

February 27, 2002

Mr. J. Forbes  
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 50-263/02-02(DRP)

Dear Mr. Forbes:

On February 13, 2002, the NRC completed an inspection at your Monticello Nuclear Generating Plant. The results of this inspection were discussed on February 12, 2002, 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, emergency preparedness, 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.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. This advisory was followed by additional advisories and although the specific actions are not releasable to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more limited access of personnel and vehicles to the sites. The NRC has conducted various audits of your response to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design basis threat (DBT). From these audits, the NRC has concluded that your security program is adequate at this time.

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,

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

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

Enclosure: Inspection Report 50-263/02-02(DRP)

cc w/encl: J. Purkis, Plant Manager  
R. Anderson, Executive Vice President  
and Chief Nuclear Officer  
Nuclear Asset Manager  
Site Licensing Manager  
Commissioner, Minnesota Department of Health  
J. Silberg, Esquire  
Shaw, Pittman, Potts, and Trowbridge  
R. Nelson, President  
Minnesota Environmental Control Citizens  
Association (MECCA)  
Commissioner, Minnesota Pollution Control Agency  
D. Gruber, Auditor/Treasurer  
Wright County Government Center  
Commissioner, Minnesota Department of Commerce  
A. Neblett, Assistant Attorney General

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 50-263/02-02(DRP)

Licensee: Nuclear Management Company, LLC

Facility: Monticello Nuclear Generating Plant

Location: 2807 West Highway 75  
Monticello, MN 55362

Dates: January 1 through February 13, 2002

Inspectors: S. Burton, Senior Resident Inspector  
D. Kimble, Resident Inspector  
R. Jickling, Regional Emergency Preparedness Inspector

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

## SUMMARY OF FINDINGS

IR 05000263/02-02(DRP), on 01/01-02/13/2002; Nuclear Management Company, LLC; Monticello Nuclear Generating Plant; integrated inspection report.

The inspection was conducted by resident 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>.

A. Inspector Identified Findings

None.

B. Licensee Identified Violations

A violation of very low significance which was identified by the licensee has been reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. The violation is listed in Section 4OA7 of this report.

## Report Details

### Summary of Plant Status

The plant began the inspection period operating at full power. Power was reduced to approximately 63 percent on January 11, 2002, to facilitate post-refuel outage maximum core flow testing and licensee investigation into excessive condenser air in-leakage. The plant returned to full power operation on January 12. On January 21, the plant scrambled from full power on a turbine load rejection signal, which resulted from a failure in the turbine control system (Sections 1R14 and 1R20). The reactor was restarted on January 25, and full power was reached on January 29. On February 8, power was reduced to approximately 75 percent to facilitate routine periodic main steam valve testing. Full power was restored on February 10, 2002 and the plant remained at or near full power for the remainder of the inspection period.

### 1. **REACTOR SAFETY**

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

#### 1R04 Equipment Alignment (71111.04)

##### a. Inspection Scope

The inspectors performed a partial walkdown of the following redundant equipment trains or systems to verify operability and proper equipment lineup while a counterpart train or system was disabled due to planned maintenance. These systems or trains were selected due to the increase in core damage frequency caused by rendering another system or train out-of-service for maintenance.

- High pressure coolant injection (HPCI) and other emergency core cooling systems (ECCS) with reactor core isolation cooling (RCIC) out-of-service
- RCIC and other ECCS with HPCI out-of-service

The inspectors verified the position of critical redundant equipment and looked for any discrepancies between the existing equipment lineup and the required lineup.

##### b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors walked down the following risk significant areas looking for any fire protection issues. The inspectors selected areas containing systems, structures, or components that the licensee identified as important to reactor safety.

- Fire Zone 7A, Division I 125Vdc Battery Room
- Fire Zone 7B, Division I 250Vdc Battery Room
- Fire Zone 7C, Division II 125Vdc Battery Room
- Fire Zone 24, Diesel Fire Pump Room

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

No findings of significance were identified.

