(7-77)

LICENSEE EVENT REPORT

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 | M N P I N 2 (2) | LICENSEE CODE | 0 0 - 0 0 0 0 0 - 0 0 (3) | LICENSE NUMBER | 4 1 1 1 1 (4) | LICENSE TYPE | CAT (5)

CON'T 01 | REPORT SOURCE L (6) | DOCKET NUMBER 0 5 0 0 0 3 0 6 (7) | EVENT DATE 0 7 2 5 8 2 (8) | REPORT DATE 0 8 2 4 8 2 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During startup operations, indicated flux difference of two excore channels

03 deviated from its target band for greater than 15 minutes above 90% power.

04 Tech Spec 3.10.B.5 applies. Last similar event was RO 81-13. No effect

05 on public health and safety. See Attachment

SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
R C (11)	A (12)	A (13)	Z Z Z Z Z Z (14)	Z (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 2	—	0 1 4	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
X (18)	X (19)	B (20)	Z (21)	0 0 2 4	Y (23)	N (24)	Z (25)	Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Personnel error. See attachment

FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
F (28)	0 9 0 (29)	NA	A (31)	Operator observation

ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION (39)
0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

NUMBER	DESCRIPTION (41)
0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

TYPE	DESCRIPTION
Z (42)	NA

8209020514 820824
PDR ADOCK 05000306
S PDR

PUBLICITY

ISSUED	DESCRIPTION (45)
N (44)	NA

NRC USE ONLY

NAME OF PREPARER A. A. Hunstad PHONE: 612-388-1121

August 24, 1982
Attachment (Page 1 of 2)

NORTHERN STATES POWER COMPANY
PRAIRIE ISLAND NUCLEAR GENERATING PLANT Docket No. 50-306

LER 82-014/03L-0

Detailed Description of Event

During the Unit 2, Cycle 6-7 refueling outage excore detectors 2-N43 and 2-N44 were replaced. For the subsequent Cycle 7 startup a target ΔI band of + 2.0 ± 5% was established. Following Zero Power Physics Tests, Unit 2 was initially put on line at approximately 0300 on July 18, 1982. In accordance with the fuel preconditioning program, power was slowly escalated to 100% power which was reached at 0100 on July 22, 1982. A full power equilibrium flux map and target ΔI determination was made at 1300 on July 23, 1982. At this time the four ΔI channels read - 0.8% (N41), 0.0% (N42), + 3.0% (N43), and + 2.1% (N44) for an average of 1.08%. The results of the flux map showed an average incore axial offset of 1.06%. After the fuel had been preconditioned for 72 hours at 100% power, power was reduced to approximately 50% power at 0500 on July 25, 1982 in order to conduct inspections on 21 Feedwater Pump. Following the feedwater pump inspections, power was raised to 89% power and SP 1006A - Axial Offset Calibration was performed between 0932 and 1832 on July 25, 1982. Between 1832 and 1930 power was increased to 100% power. At 2300 the operator discovered that two channels of ΔI were outside the 2.0 ± 5% target band high although the average of the four channels was within the target band. ΔI on the two deviating channels (2-N43 and 2-N44) were returned to the band at 2300 and power was reduced to less than 50% power and the high flux power range trip was reduced to < 55%. Prior to starting the load increase at 2235 on July 26, 1982, SP 1006B -NIS Power Range Axial Offset Calibration was performed to calibrate the ΔI channels.

Cause of Occurrence and Corrective Action

The operator was controlling ΔI using the average of four channels within the target band. With 2-N43 and 2-N44 indicating 1 to 2% above the average they remained outside the target band upon the completion of SP 1006A when power was increased above 90%.

In order to maximize fuel integrity the initial axial offset calibration of a reload cycle has been delayed until the fuel is fully preconditioned. 2-N43 and 2-N44 had been replaced during the refueling outage, the ΔI channels corresponding to 2-N43 and 2-N44 were reading high by 1 to 2%. As a result of the load reduction prior to the axial offset calibration, a Xenon distribution was produced in the core which forced ΔI towards the top of the band at the completion of SP 1006A. The combination of these factors helped lead to the occurrence.

As verified by incore flux mapping and the axial offset calibration 2-N43 and 2-N44 were indicating high in ΔI and since the average of the four channels was within the target band limit the significance of this occurrence is small.

Involved personnel will review this report. Changes to the startup program are being studied which would allow normalization of the ΔI channels at part power based on incore flux mapping.