WU INFOMASTER

PUB SER CO DN

032852C037 1812EST

003 DENVER, COLORADO FEBRUARY 6
ZIP 76012
E. MORRIS HOWARD
REGION IV, REGULATORY OPERATION
NUCLEAR REGULATORY COMMISSION
ARLINGTON, TEXAS 76012

ON 2-6-76, WHILE CONDUCTING THE WEEKLY SURVEILLANCE TEST OF DIESEL GENERATOR SET 1-B, THE GENERATOR LOAD BREAKER COULD NOT BE CLOSED. THIS IS IDENTIFIED AS ABNORMAL OCCURANCE 76/03 PER FORT ST. VRAIN TECHNICAL SPECIFICATION 2.1, PARAGRAPH F.

ON 2-6-76, DURING THE WEEKLY SURVEILLANCE TEST OF DIESEL GENERATOR SET 1A, A DIESEL GENERATOR SET 1A TROUBLE ALARM WAS RECEIVED IN THE CONTROL ROOM. AN INVESTIGATION REVEALED ENGINE 1B HAD PARTIALLY DISCONNECTED FROM THE GENERATOR. THIS IS IDENTIFIED AS ABNORMAL OCCURANCE 76/04 PER FORT ST. VRAIN TECHNICAL SPECIFICATION 2.1, PARAGRAPH F.

FROM: H. W. HILLYARD JR.
FORT ST. VRAIN NUCLEAR GENERATING STATION
PUPLIC SERVICE COMPANY OF COLORADO
P.O. BOX 840
DENVER, COLO. 80201

ACCEPTED
00003

1-PC

LICENSEE EVENT REPORT

CONTROL BLOCK: [ ] (1–6)

[PLEASE PRINT ALL REQUIRED INFORMATION]

LICENSEE NAME	LICENSE NUMBER	LICENSE TYPE	EVENT TYPE	CATEGORY	REPORT TYPE	REPORT SOURCE
01 COFSVI (7–8, 9–14)	00-00000-00 (15–25)	4120 (26–30)	01 (31–32)	01 CON'T DI (57–58)	T (59)	L (60)

DOCKET NUMBER	EVENT DATE	REPORT DATE
050-0267 (61–68)	012676 (69–74)	(75–80)

EVENT DESCRIPTION

02 During weekly surveillance on 1A standby generator
03 the 1B engine partially declutched under load.
04 Clutch engaging pressure changed to
05 required values. (A076/04)
06

SYSTEM CODE	CAUSE CODE	COMPONENT CODE	PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER	VIOLATION
07 EF (9–10)	F (11)	CLUTCH (12–17)	A (43)	C170 (44–47)	Y (48)

CAUSE DESCRIPTION

08 CLUTCH engaging pressure not
09 within acceptable Tolerance.
10

FACILITY STATUS	% POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION
11 I (9)	000 (10–12)	SURVEILLANCE (13–44)	B (45)	Clarm + INSPECTION. (46–80)

FORM OF ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY	LOCATION OF RELEASE
12 Z (9)	0 (10)	na (11–44)	na (45–80)

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION
13 000 (9–11)	Z (12)	na (13–80)

PERSONNEL INJURIES

NUMBER	DESCRIPTION
14 000 (9–11)	na (12–80)

OFFSITE CONSEQUENCES

15 na

LOSS OR DAMAGE TO FACILITY

TYPE	DESCRIPTION
16 0 (9)	na (10–80)

PUBLICITY

17 na

Dupe ? 8311080578

ADDITIONAL FACTORS

18 na

19

NAME: William J. Franke II PHONE: 571-7511 ext 1456

GPO 881-667

REPORT DATE February 13, 1976

OCCURRENCE DATE February 6, 1976

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

REPORT NO. 50-267/76/04

Preliminary

IDENTIFICATION OF OCCURRENCE:

The clutch on "B" engine 1A Standby Generator moved in the declutch direction under load. This is identified as an abnormal occurrence per Section 2.1, paragraph (f) of the Fort St. Vrain Technical Specifications.

CONDITIONS PRIOR TO OCCURRENCE

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

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

Power	RTR	0	MWth
	ELECT	0	MWe
Secondary Coolant	Pressure	15.	psig
	Temperature	70	°F
	Flow	75000	#/hr.
Primary Coolant	Pressure	159	psig
	Temperature	86	°F Core Inlet
		86	°F Core Outlet
	Flow	0	#/hr.

DESCRIPTION OF OCCURRENCE:

The 1A Standby Diesel generator diesel engines had been locally started and the generator loaded to 50% per the weekly surveillance procedure. The standby generator set continued in operation for approximately one hour when a Standy Generator Trouble alarm was received in the main control room. The operator went to the standby generator room and discovered the clutch arm had moved slightly in the declutch direction and actuated the switch. Load was reduced to 25% and the engine was declutched and the test was complete.

APPARENT CAUSE OF OCCURRENCE:

	Design		Unusual Service Cond. Including Environment
	Manufacture		Component Failure
	Installation/Const.	X	Other (specify)
	Operator		
	Procedure		

The force required to engage the clutch was out of tolerance.

ANALYSIS OF OCCURRENCE:

In this instance, the clutch was engaged and later disengaged under load. A check of the clutch engaging force was made and found to be in excess of 225 pounds. It should have been between 155 and 204 pounds. The clutch mechanism force had been adjusted on January 12, 1976, per PM 92.10 quarterly inspection. This was the first operation of the diesel generators under load since that inspection. It has not yet been determined why the engaging force was excessive. The surveillance procedure 5.6.1d-M (Diesel Engine Exhaust Temperature Functional Test) was completed before the 50% load test. This procedure requires the clutch to be operated and the low temperature declutch verified.

CORRECTIVE ACTION:

The solenoid valve was cleaned and checked for leakage and reinstalled. The clutch pressure has been readjusted to 190 pounds engaging force. The clutch mechanism will be disassembled and thoroughly examined for any possible mechanical problems.

FAILURE DATA/SIMILAR REPORTED OCCURRENCES:

Abnormal Occurrence 50-267/74/23 concerning Engine 1A. Similar occurrence but different cause.

PROGRAMMATIC IMPACT:

None

CODE IMPACT:

None

Submitted by: H.W. Hillyard, Jr.
H.W. Hillyard, Jr.
Technical Services Supervisor

Reviewed by: Duane F. Lambert
Duane Lambert
Supervisor, Plant Electricians

Reviewed by: F. M. Mathie
Frank M. Mathie
Superintendent, Maintenance

Approved by Frederic E. Swart
Frederic E. Swart
Superintendent, Nuclear Production