

August 1, 2000

Mr. M. Wadley  
President, Nuclear Generation  
Northern States Power Company  
414 Nicollet Mall  
Minneapolis, MN 55401

SUBJECT: MONTICELLO - NRC INSPECTION REPORT 50-263/2000014(DRS)

Dear Mr. Wadley:

On July 21, 2000, the NRC completed a routine inspection at the Monticello Nuclear Generating Plant. The results were discussed on July 21, 2000, with Mr. Hammer, Mr. Day 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 radiation safety and to 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. Specifically, this inspection focused on occupational radiation safety.

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

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).

M. Wadley

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We will gladly discuss any questions you have concerning this inspection.

Sincerely,

***/RA by Steve Orth Acting For/***

Gary L. Shear, Chief  
Plant Support Branch  
Division of Reactor Safety

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

Enclosure: Inspection Report 50-263/2000014(DRS)

cc w/encl: Site General Manager, Monticello  
Plant Manager, Monticello  
J. Malcolm, Commissioner, Minnesota  
Department of Health

M. Wadley

-2-

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 50-263/2000014(DRS)

Licensee: Northern States Generating Company

Facility: Monticello Nuclear Power Plant

Location: 2807 West Highway 75  
Monticello, MN 55362

Dates: July 17 to 21, 2000

Inspector: M. Mitchell, Radiation Specialist

Approved by: Gary L. Shear, Chief, Plant Support 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
<ul style="list-style-type: none"><li>● Initiating Events</li><li>● Mitigating Systems</li><li>● Barrier Integrity</li><li>● Emergency Preparedness</li></ul>	<ul style="list-style-type: none"><li>● Occupational</li><li>● Public</li></ul>	<ul style="list-style-type: none"><li>● Physical Protection</li></ul>

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 50-263/2000014(DRS), on 07/17-07/21/2000; Monticello Nuclear Generating Plant; Baseline inspection of Access Control to Radiologically Significant Areas.

The inspection was conducted by a regional radiation specialist. The plant was at approximately 100 percent power. No findings were identified during this inspection.

Cornerstone: Occupational Radiation Safety

## Report Details

### **2. RADIATION SAFETY**

Cornerstone: Occupational Radiation Safety

#### 2OS1 Access Control

##### .1 Plant Walkdowns and Radiological Boundary Verifications

###### a. Inspection Scope

The inspector performed walkdowns of the radiologically controlled area (RCA) to verify the adequacy of radiological controls and postings. Specifically, the inspector performed confirmatory radiation measurements in the Reactor, Turbine and Radwaste Buildings to verify that radiologically significant work areas (high radiation areas (HRAs) and radiation areas) were properly posted and controlled in accordance with 10 CFR Part 20 and the licensee's procedures.

###### b. Findings

There were no findings identified.

##### .2 Reviews of Radiation Work Permits

###### a. Inspection Scope

The inspector reviewed selected routine radiation work permits (RWPs) and electronic dosimeter (ED) alarm set points for both dose rate and accumulated dose to access high radiation areas. The inspector verified that adequate work controls were in place to maintain worker exposures ALARA (as-low-as-is-reasonably-achievable).

###### b. Findings

There were no findings identified.

##### .3 Reviews of Licensee's Programmatic Controls for High Radiation Areas (HRA) and Very High Radiation Areas (VHRA)

###### a. Inspection Scope

The inspector reviewed procedure R.07.02, "Area Posting, Special Status Signs and Hot Spot Stickers," to verify when HRAs should be properly posted and controlled. The inspector also discussed with the Radiation Protection Manager the licensee's programmatic controls over the VHRAs and the storage of highly activated/contaminated materials.

b. Findings

There were no findings identified.

.4 Reviews of Radiologically Significant Work

a. Inspection Scope

The inspector reviewed the conduct of radiologically significant work activities in the Reactor, Turbine and Radwaste Buildings to verify the adequacy of access controls to HRAs through the use of RWPs, postings, and barriers. Specifically, the inspector verified the adequacy of radiological controls (e.g., RWPs and surveys) for reactor core isolation cooling (RCIC) testing.

b. Findings

There were no findings identified.

