Public Service Company of Colorado

16805 ROAD 19½
PLATTEVILLE, COLORADO 80651

March 19, 1981
Fort St. Vrain
Unit No. 1
P-81099

Mr. Karl V. Seyfrit, Director
Nuclear Regulatory Commission
Region IV
Office of Inspection and Enforcement
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76012

Reference: Facility Operating License
No. DPR-34

Docket No. 50-267

Dear Mr. Seyfrit:

Enclosed please find a copy of Reportable Occurrence Report No. 50-267/81-019, Final, submitted per the requirements of Technical Specification AC 7.5.2(b)2.

Also, please find enclosed one copy of the Licensee Event Report for Reportable Occurrence Report No. 50-267/81-019.

Very truly yours,

Don Warembourg
Manager, Nuclear Production

DW/cls

Enclosure

cc: Director, MIPC

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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. 50-267/81-019/03-L-0

Final

IDENTIFICATION OF OCCURRENCE:

On two separate occasions, the emergency feedwater supply to Loop 1 helium circulators was isolated. These events constitute operation in a degraded mode allowed by LCO 4.2.2.a) and are reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

EVENT DESCRIPTION:

On February 20, 1981, and again on February 25, 1981, erratic operation of PV-21243 necessitated isolation of emergency feedwater to Loop 1 helium circulator water turbine drives to repair PV-21243-1. Fort St. Vrain Technical Specification LCO 4.2.2 specifies the conditions which must be met for circulator operability. Item a) of LCO 4.2.2 specifies that a supply of emergency feedwater be available to drive the circulator water turbines, and further, allows for isolation of the emergency feedwater supply for up to 24 hours without the affected circulators being considered inoperable.

Refer to Figure 1 for simplified diagram of this system. A pressure control system is provided to control emergency feedwater flow to each of the circulator pelton wheel supply headers (A) and (B) under flow and no-flow conditions. Under flow conditions, PV-21243 (1) controls supply header pressure. Under no-flow conditions, PV-21243-1 (3) is provided to relieve excess header pressure to the turbine water drain tank in the event PV-21243 leaks through. In both of these events, PV-21243-1 was allowing too much pressure to be bled off the header, thereby, causing PV-21243 to cycle erratically. This would not, in itself, render the emergency feedwater to Loop 1 circulators inoperable.

Event 1

On February 20 at 1130 hours, with the plant operating at 69% thermal power, emergency feedwater was isolated ahead of PV-21243 (5) to lengthen the valve stroke on PV-21243-1. Emergency feedwater was restored by 1300 hours on February 20 within the 24 hours allowed by LCO 4.2.2.a), thus restoring the requirements for circulator operability. Lengthening the valve stroke slowed, but did not stop, PV-21243-1 excess leakage.

EVENT
DESCRIPTION: (Cont'd)

Event 2

On February 25 at 0800 hours, with the plant operating at 69% thermal power, emergency feedwater was isolated ahead of PV-21243 (5) to remove PV-21243-1. The valve was repaired and re-installed. Emergency feedwater was restored at 1730 hours on February 25 within the 24 hours allowed by LCO 4.2.2.a), thus restoring the requirements for circulator operability.

Had it been necessary during either of the periods that emergency feedwater was isolated, the affected helium circulators could have been operated on water turbine drive at reduced speed utilizing a water supply from the emergency condensate or firewater systems.

CAUSE
DESCRIPTION:

In both events, excess flow through PV-21243-1 caused erratic cycling of PV-21243, necessitating manual isolation of emergency feedwater to Loop 1 circulators to effect repairs.

