U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-263/85-04(DRS)

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

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

Facility Name: Monticello Nuclear Generating Plant

Inspection At: Monticello, MN and Minneapolis, MN

Inspection Conducted: Minneapolis, MN on January 16-18, 1985.
Monticello, MN on January 22-25, 1985.

Inspectors: R. A. Westberg — 2/6/85 Date

J. A. Malloy for — 2/6/85 Date

Approved By: F. C. Hawkins, Chief
Quality Assurance Programs Section — 2/6/85 Date

Inspection Summary

Inspection on January 16-18 and 22-25, 1985 (Report No. 50-263/85-04(DRS))
Areas Inspected: Routine, announced inspection by two regional inspectors of licensee action on previous inspection findings; QA program - annual review; procurement control; offsite review committee; test and experiments; and followup on QA aspects of PNO-III-84-106A. The inspection involved a total of 52 inspector-hours onsite and 40 inspector-hours at corporate headquarters.
Results: Of the six areas inspected, no items of noncompliance or deviations were identified in five areas. One item of noncompliance was identified in the remaining area (Criterion II - failure to carry out the QA program in accordance with established policies, procedures and instructions - Section 3).

DETAILS

1. Persons Contacted

Northern States Power (NSP), Corporate

W. V. Jokela, Director, Power Supply QA
K. J. Albrecht, Power Supply QA
*P. F. Suleski, Superintendent Nuclear Projects QA
D. W. Krech, Lead QA Engineer
G. T. Bart, Lead QA Engineer
*B. T. Wilson, QA Specialist I
D. M. Musolf, Manager, Nuclear Support Services

Northern States Power (NSP), Site

*W. A. Shamla, Plant Manager
M. H. Clarity, Assistant to the Plant Manager
*R. L. Scheinost, Superintendent Quality Engineering
D. D. Antony, Superintendent of Operations
D. E. Nevinski, Plant Superintendent E&RP
*G. E. Crosby, Lead QA Engineer
D. R. Nordell, Senior QA Engineer
*P. H. Kamman, Superintendent Nuclear Operations QA
D. K. Hebzynski, Supplier QA
*J. A. McDonald, Quality Engineer
*A. V. Wojchouski, Operations Engineering
*R. E. Grabinski, Senior Quality Specialist
M. R. Keller, System Engineer

General Electric Company (GE)

E. G. Leff, Services Project Manager

US NRC

*C. H. Brown, Senior Resident Inspector

Other personnel were contacted as a matter of routine during the inspection.

*Indicates those attending the exit meeting on January 25, 1985, at the Monticello Station.

2. Licensee Action on Previous Inspection Findings

a. (Closed) Open Item (263/84-07-05): The licensee did not re-audit the preventative maintenance program after a previous audit (No. AG-83-9-10) had determined that the program was not effective. The inspector reviewed the subsequent re-audit (No. AG-84-39-10) which determined that the preventative maintenance program was effective. The inspector also verified that the audit findings from audit report AG-83-9-10 had been closed. Based on the review of the re-audit and

the close out of the previous findings, the inspector is satisfied that the licensee has adequately addressed this item.

b. (Closed) Deviation (263/84-07-09): The licensee did not have a trending procedure. The inspector reviewed procedure N1ACD8.9, "Trending". The procedure adequately established a trending program. The procedure had been approved on January 31, 1985.

3. Review of Excessive CRD Scram Time Incident (PNO-III-84-106A)

The inspectors reviewed the quality assurance activities of the Monticello Station which preceded the excessive control rod drive (CRD) scram time incident on December 4, 1984. The following general areas were examined: design change and modification program relative to the recirculation piping and CRD modifications; procurement of the CRD filters and paper purge dams; and receipt, handling and storage of the CRD filters. In addition, general implementation of the procurement program was examined as part of the annual QA program review.

a. Design Changes and Modifications

The inspector reviewed the NSP program for design changes and modifications to verify conformance with regulatory requirements and commitments. The following items were considered during this review: administrative controls, assigned responsibilities, document control, and design change control.

(1) Documents Reviewed

(a) Operational Quality Assurance Plan, Section 5.0, "Modification Controls", Revision 9.

(b) 3ACD 4.1, "Design Change Control", Revision 9.

(c) N1AWI 5.1.17, "Modification Closeout", Revision 0.

(d) 4ACD 7.1, "Design Change Control", Revision 3.

(2) Results of Inspection

To assess the implementation of the design change and modification program employed at the time of the excessive scram time incident, the inspector examined two design change packages that were related to the incident: recirculation system piping modification No. 83Z049 and CRD modification No. 84M089. The review of these design changes indicated that NSP was adequately implementing the design change and modification program and that this implementation was not a contributing factor to the incident.

The recirculation piping and CRD modifications were completed at the time of this inspection; however, the implementation of their final

close-out could not be verified. Pending NRC review of the completed packages, this matter is considered unresolved (263/85-04-01).