.5 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed a sample size of twenty Condition Reports (CRs) associated with radiation protection technician performance, radiation worker practices, and events within HRAs, initiated since January, 2000, to verify that identified problems were properly characterized, prioritized, entered into the corrective action program, and resolved in a timely manner based on safety significance.

b. Findings

There were no findings identified.

2OS4 Radiation Worker Performance

a. Inspection Scope

During work evolutions (Section 2OS1.4), the inspector observed radiological control practices of personnel within the RCA to assess worker performance and adherence to expected radiological work practices associated with work in contaminated areas and HRAs.

b. Findings

There were no findings identified.



#### **4. OTHER ACTIVITIES**

##### **4OA6 Management Meetings**

##### **.1 Exit Meeting Summary**

The inspector presented the inspection results to M. Hammer, B. Day, and other licensee management and staff at the conclusion of the inspection on July 21, 2000. The licensee acknowledged the inspection findings and identified no proprietary information.

## PARTIAL LIST OF PERSONS CONTACTED

### Licensee

K. Bothun, Radiation Protection Coordinator  
B. Day, Plant Manager  
M. Hammer, Vice President  
K. Jepson, Radiation Protection Supervisor  
G. Mathiasen, Principle Health Physicist  
W. Shinnick, ALARA Coordinator  
J. Windschill, Radiation Protection Manager  
P. Yurczyk, Special Projects Coordinator

## ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

None

### Closed

None

### Discussed

None

## LIST OF ACRONYMS USED

ALARA	As-Low-As-Is-Reasonably-Achievable
CR	Condition Report
DRS	Division of Reactor Safety
ED	Electronic Dosimeter
HRA	High Radiation Area
NRC	Nuclear Regulatory Commission
RCA	Radiologically Controlled Area
RCIC	Reactor Core Isolation Cooling
RP	Radiation Protection
RWP	Radiation Work Permit
VHRA	Very High Radiation Area

## PARTIAL LIST OF DOCUMENTS REVIEWED

### Station Procedures

R.01.04 (Revision 10 ), Control of Personnel in High Radiation and Airborne Areas;  
R.02.03 (Revision 8), Airborne Radioactivity Sampling;  
R.07.02 (Revision 13), Area Posting, Special Status Signs and Hot Spot Stickers;  
R.07.03 (Revision 7), Posting RWP and /or Equipment Changes Due to Plant Operational Status;  
R.09.31 (Revision 10), NMC Continuous Air Monitors;  
R.12.02 (Revision 15), Radiation Protection Key Control;  
R.13.01 (Revision 20), Job Coverage.

### Radiation Work Permits (RWP)

RWP 1	All Rad Controlled Areas
RWP 38	Tank Room Contaminated and High Radiation Areas
RWP 67	SJAE Blow-out Hatch Area
RWP 68	Condensate/Cleanup Tank Rooms
RWP 72	RCIC Turbine Area

### Condition Reports (CR)

CR20000061, CR20000072, CR20000109, CR20000114, CR20000124, CR20000130, CR20000213, CR20000215, CR20000295, CR20000368, CR20000447, CR20000475, CR20000477, CR20000561, CR20000575, CR 20000581, CR20000582, CR20000619, CR20000631, CR20000666, CR20000667, CR20000676, CR20000677, CR20000685, CR20000696, CR20000699, CR20000701, CR20000703, CR20000714, CR20000720, CR20000729, CR20000754, CR20000759, CR20000767, CR20000780, CR20000796, CR20000854, CR20000875, CR20000876, CR20000897, CR20000945, CR20000957, CR20001004, CR20001056, CR 20001064, CR20001485, CR20001508, CR20001087, CR20001247, CR20001483, CR20001508, CR20001524, Gen20001524, CR20001620, CR20001870, CR20002397, CR20002467, CR20002488,

### Quality Assurance Assessments and Self-Assessments

Generation Quality Services Audit Exit Meeting, July 19, 2000  
2000 Refueling Outage Post Outage Radiation Protection Summary (Draft)  
Chemistry and Radiation Protection Effectiveness Report, 1<sup>st</sup> Quarter 2000

### Other Documents

Real Time Condition Report Management Oversight, Tuesday, July 18, 2000