely,

/RA/

Kenneth Riemer, Acting Chief Branch 2 Division of Reactor Projects

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

Enclosure: Inspection Report 50-263-01-05(DRP)

See Attached Distribution

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J. Morris -3-

cc w/encl: Plant Manager, Monticello

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Nuclear Asset Manager Site Licensing Manager

Commissioner, Minnesota Department of Health

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R. Nelson, President

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# U.S. NUCLEAR REGULATORY COMMISSION REGION III

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

Report No: 50-263-01-05(DRP)

Licensee: Nuclear Management Company, LLC

Facility: Monticello Nuclear Generating Plant

Location: 2807 West Highway 75

Monticello, MN 55362

Dates: April 1 through May 15, 2001

Inspectors: S. Burton, Senior Resident Inspector

D. Kimble, Resident Inspector H. Walker, Regional Inspector

G. Pirtle, Regional Physical Security Inspector

A. Dunlop, Reactor Engineer, DRS

Approved by: Kenneth Riemer, Acting Chief

Branch 2

Division of Reactor Projects

#### SUMMARY OF FINDINGS

IR 05000263-01-05(DRP), on 04/01-05/15/2001; Nuclear Management Company, LLC; Monticello Nuclear Generating Plant; Fire Protection; Personnel Performance During Nonroutine Plant Evolutions and Events; Resident Operations Report. Licensed Operator Requalifications; Maintenance Rule Implementation; Maintenance Risk Assessment. Operability Evaluations, Post-maintenance Testing; Outage Activities; Surveillance Testing; Temporary Plant Modifications; Access Authorization Program; Access Control; Performance Indicator Verification.

The inspection was conducted by resident and regional inspectors. The report covers a 6½-week period of resident inspection. The inspection identified two green findings encompassing two Non-Cited Violations. The significance of all of the findings are indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "no color" or by the severity level of the applicable violation. 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.

#### A. Inspector-Identified Findings

#### **Cornerstone: Mitigating Systems, Initiating Events**

- Green. The inspectors identified a room in Fire Zone 3-B, adjacent to safety-related switchgear and the standby liquid control system, that did not have fire detection or suppression equipment and contained a significant amount of transient combustibles. The lack of fire protection administrative controls constituted a Non-Cited Violation of 10 CFR, Part 50, Appendix "R" requirements. This finding was of very low safety significance because a fire in this room would affect only one safe shutdown train, and did not impact the 3-hour fire barrier between safe shutdown trains (Section 1R05).
- Green. On May 9, 2001, the inspectors reviewed plant operations' response to an unplanned power reduction to approximately 55 percent reactor power, which resulted from the inadvertent isolation of a condensate demineralizer. The failure of an operator to perform "manual air surge backwash" was determined to be a failure to follow procedures in accordance with Technical Specification 6.5. and a Non-Cited Violation was issued. This finding was of very low safety significance because of the availability of sufficient mitigating systems, and operator action could be credited for mitigating the event (Section 1R14).

#### **Cornerstone: Physical Protection**

No findings of significance were identified.

#### B. Licensee-Identified Findings

No findings of significance were identified.

#### Report Details

<u>Summary of Plant Status</u>: The unit began the inspection period in cold shutdown, continuing a technical specification-required shutdown which began on February 24, 2001. On April 3, the unit returned to power operation (Section 1R20). Operation at or near full power continued until April 13, when a reduction in power to approximately 80 percent was made to perform a control rod pattern adjustment. Full power operation was resumed the same day and continued until May 6, when power was reduced to approximately 44 percent for main steam isolation valve testing and troubleshooting (Section 1R14.1). Full power operation was resumed later that day and continued until May 9, when a rapid power reduction to approximately 55 percent was required in response to the inadvertent isolation of a condensate demineralizer (Section 1R14.2). Full power operation was resumed later that day, and continued through the end of the inspection period.

#### 1. REACTOR SAFETY

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

1R05 Fire Protection (71111.05)

#### a. <u>Inspection Scope</u>

The inspectors walked down Fire Zone 3-B (standby liquid control area) looking for any fire protection issues. The inspectors selected an area containing systems, structures, or components that the licensee identified as important to reactor safety. The inspectors reviewed the control of transient combustibles and ignition sources, fire detection equipment, manual suppression capabilities, passive suppression capabilities, automatic suppression capabilities, and barriers to fire propagation.

