

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Prairie Island Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 8 2	PAGE (3) 1 OF 0 3
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TITLE (4)
Caustic Addition Standpipe Level Below Spec

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 NAMES		DOCKET NUMBER(S)
0 5	3	1 8 4	8 4	0 0 3	0 0	0 6	2 9	8 4			0 5 0 0 0
0 5 0 0 0											

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)									
POWER LEVEL (10) 1 1 0 1 0	20.402(b)	20.408(a)	80.73(a)(2)(iv)	73.71(b)						
	20.408(a)(1)(i)	80.36(a)(1)	80.73(a)(2)(v)	73.71(a)						
	20.408(a)(1)(ii)	80.36(a)(2)	80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 305A)						
	20.408(a)(1)(iii)	80.73(a)(2)(i)	80.73(a)(2)(vii)(A)							
	20.408(a)(1)(iv)	80.73(a)(2)(ii)	80.73(a)(2)(vii)(B)							
	20.408(a)(1)(v)	80.73(a)(2)(iii)	80.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME Arne A. Hunstad, Staff Engineer		AREA CODE 6 1 2	3 8 8 - 1 1 2 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	
B	B E	F L T	C 1 1 5	N						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO						

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

While recirculating the caustic addition standpipe for a monthly sample, a filter housing failed, causing a spill of the contents of the standpipe. A Design Change will be completed.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
					0 2	OF	0 3

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

While recirculating the caustic addition standpipe (TK), pressure surges from the stroke of the positive displacement recirculating pump (P) cause the high level alarm (ANN) to repeatedly sound. The High/Low Level alarm card is typically pulled to silence the nuisance alarm. At 2210 on May 31, while recirculating the caustic addition standpipe for a monthly sample, the level was observed to be at 46% which is below the Tech Spec limit of 97.25%. The leakage path was identified and at 2230 the leak was isolated. The final tank low level was 8%. At 2251, a load decrease was begun. At 0145 on June 1 refilling of the standpipe had begun and level was within spec again at 0435. The power reduction was then stopped and power increase begun.

An NUE had been declared and NRC notified at 2305 on May 31; the NUE was terminated at 0448 on June 1.

Cause of the leakage was failure of a filter (FLT) housing which is downstream of the positive displacement recirc pump. The filter housing is rated at lower pressure than the output of the recirc pump and overpressure protection was not provided.

During the course of this event the Caustic Addition Standpipe NaOH level was below its Technical Specification allowable volume for approximately 7½ hours. The minimum level reached in the standpipe was 38 percent. If an accident had occurred no sodium hydroxide would have been supplied to the containment spray pumps until the refueling water storage tank pumped down to 38 percent. The fission product scrubbing capability of the containment spray system would have been reduced by a factor of approximately 100 until 38% percent level was reached. A final containment sump pH of 7.75 would have been reached after the injection phase.

It is concluded that this event had no effect on the health and safety of the public because:

1. The containment sump pH would have met the design requirements in the FSAR. Potential possibilities of stress corrosion cracking did not exist.
2. Most absorbed iodine would have stayed in solution because the partition coefficient for NaOH solutions with a pH of 7.75 is approximately 900. If some iodine were to be released it would occur later in the transient at lower containment temperatures and pressures. The leakage would then be routed to the shield building PAC filters for iodine removal prior to release to the atmosphere.

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

3. The loss of level in the caustic standpipe had no effect on the containment pressure suppression characteristics of the containment spray system.
4. The analysis in the FSAR shows that 10CFR100 guidelines are not exceeded with or without taking credit for iodine removal.

At the time of the event a Design Change was in progress to replace the positive displacement recirc pump with a centrifugal pump; this modification will be completed and will include a new filter housing. The present filter has been removed from the caustic addition systems of both units.



Northern States Power Company

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Minneapolis, Minnesota 55401
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June 29, 1984

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

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket No. 50-282 License No. DPR-42

Caustic Addition Standpipe Level Below Spec

The License Event Report for this occurrence is attached.

This event was reported via Emergency Notification System per 10 CFR Part 72 on May 31, 1984.

Eugene Eckhoff

for David Musolf
Manager - Nuclear Support Services

DMM/EFE/dab

c: Regional Administrator-III, NRC
NRR Project Manager, NRC
Resident Inspector, NRC
MPCA
Attn: J W Ferman

Attachment

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