NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

Line	Field	Value
01	Licensee Code (2)	O H D B S 1
01	License Number (3)	0 0 - 0 0 N P F - 0 3
01	License Type (4)	4 1 1 1 1
01	CAT (5)	
CON'T 01	Report Source (6)	L
01	Docket Number (7)	0 5 0 - 0 3 4 6
01	Event Date (8)	1 1 1 3 7 9
01	Report Date (9)	1 2 1 1 7 9

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During work on Facility Change Request (FCR) 79-378, which added arc suppression diodes
03 to all non-safety related reactor coolant pump auxiliary relay interlock circuits, it
04 was found that Couch (Deutsch) relay contacts were driving high inductive loads in 26
05 nuclear safety related circuits. Although there has been no failures of these relays
06 in the Class IE circuits, this finding is being reported under T.S. 6.9.1.9. There was
07 no danger to the health and safety of the public or station personnel. There have
08 been no relay failures in the nuclear safety related circuits. (NP-33-79-126)

09	System Code (11)	Cause Code (12)	Cause Subcode (13)	Component Code (14)	Comp. Subcode (15)	Valve Subcode (16)
	I E	B	A	R E L A Y X	A	Z

(17) LER/RO Report Number	Event Year		Sequential Report No.		Occurrence Code	Report Type		Revision No.
	7 9	—	1 0 9	/	0 3	L	—	0

Action Taken (18)	Future Action (19)	Effect on Plant (20)	Shutdown Method (21)	Hours (22)	Attachment Submitted (23)	NPRD-4 Form Sub. (24)	Prime Comp. Supplier (25)	Component Manufacturer (26)
F	Z	C	Z	0 0 0 0	Y	N	A	C 6 4 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The cause of the potential Couch (Deutsch) relay failures has been determined to be an
11 unexpected inductive surge in the circuit when the contacts open which may
12 cause a shorting of the relay contacts to ground. As a preventative measure, FCR
13 79-378 Supplement 1 added arc suppression diodes to all 26 Class IE circuits.
14

15	Facility Status (28)	% Power (29)	Other Status (30)	Method of Discovery (31)	Discovery Description (32)
	G	0 0 0	NA	D	

16	Activity Released (33)	Content of Release (34)	Amount of Activity (35)	Location of Release (36)
	Z	Z	NA	NA

PERSONNEL EXPOSURES

17	Number (37)	Type (38)	Description (39)
	0 0 0	Z	NA

PERSONNEL INJURIES

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18	Number (40)	Description (41)
	0 0 0	NA

LOSS OF OR DAMAGE TO FACILITY (43)

19	Type (42)	Description
	Z	NA

7912170303

PUBLICITY

20	Issued (44)	Description (45)	NRC USE ONLY
	N	NA	

DVR 79-165

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TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-33-79-126

DATE OF EVENT: November 13, 1979

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Couch (Deutsch) relays were driving high inductive surge levels in certain nuclear safety related circuits

Conditions Prior to Occurrence: The unit was in Mode 5, with Power (MWT) = 0, and Load (Gross MWE) = 0.

Description of Occurrence: During work on Facility Change Request (FCR) 79-378, which added arc suppression diodes to all non-safety related reactor coolant pump auxiliary relay interlock circuits, it was found that Couch (Deutsch) relay contacts were driving high inductive loads in twenty-six (26) nuclear safety related circuits. Although there have been no failures of these relays in the Class IE circuits, this finding is being reported under Technical Specification 6.9.1.9.

Designation of Apparent Cause of Occurrence: The cause of the potential Couch (Deutsch) relay failures has been determined to be an unexpected inductive surge in the circuit when the contacts open which may cause a shorting of the relay contacts to ground. The initial design did not anticipate the surge in the Class IE circuits.

Analysis of Occurrence: There was no danger to the health and safety of the public or to station personnel. There has been no relay failures in the nuclear safety related circuits.

Corrective Action: As a preventative measure, FCR 79-378 Supplement 1 added arc suppression diodes to all twenty-six (26) Class IE circuits. This further assures the operability of the circuits by providing a path for the discharge of the energy in the coil through the diode rather than through the contacts of the interrupting relay.

Failure Data: There have been no previous relay failures in Class IE circuits due to an inductive surge in the circuits. However, in the non-safety related reactor coolant pump auxiliary relay circuit, there has been a failure; refer to Licensee Event Report NP-33-79-121.

LER #79-109

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