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DUKE POWER

November 30, 1994

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369 and 50-370
NRC Inspection Report No. 50-369, 370/93-33; 50-369, 370/93-32
and 50-369, 370/94-04
Supplemental Reply to a Notice of Violation and Proposed Imposition of Civil Penalty

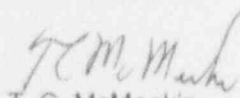
Gentlemen:

Attached is a supplemental response to the Notice of Violation and Proposed Imposition of Civil Penalty, (Violation 1), issued May 16, 1994. Implementation of the numerous corrective actions identified as a result of the Unit 2 Loss of Off-site Power event has required a substantial effort by McGuire and General Office support personnel and these efforts have been successful in completing the majority of corrective actions. The corrective actions addressed in Items 3.a through 3.l of the supplemental response have been completed. The remaining corrective action identified in our June 13, 1994 response, Item 4.a, concerns issuance of a testing practices document. A new Nuclear Site Directive (NSD) 408, Testing, will be issued the first quarter of 1995 (originally scheduled for November 30, 1994) and fully implemented at McGuire Nuclear Station by the end of 1EOC10 and 2EOC10 refueling outages.

I declare under penalty of perjury that the statements set forth herein are true and correct to the best of my knowledge.

Should there be any questions concerning this response, contact Randy Cross at (704) 875-4179.

Very Truly Yours,


T. C. McMeekin

Attachment

U.S. Nuclear Regulatory Commission

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PDR ADDCK 05000369
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U.S. Nuclear Regulatory Commission
November 30, 1994

xc: (w/attachment)

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U.S. Nuclear Regulatory Commission
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Mr. George Maxwell
NRC Senior Resident Inspector
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McGuire Nuclear Station
Supplemental Reply to a Notice of Violation and Proposed Imposition of Civil Penalty

I. Violation Assessed a Civil Penalty

10 CFR 50, Appendix B, Criterion VI, "Instructions, Procedures, and Drawings," requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

10 CFR 50, Appendix B, Criterion XI, "Test Control," requires, in part, that a test program be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service, is identified and performed in accordance with written test procedures, which incorporate the requirements and acceptance limits contained in applicable design documents. Criterion XI also requires that test procedures shall include provisions for assuring that all prerequisites for the given test have been met, and that the test is performed under suitable environmental conditions.

Procedure MP/0/A/7200/11, "MSIV and Valve Actuator Corrective Maintenance," was established to provide for maintenance of the main steam isolation valves (MSIV).

Procedures PT/2/A/4255/03A and 03B, "SM Train A (B) Valve Stroke Timing - Shutdown," were established to test the "A" and "B" train MSIVs.

Contrary to the above, as of December 27, 1993, the procedure conducting maintenance on the MSIVs did not include appropriate acceptance criteria and the procedures for testing the MSIVs did not contain provisions to conduct the tests under suitable environmental conditions as evidenced by the following examples:

1. Procedure MP/0/A/7200/11 was inadequate in that appropriate acceptance criteria for MSIV yoke rod guide clearances were not established to ensure that a proper clearance existed between the valve yoke rods and the yoke rod guides when the valve was at operating temperature.
2. Procedures PT/2/A/4255/03A and 03B did not include provisions to assure that MSIV testing was conducted at normal operating temperature.

On December 27, 1993, these deficiencies resulted in the failure of "B" steam generator MSIV 2SM-5 to fully close and seat and the "A" steam generator MSIV 2SM-7 to fully stroke closed to prevent leakage on a steam line isolation signal. (01013)

This is a Severity Level III violation. (Supplement I)
Civil Penalty - \$100,000.

Supplemental Response to Violation I.

1. Admission or Denial of the Alleged Violation:

McGuire Nuclear Station admits the violation.

2. Reasons for the Violation if Admitted:

The reason for the violation is Inadequate Procedures. Maintenance procedure MP/0/A/7200/11, "MSIV and Valve Actuator Corrective Maintenance," did not include appropriate acceptance criteria for MSIV yoke rod guide clearances to ensure that a proper clearance existed between the valve yoke rods and yoke rod guides when the valve was at operating temperature. The inadequate clearance resulted in binding, which prevented valve 2SM-5 from fully closing. The vendor recommended yoke rod guide clearance and hot stroke testing in a 1981 letter. At the request of Engineering, the MSIV vendor provided a general vendor manual update in April 1992 that included the correct clearances and installation instructions for the yoke rod guides. The 1981 vendor recommendations were not incorporated in the appropriate maintenance procedures. The updated vendor information was under review prior to officially revising the vendor manual. As such, the clearances and installation instructions had not yet been incorporated into maintenance procedure MP/0/A/7200/11.

