

P. O. Box 361, Platteville, Colorado 80651

September



Mr. E. Morris Howard, Director  
Nuclear Regulatory Commission  
Region IV  
Office of Inspection and Enforcement  
Suite 1000  
Elington, Texas 76012

Ref: Facility Operating License  
No. DPR-34

Docket No. 50-267

Dear Mr. Howard:

Enclosed please find a copy of Abnormal Occurrence Report No. 50-267/75/20,  
Final, submitted per the requirements of the Technical Specifications.

Very truly yours,

Frederic E. Swart  
Superintendent, Nuclear Production  
Fort St. Vrain Nuclear  
Generating Station

FES/alk

cc: Mr. Angelo Giambusso

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REPORT DATE: September 2, 1975

ABNORMAL OCCURRENCE 75/20  
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OCCURRENCE DATE: August 26, 1975

FORT ST. VRAIN NUCLEAR GENERATING STATION  
PUBLIC SERVICE COMPANY OF COLORADO  
P. O. BOX 361  
PLATTEVILLE, COLORADO 80651

REPORT NO. 50-267/75/20

Final

IDENTIFICATION OF  
OCCURRENCE:

Twelve cord sets connecting process controllers at the I-05 and I-06 control board to the cable rack in the auxiliary electric equipment room were switched.

This is identified as an Abnormal Occurrence under item 2.1 (h) of the Technical Specifications.

CONDITIONS PRIOR  
TO OCCURRENCE:

<u>Steady State Power</u>	<u>Routine Shutdown</u>
<u>Hot Shutdown</u>	<u>Routine Load Change</u>
<u>X Cold Shutdown</u>	<u>Other (specify)</u>
<u>Refueling Shutdown</u>	<u></u>
<u>Routine Startup</u>	<u></u>

The major plant parameters at the time of the event were as follows:

Power	RTR	<u>0</u>	<u>MWth</u>
	ELECT	<u>0</u>	<u>MWe</u>
Secondary Coolant	Pressure	<u>N/A</u>	<u>psig</u>
	Temperature	<u>N/A</u>	<u>°F</u>
	Flow	<u>N/A</u>	<u>#/hr.</u>
Primary Coolant	Pressure	<u>0</u>	<u>psig</u>
	Temperature	<u>120</u>	<u>°F Core Inlet</u>
		<u>120</u>	<u>°F Core Outlet</u>
	Flow	<u>1 circulator at 4,000 RPM</u>	<u>#/hr.</u>

DESCRIPTION OF  
OCCURRENCE:

At approximately 10:30 am, the control room operators received an alarm. In checking the equipment it was found that the cord sets to the pH (XR-3390-1) and the conductivity (CR-3390-2) recorders had been switched. The situation was corrected, but the reason for the switching and who was responsible were not established. The Superintendent of Operations was informed of the problem.

at 11:30 am the Assistant Reactor Operator received another alarm and checked the back of the control boards. The Superintendent of Operations was informed that a check of cord sets behind the I-05 and I-06 boards indicated a number of controller cord set reversals including XR-3390-1 and CR-3390-2.

Working in the plant for General Atomic Company were electricians and "cable tracers" employed by Kennedy Electric Company. They were suspect because they had been in the vicinity of the occurrences.

APPARENT CAUSE  
OF OCCURRENCE:

<u>Design</u>	<u>Unusual Service Cond. Including Environ.</u>
<u>Manufacture</u>	<u>Component Failure</u>
<u>Installation/Const.</u>	<u>X Other (specify)</u>
<u>Operator</u>	<u>Malicious mischief.</u>
<u>Procedure</u>	<u></u>

ANALYSIS OF  
OCCURRENCE:

The Public Service Company Results Department conducted an extensive audit of all recorder/controller cord sets to determine which controller cord sets had been swapped. A total of twelve cord sets were found reversed, as follows:

<u>Cord Set</u>	<u>Reversed With</u>	
XR-3390-1	CR-3390-2	) Cause of incident
CR-3390-2	XR-3390-1	
SC-2116	TC-22122	
TC-2244	SC-2112	
SC-2112	TC-2244	
PC-22130-1	TC-2226	
TC-2226	PC-22130-1	
SC-2111	SC-2105	
SC-2105	SC-2111	
TC-22122	SC-2116	
FC-2205	Spare	
FR-2205	FC-2205	
Spare	FR-2205	

ANALYSIS OF  
OCCURRENCE (continued):

All remaining cord sets throughout the plant were determined to be correctly mated to their proper receptacles.

