

LICENSEE EVENT REPORT

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

01 | C | O | F | S | V | I | 1 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 2 | 0 | 4 | \_\_\_\_\_ | 5  
7 8 9 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T  
01 | L | 6 | 0 | 5 | 0 | 0 | 0 | 2 | 6 | 7 | 7 | 0 | 2 | 1 | 3 | 8 | 1 | 8 | 0 | 6 | 0 | 6 | 8 | 3 | 9  
7 8 REPORT SOURCE 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)  
02 | During February testing, three of the twelve helium circulator seal malfunction pres-  
03 | sure differential switch units were discovered to have a trip point outside the limits  
04 | of LCO 4.4.1, Table 4.4-3. These are reportable per Fort St. Vrain Technical Specifi-  
05 | cations AC 7.5.2(b)1 and AC 7.5.2(b)2. No affect on public health or safety. Redun-  
06 | dant systems available and operable. Similar reports are RO's 77-47, 78-27, 79-32,  
07 | 79-56, 80-07, 80-16, 80-20, 80-26, 80-34, 80-41, 80-51, 80-72, and 81-006.

09 | SYSTEM CODE: C B 11 | CAUSE CODE: E 12 | CAUSE SUBCODE: E 13 | COMPONENT CODE: I N S T R U 14 | COMP. SUBCODE: S 15 | VALVE SUBCODE: Z 16  
17 | LER/RO REPORT NUMBER: 81 | SEQUENTIAL REPORT NO.: 016 | OCCURRENCE CODE: 03 | REPORT TYPE: X | REVISION NO.: 1  
ACTION TAKEN: X 18 | FUTURE ACTION: X 19 | EFFECT ON PLANT: Z 20 | SHUTDOWN METHOD: Z 21 | HOURS: 0000 22 | ATTACHMENT SUBMITTED: Y 23 | NPRD-4 FORM SUB.: Y 24 | PRIME COMP. SUPPLIER: N 25 | COMPONENT MANUFACTURER: B O 8 0 26

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 and differ-  
12 | ential indicating switches were replaced with ITT Barton Model 752 pressure transmit-  
13 | ters and bistable trip modules (Model PT-3D, manufactured by General Atomic Company)  
14 | via Change Notice 1110. No further corrective action is anticipated or required.

15 | FACILITY STATUS: E 28 | % POWER: 069 29 | OTHER STATUS: N/A 30 | METHOD OF DISCOVERY: C 31 | DISCOVERY DESCRIPTION: Operability Test 32

16 | ACTIVITY RELEASED: Z 33 | CONTENT OF RELEASE: Z 34 | AMOUNT OF ACTIVITY: N/A 35 | LOCATION OF RELEASE: N/A 36

17 | PERSONNEL EXPOSURES: NUMBER: 000 37 | TYPE: Z 38 | DESCRIPTION: N/A 39

18 | PERSONNEL INJURIES: NUMBER: 000 40 | DESCRIPTION: N/A 41  
8306280302 830606  
PDR ADOCK 05000267  
S PDR

19 | LOSS OF OR DAMAGE TO FACILITY: TYPE: Z 42 | DESCRIPTION: N/A 43

20 | PUBLICITY ISSUED: N 44 | DESCRIPTION: N/A 45

NAME OF PREPARER: *[Signature]* PHONE: (303) 785-2224  
NRC USE ONLY  
GPO 917-926

REPORT DATE: June 6, 1983

REPORTABLE OCCURRENCE 81-016

OCCURRENCE DATE: February 13, 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. 50-267/81-016/03-X-1

Final

IDENTIFICATION OF  
OCCURRENCE:

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

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

EVENT  
DESCRIPTION:

During normal power operation, 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 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.

CAUSE  
DESCRIPTION:

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

CORRECTIVE  
ACTION:

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

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

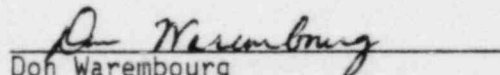
		As Found Inches H <sub>2</sub> O		As Left Inches H <sub>2</sub> O	
		Increasing Trip Point	Decreasing Trip Point	Increasing Trip Point	Decreasing Trip Point
1A Circulator	PDIS-21149	+75	- 5	+75	-5
	PDIS-21151	+77	- 9	+77	-9
	PDIS-21153	+75	- 4	+75	-4
1B Circulator	PDIS-21155	+72	- 6	+72	-6
	PDIS-21157	+70	-20 ①	+73	-4
	PDIS-21159	+76	- 3	+76	-3
1C Circulator	PDIS-21150	+74	-25 ①	+74	-3
	PDIS-21152	+76	-20 ①	+76	-5
	PDIS-21154	+78	- 4	+78	-4
1D Circulator	PDIS-21156	+73	- 3	+73	-3
	PDIS-21158	+74	- 3	+74	-3
	PDIS-21160	+75	- 5	+75	-5

① Denotes switches which were 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