## September 27, 2000

Mr. M. Wadley Senior Vice President and Chief Nuclear Officer Nuclear Management Company 700 First Street Hudson, WI 54016

SUBJECT: MONTICELLO- NRC INSPECTION REPORT 50-263/2000015(DRS)

Dear Mr. Wadley:

On September 22, 2000, the NRC completed an inspection at your Monticello Nuclear Power Plant. The enclosed report presents the results of that inspection. The results of this inspection were discussed on September 22, 2000, with Mr. M. Hammer and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas the inspection consisted of a review of specific procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available <u>electronically</u> for public inspection in the NRC Public Document Room <u>or</u> from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/NRC/ADAMS/index.html">http://www.nrc.gov/NRC/ADAMS/index.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

John M. Jacobson, Chief Mechanical Engineering Branch Division of Reactor Safety

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

Enclosure: Inspection Report 50-263/2000015(DRS)

See Attached Distribution

cc w/encl:

Site General Manager, Monticello Plant Manager, Monticello J. Malcolm, Commissioner, Minnesota Department of Health

# September 27, 2000

Mr. M. Wadley Senior Vice President and Chief Nuclear Officer Nuclear Management Company 700 First Street Hudson, WI 54016

SUBJECT: MONTICELLO- NRC INSPECTION REPORT 50-263/2000015(DRS)

Dear Mr. Wadley:

On September 22, 2000, the NRC completed an inspection at your Monticello Nuclear Power Plant. The enclosed report presents the results of that inspection. The results of this inspection were discussed on September 22, 2000, with Mr. M. Hammer and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas the inspection consisted of a review of specific procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available <u>electronically</u> for public inspection in the NRC Public Document Room <u>or</u> from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/NRC/ADAMS/index.html">http://www.nrc.gov/NRC/ADAMS/index.html</a> (the Public Electronic Reading Room).

Sincerely,
/RA/
John M. Jacobson, Chief
Mechanical Engineering Branch
Division of Reactor Safety

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

Enclosure: Inspection Report 50-263/2000015(DRS)

See Attached Distribution

DOCUMENT NAME: C:\Mon2000015drs.wpd

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RIII	RIII	RIII		
NAME	JGavula	RLanksbury	JJacobson		
DATE	09/26/00	09/26/00	09/27/00		

Site General Manager, Monticello cc w/encl:

Plant Manager, Monticello

J. Malcolm, Commissioner, Minnesota Department of Health

# **ADAMS Distribution**:

CMC1 DFT

CFL (Project Mgr.)
J. Caldwell, RIII

B. Clayton, RIII

SRI Monticello

DRP

DRSIII

PLB1

JRK1

BAH3

# U. S. NUCLEAR REGULATORY COMMISSION REGION III

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

Report No: 50-263/2000015(DRS)

Licensee: Nuclear Management Corporation, LLC

Facility: Monticello Nuclear Power Plant

Location: 2807 West Highway 75

Monticello, MN 55362

Inspection Dates: September 18–22, 2000

Inspector: J. A. Gavula, Reactor Inspector

Approved by: John M. Jacobson, Chief

Mechanical Engineering Branch Division of Reactor Safety

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

#### Reactor Safety

# **Radiation Safety**

# **Safeguards**

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness
- Occupational
- Public

Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

# **SUMMARY OF FINDINGS**

IR 05-263/2000015(DRS), on 09/18-09/22/2000; Nuclear Management Corporation, LLC; Monticello Nuclear Power Plant; Reactor Safety specialist report.

This report covers the initial biennial baseline heat sink inspection. This was a five day inspection by a Region III specialist engineer. No findings were identified during this inspection.

## Report Details

Summary of Plant Status: The plant was at 100 percent power during this inspection period.

#### 1. REACTOR SAFETY

Cornerstones: Initiating Events and Mitigating Systems

# 1R07 Heat Sink Performance

#### a. Inspection Scope

The inspector reviewed the documents associated with thermal performance testing of the residual heat removal B heat exchanger, the No. 12 emergency diesel generator jacket water cooler, and the high pressure coolant injection pump lube oil cooler. These heat exchangers were chosen for review based on either a high risk achievement worth in the station's probabilistic safety assessment and/or trend information supplied by the licensee. The inspector reviewed completed surveillances and associated calculations, and performed hand calculations to confirm that the heat exchangers met their design basis heat removal requirements.

