



Public Service Company of Colorado

16805 ROAD 19½
PLATTEVILLE, COLORADO 80651

June 3, 1981
Fort St. Vrain
Unit No. 1
P-81158



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. 50-267/81-034, Preliminary, 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. 50-267/81-034.

Very truly yours,

Don Warembourg
Don Warembourg
Manager, Nuclear Production

DW/clh

Enclosure

cc: Director, MIPC

IE22
S11

REPORT DATE: June 3, 1981

REPORTABLE OCCURRENCE 1-034

OCCURRENCE DATE: May 4, 1981

ISSUE 0

Page 1 of 5

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

REPORT NO. 50-267/81-034/03-L-0

Final

IDENTIFICATION OF
OCCURRENCE:

On Monday, May 4, 1981, at 0840 hours, it was determined that equipment necessary to automatically terminate releases from the Fort St. Vrain liquid waste system and the Reactor Building sump was not operating properly. This constitutes operation in a degraded mode of LCO 4.8.2 and LCO 4.8.3 and is reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

EVENT
DESCRIPTION:

Refer to Figure 1. Effluents from the Reactor Building sump (A) and the liquid waste system (B) are discharged to a common line (C) leading to the Goosequill Ditch (D). Circulating water blowdown (E) is admitted for dilution purposes prior to the effluent reaching the Goosequill Ditch. Radiation monitors RIS-6212 and RIS-6213 (1 and 2) in the common discharge line alarm at preset values on high activity in effluent discharged from either the Reactor Building sump or the liquid waste system and provide a signal to trip the liquid waste transfer pumps (3), close HV-6212 (4), and if the release is from the Reactor Building sump, close HV-7204-2 (5), thus terminating the release.

Circulating water blowdown (dilution) flow is monitored by flow switch FSL-4101 (6) and at a preset value of low blowdown (dilution) flow provides a signal to close HV-6212 (4) and trip the liquid waste transfer pumps (3) and Reactor Building sump pumps (7a).

Radioactive liquid waste release number 455 was started at 1745 hours on April 29, 1981, and terminated at 2200 hours on April 29, 1981. The recommended release rate was 10 gpm, and the recommended circulating water blowdown (dilution) rate was 1100 gpm. Prior to initiating the release, Operations personnel, per Surveillance Requirement SR 5.8.2bc-M, adjusted the circulating water blowdown (dilution) rate to approximately 1300 gpm, and then throttled down the dilution flow using flow controller FC-4101 until the dilution flow rate went below the recommended value. The automatic control system described earlier responded properly, and the release was

begun upon completion of the surveillance. The circulating water blowdown (dilution) flow rate as indicated on flow recorder FR-4101, was 1310 gpm at the start of the release.

At approximately 2145 hours on April 29, 1981, Operations personnel discovered that the results of a routine sample of the Goosequill Ditch taken during the release indicated conductivity of 2970 μ mhos. Although not in excess of Technical Specification limits, this higher than expected value indicated a problem with the circulating water blowdown system. A check of flow recorder FR-4101 indicated blowdown flow in agreement with the recommended rate, and the release was allowed to finish.

Following completion of the release, Operations personnel verified the proper positioning of blowdown valves and completed the post-release flush per Surveillance Requirement SR 5.8.2bc-M. After completing the flush, Operations personnel closed flow control valve FCV-4101 and verified that flow recorder FR-4101 read 0 gpm. Upon reopening and reclosing FCV-4101, the indication on FR-4101 remained at 1000 gpm. Operations personnel closed the circulating water manual blowdown valves and verified that no blowdown flow existed. FR-4101 still indicated 1000 gpm. At this point, Operations personnel manually adjusted the blowdown valves to positions which would result in approximately 1700 gpm blowdown flow, based on past experience with the system. FR-4101 indicated 1700 gpm at this time.

Subsequent analysis of circulating water blowdown flow integrator FI-4101 indicated an average blowdown (dilution) flow rate of 1450 gpm during liquid waste release number 455, but since indication for FI-4101 comes from the same flow element as does indication for FR-4101, the average is suspect.

Radiochemical analysis of the liquid waste system contents prior to release indicated a ^3H concentration of $6.84\text{E}-3 \mu\text{Ci/ml}$. The results of a routine sample taken during liquid waste release number 455 indicated a ^3H concentration of $4.77\text{E}-5 \mu\text{Ci/ml}$. The average release rate as indicated by flow recorder FR-6215 for release number 455 was 8.2 gpm. The calculated average dilution (blowdown) flow rate based on these sample results was 1175 gpm.

Based on the above analysis and the prompt investigation by Operations personnel, it is concluded that neither LCO 4.8.2 (radiological) nor LCO NR 1.1 (chemical) limits were exceeded during liquid waste release number 455. However, it cannot be ensured that the automatic control system required by LCO 4.8.2(d) was operable during the release.