#### b. Findings

A finding of very low safety significance (Green) and an associated Non-Cited Violation (NCV) was identified by the inspectors for a lack of fire protection administrative controls. The details are documented below.

The inspectors performed a walkdown of the Fire Zone 3-B (standby liquid control area). The inspectors identified that a room located within the area and adjacent to safety-related switchgear contained a significant amount of combustible materials. Specifically, welding cables, rubber hoses, cotton storage bags, and an oxygen-acetylene gas welding rig were found in the room. The inspectors further identified that the room did not contain any fire detection or suppression equipment. Additionally, the inspectors found that the wall between the room and the safety-related switchgear was not rated as a fire barrier.

The inspectors also ascertained that the condition, if left uncorrected, could become more significant because it increased the risk of a fire in Zone 3-B. Due to the large

amount of combustibles present, the inspectors concluded that a fire in this area could impact the operability of the safety-related switchgear located adjacent to the room. Appendix "R" to 10 CFR 50, Section III.K, states in part that: "administrative controls shall be established to prohibit the storage of combustibles in safety-related areas or establish designated storage areas with appropriate fire protection." Contrary to this requirement, administrative controls were not established to control the fire loading in Fire Zone 3-B equipment storage area, nor were appropriate fire protection measures established for the room. This violation is being treated as a NCV consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-263/2001005-01(DRP)). Due to the lack of detection or suppression equipment, the large amount of combustibles present, and the proximity to safety-related power supply, the inspectors also entered the significance determination process (SDP) for determining potential risk significance of fire protection inspection findings.

The inspectors concluded that the condition constituted a degradation of fire protection defense in depth, because the lack of detection equipment in this room would inhibit the licensee from rapidly detecting and manually suppressing a fire in Zone 3-B. Because a fire in this room would only affect one safe shutdown train and did not impact the 3-hour fire barrier between safe shutdown trains, the inspectors concluded that this finding was within the licensee response band (Green). The licensee has entered this issue into their corrective action program as Condition Report 20012288.

#### 1R11 <u>Licensed Operator Requalification Program (71111.11)</u>

#### a. <u>Inspection Scope</u>

The inspectors observed a training crew during an emergency preparedness exercise and reviewed licensed operator performance in mitigating the consequences of events. The scenario included a safety-related electrical bus failure, a feedwater line break inside containment, a failure to scram with subsequent fuel failure, and a requirement to vent the containment via the hard pipe vent, resulting in a radioactive release to the environment. The transient resulted in operators responding to the transient, the declaration of an Alert, and the transfer of emergency responsibilities upon activation of the technical support center. 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.

#### b. <u>Findings</u>

No findings of significance were identified.

#### 1R12 Maintenance Rule Implementation (71111.12)

#### a. <u>Inspection Scope</u>

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 residual heat removal/low pressure coolant injection (RHR/LPCI) system was

selected based on being designated as risk significant under the Maintenance Rule, or being in the increased monitoring (Maintenance Rule category a(1)) group. 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 reviewed; and current equipment performance status.

#### b. Findings

No findings of significance were identified.

#### 1R12 Maintenance Rule Implementation (71111.12B)

#### a. <u>Inspection Scope</u>

The objective of the inspection was to:

- Verify that the periodic evaluation was completed within the time restraints
  defined in 10 CFR 50.65, the maintenance rule (once per refueling cycle, not to
  exceed two years), ensuring that the licensee reviewed its goals, monitoring,
  preventive maintenance activities, industry operating experience, and made
  appropriate adjustments as a result of that review;
- Verify that the licensee balanced reliability and unavailability during the previous refueling cycle, including a review of safety significant structures, systems, and components (SSCs);
- Verify that (a)(1) goals were met, corrective action was appropriate to correct the
  defective condition including the use of industry operating experience, and (a)(1)
  activities and related goals were adjusted as needed; and
- Verify that the licensee has established (a)(2) performance criteria, examined any SSCs that failed to meet their performance criteria, or reviewed any SSCs that have suffered repeated maintenance preventable functional failures including a verification that failed SSCs were considered for (a)(1).