1R11 Licensed Operator Regualification Program (71111.11)

a. Inspection Scope

The inspectors observed a training crew during an evaluated requalification exam simulator scenario and reviewed licensed operator performance in mitigating the consequences of events. 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. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

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:

- Core Spray System
- Area Radiation Monitoring System
- Non-Essential Diesel Generator

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.

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

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.

- Replacement of Control Rod Drive (CRD) Hydraulic Control Unit (HCU) No. 22-07
- Diagnoses and Repair of Reactor Pressure Regulation and Turbine Control

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)

a. Inspection Scope

The inspectors reviewed personnel performance during an unplanned scram on January 21, 2002, that was caused by a turbine control system malfunction and an associated load reject scram. The inspectors independently evaluated the initiating cause of the scram and operator actions in response to the event. This evaluation included a review of operator logs and plant computer data, and personnel interviews.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the technical adequacy of the following operability evaluations to determine the impact on Technical Specifications (TS), the significance of the evaluations, and to ensure that adequate justifications were documented.

- Drywell Floor Drain Sump Pump
- Auxiliary Transformer 1AR Voltage Below Specification

Operability evaluations were selected based upon the relationship of the safety-related system, structure, or component to risk.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (OWA) (71111.16)

a. Inspection Scope

The inspectors reviewed OWA No. 01-149, "Repeated High Level Alarms on CRD HCU 22-07 Require Operator Actions." The inspectors reviewed the workaround's potential to impact the operators' ability to adequately assess the CRD accumulator's operational status.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed the feed water heater level control modification installed during the December 2001 refueling outage 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. 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.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

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.

- Forced Outage Turbine EPR (Electric Pressure Regulator)/MPR (Mechanical Pressure Regulator) Repairs
- Forced Outage MO-2076, RCIC Outboard Steam Isolation Valve, Repair

The inspectors verified by witnessing the test or reviewing the test data that post-maintenance testing activities were 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, TS applicability, system restoration, and evaluation of test data. Also, the inspectors verified that maintenance and post-maintenance testing activities adequately ensured that the equipment met the licensing basis, TS, and Updated Safety Analysis Report (USAR) design requirements.

b. Findings

No findings of significance were identified.

1R20 Outage Activities (71111.20)

a. Inspection Scope

The inspectors evaluated outage activities for an unscheduled outage that began on January 21, 2002, and ended on January 27, 2002. The unplanned outage was the result of a turbine control system malfunction that resulted in a load reject scram. 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, corrective actions, and identification and resolution of problems associated with the outage.

b. Findings

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 potential risk impact from an unidentified deficiency or performance degradation that a system, structure, or component could impose on the unit if the condition were left unresolved.

- Service Water Pump - Safety Related 480 Vac Circuit Breaker 10-year Maintenance
- Rod Block Monitor Quarterly Functional Test and Calibration
- Periodic Reactivity Anomaly Check

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, TS applicability, impact of testing relative to performance indicator reporting, and evaluation of test data.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed Revisions 19 and 20 of the Monticello Nuclear Generating Plant Emergency Plan to determine whether changes identified in the revisions reduced the effectiveness of the licensee's emergency planning, pending onsite inspection of the implementation of these changes.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

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.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA1 Performance Indicator Verification (71151)

**Cornerstones: Mitigating Systems**

Safety System Unavailability

a. Inspection Scope

The inspectors verified the accuracy and completeness of the "Safety System Unavailability - Emergency AC Power and Residual Heat Removal System" performance indicator data submitted by the licensee from January 1, 2001, through December 31, 2001. The inspectors reviewed data reported to the NRC since the last verification. The review was accomplished, in part, through evaluation of the TS requirements, plant records, procedural reviews, and reactor coolant sample data.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up (71153)

**Cornerstones: Initiating Events and Barrier Integrity**

.1 (Closed) Licensee Event Report 50-263/2001-011: "Worker Jarred Sensitive Instrument Rack Causing Scram"

a. Inspection Scope

The inspectors evaluated LER 50-263/2001-011, "Worker Jarred Sensitive Instrument Rack Causing Scram."

b. Findings

On October 23, 2001, with the plant in coastdown for refueling, a radiation protection specialist in the normal course of his duties inadvertently bumped a sensitive instrument rack in the reactor building. The jarring of the instrument rack subsequently caused a primary containment isolation system (PCIS) Group 1 isolation signal which resulted in a reactor scram signal directly off of main steam isolation valve (MSIV) closure.

