

LICENSEE EVENT REPORT

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

01	C	U	F	S	V	1	2	0	0	-	0	0	0	0	0	0	0	0	0	3	4	1	1	2	0	4	5
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
LICENSEE CODE														LICENSE NUMBER						LICENSE TYPE				CAT 58			

01	L	6	0	5	0	0	0	2	6	7	7	1	0	3	0	7	9	8	0	6	0	6	8	3	9	
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
REPORT SOURCE											DOCKET NUMBER						EVENT DATE				REPORT DATE					

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During testing, it was discovered that seven of twelve helium circulator seal mal-

03 function pressure differential switch units tripped outside the limits of LCO 4.4.1,

04 Table 4.4-3. Reportable per Technical Specifications AC 7.5.2(b)1 and AC 7.5.2(b)2.

05 No affect on public health or safety. Redundant system available and operable.

06 Similar reports are RO's 77-47, 78-27, and 79-32.

07

08

09	C	B	11	E	12	E	13	I	N	S	T	R	U	14	S	15	Z	16
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
SYSTEM CODE			CAUSE CODE			CAUSE SUBCODE			COMPONENT CODE					COMP. SUBCODE		VALVE SUBCODE		
17	7	9	—	0	5	6	—	0	3	X	—	1						
LER/RO REPORT NUMBER		EVENT YEAR		SEQUENTIAL REPORT NO.		SHUTDOWN METHOD		OCCURRENCE CODE		REPORT TYPE		REVISION NO.						
X	X	Z	Z	0	0	0	0	0	0	Y	Y	N	B	0	8	0		
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER		

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 ITT Barton Model 289 pressure differential switches failed to actuate at trip point

11 due to dirt accumulation in electrical switches. The ITT Barton pressure differential

12 indicating switches were replaced with ITT Barton Model 752 pressure transmitters and

13 bistable trip modules (Model PT-3D, Manufactured by General Atomic Company) via

14 Change Notice 1110. No further corrective action is anticipated or required.

15	G	28	0	0	0	29	N/A	30	B	31	Surveillance Test	32	
7	8	9	10	11	12	13	14	15	16	17	18	19	
FACILITY STATUS			% POWER			OTHER STATUS			METHOD OF DISCOVERY		DISCOVERY DESCRIPTION		
16	Z	33	Z	34	N/A	35	N/A	36	N/A	37	N/A	38	
ACTIVITY CONTENT		RELEASED OF RELEASE		AMOUNT OF ACTIVITY				LOCATION OF RELEASE					
17	0	0	0	37	Z	38	N/A	39					
PERSONNEL EXPOSURES			PERSONNEL INJURIES			LOSS OF OR DAMAGE TO FACILITY							
18	0	0	0	40	N/A	41	N/A	42	N/A	43	N/A		
NUMBER		TYPE		DESCRIPTION		NUMBER		DESCRIPTION		TYPE		DESCRIPTION	
19	Z	42	N/A	43	N/A	44	N/A	45	N/A	46	N/A	47	
PUBLICITY		ISSUED		DESCRIPTION		PUBLICITY		ISSUED		DESCRIPTION			

8306280246 830606
PDR ADOCK 05000026
S PDR

20	N	44	N/A	45	N/A
7	8	9	10	11	12
PUBLICITY			ISSUED		
NAME OF PREPARER			PHONE:		

(303) 785-2224

REPORT DATE: June 6, 1983

REPORTABLE OCCURRENCE 79-56

ISSUE 1

OCCURRENCE DATE: October 30, 1979

Page 1 of 4

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

REPORT NO. 50-267/79-56/03-X-1

Final

IDENTIFICATION OF
OCCURRENCE:

During performance of the monthly check of the helium circulator seal malfunction pressure differential switches, it was discovered that seven of 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:

While the reactor was in a shutdown condition, instrument personnel performed the circulator seal malfunction (buffer-mid-buffer) switch operability check. The switches were calibrated and tested under Surveillance Test SR 5.4.1.3.6.c-K. Due to the problems cited in Reportable Occurrence Report No. 50-267/78-27, a check of buffer-mid-buffer switch 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 water (positive buffer-mid-buffer) per Table 4.4-3.

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

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

CAUSE
DESCRIPTION:

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

CORRECTIVE
ACTION:

The switches were cleaned, and the trip settings of the electrical switches were re-adjusted to the proper trip points.

The Surveillance Test was successfully 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.

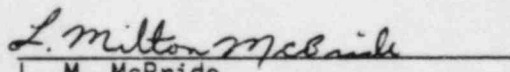
TABLE 1

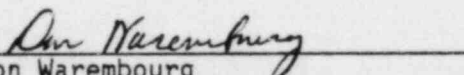
		As Found Inches H ₂ O		As Left Inches H ₂ O	
		Increasing Trip Point	Decreasing Trip Point	Increasing Trip Point	Decreasing Trip Point
1A Circulator	PDIS-21149	75	-26 (1)	75	-7
	PDIS-21151	85 (1)	-17 (1)	75	-6
	PDIS-21153	77	-26 (1)	77	-6
1B Circulator	PDIS-21155	76	-15 (1)	76	-6
	PDIS-21157	80	-30 (1)	76	-6.2
	PDIS-21159	80	- 6	75	-6
1C Circulator	PDIS-21150	80	- 9.4	75.8	-6.8
	PDIS-21152	81.6 (1)	-12 (1)	74.4	-5.9
	PDIS-21154	82.8 (1)	- 8.4	75.5	-7.0
1D Circulator	PDIS-21156	76.5	- 4.6	76.5	-5.5
	PDIS-21158	77.3	- 4.7	74.7	-6.8
	PDIS-21160	76.5	- 3.5	76.5	-6.8

(1) Indicates switches out of tolerance.

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