



Northern States Power Company

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

March 30, 1992

10 CFR Part 50  
Section 50.73

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

Failure To Adequately Test a Sealed  
Radioactive Source Due to Procedure Inadequacy

The Licensee Event Report for this occurrence is attached.

Please contact us if you require additional information related to this event.

Thomas M Parker  
Manager  
Nuclear Support Services

c: Regional Administrator - Region III, NRC  
NRR Project Manager, NRC  
Senior Resident Inspector, NRC  
Kris Sanda, State of Minnesota

Attachment

020044

9204020205 920330  
PDR ADOCK 05000282  
S PDR

TE22  
111

## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (9-830) U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT 1										DOCKET NUMBER (2) 0 5 0 0 0 2 8 2				PAGE (3) 1 OF 0 3		
TITLE (4) Failure to Adequately Test a Sealed Radioactive Source Due to Procedure Inadequacy																
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)						
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME				DOCKET NUMBER (9)			
0 2	2 8	9 2	9 2	0 0 3	0 0	0 3	3 0	9 2	Prairie Island Unit 2				0 5 0 0 0 3 0 6			
OPERATING MODE (10) N			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 (Check one or more of the following) (11):													
POWER LEVEL (10) 0 0 0			20.402(a)				20.405(a)				50.73(a)(2)(iv)				72.71(a)	
			20.405(a)(1)(ii)				50.36(a)(1)(i)				50.73(a)(2)(iv)				72.71(a)	
			20.405(a)(1)(iv)				50.36(a)(2)				50.73(a)(2)(iv)				OTHER (Specify in Abstract below and in Text, NRC Form 365A)	
			20.405(a)(1)(vi)				50.73(a)(2)(v)				50.73(a)(2)(iv)(A)					
			20.405(a)(1)(ix)				50.73(a)(2)(vi)				50.73(a)(2)(viii)(B)					
			20.405(a)(1)(x)				50.73(a)(2)(vii)				50.73(a)(2)(ix)					
LICENSEE CONTACT FOR THIS LER (12)																
NAME Arne A. Hunstad										TELEPHONE NUMBER 6 1 2 3 8 1 8 - 1 1 1 2 1						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC							
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR		
YES (If yes, complete EXPECTED SUBMISSION DATE) XX NO																

ABSTRACT (Limit to 1400 spaces, i.e., spaces (only), fifteen single space (typewritten) lines) (16)

A procedure inadequacy was identified in test procedure SP1127, Radioactive Source Inventory and Smear Test, after reviewing an LER issued by another utility reporting a similar event. SP1127 is used, in part, to satisfy Technical Specification 4.11, which requires leakage testing of sealed radioactive sources. Technical Specification 4.11.B states, "The leakage test shall be capable of detecting the presence of 0.005 microcuries of radioactive material on the test sample." It was determined that the method used for analysis of smears from an alloy analyzer (used for nondestructive examination) containing a Fe-55 source did not have the required sensitivity for detecting the radiations from Fe-55 contamination.

This leakage test method has been used routinely at the plant to satisfy the semi-annual testing requirement. Leakage tests are also done by the manufacturer when the analyzer is at his facility for repairs. The manufacturer's leakage test has the necessary sensitivity to detect 0.005 microcuries. The manufacturer's leakage test is documented, and it can be shown that the test was done at intervals which would satisfy the semi-annual testing requirement for all periods except for 1990 and the last half of 1991.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Prairie Island Nuclear Gen Plant Unit 1	0150000282	92	003	00	02	OF 03

TEXT (If more space is required, use additional NRC Form 366A's) (17)

EVENT DESCRIPTION

On February 28, 1992, a procedure inadequacy was identified in test procedure SP1127, Radioactive Source Inventory and Smear Test. The procedure inadequacy was discovered by radiation protection personnel after reviewing a Licensee Event Report issued by another utility reporting a similar event. SP1127 is used, in part, to satisfy Technical Specification 4.11, which requires leakage testing of sealed radioactive sources. Technical Specification 4.11.B states, "The leakage test shall be capable of detecting the presence of 0.005 microcuries of radioactive material on the test sample." It was determined that the method used for analysis of smears from an alloy analyzer (used for nondestructive examination) containing a Fe-55 source did not have the required sensitivity for detecting the radiations from Fe-55 contamination.

This leakage test method has been used routinely at the plant to satisfy the semi-annual testing requirement. Leakage tests are also done by the manufacturer when the analyzer is at their facility for repairs. The manufacturer's leakage test has the necessary sensitivity to detect 0.005 microcuries. The manufacturer's leakage test is documented, and it can be shown that the test was done at intervals which would satisfy the semi-annual testing requirement for all periods except for 1990 and the last half of 1991. The latest leakage test, performed by the manufacturer on February 3, 1992, showed no contamination in excess of Technical Specification requirements. Therefore, there is reason to believe that leakage was acceptable at all times.

CAUSE OF THE EVENT

Cause of the event was procedure inadequacy in that the procedure did not ensure that a proper method for detection of Fe-55 contamination was used.

ANALYSIS OF THE EVENT

The latest leakage test was performed by the manufacturer on February 3, 1992, and showed no contamination in excess of Technical Specification requirements. Therefore, there is reason to believe that leakage was acceptable at all times.

Failure to conduct a test of the required sensitivity is a violation of Technical Specification 4.11.B, and is therefore reportable pursuant to 10 CFR Part 50 Section 50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 526 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
92	003	003

Prairie Island Nuclear Gen Plant Unit 1 0 5 0 0 0 2 8 2 9 2 -- 0 0 3 -- 0 0 0 3 OF 0 3

TEXT (if more space is required, use additional NRC Form 366A's) (17)

CORRECTIVE ACTION

The test procedure will be revised before its next use to require the smear sample to be sent to a qualified contractor for counting.

FAILED COMPONENT IDENTIFICATION

None.

PREVIOUS SIMILAR EVENTS

No previous similar events have been reported at Prairie Island.