The licensee's analysis of the event showed that despite a slight complication caused by the locking of the feedwater regulating valves (FRVs) in the fully open position and the resulting loss of both main feed pumps, the safety significance of the event was low due to the operating crew's ability to successfully complete the reactor scram abnormal operating procedure. The inspectors had previously examined the locking of the FRVs associated with the reactor scram, and findings and enforcement actions are documented in NRC Inspection Report 50-263/01-09, Section 4OA3. Additionally, the inspectors had previously examined human performance issues associated with the post-scram inadvertent partial depressurization of the reactor vessel, and findings and enforcement actions are documented in NRC Inspection Report 50-263/01-16, Section 4OA2.2. The licensee has entered this issue into their corrective action program as CR 20016420.

.2 (Closed) Licensee Event Report 50-263/2001-012: "Refueling Testing Identifies Containment Isolation Valve Leakage Greater than Allowed by the Technical Specifications"

a. Inspection Scope

The inspectors evaluated LER 50-263/2001-012, "Refueling Testing Identifies Containment Isolation Valve Leakage Greater than Allowed by the Technical Specifications."

b. Findings

During the November 2001 refueling outage, local leak rate testing results for containment isolation valves indicated that Technical Specification and 10 CFR 50, Appendix J, limits were exceeded. The licensee identified four containment isolation valves, including two of four outboard MSIVs, with excessive leakage. The licensee's analysis of the condition indicated that even with these valves leaking in excess of established specifications, public health and safety was not adversely impacted because redundant valves in series in each pathway were tested satisfactorily for leakage.

A licensee identified violation associated with this issue is documented in Section 4OA7 of this report. The licensee has entered this issue into their corrective action program under the following CRs: 20017070, 20017090, 20017091, and 20017092.

4OA6 Meeting

Exit Meeting

The inspectors presented the inspection results to Mr. Forbes and other members of licensee management on February 12, 2002. 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.

4OA7 Licensee Identified Violation

The following violation of very low safety significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as an NCV. If you deny this NCV, you should provide a response with the basis of your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington DC 20555-0001; and the NRC Resident Inspector at the Monticello facility.

NCV Tracking Number

Requirement Licensee Failed to Meet

NCV 50-263/02-02-01

Technical Specification 3.7.A.2.b.2 requires that the combined maximum flow path leakage rate for all penetrations and valves subject to Type B and C leak rate testing at the calculated peak containment accident pressure of 42 psig,  $P_a$ , be less than or equal to  $0.6 L_a$ , where  $L_a$  is the maximum allowable leakage rate in percent by weight of the containment air volume at  $P_a$ . Additionally, Technical Specification 3.7.A.2.b.3 requires that the combined maximum flow path leakage for all MSIVs be less than or equal to 46 scf per hour when tested at 25 psig. Contrary to these requirements, as-found leak rate testing conducted during the licensee's November 2001 refueling outage revealed valve leakage in excess of the specifications. This violation is being treated as a NCV consistent with Section VI.A of the NRC Enforcement Policy.

