

LICENSEE EVENT REPORT

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

0	1	C	O	F	S	V	I	1	2	0	0	-	0	0	0	0	0	-	0	0	3	4	1	1	2	0	4	L	5
LICENSEE CODE								LICENSE NUMBER												LICENSE TYPE				CAT 58					

CON'T

0	1	L	6	0	5	0	0	0	2	6	7	7	0	8	0	7	8	1	8	0	6	0	6	8	3	9
REPORT SOURCE				DOCKET NUMBER								EVENT DATE					REPORT DATE									

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During August testing, one of the twelve helium circulator seal malfunction pressure

0 3 differential switch units was discovered to have a trip point outside the limits of

0 4 LCO 4.4.1, Table 4.4-3. This is reportable per Fort St. Vrain Technical Specifici-

0 5 cations AC 7.5.2(b)1 and AC 7.5.2(b)2. No affect on public health or safety. Redun-

0 6 dant systems available and operable. Similar reports are RO's 77-47, 78-27, 79-32,

0 7 79-56, 80-07, 80-16, 80-20, 80-26, 80-34, 80-41, 80-51, 80-72, 81-006, 81-016, and

0 8 81-024.

0	9	C	B	11	E	12	E	13	I	N	S	T	R	U	14	S	15	Z	16			
SYSTEM CODE			CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE					COMP. SUBCODE		VALVE SUBCODE								
1	7	8	1	8	1	0	4	7	0	3	X	1	1									
LER/RO REPORT NUMBER				EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.										
X	18	X	19	Z	20	Z	21	0	0	0	0	Y	23	Y	24	N	25	B	0	8	0	26
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER						

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 ITT Barton Model 289 pressure differential switch failed to actuate at trip point due

1 1 to dirt accumulation in electrical switch. The ITT Barton pressure differential indi-

1 2 cating switches were replaced with ITT Barton Model 752 pressure transmitters and bi-

1 3 stable trip modules (Model PT-3D, manufactured by General Atomic Company) via Change

1 4 Notice 1110. No further corrective actions are anticipated or required.

1	5	E	28	0	7	0	29	N/A	30	C	31	O	p	e	r	a	b	i	l	i	t	y	T	e	32	
FACILITY STATUS				% POWER				OTHER STATUS		METHOD OF DISCOVERY														DISCOVERY DESCRIPTION		

1	6	Z	33	Z	34	N/A	35	N/A	36						
ACTIVITY CONTENT				RELEAS. OF RELEASE				AMOUNT OF ACTIVITY				LOCATION OF RELEASE			

1	7	0	0	0	37	Z	38	N/A	39
PERSONNEL EXPOSURES NUMBER			TYPE		DESCRIPTION				

1	8	0	0	0	40	N/A	41
PERSONNEL INJURIES NUMBER			DESCRIPTION				

8306280313 830606
PDR ADOCK 05000267
S PDR

1	9	Z	42	N/A	43
LOSS OF OR DAMAGE TO FACILITY TYPE		DESCRIPTION			

2	0	N	44	N/A	45
ISSUED DESCRIPTION		PUBLCITY			

NRC USE ONLY

NAME OF PREPARER *[Signature]*

PHONE: (303) 785-2224

REPORT DATE: June 6, 1983

REPORTABLE OCCURRENCE 81-047

OCCURRENCE DATE: August 7, 1981

ISSUE 1

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FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO
16805 WELD COUNTY ROAD 19 1/2
PLATTEVILLE, COLORADO 80651-9298

REPORT NO. 50-267/81-047/03-X-1

Final

IDENTIFICATION OF
OCCURRENCE:

During the August performance of the monthly check of the helium circulator seal malfunction pressure differential switches, it was discovered that one of the twelve switch units tripped outside the limits specified in LCO 4.4.1, Table 4.4-3.

This is reportable per Fort St. Vrain Technical Specifications AC 7.5.2(b)1 and AC 7.5.2(b)2.

EVENT
DESCRIPTION:

On August 7, 1981, while operating at 69% thermal power and 220 MWe electrical, instrument personnel performed the circulator seal malfunction (buffer-mid-buffer) switch operability check. The switches are normally calibrated on an annual basis; however, due to the problems cited in the previous reports as listed on the LER, a check of buffer-mid-buffer trip settings on a monthly basis was undertaken as an interim measure to test operability.

There are twelve buffer-mid-buffer switch units, three per circulator. Each switch unit contains two electrical switches. The range of the sensing element is from (-) 100 inches of water to zero to (+) 100 inches of water. One of the electrical switches in each unit must operate at greater than or equal to (-) 10 inches water (negative buffer-mid-buffer), and the other electrical switch must operate at less than or equal to (+) 80 inches of water (positive buffer-mid-buffer) per Table 4.4-3.

The trip settings for the twelve switches are listed in Table 1.

The switch setting, which was found to be less conservative than those established by the Technical Specification, did not prevent the fulfillment of the functional requirements of the system.

CAUSE
DESCRIPTION:

Dirt buildup and accumulation in the electrical switches prevented them from making proper contact.

CORRECTIVE
ACTION:

The trip setting of the electrical switch was re-adjusted to the proper trip point and the test satisfactorily completed.

Due to the continuing problems being experienced with the electrical switches, the interim check of the trip settings was conducted on a monthly basis.

The problem was investigated, and the process activated pressure differential switches were replaced with pressure differential transmitters and solid state dual bistable trip modules. The new units eliminate the use of electrical contacts and, therefore, reduce the probability of fouling by dirt and/or corrosion from the working environment. This modification was performed via Public Service Company Change Notice 1110.

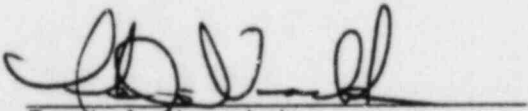
No further corrective actions are anticipated or required.

TABLE 1

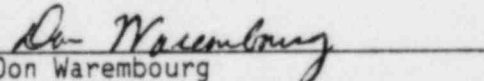
		As Found Inches H ₂ O		As Left Inches H ₂ O	
		Increasing Trip Point	Decreasing Trip Point	Increasing Trip Point	Decreasing Trip Point
1A Circulator	PDIS-21149	+76	- 5	+76	-5
	PDIS-21151	+76	- 7	+76	-7
	PDIS-21153	+77	- 8	+77	-8
1B Circulator	PDIS-21155	+74	- 4	+74	-4
	PDIS-21157	+72	-15 ①	+72	-9
	PDIS-21159	+77	- 4	+77	-4
1C Circulator	PDIS-21150	+75	- 8	+75	-8
	PDIS-21152	+73	- 9	+73	-9
	PDIS-21154	+75	- 4	+75	-4
1D Circulator	PDIS-21156	+74	- 3	+74	-3
	PDIS-21158	+73	- 8	+73	-8
	PDIS-21160	+74	- 6	+74	-6

① Denotes switch which was out of tolerance.

Prepared By: 
Robert A. Dickerson
Senior Technical Services Technician

Reviewed By: 
Frank J. Novachek
Technical Services Engineering Supervisor

Reviewed By: 
L. M. McBride
Station Manager

Approved By: 
Don Warembourg
Manager, Nuclear Production