CAUSE
DESCRIPTION:

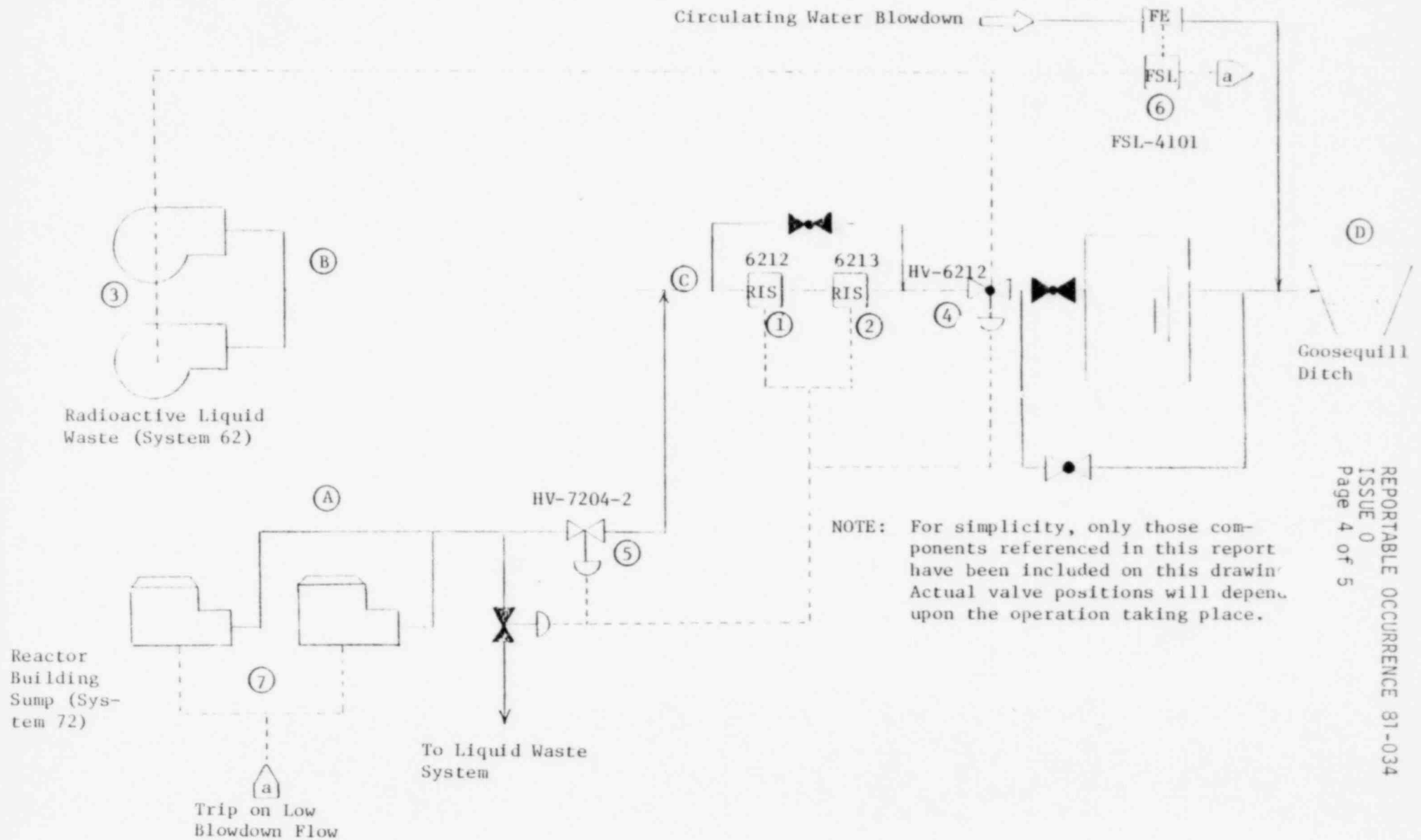
Examination of flow transmitter FT-4101 indicated that both sense lines on the associated flow element were partially plugged. This resulted in the erratic readings on flow recorder FR-4101 and flow integrator FI-4101.

CORRECTIVE
ACTION:

Plant Trouble Report 4-385 was issued on April 29, 1981, indicating the faulty operation on flow controller FC-4101. Plant personnel discovered the partially plugged sense lines and blew out the lines on April 30, 1981. Subsequent testing indicated proper operation of the flow element and auxiliary equipment.

No further corrective action is anticipated or required.

FIGURE 1



Prepared By: Frederick J. Borst
Frederick J. Borst
Senior Plant Engineer

Reviewed By: J. W. Gahn
J. W. Gahn
Technical Services Supervisor

Reviewed By: Frank M. Mathie
Frank M. Mathie
Operations Manager

Approved By: Don Warembourg / dm
Don Warembourg
Manager, Nuclear Production