## KEY POINTS OF CONTACT

### Licensee

G. Bregg, Manager, Quality Services  
D. Fadel, Director of Engineering  
J. Forbes, Site Vice-President  
J. Grubb, General Superintendent, Operations  
K. Jepson, General Superintendent, Chemistry and Radiation Services  
B. Linde, Superintendent, Security  
D. Neve, Acting Licensing Project Manager  
J. Purkis, Plant Manager  
B. Sawatzke, General Superintendent, Maintenance  
C. Schibonski, General Superintendent, Safety Assessment  
E. Sopkin, General Superintendent, Engineering

### NRC

B. Burgess, Chief, Reactor Projects Branch 2

## ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

50-263/02-02-01	NCV	Refueling Testing Identifies Containment Isolation Valve Leakage Greater than Allowed by the Technical Specifications (Section 4OA7)
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### Closed

50-263/2001-011	LER	Worker Jarred Sensitive Instrument Rack Causing Scram (Section 4OA3.1)
50-263/2001-012	LER	Refueling Testing Identifies Containment Isolation Valve Leakage Greater than Allowed by the Technical Specifications (Section 4OA3.2)
50-263/02-02-01	NCV	Refueling Testing Identifies Containment Isolation Valve Leakage Greater than Allowed by the Technical Specifications (Section 4OA7)

### Discussed

None.

## LIST OF ACRONYMS USED

AC	Alternating Current
AWI	Administrative Work Instruction
CFR	Code of Federal Requirements
CR	Condition Report
CRD	Control Rod Drive
DBT	Design Basis Threat
DC	Direct Current
DG	Diesel Generator
DRP	Division of Reactor Projects
EDG	Emergency Diesel Generator
EPR	Electric Pressure Regulator
ESW	Emergency Service Water
FRV	Feedwater Regulating Valve
FW	Feedwater
HCU	Hydraulic Control Unit
HPCI	High Pressure Core Injection
IR	Inspection Report
LER	Licensee Event Report
LLRT	Local Leak Rate Testing
LPCI	Low Pressure Core Injection
MPR	Mechanical Pressure Regulator
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NMC	Nuclear Management Company
NUMARC	Nuclear Management and Resources Council
OWA	Operator Workaround
OWI	Operations Work Instruction
PCIS	Primary Containment Isolation System
psig	Pounds Per Square Inch Gauge
PTL	Pull-To-Lock
RCIC	Reactor Core Isolation Cooling
RHRSW	Residual Heat Removal Service Water
scf	Standard Cubic Feet
SWI	Scheduling Work Instruction
TS	Technical Specification
URI	Unresolved Item
USAR	Updated Safety Analysis Report
Vac	Volts Alternating Current
Vdc	Volts Direct Current
WO	Work Order



## LIST OF DOCUMENTS REVIEWED

### 1R04 Equipment Alignment

	Operations Manual:	
B.09.08	- Emergency Diesel Generators	
B.03.02	- HPCI System	
B.08.01.02	- EDG ESW System	
B.02.03	- RCIC System	
B.09.06	- 4160 Vac System	
	Drawings:	
M-123	- HPCI System (Steam Side)	Revision AF
M-123-1	- HPCI Hydraulic Control and Lubrication	Revision B
M-124	- HPCI System (Water Side)	Revision Y
M-125	- RCIC System (Steam Side)	Revision AK
M-126	- RCIC System (Water Side)	Revision Y
M-110-1	- Service Water System	Revision BL
M-112	- RHR and Emergency Service Water Systems	Revision BF
M-811-1	- Service Water and Make-Up Intake Structure	Revision CD
M-133-1	- Diesel Oil System	Revision AD
NF-36298-1	- Electrical Load Flow	Revision M
NF-36298-2	- DC Electrical Load Distribution	Revision A

### 1R05 Fire Protection

NX-16991	Monticello Updated Fire Hazards Analysis Technical Manual	
	Plant Fire Strategies:	
A.3-07A	- 125Vdc - Division I Battery Room	Revision 3
A.3-07B	- 250Vdc - Division I Battery Room	Revision 5
A.3-07C	- 125Vdc - Division II Battery Room	Revision 3
A.3-24	- Diesel Fire Pump Room	Revision 4
	Procedures and Administrative Work	
4AWI-08.01.01	Instructions:	Revision 17
4AWI-08.01.02	- Fire Prevention Practices	Revision 6
0271	- Combustion Source Use Permit	Revision 27
	- Fire Hose Station and Yard Hydrant Hose	
0274	House Equipment Inspection	Revision 19
	- Fire Hose Hydrostatic Test Interior Hose	
0275-1	Stations	Revision 9
0275-2	- Fire Barrier Penetration Seal Visual Inspection	Revision 16
	- Fire Barrier Wall, Damper, and Floor Inspection	
QUAD-5-80-009	Specifications for Installation of Electrical and Mechanical Penetration Seals at the Monticello Nuclear Generating Plant by Quadrex Corporation	Revision 7