The inspectors examined the periodic evaluation reports completed for the year 2000. To evaluate the effectiveness of (a)(1) and (a)(2) activities, the inspectors examined a number of Condition Reports (CRs) and Work Orders (WOs) (contained in the list of documents at the end of this report). In addition, the CRs were reviewed to verify that the threshold for identification of problems was at an appropriate level and the associated corrective actions were appropriate. The majority of these CRs were related to the following systems:

- High Pressure Coolant Injection (HPCI)
- Secondary Containment (SCT)
- Standby Gas Treatment (SBGT)
- Residual Heat Removal (RHR)

#### b. <u>Findings</u>

No findings of significance were identified.

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

#### a. <u>Inspection Scope</u>

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
- Number 10 Transformer Maintenance and Switch-yard Activities

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.

#### b. Findings

No findings of significance were identified.

#### 1R14 Personnel Performance During Nonroutine Plant Evolutions and Events (71111.14)

.1 <u>Unplanned Power Reduction Due to Inoperable Failure of a Turbine Stop Valve to Close</u>

<u>During Surveillance Testing</u>

#### a. Inspection Scope

On May 6, 2001, the inspectors responded to an unplanned reactor power reduction from 100 percent to approximately 44 percent. The power reduction was required by Technical Specifications when a turbine stop valve failed to close during routine surveillance testing. The inspectors reviewed control room instrumentation, logs and

computer data, and evaluated operator response with respect to procedures. The turbine stop valve was subsequently determined to have been operable and the cause of the failure attributed to the associated test solenoid valve.

#### b. Findings

No findings of significance were identified.

#### .2 Unplanned Power Reduction Due to Human Error

#### a. Inspection Scope

On May 9, 2001, the inspectors reviewed plant operations' response to an unplanned power reduction to approximately 55 percent reactor power. The inspectors reviewed control room logs, instrumentation, and procedures related to the event to evaluate operator response to the transient and verify the accuracy of the licensee's assessment of the condition.

#### b. <u>Findings</u>

The inspectors identified one Green finding and one associated NCV with this issue. The details are documented below.

While performing a backwash of condensate demineralizer, an operator inadvertently isolated a second condensate demineralizer. This caused the supply flow path to the feedwater pumps to be reduced and resulted in insufficient condensate flow to the reactor feedwater pumps. Operators in the control room noted decreasing feed pump suction pressure and received alarms related to the event. Control room operators commenced a power reduction to maintain feedwater pump suction pressure above the low pressure trip setpoint. After the transient was terminated, the condensate demineralizer system lineup was restored and reactor power was returned to 100 percent.

The inspectors concluded that the power reduction was the result of a procedural noncompliance, and that the human performance issue, if left uncorrected, would become a more significant safety concern. The inspectors also determined that unplanned power reduction was a transient initiator and increased the frequency of an initiating event. The failure of the operator to backwash condensate demineralizers as required by Operations Procedure B.06.05, "Manual Air Surge Backwash," was contrary to the requirements of Technical Specification 6.5, "Plant Operating Procedures." This violation is being treated as a Non-Cited violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 50-263/2001005-02(DRP)). Additionally, the inspectors entered the Significance Determination Process (SDP) to further evaluate the issue. The inspectors determined that the issue constituted an initiating event that contributed to the likelihood of a reactor trip, and that the event impacted equipment in the mitigating systems cornerstone, specifically the availability of reactor feedwater pumps. Because the event impacted two cornerstones, a review of this issue using the Phase 2 SDP was conducted. Because sufficient mitigating systems were available and operator action could be credited for mitigating the event, the review indicated that the issue was

within the licensee response band (Green). This issue has been entered into the licensee's corrective action program as CR 20012592.

#### 1R15 Operability Evaluations (71111.15)

#### a. Inspection Scope

The inspectors reviewed the technical adequacy of an operability evaluation for a blown fuse to reactor core isolation cooling (RCIC) switchgear to determine the impact on technical specifications and the significance of the evaluations, and to ensure that adequate justifications were documented. Operability evaluations were selected based upon the relationship of the safety-related system, structure, or component to risk.