No items of noncompliance or deviations were identified.

b. Procurement, Receipt, Handling and Storage

The inspector reviewed the NSP programs for control of procurement and receipt inspection to verify conformance with regulatory requirements and commitments. The following items were considered during this review: administrative controls, documentation, and receipt of procured items.

(1) Documents Reviewed

(a) Operational Quality Assurance Plan, Section 6, "Procurement Document Control", Revision 9.
(b) Operational Quality Assurance Plan, Section 9, "Control of Purchased Material, Equipment and Services", Revision 9.
(c) 3ACD6.1, "Uniform Nuclear Plant Procurement Process", Revision 3.
(d) 3AWI6.1.1, "Normal and Prompt Procurement for Items", Revision 2.
(e) 3AWI6.1.2, "Procurement Process Emergency or Confirming", Revision 9.
(f) 3AWI6.1.3, "Off-the-Shelf Procurement", Revision 1.
(g) 4ACD-9.1, "Procurement Process", Revision 2.
(h) 4AWI-9.1.3, "Special Considerations for Procurement of Items From General Electric", Revision 0.
(i) Purchasing Department Policies and Procedure Manual, Revision 2.

(2) Results of Inspection

The inspector selected three purchase orders related to the excessive scram time incident and five other purchase orders to verify implementation of the procurement and receipt control programs.

(a) Purchase Orders Reviewed

1 No. D35878MQ, CRD/Rebuild Parts.
2 No. D59508MQ, Inner Filter Modification & Rebuild Kits
3 No. D59805MQ, CRD Rebuild Parts.
4 No. D59813MQ, CRD Spare Parts.
5 No. D51146MQ, Relays.
6 No. D38476MQ, Main Steam/Vacuum Breaker Gaskets.
7 No. D46110MQ, ECCS Logic Relays.
8 No. D34934MQ, Main Steam Inlet Flange.

(b) Results of Review

All eight of the purchase orders that were reviewed contained one or more examples where the requirements of the NSP QA program and the applicable implementing procedures were not

met. The specific requirements and purchase order deficiencies are as follows:

1 The Operational Quality Assurance Plan, Section 7.1, requires that directives, instructions, procedures and drawings of a type appropriate to the circumstances be provided for the control and performance of activities which affect quality. The following examples did not meet these requirements:

a The procedures employed by the Purchasing Department did not reflect current purchasing practices with regard to purchase orders.

b Procedures 3AWI 6.1.1 and 3AWI 6.1.2, in the section for purchase order documentation requirements, did not provide instructions or requirements for the use of certificates of conformance.

2 Procedure 3ACD 6.1, Section 6.2.2, requires that a statement of the scope of work to be performed by the supplier be in the procurement documents. The following purchase orders did not meet this requirement:

a D35878MQ
b D59508MQ - for modification kits only
c D59805MQ
d D51146MQ
e D38476MQ
f D46110MQ
g D34934MQ

3 Procedure 3AWI 6.1.2, Section 6.1, requires that the scope of work to be performed by the supplier be indicated and if part numbers are used, that the source of these part numbers, such as a catalog or drawing, be identified. The following purchase orders did not meet these requirements for identifying the catalog number:

a D35878MQ
b D59508MQ
c D59805MQ
d D51146MQ
e D38476MQ
f D46110MQ
g D34934MQ

4 The Operational Quality Assurance Plan, Section 6.2, Paragraph 1, and Procedure 3ACD 6.1 require that procurement documents contain specific technical and quality requirements. Renewal, spare, and replacement parts shall be required to meet the original specifica-

tion or a properly reviewed and approved revision. The following purchase orders did not reference the original specification:

a D35878MQ
b D59508MQ
c D59805MQ
d D38476MQ
e D34934MQ - listed NSP tech manual file number, not the specification number.

5 Procedure 3ACD 6.1, Section 6.2.2, Paragraph 2, requires that technical requirements be specified in the procurement documents by reference to specific drawings, specifications, codes, regulations, procedures, or instructions including revisions thereto. The following purchase orders listed GE part/drawing numbers without specifying the revision numbers:

a D35878MQ
b D59508MQ
c D59805MQ

6 Procedure 4AWI 9.1.3, Section 6.3, requires the General Electric (GE) aparatus requisition (AR) and requisition instruction sheets (RIS) to be filed in the procurement package. The following purchase order packages did not meet this requirement.

a D35878MQ
b D59508MQ
c D59805MQ

7 Procedure 4AWI 9.1.3, Section 6.1.1, specifies additional information to be listed on GE purchases: equipment piece (EP) number; master parts list (MPL) number; and name of system, assembly or component. The following purchases from GE did not meet this requirement:

a D35878MQ
b D59508MQ
c D59805MQ

8 Procedure 3AWI 6.1.2, Table 6.1.1-1, Paragraph C, requires that unless documentation is supplied that the completed item was inspected or examined, it shall be inspected or examined at the point of receiving to verify that the characteristics conform to the specified requirements. These inspections or examinations include items such as physical properties, dimensions, weld preparation, and workmanship. The following procurement documents contained inadequate requirements for receipt inspection:

a D35878MQ
b D59508MQ
c D59805MQ
d D38476MQ
e D34934MQ

These failures (1 through 8)to accomplish procurement activities in accordance with documented procedures are considered to be an item of noncompliance with 10 CFR 50, Appendix B, Criterion II (263/85-04-02).