A.3 Operations Manual:  
 B.08.05 - Fire Fighting Procedures  
 - Fire Protection

1R11 Licensed Operator Requalification Program

RQSS-28 Licensed Operator Annual Examination Scenario Revision 9

1R12 Maintenance Rule Implementation

93-01	NUMARC [Nuclear Management and Resources Council]: - Nuclear Energy Institute Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	Revision 2
93-01, Section 11	- Assessment of Risk Resulting from the Performance of Maintenance Activities	February 22, 2000
1.160	Regulatory Guides: - Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	Revision 2
1.182	- Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants	May 2000
05.02.01	Engineering Work Instruction, Monticello Maintenance Rule Program Document	Revision 5
	Maintenance Rule Periodic Assessment Report	2nd Quarter - 2001
B.3.1 B.5.12 B.9.15	Operations Manual: - Core Spray System - Area Radiation Monitors - Non-Essential Diesel Generator	
B.3.1 B.5.12 B.9.15	Maintenance Rule Program System Basis Document: - Core Spray System - Area Radiation Monitors - Non-Essential Diesel Generator	Revision 1 Revision 2 Revision 2
B.3.1	Design Basis Document: - Core Spray System	Revision 2
Section 6.2.2 Sect. 14.7.2.3.1.3 Section 7.5.3 Section 8.4	USAR: - Core Spray System - Core Spray System - Area Radiation Monitoring System - Plant Standby Diesel Generator Systems	Revision 18
M-122	Drawings: - Core Spray System	Revision AB

CR 20003352 Core Spray Header Break Detection Readings Out of Service with Reactor >212 °F

CR 20003767 Core Spray Motor Cooling Flow Less Than As Found Acceptance Criteria in 9/29/00 Performance of 1339 Test

CR 20003881 Limiting Stroke Time for MO-1749/1750 Does not Agree with SAFER/GESTR Limit of 20 Seconds to Support Core Spray Initiation

CR 20005138 B Core Spray Torus Suction Valve MO-1742 Failed to Open per Key Lock Switch Actuation During Post-Maintenance Testing

CR 20017561 Relief Valve RV-1746 Setpoint Found Outside of Section XI Acceptance Band

CR 20017260 Relief Valve RV-1745 Setpoint Found Outside of Section XI Acceptance Band

CR 20017883 Bearing Flush Tube on B Core Spray Pump Cracked

CR 20011801 Area Radiation Monitor RM-F1 Was Found Out-of-Tolerance During Calibration Performed on 2/22/01

CR 20015537 Three Area Radiation Monitors As-Found Out-of-Tolerance During Last Semiannual Calibration

CR 20020387 13 DG Fuel Oil Tank Room Heater Does Not Work

1R13 Maintenance Risk Assessments and Emergent Work Control

	Procedures:	
4AWI-04.01.01	- General Plant Operating Activities	Revision 28
SWI-14.01	- Risk Management of On-line Maintenance	Revision 0
4010PM	- HCU Water Accumulator Replacement	Revision 9
0074	- Control Rod Drive Exercise	Revision 29
2188	- Scram Accumulator Nitrogen Charging	Revision 13
0081	- Control Rod Drive Scram Insertion Time Test	Revision 35
WO 0110506	Replace HCU 22-07	
RWP 146	West CRD Accumulators	Revision 2
WO 0200267	Disassemble , Inspect, Replace Components On MPR	