#### b. <u>Findings</u>

No findings of significance were identified.

#### 1R19 Post-Maintenance Testing (71111.19)

#### a. <u>Inspection Scope</u>

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.

- Core Spray Pressurizing Station
- Residual Heat Removal Seal Water Pressurizing Station
- Reactor Building Isolation Damper Operator Air Leaks

The inspectors verified by witnessing the test or reviewing the test data that post-maintenance testing was adequate for the above maintenance activities. The inspectors' reviews 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 also verified that maintenance and post-maintenance testing activities adequately ensured that the equipment met the design and licensing basis, Technical Specification requirements, and design requirements as stated in the Updated Safety Analysis Report (USAR).

#### b. Findings

No findings of significance were identified.

#### 1R20 Outage Activities (71111.20)

#### a. <u>Inspection Scope</u>

The inspectors continued evaluation of outage activities for an unscheduled outage that began on February 24, 2001, and concluded after 37 days with reactor startup on April 3. 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 startup and plant heatup (Monticello Plant Startup No. 223), placing the main generator inservice, including synchronization to the grid, equipment configuration and risk management, electrical lineups, and identification and resolution of problems associated with the end of the outage.

#### b. <u>Findings</u>

No findings of significance were identified.

#### 1R22 Surveillance Testing (71111.22)

#### a. Inspection Scope

The inspectors selected the following surveillance test activities for review. Activities were selected based upon risk significance and the impact upon risk that an unidentified performance degradation of the structure, system, or component could have if unresolved for long periods of time.

- Core Spray Header Differential Pressure Test, performed on April 12, 2001
- ECCS (emergency core cooling system) High Drywell Pressure Sensor Test, performed on April 19, 2001
- Portable Diesel Pump Operability Test, performed on April 20, 2001

The inspectors observed the performance of surveillance testing activities, including reviews for preconditioning, integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use, control of temporary modifications or jumpers required for test performance, documentation of test data, Technical Specification applicability, impact of testing relative to performance indicator reporting, and evaluation of test data.

#### b. Findings

No findings of significance were identified.

#### 1R23 <u>Temporary Plant Modifications (71111.23)</u>

#### a. Inspection Scope

The inspectors reviewed temporary modification to the lower 4160 volt ac switchgear room to provide protection during a high energy line break. The inspectors reviewed the safety screening, design documents, USAR, and applicable technical specification to determine that the temporary modification was consistent with modification documents, drawings and procedures. The inspectors also reviewed the post-installation test results to confirm that tests were satisfactory and the actual impact of the temporary modification on the permanent system and interfacing systems were adequately verified.

#### b. Findings

No findings of significance were identified.

#### 3. SAFEGUARDS

**Cornerstone: Physical Protection** 

3PP1 Access Authorization (AA) Program (Behavior Observation Only) (71130.01)

#### a. Inspection Scope

The inspector interviewed five supervisors and five non-supervisors (both licensee and contractor employees) to determine their knowledge level and practice of implementing the licensee's Fitness-For-Duty (FFD) and behavior observation program responsibilities. Selected procedures pertaining to the FFD Program and Behavior Observation Program were reviewed. Supervisor FFD training was also reviewed.

The inspector reviewed a sample of licensee self-assessments, audits, and security logged events. The inspector interviewed security managers to evaluate their knowledge and use of the licensee's corrective action program.

#### b. <u>Findings</u>

No findings of significance were identified.

# 3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles) (71130.02)

#### a. Inspection Scope

The inspector reviewed the licensee's protected area (PA) access control testing and maintenance procedures and observed licensee testing of all access control equipment. On two occasions, during peak ingress periods, the inspector observed in-processing search of personnel, packages, and vehicles to determine if search practices were conducted in accordance with regulatory requirements and if security personnel could

effectively do all assigned tasks. Interviews were conducted and records were reviewed to verify that security staffing levels at the access control point were consistently and appropriately implemented. The inspector confirmed that card readers at the PA access point would not allow a single key card multiple entries without logging back off site. Procedures were reviewed to confirm that measures were established to deny entry into the PA for personnel whose access was suspended. The inspector reviewed the licensee's process for limiting PA and vital area access to only authorized personnel. The inspector reviewed the licensee's program to control and account for security hard-keys. Measures to protect and secure access authorization data within the security computer system were reviewed.