9 Conclusion

The procurement program was not being adequately implemented; however, this inadequacy did not contribute to the excessive scram time incident. The major cause of the incident was the paper durge dam material ("Desolvo") and corrosion/cleaning byproducts in the system, not the incorrect size filters supplied by GE.

In general, this inspection has raised several concerns relative to GE supply of parts:

Specifically, NSP was unable to perform an adequate receipt inspection of the inner filters supplied by GE because they were not in possession of the proprietary GE drawing which gave critical dimensions. The inspector is concerned that this contributed to the installation of incorrect parts in a safety-related system.

Also, contrary to the purchase order requirements, GE originally sent modified inner filters to the plant. Further, incorrect inner filters were subsequently shipped to Monticello twice in boxes marked with the correct part number. The inspector is concerned that GE's system for identification and control of material, parts, and components did not prevent incorrect parts from being shipped.

Lastly, GE indicated that they would not make a 10 CFR Part 21 notification that the incorrectly sized filters were sent in mismarked boxes. They indicated their plan was to investigate the incident as a Potentially Reportable Condition (PRC). The inspector is concerned that this system does not meet the intent of Part 21.

These concerns are unresolved pending further review by Region III and the NRC Vendor Branch (263/85-04-03).

With regard to the concerns, licensee personnel stated that an audit of GE has been scheduled for February 18-22, 1985. The scope of the audit will include verifying adherence to the applicable criteria of 10 CFR 50, Appendix B, ANSI N45.2, the associated daughter standards and the GE Topical REeport NEDO-11209-04A, Rev. 4, as

they relate to the purchase of control rod drive filters. The results of this audit will be reviewed by the NRC as part of the resolution to Unresolved Item No. 263/85-04-03.

4. Quality Assurance Program Review

The inspectors reviewed the NPS Quality Assurance Program to verify conformance with regulatory requirements, commitments, and industry guides and standards. The following items were considered during this review: QA Program changes and implementation of the QA Program in the areas of offsite review committee, test and experiments, and procurements.

a. Offsite Review Committee

The inspectors reviewed the offsite review functions to verify that these functions were conducted in accordance with Technical Specifications and other regulatory requirements.

(1) Documents Reviewed

(a) Monticello Technical Specification Section 6.2A, "Safety Audit Committee (SAC)", Revision 66.

(b) N1ACD 4.6, "Safety Audit Committee", Revision 0.

(c) 3ACD 8.2, "Safety Audit Committee", Revision 1.

(d) Safety Audit Committee Meeting Minutes 1983-1984.

(e) Various Design Change Packages and Procedures.

(2) Results of Inspection

The inspectors reviewed changes in the charter and the administrative procedures of the safety audit committee and verified that these changes were consistent with Technical Specifications and other regulatory requirements. The safety audit committee membership and qualifications were reviewed and were consistent with Technical Specification requirements. The inspectors verified that the safety audit committee meetings convened at frequencies exceeding Technical Specification requirements, and a quorum of committee members was present at all meetings for the past two years. The inspectors also verified that activities, required by the Technical Specifications to be reviewed by the safety audit committee, were being completed.

No items of noncompliance or deviations were identified.

b. Tests and Experiments

The program for the control of tests and experiments was reviewed to verify that Northern States Power had implemented a QA program in this area that was in conformance with regulatory requirements, commitments, and industry guides and standards.

(1) Documents Reviewed

(a) N1AWI 5.1.9, "Safety Evaluations", Revision 1.

(b) NIAWI 5.1.12, "Modification Review Package Preparation, Review and Approval", Revision 0.

(c) 3AWI 4.1.1, "Safety Evaluations", Revision 2.

(d) 3ACD 4.1, "Design Change Control", Revision 9.

(e) 4ACD 4.4, "Special Procedures", Revision 6.

(f) 4AWI 4.4.1, "Safety Review Items", Revision 1

(g) Various Special Procedures and Safety Evaluations.

(2) Results of Inspection

The inspector verified that a formal method had been established for proposing plant tests and experiments involving safety-related components, systems or structures different from those described in the Monticello USAR. The inspector reviewed approved written procedures for special tests and experiments. The inspector verified that responsibilities had been assigned for (1) review and approval of tests and experiments procedures, (2) review of proposed tests and experiments to determine if they had been described in the USAR, and (3) ensuring that a written safety evaluation was prepared for each test or experiment not described in the USAR. The inspector also verified that responsibilities had been established to ensure that all tests and experiments, conducted pursuant to 10 CFR 50.59, are formally reported to the NRC.

No items of noncompliance or deviation were identified.

c. Procurement Program

The results of the QA program review for procurement activities are documented in Section 3 of this report.

5. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in Section 3, paragraphs a.(2) and b.(2)(b)9.

6. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on January 25, 1985, and summarized the purpose, scope, and findings of the inspection.