Northern States Power Company

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

May 31, 1985

Mr J J Harrison, Chief
Engineering Branch, Region III
Office of Inspection and Enforcement
U S Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

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

In response to your letter of May 2, 1985, which transmitted Inspection Report No. 50-282/85008 (DRS), the following is offered.

Violation

Technical Specification 6.5.A.4 requires that detailed written procedures be prepared and followed for surveillance and testing requirements that could have an effect on nuclear safety. Step 8 of Surveillance Procedure SP 1005, "Unit 1 Nuclear Power Range Daily Calibration," requires that any of the four nuclear power range channels be recalibrated where calculated power is greater than channel indicated power. License No. DPR-42 requires that steady state reactor core power levels be less than or equal to 1650 megawatts thermal.

Contrary to the above, during the performance of Procedure SP 1005 on March 19 and 20, 1985, the recalibration required by Step 8 was not performed because of a calculational error which made it appear that calculated power was less than indicated power. In fact, the reverse was true. The failure to recalibrate the nuclear power range instruments led to the license power level being exceeded by 3 megawatts thermal (0.16%) based on a calculation of average power level during the eight hour shift from 11:00 p.m. on March 19, 1985, to 7:00 a.m. on March 20, 1985. (282/85008-03(DRS))

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

JUN 5 1985

1/0

IE01

Response

Surveillance procedure SP 1005 (Unit 1 Nuclear Power Range Daily Calibration) involves a daily adjustment of the excore nuclear instrumentation system (NIS) so that indicated power level matches actual power calculated by heat balance on the secondary system. If indicated power is higher than actual power (within 1/2%), then the NIS is not adjusted. However, if indicated power is less than actual power, adjustment of the NIS is required. On March 19 and 20, indicated power was erroneously calculated to be higher than actual power, and the NIS was not adjusted. This resulted in steady state operation slightly above the license limit of 1650 megawatts thermal; the maximum 8 hour average power level was 100.16%.

Cause of the event was an error in basic arithmetic during performance of the surveillance procedure. The procedure has been revised to make this kind of error less likely. Review of these procedures for both units for the past two months was done; no other errors were found. Full compliance has been achieved.

This event was reported as Unit 1 LER 85-008.

C E Larson
Vice President Nuclear Generation

c: Resident Inspector, NRC
Project Manager, NRC
G. Charnoff