The inspector reviewed a sample of licensee self-assessments, audits, maintenance request records, and security logged events for identification and resolution of problems. In addition, the inspector interviewed security managers to evaluate their knowledge and use of the licensee's corrective action program.

#### b. <u>Findings</u>

No findings of significance were identified.

#### 4. OTHER ACTIVITIES (OA)

#### 4OA1 Performance Indicator Verification (71151)

Physical Protection

#### a. <u>Inspection Scope</u>

The inspector reviewed data for the Physical Protection Performance Indicators (PIs) pertaining to FFD Personnel Reliability, Personnel Screening Program, and Protected Area Security Equipment. A sample of plant reports related to security events, security shift activity logs, FFD reports, work orders, maintenance requests, and other applicable security records were reviewed for the third and fourth guarters of 2000.

#### b. <u>Findings</u>

No findings of significance were identified.

An unresolved item was identified pertaining to the security equipment PI. The Security Equipment PI consists of counting compensatory hours for the perimeter intrusion detection system (IDS) and the closed circuit television (CCTV) system. The PI Indicator Value is determined by adding the IDS Unavailability Index plus the CCTV Unavailability Index and dividing by two. At Monticello, compensatory measures for the CCTV system are not required except for catastrophic equipment failures that exceed the ability of the on duty security force to compensate for. Therefore, the PI indicator value for the Protected Area Security Equipment shows only half the out-of-service time requiring compensatory man-hours for the perimeter detection system. The unresolved item is: Should Monticello use the part of the PI formula pertaining to CCTV

compensatory hours since the security force is not required to routinely compensate for CCTV degradations (URI 50-263/01-05-03)?

#### 4OA6 Meeting

#### **Exit Meetings**

The region-based physical security inspector presented the inspection results to Mr. E. Sopkin and other members of the licensee management on April 13, 2001. The region-based Maintenance Rule inspector presented the inspection findings to Mr. B. Day and other members of the licensee management on May 3, 2001. The resident inspectors presented the inspection results to Mr. J. Morris and other members of licensee management on May 22, 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.

#### KEY POINTS OF CONTACT

#### Licensee

- J. Forbes, Plant Manager
- B. Day, Plant Manager
- J. Grubb, General Superintendent, Engineering
- K. Jepson, General Superintendent, Chemistry and Radiation Services
- B. Linde, Superintendent, Security
- J. Morris, Site Vice President
- 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
- R. Cleveland, Access Authorization and Fitness For Duty Manager
- B. Linde, Security Manager
- C. Johnson, Nuclear Security Specialist
- T. Gallagher, Nuclear Security Specialist
- J. Pairitz, Maintenance Rule Coordinator

#### ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened

50-263/01/05/01	NCV	Fire Protection Administrative Controls (Section 1R05)
50-263/01/05/02	NCV	Failure to Follow Established Procedures (Section 1R14.2)
50-263/01/05/XX	URI	Use of CCTV Compensatory Hours for Protected Area Security Equipment Performance Indicator (Section 4OA1)

#### Closed

50-263/01/05/01	NCV	Fire Protection Administrative Controls (Section 1R05)
50-263/01/05/02	NCV	Failure to Follow Established Procedures (Section 1R14.2)

#### Discussed

#### None

#### LIST OF ACRONYMS USED

ac Alternating Current

AWI Administrative Work Instruction

CCTV Closed Circuit Television
CFR Code of Federal Regulations

CR Condition report

DBD Design Basis Document
DRP Division of Reactor Projects
DRS Division of Reactor Safety