CORRECTIVE  
ACTION:

The Superintendent of Operations ordered all construction electricians and "cable tracers" out of the plant and called General Atomic Company to aid in determining how the problems in the control room were caused. All cord sets found to have been swapped were returned to their designated controller/recorder and tested.

Correct cord set controller/recorder configuration was determined by voltage measurement across the 10 ohm test resistors in the appropriate circuits while varying controllers output and verifying voltage changes.

Security measures were implemented to limit access behind the control room boards to designated craft personnel and to either man or to lock the auxiliary electric equipment room and the 480 volt essential bus room to control access for all construction work in these areas.

Eight of the "cable tracers" suspected of being involved in the occurrence were terminated from their jobs. It was determined during subsequent investigation that three of the eight dismissed were directly involved. Precautions were taken to assure that those three will not be eligible for future re-employment at the plant.

A completed investigation revealed that the occurrence was limited to malicious mischief.

See attached for security measures implemented.

FAILURE DATA/SIMILAR REPORTED OCCURRENCES:

None

PROGRAMMATIC IMPACT:

None

CODE IMPACT:

None

Submitted By: Harvey W. Billyard, Jr.  
Harvey W. Billyard, Jr.  
Technical Services Supervisor

Reviewed By: H. Larry Bray  
H. Larry Bray  
Superintendent, Operations

Approved By: Frederic E. Swart  
Frederic E. Swart  
Superintendent, Nuclear Production

## INTER-DEPARTMENT MEMO - PUBLIC SERVICE COMPANY OF COLORADO

DATE August 27, 1975

TO All Public Service Company Employees

FROM H. Larry Brey/Frank Mathie, Superintendents

ATTN. John Zanot/George Brown, General Atomic

SUBJ. SECURITY

Fort St. Vrain  
DEPARTMENT OR DIVISION

Fort St. Vrain  
DEPARTMENT OR DIVISION

Fort St. Vrain

The following security measures will be implemented as of 12:00 Noon August 27, 1975:

"Access to the Back of the Control Room Panels"

The following four people are the only craft electricians allowed in back of the Control Room Panels:

(Four specific individuals were named here.)

All construction work by Stearns-Roger and Public Service Co. is to go through one of these four people. PSC operating personnel are to monitor that these four are the only construction people allowed in back of the panels.

"Auxiliary Equipment Room and 480 V Essential Bus Room"

These rooms will be manned continuously with any of the three following GA QC personnel:

(Three specific individuals were named here.)

Their responsibility is to monitor all construction work by either Stearns-Roger or Public Service Company in these electrical rooms. They will secure keys to these room through the Lobby Guard and notify the Control Room Operators when entering or leaving these areas. At all times when these areas are not manned by the respective QC personnel the rooms will be kept locked.

"Your Responsibility"

Make it part of your normal routine to be watchful of other personnel. If you notice anything suspicious notify your supervisor immediately. Whenever possible, secure hat numbers and names and pass this information along to your supervisor. This includes each and every one of you.



INTER-DEPARTMENT MEMO - PUBLIC SERVICE COMPANY OF COLORADO

DATE \_\_\_\_\_

TO \_\_\_\_\_ DEPARTMENT OR DIVISION \_\_\_\_\_

FROM \_\_\_\_\_ DEPARTMENT OR DIVISION \_\_\_\_\_

ATTN. \_\_\_\_\_

SUBJ. \_\_\_\_\_

- 2 -

PSC electricians and Results personnel are allowed continuous access to these electrical areas. If the area is unmanned by the aforementioned QC person, you are responsible for seeing that no other persons are allowed in with you and that the doors are locked upon entrance and exit.

*H. Larry Bray*

H. Larry Bray  
Superintendent-Operations  
Fort St. Vrain Nuclear  
Generating Station

*F. M. Mathie*

F. M. Mathie  
Superintendent-Maintenance  
Fort St. Vrain Nuclear  
Generating Station