The inspector reviewed condition reports concerning heat exchanger or heat sink performance issues to verify that the licensee had an appropriate threshold for identifying issues. The inspector also evaluated the effectiveness of the corrective actions to the identified issues, including the engineering justification for operability, if applicable. The documents that were reviewed are listed at the end of the report.

# b. <u>Findings</u>

No findings were identified during this inspection.

#### 4. OTHER ACTIVITIES

## 4OA6 Meetings, Including Exit

## Exit Meeting Summary

The inspector presented the inspection results to Mr. M. Hammer, Site General Manager, and other members of licensee management on September 22, 2000, at the exit meeting. The licensee acknowledged the findings presented, and did not identify any materials examined during the inspection as proprietary information.

# PARTIAL LIST OF PERSONS CONTACTED

# <u>Licensee</u>

- M. Hammer, Site General Manager
- B. Day, Plant Manager
- R. Anderson, Senior Production Engineer
- S. Engelke, Superintendent, E&I Engineering
- J. Grubb, General Superintendent, Engineering
- M. Morris, Senior Production Engineer, EDGs
- D. Pennington, HPCI System Engineer
- C. Schibonski, General Superintendent, Safety Assessment
- K. Theisen, Superintendent, Turbine Engineering
- L. Wilkerson, Manager, Quality Services

# **NRC**

- S. Burton, Senior Resident Inspector, Monticello
- D. Kimble, Resident Inspector, Monticello

	ITEMS OPENED, CLOSED, AND DISCUSSED
Opened	
None	
Closed	
None	
Discussed	
None	

#### LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion on this list does not imply that NRC inspectors reviewed the documents in their entirety, but, rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort.

#### Calculations

CA-00-114, EDG ESW Heat Exchanger Performance Monitoring - Summer 2000, Revision 0

CA-99-128, EDG ESW Heat Exchanger Performance Monitoring - Summer 1999, Revision 0

CA-98-308, RHR Heat Exchanger Uncertainty Determination Method for Procedure No. 1138, Revision. 0

CA-97-056, RHR/RHRSW Heat Exchanger Variation of "U" and "K" with Temperature, Revision 0

CA-97-035, HRH Heat Exchanger Overall Heat Transfer Coefficient Evaluation, Revision 0

CA-94-020, RHR/RHR Service Water Heat Exchanger Performance, Revision 0

CA-94-066, Determination of RHR Heat Exchanger K Value, Revision 1

CA-92-038, Determination of RHRSW Instrumentation Inaccuracies, Revision 4

CA-92-148, EDG ESW Heat Exchanger Performance Monitoring, Revision 0

CA-91-049, EDG ESW Heat Exchanger Performance Monitoring, Revision 0

CA-90-018, Determination of Acceptance Criteria for RHR Pump Surveillance Testing, Revision 0

#### Condition Reports

20003631, Re-evaluate Worst Case Assumptions for EDG ESW HX Performance Test Acceptance Criteria

20000150, No. 12 RHR Heat Exchanger Coating Degradation and Corrosion on Coverplate 20000135, Feedwater Heater E-14A Does Not Meet Minimum Wall Thickness

19993462, No. 12 RHR Heat Exchanger Did Not Meet Procedure 1136 Acceptance Criteria

# Drawings/Data Sheets

M123, High Pressure Coolant Injection System, Steam Side P&ID, Revision AF

M123-1, HPCI Hydraulic Control and Lubrication P&ID, Revision B

M124, High Pressure Coolant Injection System, Water Side P&ID, Revision Y

M449, Sheet 1, Self-Operated Control Valve Data Sheet, Revision 3

M470, Sheet 7 of 11, Restricting Orifice Data Sheet, February 5, 1969

210M806A3, American Standard, "806 'C-210' Exchanger Assembly, Revision 2

#### Heat Exchanger Data Sheets

HPCI Turbine Lube Oil Cooler, December 9, 1969

# Surveillances

0255-06-III, HPCI Pump Flow Test, March 2, 2000

1136, RHR Heat Exchanger Efficiency Test, January 20, 2000

1404-2, 12 EDG ESW Heat Exchanger Performance Test, August 2, 1999

#### Work Order

9904925, Eddy Current Inspect HPCI Lube Oil Cooler