



March 15, 1979

L79-183
FILE: RR 2 (NP-33-78-135)

Docket No. 50-346
License No. NPF-3

Mr. James G. Keppler
Regional Director, Region III
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Enclosed are three copies of Licensee Event Report 78-113 which has been updated. The revisions to the report are indicated by a "1" in the left margin of the report.

Please replace your previous copies of Licensee Event Report 78-113 with the attached, revised copies.

Yours truly,

A handwritten signature in cursive script that reads 'Terry D. Murray'.

Terry D. Murray
Station Superintendent
Davis-Besse Nuclear Power Station

TDM/SNB/ljk

Enclosure

cc: Dr. Ernst Volgenau, Director
Office of Inspection and Enforcement
Encl: 30 copies LER 78-113, Rev. 1

Mr. William G. McDonald, Director
Office of Management Information
and Program Control
Encl: 3 copies LER 78-113, Rev. 1

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On November 17, 1978, Maintenance Work Order (MWO) 78-2673 was initiated to troubleshoot the renewed signal fluctuations causing asymmetric rod alarms. On November 24, 1978, MWO 78-2683 was issued to implement Facility Change Request (FCR) 78-501 which relocated API connections within the penetration by moving cable CCCRD 110A from TB1-1-5 to TB2-21-25 on PCCSU. Work was completed on FCR 78-501 on December 7, 1978. On December 8, 1978, the API was declared operable but the problem recurred shortly after.

On December 8, 1978, under MWO 78-2864, Maintenance personnel cleaned and dried the connections on the position indicator for Rod 3-4. The cable from the position indicator to the bulkhead was replaced with a new cable and o-rings in connectors replaced. ST 5013.03 Sections 6.5, 6.7 and 6.10 for Rod 3-4 "rod Program Verification" was completed satisfactory at 2130 hours.

On December 10, 1978, MWO 78-2873, 78-2872, 78-2874 were issued to work on PI, penetration, cable. FCR 78-518 was implemented to jumper API to a new penetration. On December 14, 1978, MWO 78-2887 was implemented. On December 15, under MWO 78-2889, a test of PI tube and antenna cable was conducted while the API cable was disconnected from penetration. Results indicated oscillation only on the PI side. When the penetration side was monitored, a steady signal resulted, indicating that the PI tube was the problem.

On December 19, 1978, under MWO 78-2873, the position indicator tube was replaced.

On December 20, 1978, under MWO 78-2908, and FCR 78-538, the API cable CCCRD110 was returned to its original location prior to FCR 78-501.

Diamond Power, the position indicator vendor, was contacted and will further investigate the failure of the position indicator tube.

Failure Data: There have been no previous occurrences of absolute position indication inoperability for Control Rod 4, Group 3. There have been, however, previously reported occurrences of absolute position indicator inoperability due to component failure in the penetration area on Group 5, Rod 12. These were reported in Licensee Event Reports NP-33-78-02, NP-33-78-19, NP-33-78-26, and NP-33-78-38.

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-33-78-135

DATE OF EVENT: November 10 and 17, 1978

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Absolute Position Indication for Group 3, Rod 4 inoperable.

Conditions Prior to Occurrence: On November 10, 1978, the unit was in Mode 1, with Power (MWT) = 1354 and Load (MWE) = 446. On November 17, 1978, the unit was in Mode 1, with Power (MWT) = 2770, and Load (MWE) = 923.

Description of Occurrence: On November 10, 1978 at 0425 hours and on November 17, 1978, at 0624 hours, fluctuating signals from the absolute position indicator for Control Rod 4 of Group 3 caused "asymmetric rod" alarms. Absolute position indication for this rod was declared inoperable at each of these times, placing the unit in the Action Statement of Technical Specification 3.1.3.3.

Technical Specification 3.1.3.3 states that all safety, regulating and axial power shaping control rod absolute position indicator channels and relative position indicator channels shall be operable and capable of determining the control rod positions within $\pm 6.5\%$ while the unit is in Modes 1 and 2.

Designation of Apparent Cause of Occurrence: On December 7, 1978, after access to containment was permitted, the failure investigation of the absolute position indication for Control Rod 4 of Group 3 resumed by testing the individual components of the PI string. The cause of the occurrence has been determined to be an intermittent failure of a component within the position indicator tube.

Analysis of Occurrence: There was no danger to the health and safety of the public or to unit personnel. Relative position indication, as well as zone reference indication for Rod 4 of Group 3 were operable during the period that the absolute position indication was inoperable.

Corrective Action: On November 13, under Maintenance Work Order 78-2648, Maintenance personnel inspected PI cable connections at the PI tube and at the reactor service structure bulkhead. A slight amount of moisture was found in the connector at the PI tube. The connector was dried and reconnected. On November 14, 1978, at 0215 hours, Surveillance Test ST 5031.03, "Control Rod Program Verification" was completed, and the absolute position indication for Rod 4, Group 3 declared operable. The unit was removed from the Action Statement of Technical Specification 3.1.3.3.