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SUBJECT: Responds to NRC 900206 ltr re violations noted in Insp Rept 50-263/89-29.

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March 8, 1990

10 CFR Part 2.201

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

Reply to Notice of Violation
NRC Inspection Report No. 263/89029 (DRP)
Secondary Containment Inoperability

In response to your letter dated February 6, 1990, which transmitted Inspection Report 263/89-22 and a Notice of Violation, the following information is offered.

Violation

10 CFR Part 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.

Technical Specification Limiting Condition for Operation (LCO) 3.7.C.1 requires secondary containment integrity to be maintained during all modes of plant operation unless specific exemption criteria are met. In addition, Technical Specification Surveillance Requirement 4.7.C.1.c requires secondary containment capability to maintain at least a 1/4 inch of water vacuum under calm wind conditions with a filter train flow rate of not more than 4,000 scfm. This shall be demonstrated at each refueling outage prior to refueling.

Contrary to the above, from June 1971 until October 1989, the licensee failed to establish an adequate surveillance test to demonstrate that secondary containment was capable of maintaining 1/4 inch of water vacuum under calm wind conditions with a filter flow rate of not more than 4,000 scfm. The surveillance test was inadequate in that interaction with other ventilation systems was not properly considered.

This is a Severity Level III violation (Supplement I).

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Admission of the Alleged Violation

We accept this notice of violation.

During normal conditions, the Reactor Building Plenum Exhaust Fans and fan inlet dampers are designed to maintain the Reactor Building Plenum at approximately 0.5 inch water vacuum relative to air pressure outside the building. During accident conditions, the Standby Gas Treatment System is designed to maintain at least 0.25 inch water vacuum in the Reactor Building. This creates a differential pressure from the Reactor Building to the Reactor Building Plenum of 0.25 inches water when both systems are operating. The Secondary Containment Capability Test had always been conducted with both systems in operation. If leakage occurs past the Secondary Containment isolation dampers between the Reactor Building Plenum and the Reactor Building, the Reactor Building Plenum Exhaust Fans assist the Standby Gas Treatment System in maintaining a negative pressure in the Reactor Building (See Attached Figure).

On October 13, 1989, with the plant shutdown for a refueling outage, the NRC Senior Resident Inspector informed the plant engineering staff that this problem with Secondary Containment testing had been discovered at another facility. All work requiring secondary containment integrity was stopped. On October 14, 1989, a Secondary Containment capability test was performed with the Reactor Building Plenum Exhaust Fans off. Measurements taken during this test indicated that while the Standby Gas Treatment System was able to maintain a vacuum, it was not sufficient to meet the 0.25 inch water vacuum performance requirement specified in Technical Specification 4.7.C.1.a. Secondary Containment was declared inoperable. Additional testing determined that there was 2600 cubic feet per minute bypass flow from Secondary Containment to the Reactor Building Plenum with both the Standby Gas Treatment System and the Reactor Building Plenum Exhaust Fans in operation.

This presented two potential problems. With a loss of offsite power, the Standby Gas Treatment System must be able to maintain 0.25 inch water vacuum. The Reactor Building Plenum Exhaust Fans would not be available during a loss of offsite power. Performance of the Secondary Containment Capability Test with the Reactor Building Plenum Exhaust Fans operating obscured the ability to detect the degradation of the Secondary Containment. Second, with offsite power available, flow through the Reactor Building Plenum Exhaust fans would bypass the Standby Gas Treatment System filters.

Potential offsite and Control Room dose consequences were evaluated for both of these potential situations:

- 1) Loss of offsite power (i.e., the Reactor Building Plenum Exhaust Fans are not available) and no containment of releases by the Secondary Containment.
- 2) Offsite power remained available (i.e., the Reactor Building Plenum Exhaust Fans continue to operate) and 2600 cubic feet

per minute flow bypass the Standby Gas Treatment System to the Reactor Building Plenum.

Using the source terms contained in the Updated Safety Analysis Report, it was concluded that the doses in both cases would be within 10 CFR Part 100 limits. Flow through the Reactor Building Plenum is monitored and alarmed in the control room. If an alarm had occurred indicating a release through the Reactor Building Plenum flow path during a Secondary Containment isolation, prompt operator action would have been taken to stop the release.

