# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

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Northern States Power Company

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10 CFR Part 2.201

January 11, 1991

U S Nuclear Regulatory Commission Attn: Document Control Desk Washington, DC 20555

> MONTICELLO NUCLEAR CENERATING PLANT Docket No. 50-263 License No. DPR-22

Response to NRC Inspection Report No. 50-263/90018 (EDSFI) Concerning a Notice of Violation and Unresolved Items on the Electrical Distribution System

In response to your letter dated December 14, 1990, which transmitted Inspection Report 50-263/90018, the following information is offered. Our response to the Notice of Violation is included as Attachment 1. Attachments 2, 3 and 4 contain our responses to the Unresolved Items identified in paragraph 8.0 of the inspection report.

Please contact us if you have any questions or wish further information concerning this matter.

Leon R Eliason Vice President Nuclear Generation

> Regional Administrator, Region III, NRC Director, Division of Reactor Safety, Region III, NRC Senior Resident Inspector, NRC NRR Project Manager, NRC J Silberg

Attachments:

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- 1. Response to Notice of Violation
- Response to Unresolved Item As-built Deficiencies, Section 3.3
- 3. Response to Unresolved Item Setting of Degraded Grid Voltage Relays, Section 4.1.1
- Response to Unresolved Item Bus Transfer Testing, Section 4.1.3

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# MONTICELLO NUCLEAR GENERATING PLANT

#### Response to Notice of Violation

## VIOLATION

10 CFR 50, Appendix B, Criterion XI, requires that test results be documented and evaluated to assure that test requirements have been satisfied. Licensee Procedure No. 7180, "Diesel Generator System Instrument Maintenance Procedure," required that pressure indications PI-7002 and PI-7005 be calibrated at  $300 \pm 3$  psig and  $160 \pm 1.6$  psig respectively.

Contrary to the above, the licensee's evaluation of the test performed in August 1989 failed to ensure that test requirements had been satisfied. Specifically, PI-7002 was calibrated with an as-left value of 305 psig, 2 psig out of tolerance, and PI-7005 was calibrated with an as-left value of 156 psig, 2.4 psig out of tolerance.

This is a Severity Level IV Violation (Supplement I).

## EXPLANATION

The instruments cited in this violation and the inspection report are non-Technical Specification/non-ASME Section XI related instruments on safety related systems. Procedures for Technical Specification and ASME Section XI related instruments require that the instrument be declared inoperable and/or that deviation reports be prepared when as-left tolerances cannot be met. For non-Technical Specification/non-ASME Section XI instruments, it has been normal practice for the Instrument and Control Specialist to review calibration discrepancies with the Instrument and Control Supervisor and to obtain System Engineer concurrence in questionable cases. However, the instrument maintenance procedures did not require that these evaluations be documented. Based on the Instrument and Control Supervisor's recollection, the discrepancies on PI-7002 and PI-7005 were evaluated and it was concluded that they had no safety significance. In addition, the as-left acceptance criterion used for these instruments  $(\pm 1\%)$  is considered conservative because they are of a less critical nature than Technical Specification/ASME Section XI related instruments. These factors ensure that any other as-left calibration discrepancies which may exist on non-Technical Specification/non-ASME Section XI related instruments do not affect system operability.

# CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED

The discrepancies discussed in the violation were re-evaluated following identification during the inspection and documented. This included confirmation of the current instruments' setpoints. The evaluation confirmed that the discrepancies have no effect on Emergency Diesel Generator operability.



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# CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS

- Written instructions providing specific guidance on follow-up actions 1. for out-of-tolerance instruments have been issued. These instructions require written engineering evaluations for future occurrences of outof-tolerance instruments if they are associated with a safety related system.
- 2..

This issue was discussed during Engineering and Technical Staff continuing training.

# DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance has been achieved.









#### MONTICELLO NUCLEAR GENERATING PLANT

# Response to Unresolved Item - As-built Deficiencies, Section 3.3

#### UNRESOLVED ITEM

Twenty discrepancies were identified between the design drawings and field installation in the following safety related panels: remote shutdown panel C292; RHR, CS, and ADS panel C33; reactor water cleanup and recirculation benchboard C04; and 480V AC MCC B43.

#### RESPONSE

The twenty discrepancies mentioned can be categorized into three general areas:

1. Construction File Content

The construction drawing file is a set of drawings which have been determined to be required to safely operate the plant. Administrative controls ensure that these drawings are updated as required prior to returning a system to service after any maintenance or modification activities.

Criteria currently do not exist for identifying which drawings should be placed in the construction drawing file. Therefore, there are inconsistencies in interpretation of what should or should not be included in the construction file. This led to the concern that the construction drawing file may not contain all the necessary drawings to aid in troubleshooting activities.