ECCS Emergency Core Cooling System
EWD Engineering Wiring Diagram

FFD Fitness-For-Duty

HPC High Pressure Coolant Injection IMC Inspection Manual Chapter

KV Kilovolt

LCO Limiting Condition For Operation LPCI Low Pressure Coolant Injection

NCV Non-Cited Violation

NRC Nuclear Regulatory Commission

NUMARC Nuclear Management and Resources Council

OA Other Activities PA Protected Area

PCV Pressure Control Valve

RCIC Reactor Core Isolation Cooling

RHR Residual Heat Removal SBGT Standby Gas Treatment SCT Secondary Containment

SDP Significance Determination Process SSC Structures, Systems, and Components

SWI Scheduling Work Instruction TS Technical Specification

USAR Updated Safety Analysis Report

WO Work Order

### LIST OF DOCUMENTS REVIEWED

#### 1R05 Fire Protection

NX-16991		Fechnical Manual, Monticello Updated Fire Hazards Analysis	
A.3-03-B		Monticello Fire Strategies: Standby Liquid Control Area	Revision 4
4 AWI-08.01 4 AWI-08.01 0271	I .01 F .02 C F E	Procedures and Administrative Work nstructions: Fire Prevention Practices Combustion Source Use Permit Fire Hose Station and Yard Hydrant Hose House Equipment Inspection Fire Barrier Wall, Damper, and Floor Inspection	Revision 15 Revision 05 Revision 27 Revision 16
0274	F	Fire Hose Hydrostatic Test Interior Hose Stations	Revision 18
0275-01	F	Fire Barrier Penetration Seal Visual Inspection	Revision 08
QUAD-5-80-	l F	Quadrex Corporation Report, Specifications for nstallation of Electrical and Mechanical Penetration Seals at the Monticello Nuclear Generating Plant	Revision 7
TS 3/4.13	F	Technical Specifications: Fire Detection and Protection Systems, and Basis	
CR 2001228	-	962 Elevation Maintenance Storage Area Fire Doors Prevent Smoke Travel	
1R11 <u>Licens</u>	ed Opera	ntor Requalification Program	
Section 5, Pa		Monticello Emergency Plan Drill - Simulator Operator Guide	April 25, 2001
Section 5, Pa		Monticello Emergency Plan Drill - Narrative Summary and Time Line	April 25, 2001
CR 2001240	-	Assessment of April 25, Full Scale Emergency Plan Drill	

# 1R12 <u>Maintenance Rule Implementation</u>

93-01 93-01, Section 11	NUMARC: Nuclear Energy Institute Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants Assessment of Risk Resulting from the Performance of Maintenance Activities	Revision 2 February 22, 2000
1.160 1.182	Regulatory Guides: Monitoring the Effectiveness of Maintenance at Nuclear Power Plants Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants	Revision 2 May 2000
05.02.01	Engineering Work Instruction, Monticello Maintenance Rule Program Document	Revision 3
	Monticello Maintenance Rule Periodic Assessment Report	2nd Quarter - 2000
0255-04-IA-1	RHR Pump and Valve Tests	Revision 50
0255-04-IIA-1	RHR Loop A System Pressure Tests	Revision 12
DBD B.3.4	Design Basis Document Residual Heat Removal	Revision 3
NX-7905-51	RHR Pump Curves	
NX-7905-52	RHR Pump Performance Data	Revision A
CR-19992636	Apparent Lack of Written Basis for 75 psi RPV Pressure Interlock For RHR and Associated Analytical Valve	
CR-19992637	Discrepancy Regarding Torque Switch Bypass Jumper for MO-1986	
EWI-05.02.01	Monticello Maintenance Rule Program Document	Revision 5
	Maintenance Rule System Basis Document - High Pressure Coolant Injection	Revision 1
	Maintenance Rule System Basis Document - Residual Heat Removal	Revision 1
	Maintenance Rule System Basis Document - Secondary Containment	Revision 1
	Maintenance Rule System Basis Document - Crane	Revision 1

