



REPORT DATE: May 15, 1980

REPORTABLE OCCURRENCE 80-20

OCCURRENCE DATE: April 18, 1980

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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

REPORT NO. 50-267/80-20/03-L-0

Final

IDENTIFICATION OF  
OCCURRENCE:

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

Since reactor operation had taken place during the test interval, this is reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)1 and AC 7.5.2(b)2.

EVENT  
DESCRIPTION:

During normal plant 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 has been 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 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 is being conducted on a monthly basis.

The investigation of the problem associated with the helium circulator seal malfunction trip switches has been completed, and Public Service Company Nuclear Project Department is proceeding on a path to replace the existing equipment.

No further corrective action is 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
LA Circulator	PDIS-21149	+77	-5	+77	-5
	PDIS-21151	+74	-7	+74	-7
	PDIS-21153	+75	-5	+75	-5
LB Circulator	PDIS-21155	+77	-5	+77	-5
	PDIS-21157	+90 (1)	-7	+73	-7
	PDIS-21159	+73	-9	+73	-9
LC Circulator	PDIS-21150	+76	-7	+76	-7
	PDIS-21152	+82 (1)	-21 (1)	+74	-7
	PDIS-21154	+76	-5	+76	-5
LD Circulator	PDIS-21156	+74	-8	+74	-8
	PDIS-21158	+77	-5	+77	-5
	PDIS-21160	+75	-5	+75	-5

(1) Denotes switches which were out of tolerance.

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