WO 0200280	Back Flush the MPR Pressure Sensing Line
WO 0200311	Adjust Needle Valve On MPR
WO 0200296	Test MPR Dash Pot Bellows Relief Valves
WO 0200264	Clean Inlet Screen / Replace EPR Moog valve
WO 0200242	Inspect Turbine Front Standard Internal
WO 0200277	Reset Primary Valve Limit Stop
WO 0200259	Collect MPR Response Data
WO 0200291	Install Temporary Test Equipment On MPR
WO 0200281	Turbine Pressure Limit Switch Clearance Check
CR 20020457	Reactor Scram 113 While At 100% Power
CR 20020599	Test 1045 Halted Due to Turbine Control System Oscillations
CR 20020573	Undocumented Modifications Made to the Mechanical Pressure Regulator During 1973 Turbine Outage
CR 20020516	Calculated As-found Value Outside of Stated Band for MPR During Execution of Test 1045
CR 20020608	Turbine Control System Oscillation During Performance of Test 1045 on 1-25-02

1R14 Personnel Performance During Nonroutine Plant Evolutions and Events

	Operations Manual:	
C.3	- Shutdown Procedure	Revision 28
C.4-A	- Reactor Scram	Revision 19
C.4-B.5.7.A	- Loss of Reactor Water Level Control	Revision 5
C.4-B.6.5.A	- Reactor Feedwater Pump Trip	Revision 5
C.1	- Startup Procedure	Revision 33
	Scram 113 Summary Report	
0000-B	Operations Daily Log - Part B	Revision 82

1R15 Operability Evaluations

CR 20020628	Drywell Floor Drain Sump Pump P-24B Started in Standby and Pumped down to 169.5 Gal. Had to Be Manually Shutdown
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B.7	Operations Manual: - Liquid Radwaste	
Section 3/4.6 Section 3/4.9	Technical Specifications and Bases: - Primary System Boundary, Coolant Leakage - Auxiliary Electrical Systems	
CR 20020943	1AR Voltage Indication out of Spec. Declared 1AR Inoperable and Placed 1AR Breaker Feeds to Bus 15 and 16 to PTL	
Section 8	USAR: - Plant Electrical Systems	Revision 18
<u>1R16 Operator Workarounds</u>		
	Quarterly Operator Work-Around Review and Assessment	December 17, 2001
B.1.2 B.1.3	Operations Manual: - Control Rod Drives - CRD Hydraulic System	
Section 3.5.3	USAR: - Control Rod Drive System	Revision 18
B.1.2 B.1.3	Design Basis Documents: - Control Rod Drives - CRD Hydraulic System	Revision B Revision B
CR 19982736	CRD Operability Condition when the Associated Accumulator is Inoperable	
CR 20020093	NRC Resident Inspector Question on Operability of HCU Accumulators with Frequent High Water Level Alarms	
CR 20020152	Operability Evaluation Associated with CRD 22-07 Accumulator Alarms Was Limited in Scope, Rigor, and Diligence	
CR 20018297	Repeated High Level Alarm on CRD HCU 22-07 Require Operator Actions	
<u>1R17 Permanent Plant Modifications</u>		
00Q265	Feedwater Heater Level Controller Upgrade	Revision 1
CR 20020013	FW Htrs E-12A/B Dump Valve LC's Not Fast Enough. Level Went High Offscale & Could Not Tell Margin to Turbine Damage	

