



Northern States Power Company

Monticello Nuclear Generating Plant  
2807 West Hwy 75  
Monticello, Minnesota 55362-9637

April 9, 1997

10 CFR Part 2  
Section 2.201

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

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

Reply to Notice of Violation Contained in  
NRC Inspection Report No. 50-263/97002

Pursuant to the provisions of 10 CFR Part 2, Section 2.201, our reply to the notice of violation contained in your letter of March 10, 1997, is provided in Attachment A.

Attachment A, Reply to Notice of Violation, contains the following four new NRC commitments:

Test 0466-1 "Control Room Pressurization Test" will be revised to provide limits on how long railroad doors may be open during cold weather, and to add a requirement for a prejob briefing.

The HVAC system engineer will provide guidance when performing testing activities or maintenance requiring outside doors and openings to be blocked open which have the potential for freezing equipment.

Training will be given to operations, maintenance, security and engineering stressing the need to be aware of abnormal environmental conditions. This includes both high and low temperatures, water where it should not be, unusual odors and any other unexpected conditions. Similar awareness notes will be added to the Operations Work Instruction for Operator Rounds.

Results of CA-97-085 will be used in a setpoint methodology calculation to revise test procedure 0006 "Scram Discharge Volume (SDV) Hi Level Scram Test" to ensure continued compliance with Technical Specifications.

Please contact Sam Shirey, Sr Licensing Engineer, (612-295-1449) if you require further information.

*William J Hill*

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Plant Manager  
Monticello Nuclear Generating Plant

c: Regional Administrator - III, NRC

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NORTHERN STATES POWER COMPANY

NRR Project Manager, NRC  
Sr Resident Inspector, NRC  
State of Minnesota  
Attn: Kris Sanda  
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Attachments A - Reply to Notice of Violation

Attachment A

REPLY TO NOTICE OF VIOLATION

Violation I.

10 CFR 50, Appendix B, Criterion XI, "Test Control," stated that test procedures shall include provisions for assuring that testing is performed under suitable environmental conditions.

Contrary to the above:

Surveillance test 0466-1, "Control Room Emergency Filtration Treatment System," was not conducted under suitable environmental conditions. The test was performed on January 7 and required the turbine building railway doors to be opened for an extended period of time. Outside temperature was about 2 °F. The frigid air affected plant equipment and resulted in a substantial condenser vacuum perturbation.

NSP Response to Violation I.

NSP acknowledges the above violation.

Reason For Violation:

Test 0466-1 (Control Room Pressurization Test) requires that the turbine building railroad doors be open during portions of the test. During the test, outside air temperatures varied between 2 °F and 7 °F. This resulted in freezing of instrument lines which caused loss of condenser vacuum and required the plant to rapidly reduce power.

The root cause of the event was lack of communication. No prejob briefing or infrequent evolution brief was conducted which was warranted by the complexity of the test. This briefing should have identified concerns with the turbine building doors being open for an extended period of time.

A contributing cause of this incident was an unwarranted sense of urgency to complete the procedure. Temperatures in the area of the turbine building railroad doors were questioned by operators and plant management half way through the test, but it was decided to continue with the test as it was nearly complete by this time.

Procedures were also weak in that they did not contain precautions concerning the doors being open during cold weather.

Corrective Action Taken and Results Achieved:

A review and analysis of this event was performed to determine lessons learned. Condition Report CR-97000068 documents this review.

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**Corrective Action to be Taken to Avoid Further Violations:**

Test 0466-1 "Control Room Pressurization Test" will be revised to provide limits on how long railroad doors may be open during cold weather, and to add a requirement for a prejob briefing.

The HVAC system engineer will provide guidance when performing testing activities or maintenance requiring outside doors and openings to be blocked open which have the potential for freezing equipment.

Training will be given to operations, maintenance, security and engineering stressing the need to be aware of abnormal environmental conditions. This includes both high and low temperatures, water where it should not be, unusual odors and any other unexpected conditions. Similar awareness notes will be added to the Operations Work Instruction for Operator Rounds.

**Date When Full Compliance Will Be Achieved**

Full compliance has been achieved.

**Violation II.**

10 CFR 53, Appendix B, Criterion XVI, "Corrective Actions," stated that measures shall be established to assure that conditions adverse to quality, such as deficiencies, are promptly identified and corrected.

*Contrary to the above, in October 1993, the licensee identified that the 1988 calculation used to determine scram and rod block setpoints for the scram discharge volume surveillance procedure was incorrect. This error could have allowed as-left settings above technical specification acceptable values. This condition existed until February 5, 1997.*

**NSP Response to Violation II**

NSP acknowledges the above violation.

**Reason For Violation:**

1993 calculation (CA 93-079) determined there was a need to revise test procedure 0006 "Scram Discharge Volume (SDV) Hi Level Scram Test" to correctly identify SDV level setpoint parameters. This action was not communicated to corrective action document NCR 93-268 "Scram Discharge Volume" which stated no corrective actions were required. Consequently, test procedure 0006 was not revised in a timely manner as indicated by close-out of NCR 93-268 in December 1993.

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**Corrective Action Taken and Results Achieved:**

A new calculation (CA-97-085) was recently initiated to clarify assumptions and verify 1988 dimensions.

Actual material thickness of the 24" pipe and cap was determined ultrasonically to further assure accurate dimensions for use in the volume calculations. Dimensions for the ellipsoidal head were obtained from ANSI B 16.9 which is the referenced material specification used for construction. It was felt these dimensions were more accurate, as field dimensions to the center of the weld could not be as accurately determined.

CA-97-085 showed minor deviations from both the 1988 and 1993 calculations, however, review of completed test procedures 0006 "Scram Discharge Volume (SDV) Hi Level Scram Test" concluded that use of volumes from any of the calculations would not have resulted in violation of Technical Specifications limits. Adequate margin existed for all cases.

Results of CA-97-085 will be used in a setpoint methodology calculation to revise test procedure 0006 "Scram Discharge Volume (SDV) Hi Level Scram Test" to ensure continued compliance with Technical Specifications.

The SDV level switches are of two types, a float switch, and a thermal switch. The switches are hard piped into the SDV instrument volume, and are non-adjustable, therefore, the 0006 test and calibration procedure is more correctly a test to ensure the sensors work. Consequently, the as-found and as-left settings are always the same.

A rigorous instrumentation setpoint methodology calculation is currently being completed. Once completed, these settings will be incorporated into procedure 0006. It should be noted, however, that the actual trip setpoints will not be effected, only the procedure setpoints will change. At no time have these instruments ever been out of calibration.

**Corrective Action to be Taken to Avoid Further Violations:**

Since 1993, a new process has been established (CHAMPS) that is now used to document and track future needs items. Had this system been in place in 1993, the need to revise test 0006 would have been identified in CHAMPS and tracked to completion. This process should avoid similar problems in the future.

Additionally, in response to Violation II,a,b,c,d of NRC System Operational Performance Inspection (SOPI) Report No. 50-263/96009 dated March 21, 1997., NSP made the following commitment:

Special training will be provided to Monticello engineering and technical staff personnel on the importance of rigor and attention to detail in performing, revising, reviewing, approving and documenting calculations. This training will be completed by March 31, 1997.

This training was completed March 27, 1997.

This training stressed the importance of rigor in completing calculations, which in this case, would include the follow up action of initiating a CHAMPS tracking item to ensure completion of the required action of revising test procedure 0006.

Date When Full Compliance Will Be Achieved

Full compliance has been achieved.