Criteria will be established for determining whether or not a new drawing should be included in the construction file. The contents of the present construction file will be reviewed for consistency and completeness with this criteria.

#### 2. As-Built Drawing Discrepancies

A number of the drawing discrepancies were due to inaccuracies on the record drawings. We were aware that some inaccuracies existed in record drawings and had initiated a project to field verify and correct all class 1E electrical drawings. The drawings in question had not gone through this verification process.

As an interim measure until the verification program is completed, procedures require verification of electrical circuits and resolution of discrepancies prior to any maintenance or modification activities.

The unresolved discrepancies noted by this inspection will be reconciled during the next refueling outage scheduled for April 1, 1991. Based on

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resolution of the discrepancies, the priorities of the as-built verification project will be reassessed.

# 3. Timely Updating of Drawings

Several of the discrepancies were due to drawings not yet being updated from modifications. The drawing discrepancies that were found were with the controlled drawing file, not the construction file which is used for plant operation.

A review of the process for updating the controlled drawing file will be undertaken in an effort to improve the timeliness of this activity.

## MONTICELLO NUCLEAR GENERATING PLANT

# Response to Unresolved Item - Setting of Degraded Grid Voltage Relays, Section 4.1.1

## UNRESOLVED ITEM

The maximum deviation of -18v allowed by the technical specifications was not large enough to account for additional errors such as operator setting error and drift. The licensee lacks a setpoint methodology to establish a setpoint that accounts for all the known uncertainties.

#### RESPONSE

The calibration data for the degraded grid voltage relays have shown no problems with maintaining the established setpoints within the Technical Specification limits. Maximum tolerance conditions, as specified by the relay manufacturer, have not been experienced with these relays using the calibration practices currently in place. Temperature and control voltage, to which the installed relays are subjected, are not as severe as that specified by the relay manufacturer and would not require the full tolerance to be applied to relay calibration setpoints.

In responding to the identified concern, the following actions were taken: 1) the past calibration test data was reviewed to determine the representative relay setpoint drift, 2) a detailed analysis was performed of all tolerances associated with the degraded voltage relays, 3) the degraded voltage relay setpoints were revised in the calibration test procedure utilizing a setpoint methodology to account for all tolerances associated with the degraded voltage relays, and 4) the degraded voltage relays were recalibrated using the revised setpoints.

## MONTICELLO NUCLEAR GENERATING PLANT

# Response to Unresolved Item - Bus Transfer Testing, Section 4.1.3

## UNRESOLVED ITEM

The testing program did not verify the transfer of transformer No. 1R to transformer No. 1AR and subsequent loading of 1AR by the safety buses.

## **RESPONSE**

The current testing program for the plant auxiliary power system fulfills the requirements of the Monticello Technical Specifications. However, additional testing of the safety bus transfer logic and switchgear to verify the capability of the system to transfer to and subsequently load No. 1AR transformer would be beneficial. This additional testing would be completed on a one-time basis and would be repeated as warranted by modifications to the system. Until such testing can be completed, the ability of the safety buses to transfer to and load 1AR transformer is considered to be operable. This conclusion is based upon the following:

- 1. Completion of maintenance procedure 4858-60PM, "#1AR Reserve Transformer Maintenance", during September of 1989.
- 2. Post-modification testing of 1AR transformer following completion of Modification 84M041, "Improving the 1AR Off-site Power Source", during the 1984 refueling outage.
- 3. Successful use of 1AR as a source of auxiliary power to the plant.
- 4. Post-modification testing of essential bus transfer logic following completion of Modification 84Z020, "Degraded Voltage Transfer Scheme Upgrade."

Procedures will be developed for testing essential bus transfer to and subsequent loading of the 1AR transformer. This procedure will be done during the next refueling outage (April, 1991). The testing will include:

- 1. Verification of transfer logic to 1AR.
- 2. Verification of the ability of the 1AR source breakers to close and energize the safety buses and essential load centers.
- 3. Verification of the ability of 1AR to deliver power to the safety buses by starting the largest Emergency Core Cooling System pump on each bus.

Sequencing of Emergency Core Cooling System loads onto the buses is presently tested with the Emergency Diesel Cenerators supplying power. The circuitry for sequencing Emergency Core Cooling System loads onto the bus is the same regardless if the Emergency Diesel Generator or 1AR transformer is supplying



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power. Performing two separate load sequencing events, one with the Emergency Diesel Generator supplying the bus and one with lAR supplying the bus, would provide little additional information and would result in additional starts of Emergency Core Cooling System motors. Testing of lAR's load-carrying capability as outlined above, coupled with previously performed calculational analyses and testing, is considered sufficient to verify lAR's ability to supply power to the plant's emergency loads.