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 LICENSEE CODE | 0 0 - 0 0 N P F - 0 3 ③ LICENSE NUMBER | 4 1 1 1 1 ④ LICENSE TYPE | ⑤ CAT

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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES ⑩

0 2 On December 4, 6 and 13, 1977, the Reactor Protection System (RPS) Channel 3 Loop 1

0 3 Hot Leg Temperature Indicator (TI-RC3B4) failed high. Each occurrence placed the

0 4 unit in Action Statement 3 of Technical Specification 3.3.1.1. See the attached

0 5 Supplemental Information Sheet for further details. There was no danger to the

0 6 health and safety of the public or to unit personnel. The other three RPS tempera-

0 7 ture strings were operable. (NP-33-77-103)

0 8

0 9	SYSTEM CODE: I A ⑪	CAUSE CODE: E ⑫	CAUSE SUBCODE: D ⑬	COMPONENT CODE: X X X X X X ⑭	COMP. SUBCODE: X ⑮	VALVE SUBCODE: Z ⑯

⑰ LER/RO REPORT NUMBER: EVENT YEAR 7 7 | — | SEQUENTIAL REPORT NO. 1 0 3 | / | OCCURRENCE CODE 0 3 | REPORT TYPE L | — | REVISION NO. 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	Z ⑲	Z ⑳	Z ㉑	0 0 0 0	Y ㉓	Y ㉔	N ㉕	Z 9 9 9 ㉖

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS ㉗

1 0 After each failure Channel 3 was tripped as required by the Action Statement. On

1 1 December 4 and 6, TI-RC3B4 returned to normal operation by itself. On December 13,

1 2 it was observed that the terminal connecting TI-RC3B4 to the RPS was oxidized. Upon

1 3 cleaning, reconnecting and testing, Channel 3 was declared operational, removing the

1 4 unit from the Action Statement.

1 5 FACILITY STATUS B ㉘ | % POWER 0 1 5 ㉙ | OTHER STATUS ㉚ NA | METHOD OF DISCOVERY A ㉛ | DISCOVERY DESCRIPTION ㉜ Operator Observation

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

PERSONNEL EXPOSURES

1 7 NUMBER 0 0 0 ㊲ | TYPE Z ㊳ | DESCRIPTION ㊴ NA

PERSONNEL INJURIES

1 8 NUMBER 0 0 0 ㊵ | DESCRIPTION ㊶ NA

LOSS OF OR DAMAGE TO FACILITY ㊸

1 9 TYPE Z ㊷ | DESCRIPTION NA

PUBLICITY

2 0 ISSUED N ㊹ | DESCRIPTION ㊺ NA

8002040729

NRC USE ONLY

DVR 175-1 NAME OF PREPARER Sue Kovach PHONE: (419) 259-5000, Ext. 236

TOLEDO EDISON COMPANY
DAVIS-BESSE UNIT ONE NUCLEAR POWER STATION
SUPPLEMENTAL INFORMATION FOR LER NP-33-77-103

DATE OF EVENT: December 4, 6, and 13, 1977

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Reactor Protection System Channel 3 Hot Leg Temperature Indication (TI) Failed High

Conditions Prior to Occurrence: The unit was in Mode 1, with Power (MWT) varying between 0 - 416, and Load (MWE) varying between 0 - 135.

Description of Occurrence: On December 4, 6 and 13, 1977, Reactor Protection System (RPS) Channel 3 Loop 1 Hot Leg Temperature Indication (TI-RC3B4) failed high. Each of these occurrences placed the unit in Action Statement 3 of Technical Specification 3.3.1.1, which requires the operability of each of the four Reactor Coolant Temperature Indicators in Modes 1 and 2.

On December 4, failures of TI-RC3B4 occurred at 1658 hours, 1737 hou 1800 hours and 2250 hours. Following each of these failures, Channel 3 was placed in the tripped condition within one hour as required by Action Statement 3 of Technical Specification 3.3.1.1. TI-RC3B4 was declared operable and RPS Channel 3 reset at 1100 hours on December 5, 1977.

On December 6, 1977 at 0050 hours, TI-RC3B4 again failed high. RPS Channel 3 was tripped at 0100 hours. At 0905 hours, TI-RC3B4 was declared operable and RPS Channel 3 was reset.

Davis-Besse Unit 1 re-entered Action Statement 3 on December 13, 1977 at 0050 hours when TI-RC3B4 failed high once more. The channel was immediately tripped. It was reset on the same date after the source of the problem was located and corrected.

The three other Hot Leg Temperature Indicators were operable throughout this period as was required by the Action Statement.

Designation of Apparent Cause of Occurrence: Due to the intermittent nature of the failures, Instrument and Control Personnel could not determine the cause of the failures of TI-RC3B4 on December 4 and 6. Tests of the temperature element and its associated instrumentation proved their operability.

On December 13, 1977, Instrument and Control Personnel noticed oxidation on the terminals which connect the temperature element to Reactor Protection System (RPS) Channel 3. These terminals are located in the Cabinet Room in RPS Cabinet C6353F. The exact cause of this oxidation is not known, but it is believed to have been caused by the environmental conditions during construction.

Analysis of Occurrence: There was no danger to the health and safety of the public or to unit personnel. Failures of TI-RC3B4 were in the conservative (high) direction and the remaining three RPS reactor coolant temperature element strings were operable.

Corrective Action: RPS Channel 3 was reset at the times given above. Instrument and Control personnel removed the connections for TI-RC3B4 at RPS Channel 3. The terminals were cleaned with an emery cloth and reconnected. Operability was returned to the channel on December 13, 1977. The terminals on the other three channels will be cleaned in order to prevent recurrence.

Failure Data: No previous similar events have occurred.