NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	1 OF 0 4

TITLE (4) Continuous Sampler Inoperable During Greater Than 10 GPM Release

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 9	2 5	8 4	8 4	0 1 0	0 0	1 0	2 5	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): N

POWER LEVEL (10): 0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(a)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	XX 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Jim Eggebroten, Technical Services Engineering Supervisor	AREA CODE 3 0 3 7 8 5 - 2 2 2 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

☐ YES (If yes, complete EXPECTED SUBMISSION DATE) ☐ NO

EXPECTED SUBMISSION DATE (15): MONTH | DAY | YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On September 25, 1984, with the reactor shutdown for control rod drive work, portions of a >10 gpm liquid effluent release from the reactor building sump were made without the continuous sampler in service.

Since Fort St. Vrain Technical Specification ELCO 8.1.3(b) prohibits such a release without the continuous sampler in service, this event is being reported per 10 CFR 50.73(a)(2)(i).

The continuous sampler was placed in service immediately after being discovered out of service.

The health physics technician who failed to place the sampler in service will receive specialized training with respect to the Fort St. Vrain Technical Specifications.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	8 4	— 0 1 0	--- 0 0	0 2 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

EVENT DESCRIPTION:

On September 25, 1984, two grab samples were collected from the reactor building sump and analyzed per ELCO 8.1.2(b) to determine the concentration of radionuclides in the sump effluent. The results of this analysis were used to calculate the rate of liquid release and blowdown flow which would be necessary to assure the limits of Table II, Column 2, of Appendix B to 10 CFR 20 were not exceeded. The samples showed activity concentrations well within specified limits and a >10 gallon per minute (gpm) release could be performed with a minimum of 1100 gpm blowdown flow. Release rate calculations were verified by Health Physics and delivered to the shift supervisor at approximately 1400 hours on September 25, 1984. At that time (1400 hours), liquid waste release #829 was in progress. The >10 gpm release from the sump could not be started since ELCO 8.1.3(c) prohibits effluent discharge from the reactor building sump to occur simultaneously with discharge from the liquid waste holdup system. Liquid waste release #829 was completed on September 25, 1984 at 1620 hours and the shift supervisor notified health physics personnel that preparations were being made to begin the >10 gpm sump release. At 2035 hours, the >10 gpm sump release was started after operations personnel completed and verified proper release valve lineup. However, due to an oversight, the shift health physics technician failed to place the continuous sampler in service. This continuous sampler collects liquid in a stainless steel fifty-five gallon drum during the release. When the drum is full, a sample of its contents is collected for analysis and the drum drain valve is opened to drain the liquid. When draining is complete, the drain valve is closed to allow another sample of a release to be collected and stored for sampling. If this drain valve is not closed, the sample flow into the drum will not be collected for sampling, and the continuous sampler is considered inoperable.

At the 2400 hour shift change, the on-shift health physics technician did not indicate to his replacement that the >10 gpm sump release was in progress, so operation of the continuous sampler was not verified during the 2330 to 0800 shift. The day shift health physics technician discovered the sampler was not in service with a >10 gpm release in progress on September 26, 1984 at approximately 0730 hours, and the sampler was placed in service at that time. A representative sample from the drum was collected on September 26, 1984 at 1045 hours. The drum was drained and returned to service. Another sample was collected on September 27, 1984 at 0100 hours. However, after collecting the sample and draining the drum, the drain valve was left open, making the sampler inoperable.

A final sample was collected on September 27, 1984 at 1125 hours following completion of the release.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	8 4	— 0 1 0	— 0 0	0 3 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

ANALYSIS OF EVENT:

Liquid effluent discharges from the reactor building sump are pumped through the liquid waste disposal system line to the cooling tower blowdown line, where the effluent is diluted by pre-set blowdown flow prior to being released to the surrounding surface water. During a >10 gpm effluent release from the reactor building sump, a portion of the discharge flows through radiation monitors RT-6212 and RT-6213. Either monitor is capable of terminating a release if high gamma activity is detected in the discharge effluent by closing HV-6212 and HV-62249. Flow through these monitors is verified at the beginning of a >10 gpm sump release by visual inspection of the in-line rotometer. This verification is required and was performed on September 25, 1984 at 2038 hours. A release will also be automatically terminated if blowdown flow drops below the pre-established minimumm flow.

All samples collected both prior to and during the release were analyzed per ELCO 8.1.2(b). Analysis results confirmed that the concentration of radionuclides in the reactor building sump effluent was well within the limits specified in 10 CFR 20.

Based on the above analysis, there was no effect on the health and safety of the public.

CAUSE DESCRIPTION:

Personnel Error.

Prior to starting the >10 gpm release from the reactor building sump, the shift supervisor notified the shift health physics technician that preparations were being made to begin the release. Normally, health physics personnel will make the necessary valve manipulations required to place the continuous sampler in service prior to the release. However, the sampler was not placed in service as required, and the >10 gpm sump release was in violation of ELCO 8.1.3(b).

On September 27, 1984, at 0100 hours, a representative sample of the sampler drum contents was collected. However, after the drum had been drained, the shift health physics technician failed to close the drain valve. With the drain valve open, the sampler did not collect the effluent flow into the drum and is considered to have been out of service during the time this drain valve remained open.

CORRECTIVE ACTION:

Upon discovering the continuous sampler had not been "valved in", health physics personnel took corrective action and placed the sampler in service.

The health physics personnel involved with the incident have been assigned the task of writing and grading an examination on the requirements established in the Fort St. Vrain Technical Specifications. The exam will be issued to all health physics technicians and satisfactory completion is required.

No further corrective action is required or anticipated.

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Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	8 4	— 0 1 0	— 0 0	0 4 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Jim Hill
Technical Services Technician

Jim Eggebroten
Technical Services Engineering Supervisor

Frederick J. Borst
Support Services Manager

J. W. Gahm
Manager, Nuclear Production

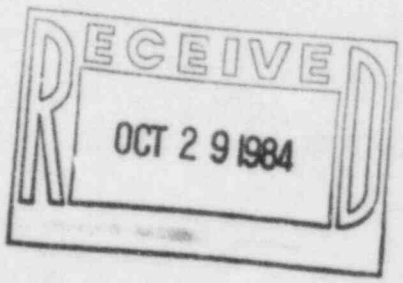
Licensing Review By:

Jim Gramling
Jim Gramling
Nuclear Licensing-Operations Supervisor

Public Service Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651

October 25, 1984
Fort St. Vrain
Unit #1
P-84447



Mr. E. H. Johnson, Chief
Reactor Project Branch 1
Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

REFERENCE: Facility Operating
License No. DPR-34

Dear Mr. Johnson:

Enclosed please find a copy of Licensee Event Report No. 50-267/84-010, Final, submitted per the requirements of 10 CFR 50.73(a)(2)(i).

Sincerely,

J. W. Gahm
Manager, Nuclear Production

Enclosure

cc: Director, MIPC

JWG/djm

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RETURN ORIGINAL
TO RIV