



Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

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

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Response to Notice of Violation
Inspection Reports No. 50-282/90016(DRP) and 50-306/90017(DRP)

In response to your letter of December 4, 1990, which transmitted Inspection Reports No. 282/90016 and 306/90017, the following information is offered.

Violation

Technical Specification 3.6, Containment System Specification, H.1. Shield Building Ventilation System, requires a reactor shall not be made or maintained critical nor shall reactor coolant system average temperature exceed 200°F unless both trains of the Shield Building Ventilation System are OPERABLE. Technical Specification 3.6.H.2 allows one train of the Shield Building Ventilation System to be inoperable for seven days.

Contrary to the above, during the period from 4:49 a.m. on August 22 through 6:04 p.m. on August 30, 1990, the 11 train of the Shield Building Ventilation System was inoperable due to the heater control switch CS 57054-01 being in the off position.

This is a Severity Level IV Violation (Supplement 1).

Response

On August 30, 1990, surveillance procedure SP1172, Ventilation System Monthly Operation, was in progress. During the test the control room operator noticed that the monitor light indicating proper operation of No. 11 Shield Building Vent Filter was not illuminated. Subsequent investigation showed that the local control switch for the heater was in the OFF position. The switch was immediately returned to the ON position.

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It is known that the switch was in its proper position on August 22, 1990, so the heater could have been inoperable for 8 days. From the investigation of the event, it is concluded that the switch was moved inadvertently and unknowingly sometime between August 22 and August 30, 1990.

If a Safety Injection Signal had been actuated, both trains of the Shield Building Ventilation System would have started automatically, but the heater for one train of filtration would not have been energized. The heater is used to maintain relative humidity below 70% as air is drawn through the filter. With the heater off, the charcoal filter would have lost some of its effectiveness in removing iodine. This would result in higher levels of iodine being released offsite. The heater was not capable of performing its related support function; therefore, one train of the Shield Building Ventilation System was inoperable. The redundant train was operable.

Prairie Island Technical Specification 3.6.H.1 requires both Shield Building Ventilation System trains to be operable when reactor coolant system temperature is above 200°F. Technical Specification 3.6.H.2 allows one train of Shield Building Ventilation System to be inoperable up to seven days. Conservatively assuming that the filter heater control switch was off for the entire period of 8 days, this Technical Specification was violated. This event was reported as Unit 1 LER 90-013.

An analysis was performed to determine the effect of the reduced iodine removal efficiencies of the affected train. The analysis demonstrated that the affected train by itself would have been capable of keeping control room and offsite dose levels below acceptable limits in the event of an accident.

Corrective Steps Taken and Results Achieved

The following corrective actions were taken:

1. Upon discovery, the switch was immediately returned to the ON position and the heater verified to be energized. Switches in similar applications (7 others) were inspected and found to be in their proper positions.
2. An investigation by the system engineer was begun immediately, with the following results:
 - Investigation of work records showed that no work was done on the system which would have resulted in changing the switch position.
 - A search of the component tagging record system showed that no equipment control tags were issued for this switch.
 - The switch position is not changed as part of any routine operations procedures.

- Personnel who would have had a reason to be in the area were interviewed; no one was aware of repositioning of the switch.
- A change in switch position is not annunciated, so inadvertent movement would not be noticed by local operators or control room operators.

From the above investigation, it was concluded that the switch was moved inadvertently and unknowingly by a workman in the area. An independent investigation was undertaken by the plant's Error Reduction Task Force, and the same conclusion was reached.

3. Daily verification of switch position was instituted as an interim corrective action.

In addition, this event was compared with recent events on the same system; no correlation was found.

Corrective Steps to Avoid Further Violations

The requirement to notify the control room upon any inadvertent switch/breaker positioning was reemphasized to all work groups via the written daily plant update and at morning work group meetings.

Protective covers were installed over the 8 switches to prevent inadvertent operation. As a result, the daily verification of switch position has been stopped.

Date When Full Compliance will be Achieved

Full compliance has been achieved.

Please contact us if you have any questions related to our response to the subject inspection reports.



Leon R. Eliason
Vice President
Nuclear Generation

c: Regional Administrator III, NRC
Senior Resident Inspector, NRC
NRR Project Manager, NRC
J E Silberg