	Maintenance Rule System Basis Document - Standby Gas Treatment System	Revision 0
	Monticello Maintenance Rule Periodic Assessment Report 1st Quarter - 2000	October 9, 2000
	Monticello Maintenance Rule Periodic Assessment Report 2nd Quarter - 2000	March 26, 2001
	Monticello Maintenance Rule Periodic Assessment Report 3rd & 4th Quarters - 2000	April 29, 2001
	Maintenance Rule Systems' Performance Data (Unavailability and Reliability Data)	April 28, 2001
CR 19990423	Reactor Building Differential Pressure Problems Result in EOP 1300 Procedure Entry	February 10, 1999
CR 19990470	HPC Group IV Isolation During Surveillance Test	February 15, 1999
CR 19991049	Test 0253-1 Exited Without Completing the Procedure Due to Failure to Receive the Expected Annunciator Response	April 15, 1999
CR 19991464	Valve MO-2003 Failed to Stroke Open From Control Room Handswitch	May 24, 1999
CR 19992702	Unplanned LCO on "B" SBGT Upon Review of Test 0253-2 Due to Possible Degraded Air Heater Performance	September 13, 1999
CR 20000091	Loss of Pressure on South Equalizer Circuit Oil Accumulator Results in Reactor Building Crane Main Hoist Being Inoperable	January 17, 2000
CR 20000468	Agastat Relay in Throttling Circuit for MO-2003 Failed	January 27, 2000
CR 20000556	LS-23-90 HPCI Steam Supply Drain High Level Bypass Switch Failed to Trip	February 1, 2000
CR 20001035	LCO Not Entered for Inoperable SCTMT Isolation Dampers When Sbgt Trains Deenergized	February 28, 2000
CR 20001612	Unplanned HPCI LCO Due to Undervoltage on D31206 Due to Failure of the Undervoltage Coil	April 4, 2000
CR 20001658	AO-2380, Torus to Reactor Building Vacuum Breaker Exceeded the Limiting Stroke Time in the Open Direction	April 19, 2000

CR 20003344	Received Annunciator 3-B-10 HPCI Inlet High Drain Pot Level, but Automatic Opening of CV- 2043 Did Not Occur	September 5, 2000
CR 20003864	Unplanned LCO Secondary Containment Damper Inoperable Due to Loose Control Power Wire	October 8, 2000
CR 20004649	Definition of Maintenance Rule Functional Failure Does Not Clearly Address Rod Selection Problems and Spurious Rod Block Alarms When a Rod Is Selected	November 29, 2000
CR 20010381	Trip of "A" Stack WRGM Not Identified as a Maintenance Rule Functional Failure	January 23, 2001
CR 20010684	Basis for Maintenance Rule Scoping of Reactor Building Vent WRGMs Not Clear	February 6, 2001
CR 20012500*	Maintenance Rule Performance Criteria for Crane System Are Not Predictive	May 1, 2001
CR 20012515*	RHR Function of Transferring Water from Torus to Radwaste Was Not Included in the Scope of the Maintenance Rule	May 2, 2001
WO 9904606	MO-2407 Declutch Lever Requires Repair	December 7, 1999
WO 9906446	SBGT Flow Transmitter Failed	August 9, 1999
WO 9907434	I/R FIC-2942 SBGT "B" Train Flow Controller	October 4, 1999
WO 0002516	Investigate MO-2032 Valve Operator	June 14, 2000

<sup>\*</sup>Condition reports written as a result of this inspection

# 1R13 Maintenance Risk Assessments and Emergent Work Control

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

#### 1R14 Personnel Performance During Nonroutine Plant Evolutions and Events

Form 2030 Control Room Log Revision 53

TS 3.1 Reactor Protection System

CR 20012592 Unplanned Power Reduction Due to Personnel Error While BW/PC [Backwash/precoat] Condensate Demineralizer Vessel. Pwr Reduced to Approximately 45%.

#### 1R15 Operability Evaluations

CR 20012501 Entered Unplanned LCOs for Primary

Containment Integrity and RCIC Due to Failure

of Control Power to RCIC, MCC-311

#### 1R19 Post-Maintenance Testing

Form 3069	Post Maintenance Testing Activities Control Cover Sheet - WO 0106945	Revision 8
WO 0106945	PCV-2459 May Be Leaking By	
WO 0003669	Air Leak Form V-D-60 North Damper Operator	
WO 0003670	Air Leak Form V-D-63 West Damper Operator	
Form 3069	Post Maintenance Testing Activities Control Cover Sheet - WO 0003669	Revision 9
Form 3069	Post Maintenance Testing Activities Control Cover Sheet - WO 0003670	Revision 9
00-03669	Isolation and Restoration form - WO 0003669	Version 1
00-03670	Isolation and Restoration form - WO 0003670	Version 1

