U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report of Operations Inspection

IE Inspection Report No. 050-263/75-03

Licensee: Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

Monticello Nuclear Generating Station — License No. DPR-22
Monticello, Minnesota — Category: C

Type of Licensee: BWR - 545 MWe (GE)

Type of Inspection: Special - Announced

Date of Inspection: February 7, 1975

Dates of Previous Inspection: January 23 and 24, 1975 (Construction)

Principal Inspector: N. C. Choules — 3/6/75 (Date)

Accompanying Inspector: D. Hunter — 3/6/75 (Date)

Other Accompanying Personnel: None

Reviewed By: E. L. Jordan
Senior Reactor Inspector
Reactor Operations Branch — 3/6/75 (Date)

SUMMARY OF FINDINGS

Enforcement Action

None.

Licensee Action on Previously Identified Enforcement Matters

Not Applicable.

Unusual Occurrences

None.

Other Significant Findings

A. Current Findings

1. The licensee has replaced the sections of the 4-inch recirculation bypass lines containing cracks with new sections of piping.

2. The licensee performed ultrasonic tests of welds in the core spray lines and other selected pressure retaining welds and found no cracks.

B. Unresolved Matters

None.

C. Status of Previously Reported Unresolved Items

None.

Management Interview

The following persons were present at the management interview conducted at the conclusion of the inspection on February 7, 1975.

C. E. Larson, Plant Manager
P. J. Krumpos, Quality Assurance Engineer
C. Harmsen, Supervising Engineer, Plant Engineering and Construction Department

A. The inspectors stated that the purpose of the inspection was to review the results and actions related to the ultrasonic testing of austenitic pipe welds as required by IE Bulletin No. 75-01 and to

review documentation associated with installation of new piping in the 4-inch recirculation bypass lines to replace piping with cracks.

B. The inspectors stated they had reviewed quality control documentation associated with installation of two sections of 4-inch bypass piping in the A and B recirculation loop and there were no apparent discrepencies. (Paragraph 1)

C. The inspectors stated that they had reviewed the results of ultrasonic testing (UT) performed to conform with IE Bulletin No. 75-01 with the licensee's representatives. The inspectors stated that the licensee's representatives indicated there no detectable cracks in any of the pipe welds examined and that all ultrasonic testing indications had been interpreted to be reflected from surfaces other than cracks. The licensee confirmed this statement and stated that welds with indications would be evaluated and decisions made as to which welds will be reinspected during the September outage. (Paragraph 2)

D. The inspectors stated that review of inspection records indicated that the licensee had inspected the welds required by IE Bulletin No. 75-01 with the exception of the 28-inch recirculation line welds and the reactor head spray forging weld at the vessel head flanges. The inspector stated that concurrence had been previously obtained from the Region III NRC Office not to perform inspections of the welds. The licensee confirmed this statement. (Paragraph 3)

REPORT DETAILS

Persons Contacted

Northern States Power Company

C. E. Larson, Plant Manager
C. Harmsen, Supervising Engineer, Plant Engineering and Construction Department
P. J. Krumpos, Quality Assurance Engineer
D. D. Antony, Plant Engineer Operations
R. E. Grabinski, Production Plant Clerk

Nuclear Service Corporation

T. G. Lambert, Manager of Plant Testing

Hartford Steam Boiler Insurance Company

C. Lingford

1. On January 20, 1975, the licensee discovered crack indications by ultrasonic testing in both the loop A and loop B reactor recirculation 4-inch bypass lines. This occurrence was reported in the licensee's report.[1/]

   As a result of these cracks indications, the licensee removed the sections of pipe containing the cracks in sections and replaced with new piping sections. The inspector viewed the following quality control documentation related to installation of the new piping and there were no apparent discrepencies.

   a. Material test reports for piping and piping elbows.

   b. Weld identification and weld history cards.

   The inspectors viewed the two sections of pipe which were removed from the bypass lines. The sections were approximately 5 feet long. The licensee plans to cut out the welds with crack indications and send them to Argonne National Laboratory for evaluation.

2. On January 30, 1975, IE Bulletin No. 75-01 was issued which required the licensee to make volumetric examinations of certain austenitic pipe welds. The licensee performed ultrasonic testing on welds as follows.

1/ Abnormal Occurrence 75-03, NSP to DRL dated 1/30/75.

a. All stainless steel welds on both core spray lines up to the second isolation valves. (21 welds total)

b. Two welds on a control rod drive return line.

c. Two welds on loop B Residual Heat Removal line to recirculation line.

d. One weld on the Standby Liquid Poison System.

e. Seven welds on jet pump risers.

f. Four welds on the Reactor Cleanup Line.

The inspectors reviewed ultrasonic testing recorder traces for all of the above welds. Several welds had indications which were interpreted by licensee's representative to be reflected from surfaces other than cracks. The licensee reported 2/ that there were 5 and 12 welds that showed indications greater than 20% and 50% DAC* respectively

Certifications which indicated that the personnel performing the examinations were either level II or level III UT Inspectors were reviewed.

A functional test of both core spray systems was performed using core spray systems tests Nos. 0094 and 0095. Review of the completed tests procedures indicated they were performed on February 4, 1975 and no leakage in either spray line was observed.

3. The licensee requested prior to the inspection not to examine welds on the 28-inch recirculation lines and the reactor head spray line weld where a stainless steel forging is welded at the vessel head flange. All other piping in the head spray lines is carbon steel. Region III, NRC office concurred in not performing these inspections based on the following:

a. Two welds in each of the recirculation lines were inspected during the refueling outage in 1974.

b. The reactor head spray welds were inspected during the 1973 refueling outage and forging welds were not the concern in the IE Bulletin No. 75-01.

*Distance Amplitude Correction

2/ Letter NSP to Director Region III, I&E, NRC dated 2/14/74.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

A. IE Inspection Report No. 050-263/75-03

Transmittal Date : March 6, 1975

Distribution:
IE Chief, FS&EB
IE:HQ (5)
DR Central Files
Regulatory Standards (3)
Licensing (13)
IE Files

Distribution:
IE Chief, FS&EB
IE:HQ (4)
L:D/D for Fuels & Materials
DR Central Files
IE Files
IE Chief, M&PPB
L:D/D for Reactor Project

B. IE Inquiry Report No. _____

Transmittal Date : _____

Distribution:
IE Chief, FS&EB
IE:HQ (5)
DR Central Files
Regulatory Standards (3)
Licensing (13)
IE Files

Distribution:
IE Chief, FS&EB
IE:HQ
DR Central Files
IE Files

C. Incident Notification From: _____
(Licensee & Docket No. (or License No.)

Transmittal Date : _____

Distribution:
IE Chief, FS&EB
IE:HQ (4)
Licensing (4)
DR Central Files
IE Files

Distribution:
IE Chief, FS&EB
IE:HQ (4)
L:D/D for Fuels & Materials
DR Central Files
IE Files