NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

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

CON'T 01 | REPORT SOURCE: L (6) | DOCKET NUMBER: Ø 5 Ø - Ø 3 4 6 (7) | EVENT DATE: Ø 2 Ø 2 7 8 (8) | REPORT DATE: Ø 2 2 3 7 8 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 At 1610 hours on 2/2/78, the Absolute Position Indicator (API) for Group 5, Rod 12
03 was declared inoperable. This placed the unit in Action Statement (a2) of Technical
04 Specification 3.1.3.3. Investigation revealed the problem to be within Containment,
05 making repair during power operation impossible. On 2/3/78 at 1630 hours, it was
06 found that the position of Rod 5-12 had not been verified for 17.5 hours. There was
07 no danger to the health and safety of the public or unit personnel. The control rod
08 itself did not change position and was able to be tripped. (NP-33-78-19)

09 | SYSTEM CODE: R B (11) | CAUSE CODE: E (12) | CAUSE SUBCODE: X (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 8 | — | SEQUENTIAL REPORT NO.: Ø 1 6 | / | OCCURRENCE CODE: Ø 3 | REPORT TYPE: L | — | REVISION NO.: 1

ACTION TAKEN: X (18) | FUTURE ACTION: D (19) | EFFECT ON PLANT: Z (20) | SHUTDOWN METHOD: Z (21) | HOURS (22): Ø Ø Ø Ø | ATTACHMENT SUBMITTED: Y (23) | NPRD-4 FORM SUB.: Y (24) | PRIME COMP. SUPPLIER: Z (25) | COMPONENT MANUFACTURER: Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 At 1630 hours on 2/3/78, the position reference indication of Rod 5-12 was verified.
11 It has been determined that the cause of the API problem was component failure in the
12 penetration area. During the May/June/July 1978 outage, the conductors which carry
13 the Group 5-12 API signals from containment to the CRD Cabinets were connected to
14 spare connectors of the penetration. Action (a2) of T.S.3.1.3.3 was enforced.

1

15 | FACILITY STATUS: E (28) | % POWER: Ø 5 Ø (29) | OTHER STATUS (30): NA | METHOD OF DISCOVERY: A (31) | DISCOVERY DESCRIPTION (32): Operator Observation

16 | ACTIVITY RELEASED: Z (33) | CONTENT OF RELEASE: Z (34) | AMOUNT OF ACTIVITY (35): NA | LOCATION OF RELEASE (36): NA

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PERSONNEL EXPOSURES
17 | NUMBER: Ø Ø Ø (37) | TYPE: Z (38) | DESCRIPTION (39): NA

PERSONNEL INJURIES
18 | NUMBER: Ø Ø Ø (40) | DESCRIPTION (41): NA

LOSS OF OR DAMAGE TO FACILITY (43)
19 | TYPE: Z (42) | DESCRIPTION: NA

PUBLICITY
20 | ISSUED: N (44) | DESCRIPTION (45): NA | NRC USE ONLY

DVR 78-024 & 025

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TOLEDO EDISON COMPANY
DAVIS-BESSE UNIT ONE NUCLEAR POWER STATION
SUPPLEMENTAL INFORMATION FOR LER NP-33-78-19

DATE OF EVENT: February 2, 1978 and February 3, 1978

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Inoperability of one Control Rod Drive Absolute Position Indication

Conditions Prior to Occurrence: The unit was in Mode 1, with Power (MWT) = 1386/1311 and Load (MWE) = 477/452.

Description of Occurrence: On February 2, 1978 at 1405 hours, the Reactor Operator noticed that Group 5 Rod 12's Absolute Position Indication (API) dropped approximately 6 or 7% below the average for Group 5 rods. The API for Group 5 Rod 12 was declared inoperable, and the Instrument and Control (I&C) group was called to investigate. This placed the unit in the Action Statement of Technical Specification 3.1.3.3.

The I&C personnel investigated the incident and found the problem to be in containment. In the process of troubleshooting, the signal came back up equal to the group's average. It was declared operable at 1420 hours on February 2, 1978. This removed the unit from the Action Statement of Technical Specification 3.1.3.3.

At 1610 hours, the problem recurred, and the API for this rod (Group 5, Rod 12) was again declared inoperable. The problem could not be resolved at the time, as access into containment (particularly at this location, on the edge of the Refueling Canal) was prohibited until the unit was shutdown. The action spelled out in Action Statement (a.2) of Technical Specification 3.1.3.3 was carried out. 1

On February 3, 1978 at 1630 hours, the Reactor Operator, while reviewing the Reactor Operator Log noted that the position of Rod 5-12 had not been verified by the Position Reference Indicator since 2300 hours on February 2, 1978. This was in excess of the 12 hour Action Statement/Surveillance Requirements of Technical Specification 3.1.3.3. The Position Reference Indication was immediately verified.

Designation of Apparent Cause of Occurrence: The apparent cause of the API for Rod 5-12 being inoperable appears to have been component failure in the penetration area. The exact cause was not determined until entry into containment was permitted during the May/June/July, 1978 outage. The cause of the missed surveillance of the Action Statement was personnel error, in that Operations personnel did not verify the Position Reference Indication within the required time period. 1

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Analysis of Occurrence: There was no danger to the health and safety of the public or to unit personnel. The Control Rod Drive itself did not change position and was able to be tripped. 1

Corrective Action: Troubleshooting was performed by I&C personnel working under Maintenance Work Order IC-160-78. From this troubleshooting, it was determined that the problem was either a bad position indication tube, a loose connector inside containment, or a bad cable. 1

Exceeding the time limit of the Action Statement was corrected when operations personnel discovered their error and verified the position of the rod using the Position Reference Indication.

On Feburary 18, 1978, the position indicator cable connections at the containment penetration, the refueling canal bulkhead, and the reactor head were checked and cleaned with no improvement in indication.

Under Maintenance Work Order 78-512, completed during the May/June/July 1978 outage, the conductors which carry the Group 5, Rod 12 API signals from containment to the Control Rod Drive Cabinets were connected to spare connectors of the penetration. Post-outage operation to date has revealed no further problems. A recurrence is not expected since it is felt that the difficulties in the problem area, penetration, have been resolved. 1

Failure Data: There have been previous failures of the API; however, the origin of these failures does not appear to be due to a common components.

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