#### 1R20 Outage Activities

Form 2167	Startup Checklist	Revision 38
Form 2181	Control Rod Movement Log	Revision 5
Form 2163	Plant Re-Start Checklist	Revision 27
Form 2159	Predicted Critical for Plant Startup	Revision 5
Form 2150-01	Department Checklist for Reactor Startup - Operations	Revision 1

Form 2030	Control Room Log	Revision 53
TS 3/4.2	Protective Instrumentation, and Basis	
TS 3/4.3	Control Rods System, and Basis	
Procedure C.1	Startup Procedure	Revision 30
	Cycle 20 Core Operating Limits Report	Revision 0
EWD NF-36298-1	Monticello Plant Electrical Load Plow One Line Diagram	Revision M
1R22 <u>Surveillance</u> 1	<u>Cesting</u>	
Procedure 0098	Core Spray Header Differential Pressure Test and Calibration Procedure	Revision 11
Procedure 1306	Portable Diesel Pump Operability Test	Revision 6
Procedure 0030	ECCS High Drywell Pressure Sensor Test	Revision 9
B.3.1	Core Spray	
TS 3/4.5	Core and Containment Spray/Cooling Systems, and Basis	
1R23 <u>Temporary Pl</u>	ant Modifications	
	Operations Jumper Bypass Log Index:	
Form 00-81	Jumper Bypass, Installation of a flood barrier to protect the lower 4 KV switchgear room	
Form 00-89	Jumper Bypass, Installation of a sill plate at door 479 to protect the lower 4 KV switchgear room	
Form 00-94	Jumper Bypass, Install a plug in the floor drain located in the lower 4 KV switchgear room to protect against flooding	
Form 01-24	Jumper Bypass, Install an additional restraint to reduce the vibration levels of the # 12 service water pump motor	

4 AWI-04.04.03 Procedure, Bypass Control

### 3PP1 Access Authorization (AA) Program

NIACD 2.12	Nuclear generation FFD Handbook	
	Fitness-For-Duty Program	Revision 2
	Fitness-For-Duty Performance Data	August 25, 2000
	Fitness-For-Duty Performance Data	February 26, 2001
	Generation Quality Services Security Audit (No. AG 2000-S-3)	October 31, 2000
CR 20003174	Violation of FFD Guideline 17	August 22, 2000
CR 20003334	Trend of FFD Related Events	September 1, 2000

# 3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles)

	Security Event Report Master Listing	March 2000 to March 2001
CR 20004636	Explosive Detector Problems and Failures	November 28, 2000
SAP 01.01	Badging	Revision 12
SAP 04.01	Testing and Inspection of Systems and Equipment	Revision 12
0305	Metal Detector Performance Test Procedure	Revision 10
0310	Explosive Detector Calibration Procedure	Revision 5
0483	Explosive Detector Performance Test	Revision 4
4AWI-08.06.02	Plant Security Key Control	Revision 4
4AWI-08.06.03	Unescorted Access Authorization and Processing	Revision 0
	Security Key Audit Report	September 29,2000
	Security Self Assessment Audit No. M-3900	October 13, 2000
	Security Self Assessment Audit No. M-5200	January 13, 2001
	X-Ray Calibration Procedure (0311)	July 6, 2000

# 4OA1 Performance Indicator Verification

	Security Shift Activity Reports	July 2000 to April 2001
SAP 02.05	Quarterly Report Preparation	Revision 3
SAP 02.09	NRC Physical Protection Cornerstone Performance Indicators	Revision 0
4AWI-04.08.11	NRC Performance Indicator Reporting	Revision 1
	Guard Force Utilization 2000 Forms	January1-March 31, 2001
	Listing of Security Related Condition Reports	June 2000 through March 2001
	Security Work Order Master List	June 2000 to April 2001
	Performance Indicator Physical Protection Worksheets	October 4, 2000, January 9, 2001, and April 6, 2001