Reason for the Violation

The reason that this violation occurred was that preparation of the surveillance test procedure did not consider the interaction of the Reactor Building Plenum Exhaust Fans, a non-safety related system, with the Standby Gas Treatment System, a safety related system. This occurred because inadequate training and procedural guidance had been given on the preparation of surveillance testing procedures to ensure all interactions with non-safety related systems were reviewed.

The root cause was, therefore, inadequate training and procedural guidance on procedure preparation to ensure all interactions with non-safety related systems were reviewed.

Corrective Actions Taken and Results Achieved

1. Upon notification of a problem with the Secondary Containment at another facility, all work requiring Secondary Containment Integrity was suspended. Restart of this work was not permitted until Secondary Containment was declared operable on November 5, 1989.
2. A test of the Standby Gas Treatment System's ability to maintain Secondary Containment at a 0.25 inch water vacuum was performed upon notification of a possible problem. This test identified the need to secure the main plenum exhaust fans when measuring containment capability.
3. As a result of the test, repairs were identified and performed on dampers and the railroad door seals. The need for improved isolation damper preventive maintenance procedures was also identified.
4. The Secondary Containment Capability Test was changed to require the Plenum Exhaust Fans to be secured during the test. This action prevents interaction of Secondary Containment with other ventilation systems and ensures any degradation of containment integrity will be identified.
5. Following revision of the capability test and repairs to the Secondary Containment boundary, Secondary Containment was shown to meet Technical Specification requirements to maintain 0.25 inch water

vacuum under calm wind conditions with a filter flow rate of not more than 4,000 scfm.

6. An evaluation of the interaction between the normal station ventilation and the Secondary Containment was performed. Procedures were issued to provide a redundant and diverse method of tripping non-safety related ventilation equipment to ensure containment integrity.
7. A Loss of Coolant Accident offsite dose analysis was performed to assess the safety significance of the as found condition and a 50.59 review done. It was concluded that the offsite dose consequences would have been within 10 CFR Part 100 limits.
8. A hold was placed on all fuel handling activities until a refueling accident offsite dose analysis and 50.59 review could be performed. At the December 21, 1989 Enforcement Conference, we projected this reanalysis would be completed by this time. Since the analysis is not yet complete, we will continue this hold on fuel handling activities until the analysis is complete.
9. A review of existing Technical Specification surveillance procedures for potential similar interactions was completed. This review has shown no interactions of safety concern.
10. Corrective maintenance procedures for the secondary containment isolation dampers have been developed and approved.

Corrective Action Which Will be Taken to Avoid Further Violations

Adequate corrective actions have been completed to ensure compliance with the requirements cited in this violation.

1. As an enhancement to existing procedure review requirements, a revision to plant administrative control documents will be processed to specifically require review of interactions between safety related and non-safety related systems which could obscure true system performance; and to ensure test procedures incorporate the requirements and acceptance limits contained in applicable design documents. Expected completion date for this revision is June 1, 1990.
2. Engineering and Technical Staff training on this event will be conducted to emphasize the importance of considering interactions with non-safety related equipment. This training will be completed by March 31, 1990.
3. A review of the Standby Gas Treatment System design basis will be completed by April 30, 1990.
4. The necessity of performing modifications to the systems involved in this event will be evaluated. This evaluation will be completed by June 30, 1990.

Dir of NRR
March 8, 1990
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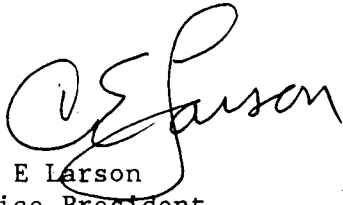
Northern States Power Company

5. Preventative maintenance procedures will be developed for the Secondary Containment isolation dampers by December 31, 1990.
6. A Secondary Containment capability test will be performed during the next cold shutdown.

Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

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



C E Larson
Vice President
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c: Regional Administrator, Region III, NRC
Senior Resident Inspector, NRC
NRR Project Manager, NRC
G Charnoff

Attachment: Reactor Building Secondary Containment Isolation Figure

REACTOR BUILDING Secondary Containment Isolation