WO 0108346 Upgrade Level Controllers FW Htrs 12, 13, 14 & 15

WO 0108395 FW Heater LC Upgrade Pre-Op Test

1R19 Post-Maintenance Testing

M-125 NX-8435-150-2	Drawings and Prints: - RCIC (Steam Side) - Turbine Control Diagram	Revision AM Revision G
0137-07A 1040-01 3069 4900-01PM EMP 01.01	Procedures and Forms: - Reactor Steam Supply Valves Leak Rate Testing - Turbine Generator - Post-Maintenance Activities Control Cover Sheet - PM For Limitorque Motor Operated Valves - Motor Operated Valve Testing Using VOTES	Revision 15 Revision 42 Revision 9 Revision 15 Revision 7
SCR-02-0055	10 CFR 50.59 Screening for Installing Instrumentation to Monitor MPR Performance	Revision 0
Tagout 02-00328	LLRT Isolation for RCIC Valve MO-2076	Version 1
WO 0200296	Test MPR Dash Pot Bellows Relief Valves	
WO 0200311	Adjust Needle Valve on MPR Control	
WO 0200325	MO-2076 Repair Valve Actuator	
WO 0200291	Install Temporary Test Equipment on MPR	
WO 0200274	Obtain Oil Sample of EPR Oil Reservoir	
WO 0200316	Set MPR and Associated Computer Alarm Point TRB178	
WO 0200328	LLRT Isolation for RCIC Valve MO-2076	
WO 0200320	MO-2076 Went to Dual Indication When Stroked Open	

1R20 Outage Activities

C.1 C.2 C.3 C.4-A	Operations Manual: - Startup Procedure - Power Operation - Shutdown Procedure - Reactor Scram	Revision 33 Revision 12 Revision 28 Revision 19
2150	Plant Prestart Checklist	Revision 23

2167	Startup Checklist	Revision 41
2159	Predicted Critical For Plant Start Up	Revision 6

1R22 Surveillance Testing

4851-12-PM	Procedures: - ABB K-1600s and K-3000s 450 Volt Breaker Maintenance	Revision 6
0045	- Rod Block Monitor Functional Test and Calibration	Revision 28
0083	- Reactivity Anomaly Check	Revision 12
CR 20018369	LCB-024 Breaker Closure Delayed During Start of #11 Service Water Pump	
WO 0108999	Perform 4851-12-OM on LCB-024 Located in 523-305	
WO 0110540	Repair Failure of LCB-024 to Close Promptly	
Section 3/4.2 Section 3/4.3E	Technical Specifications and Bases: - Protective Instrumentation - Reactivity Anomaly	
Card 2070971088	Instrument Calibration Worksheet for Recorder NR-7-46C	

1EP4 Emergency Action Level and Emergency Plan Changes

Monticello Nuclear Generating Plant Emergency Plant	Revision 19
Monticello Nuclear Generating Plant Emergency Plan	Revision 20

1EP6 Drill Evaluation

RQSS-28	Licensed Operator Annual Examination Scenario	Revision 9
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4OA1 Performance Indicator Verification

	Data Collection Sheets for Emergency AC Power	1 <sup>st</sup> to 4 <sup>th</sup> Quarters 2001
	Data Collection Sheets for Residual Heat Removal	1 <sup>st</sup> to 4 <sup>th</sup> Quarters 2001
CR 20017628	EDG Was Declared Operable Without Clearing a Conditional Release of Air Line Lubricators	

CR 20017688 Min/Max Voltage Slightly Higher than Specified  
Range in 12 EDG Auxiliary Sys. Test 1052-4

WO 0001534 MO-2014 PM 4900-1

WO 0003809 Pre-op Test of LPCI 5 Min Timer Bypass

WO 0105741 Install LPCI Div. 2 5 Min timer Bypass

WO 0004079 MO-2029 PM 4900-1

4OA3 Event Follow-up

	NRC Inspection Reports:	
50-263/01-09	- Routine Resident Inspections From October 1 <sup>st</sup> through November 14 <sup>th</sup> , 2001	December 4, 2001
50-263/01-16	- Problem Identification and Resolution Inspection	December 14, 2001
	Procedures and Forms:	
0137	- Master Local Leak Rate Test	Revision 22
0137-07A	- Reactor Steam Supply Valves Leak Rate Testing	Revision 15
CR 20017090	LLRT Failure of MO-2397	
CR 20017092	LLRT Failure of CV-2790	
CR 20017091	LLRT Failure of MO-2398	
CR 20017070	LLRT Failure of MSIVs AO-2-86C and AO-2-86D	
CR 20016420	Individual Bumped Instrument Rack Resulted in PCIS Group 1 Isolation and Reactor Scram	