NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | LICENSEE CODE: P A B V S 1 (2) | LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3) | LICENSE TYPE: 4 1 1 1 1 (4) | CAT: (5)

CON'T
0 1 | REPORT SOURCE: L (6) | DOCKET NUMBER: 0 5 0 0 0 3 3 4 (7) | EVENT DATE: 0 5 2 4 8 3 (8) | REPORT DATE: 0 6 1 7 8 3 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During normal power operation, relay testing was being performed on the
0 3 1B system station service transformer (Relay 87109X1). Spurious actuation
0 4 of relay 51-VD106X occurred causing inadvertent isolation of the 1DF
0 5 Emergency Bus from its normal supply. The #2 diesel generator autostarted
0 6 and picked up the bus, sequencing on all appropriate loads. There were
0 7 no safety implications as a result of this event since the diesel generator
0 8 picked up the bus and offsite power remained available.

SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9 E B (11)	A (12)	X (13)	R E L A Y X (14)	D (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 3	—	0 1 5	/	0 3	2	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
X (18)	H (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	N (25)	W 1 2 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Relay crew in attempting to test relay 87109Z1 caused a spurious actuation
1 1 of relay 51-VD106X. This action initiated the isolation of the 1DF Bus from
1 2 its normal supply. Reinstruction for relay personnel on circuits which require
1 3 special care when testing will be given.
1 4

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	E (28)	0 9 9 (29)	N/A	A (31)	Operator Observation

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	Z (33)	Z (34)	N/A	N/A

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	N/A

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	N/A

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	N/A

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	N (44)	N/A	

IE 22

Attachment to LER 83-015/03L
Beaver Valley Power Station
Duquesne Light Company
Docket No. 50-334

An investigation into the root cause of this event has revealed that a number of factors contributed to this incident. The relay being tested (87109X) cannot be cleared by itself without isolating a substantial portion of the protection circuitry for the 1B System Station Service Transformer. Therefore, the relay was tested uncleared. Testing of this relay uncleared should have posed no problem since this is a D.C. relay and should not operate on the low A.C. test voltages applied to the contacts. Conversations with the Substations and Shops Supervisor has disclosed that unknown to the relay crew, there was a capacitor installed under DCP 004 on the negative of the battery input to the inverter for surge suppression. This capacitor inadvertently discharged when the test signal was applied to the relay contacts and activated relay 51-VD06X. The reason the capacitor discharged, was due to the test equipment being used, which utilized a grounded A.C. source. This ground provided a "potential path" for current flow, and allowed discharging of the capacitor to occur. When relay 51-VD106X activated, breaker 1D10 (the feeder breaker to the Emergency Bus) tripped open. This action caused a "dead bus" condition on the Emergency 4KV Bus. This Dead Bus situation initiated an autostart of the diesel generator. After the diesel generator attained design output voltage, the output breaker closed in and autosequencing of all appropriate loads occurred. The test which lead to the spurious activation of relay 51-VD106X was rerun. Upon subsequent performances of the relay test, relay 51-VD106X activated each time as it did in the initial event. This provided verification that it was the actual test (not the shorting of contacts or carlessness on the part of the technician) which caused the relay actuation.

Relay personnel will be reinstructed in the performance of tests on circuits such as this, and others which require special test considerations, to preclude future occurrances of such events.

Duquesne Light

Nuclear Division
P. O. Box 4
Shippingport, PA 15077-0004

Telephone (412) 393-6000

June 17, 1983
NDISS1:870

Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, License No. DPR-66
LER 83-015/03L

Mr. J. M. Allen, Acting Regional Administrator
United States Nuclear Regulatory Commission
Region 1
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Allen:

In accordance with Appendix A, Beaver Valley Technical Specifications, the following Licensee Event Report is submitted:

LER 83-015/03L, Technical Specification 3.8.2.1, Onsite Power Distribution Systems.

Very truly yours,

Wm. S. Lacey
Station Superintendent

Attachment

IE22
1/1

cc: Director of Management & Program Analysis
United States Nuclear Regulatory Commission
Washington, D.C. 20555

C. A. Roteck, Ohio Edison

Director, Office of Inspection and Enforcement Headquarters
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