NRC FORM 366
(7-77)

LICENSEE EVENT REPORT

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

0 1	O H D B S 1 (2)	Ø Ø - Ø Ø N P F - Ø 3 (3)	4 1 1 1 1 (4)	(5)
	LICENSEE CODE	LICENSE NUMBER	LICENSE TYPE	CAT

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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On two occasions, 12/1/77 at 1455 hours and 12/5/77 at 0115 hours, Source Range
0 3 Neutron Detector NI-1's indication dropped to zero and returned to normal operation/
0 4 indication by itself. Both occurrences placed the unit in Action Statement 5 of
0 5 Technical Specification 3.3.1.1. There was no danger to the health and safety of the
0 6 public or unit personnel. The redundant Source Range Detector NI-2 was operational
0 7 and in service throughout these occurrences. (NP-33-77-100)
0 8

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	I D (11)	E (12)	X (13)	I N S T R U (14)	E (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	7 7	—	1 Ø Ø	/	Ø 3	L	—	Ø

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

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 After the first failure, the detector was replaced and ST 5091.01 "Source Range Func-
1 1 tional Test" was performed. After the second failure and return to normal, ST 5091.01
1 2 was again performed. Both performances of ST 5091.01 removed the unit from the
1 3 Action Statement of Technical Specification 3.3.1.1. Further troubleshooting is
1 4 being performed, but is complicated by the intermittent nature of the failure.

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	B (28)	Ø Ø Ø (29)	NA	A (31)	Operator Observation

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

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	Ø Ø Ø (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	Ø Ø Ø (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	NA

8002040733

PUBLICITY

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

DVR 171-1 & 172-1 NAME OF PREPARER Dean Hitchens PHONE: (419) 259-5000, Ext. 231

TOLEDO EDISON COMPANY
DAVIS-BESSE UNIT ONE NUCLEAR POWER STATION
SUPPLEMENTAL INFORMATION FOR LER NP-33-77-100

DATE OF EVENT: December 1, 1977 and December 5, 1977

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Source Range Detector, NI-1's indication dropped to zero.

Conditions Prior to Occurrence: On December 1, 1977 at 1455 hours, Source Range Neutron Detector NI-1's indication dropped to zero. The Control Rod Drive Trip Breakers were in the closed position, and the rods were capable of withdrawal. This occurrence placed the unit in Action Statement 5 of Technical Specification 3.3.1.1, which requires two Source Range Detectors in Mode 3 with the Control Rod Drive System capable of rod withdrawal. An identical occurrence took place on December 5, 1977 at 0115 hours. Both occurrences were discovered by Operations personnel observing the drop in NI-1 indication.

Designation of Apparent Cause of Occurrence: To date, each time NI-1's indication was lost, no apparent cause could be determined prior to the indication returning. Just prior to NI-1 failing on December 1, 1977, the Instrument and Control personnel had just finished replacing the preamplifier. It was then decided to replace the Source Range Neutron Detector. This was completed on December 3, 1977, and then on December 5, it failed again.

Analysis of Occurrence: There was no danger to the health and safety of the public or to unit personnel. The redundant Source Range Detector NI-2 was in service and operational throughout the occurrences. The thermal power level was maintained at less than 10^{-10} amps on the intermediate flux range instrumentation.

Corrective Action: After the failure on December 1, the detector was replaced. Upon completion, ST 5091.01, the Source Range Functional Test, was performed and completed on December 3, 1977 at 0713 hours. After the failure on December 5 and the subsequent return of the indication to normal, ST 5091.01 was again performed at 1800 hours on December 5. Both performances of the surveillance test removed the unit from the Action Statement of Technical Specification 3.3.1.1.

Failure Data: This occurrence is a repetitive one, however, the exact cause of this event is, as of yet, unknown.

TOLEDO EDISON COMPANY
DAVIS-BESSE UNIT ONE NUCLEAR POWER STATION
SUPPLEMENTAL INFORMATION FOR LER NP-33-77-100

Rev. 1
1/5/78

DATES OF EVENT: December 1, 1977 and December 5, 1977

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Source Range Detector, NI-1's indication dropped to zero.

Conditions Prior to Occurrence: The unit was in Mode 3, with Power (MWT) = 0, and Load (MWE) = 0.

Description of Occurrence: On December 1, 1977, at 1455 hours, Source Range Neutron Detector NI-1's indication dropped to zero. The Control Rod Drive Trip Breakers were in the closed position, and the rods were capable of withdrawal. This occurrence placed the unit in Action Statement 5 of Technical Specification 3.3.1.1, which requires two Source Range Detectors in Mode 3 with the Control Rod Drive System capable of rod withdrawal. An identical occurrence took place on December 5, 1977 at 0115 hours. Both occurrences were discovered by Operations personnel observing the drop in NI-1 indication.

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