CORRECTIVE
ACTION:

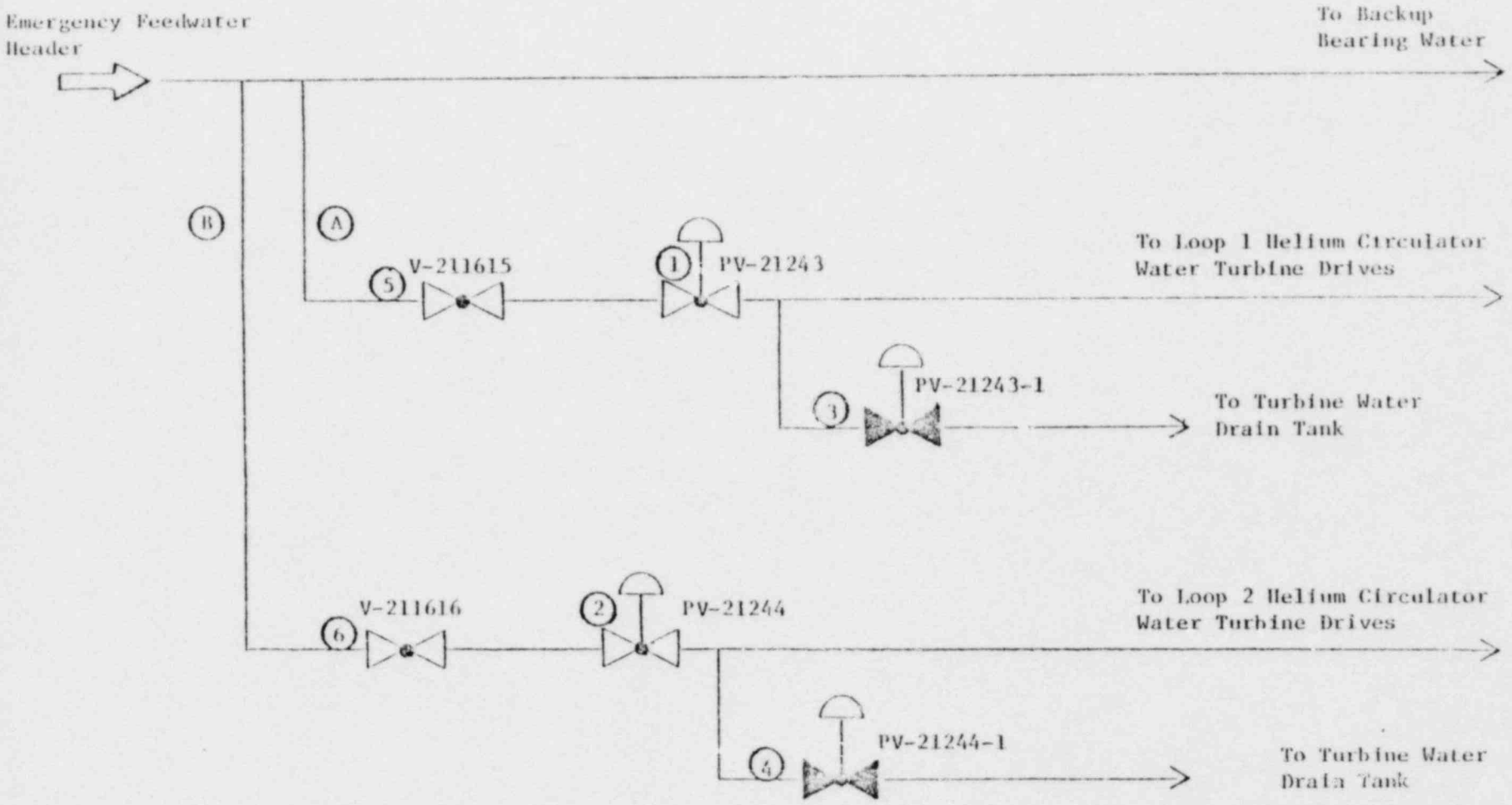
Event 1

PV-21243-1 valve stroke was lengthened and the system returned to service.

Event 2

PV-21243-1 was removed for repair. The valve seat and stem were replaced, the valve re-installed, and the system returned to service.

No further corrective action is anticipated or required.



Emergency Feedwater Pressure Control

FIGURE 1

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