Periodic Test procedures PT/2/A/4255/03A and 03B "SM Train A(B) Valve Stroke Timing - Shutdown," did not contain provisions to assure that MSIV testing was conducted at normal operating temperature. The existing surveillance program for the MSIVs specified full stroke testing of the valves following modification or maintenance. These tests were performed with the valves at ambient temperature to avoid potential inadvertent safety injections upon reopening the MSIVs at operating temperature and pressure. This test method did not ensure the valves would meet the timing and stroke requirements at normal operating temperature.

3. Corrective Steps That Have Been Taken and the Results Achieved:

- a. Mechanical maintenance and Engineering personnel adjusted the yoke guide rods on valve 2SM-5 to allow the valve to fully close prior to restart.
- b. Mechanical maintenance personnel measured and reset yoke rod guide clearances for Unit 1 and 2 MSIVs at full operating temperature in accordance with maintenance procedure MP/0/A/7200/11, "MSIV and Valve Actuator Corrective Maintenance." This information was used to develop cold target values and to verify proper valve setup prior to returning Unit 2 MSIVs to service. This activity was completed on January 6, 1994.
- c. Prior to Unit 2 restart, Engineering personnel performed an assessment of the current state of updates to safety related documents and procedures due to vendor information changes. No items of safety significance were identified.

- d. The MSIV vendor manual was revised to include the vendor supplied yoke rod guide installation instructions and yoke rod to yoke rod guide clearances. The update to the vendor manual was completed on January 25, 1994.
- e. Nuclear System Directive (NSD) 204 "Operating Experience Program (OEP) Description" was revised to address the processing of vendor technical information. This was completed on June 9, 1994.
- f. A Nuclear Network Bulletin discussing the MSIV failure was issued on December 31, 1993.
- g. A Problem Investigation Process (PIP) was initiated for all outstanding Vendor Information Letters (VILs) and the Operating Experience Program (OEP) was enhanced to require a PIP to be initiated with each new VIL. These actions were completed on March 1, 1994.
- h. Periodic test procedures PT/1/A/4255/03C and PT/2/A/4255/03C were developed to verify full closure of each MSIV at full temperature and steam line pressure greater than or equal to 900 psig. PT/2/A/4255/03C was completed on January 3, 1994; PT/1/A/4255/03C was completed on January 6, 1994.
- i. Unit 2 MSIVs were stroke tested using procedure PT/2/A/4255/03C on January 5, 1994. Unit 1 MSIVs were stroke tested on April 7, 1994.
- j. System Engineering personnel reviewed Final Safety Analysis Report (FSAR) Chapter 10, Section 10.3 and Chapter 6, Section 6.2.4.4 for test requirements and/or commitments relating to the MSIVs. The review indicated the station is and has been in compliance with test commitments contained within the FSAR. Upon completion of the review, System Engineering personnel completed an FSAR change to clarify the wording of our current commitments and to include the new commitment to stroke the MSIVs at a Main Steam temperature greater than 350 degrees and pressure greater than or equal to 900 psig at least once per refueling outage. This FSAR change will be submitted in the next annual FSAR update scheduled six months following completion of the Unit 2 EOC9 outage.
- k. A comparison of testing practices at all three nuclear stations was performed which indicated there are no significant differences or problems related to safety-related or NRC committed testing programs. However, differences in the scope of testing for non-safety secondary systems were identified. The results of this comparison were outlined in a report dated April 18, 1994. A Nuclear Generation Department testing practices team was formed to develop a philosophy and a consistent approach to testing. Planned corrective action item 4.a addresses the issuance and implementation of a new Nuclear Site Directive (NSD) 408, Testing.
- l. The Engineering Documents Manual, Section 3.4.6 (Revision 1), was added to specify proper handling of vendor technical information/vendor documents. This corrective action was completed on July 7, 1994.

No similar violations have occurred since implementation of the above corrective actions.

4. Corrective Steps That Will Be Taken To Avoid Further Violations:

- a. Nuclear Site Directive (NSD) 408, Testing, will be issued the first quarter of 1995 and will be fully implemented at McGuire Nuclear Station by the end of 1EOC10 and 2EOC10 refueling outages.

5. Date When Full Compliance Will Be Achieved:

McGuire Nuclear Station is now in full compliance.