

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-33-79-35

DATE OF EVENT: February 19, 1979

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Verification of Axial Power Imbalance failed to satisfy surveillance requirements

Conditions Prior to Occurrence: The unit was in Mode 1, with Power (MWT) = 2440, and Load (Gross MWE) = 819.

Description of Occurrence: On February 19, 1979, at 0015 hours, process computer display Group 38 (tilt, imbalance insertion) on the Control Room cathode ray tube (CRT) was observed to have stopped updating. Group 38 was declared inoperable on February 19, 1979 at 0015 hours. With Group 38 display inoperable, the axial power imbalance alarm becomes inoperable, thus requiring an increase in the frequency of surveillance requirements per Technical Specification 4.2.1. Technical Specification 4.2.1 requires the axial power imbalance to be determined to be within limits once every 12 hours when above 40% of rated thermal power except when the axial power imbalance alarm is inoperable, then calculate the axial power imbalance at least once per hour. The axial power imbalance manual calculation, Surveillance Test ST 5020.01, specifies Section 7.1 is to be performed hourly to satisfy surveillance requirements of Technical Specification 4.2.1 when Group 38 is inoperable. Section 7.1 of ST 5020.01 verifies axial power imbalance by a calculation which utilizes computer points C927 and C928.

Section 7.1 of ST 5020.01 was performed hourly from 0015 hours until 0215 hours on February 19, 1979, when it was discovered that computer points C927 and C928 were not updating. With computer points C927 and C928 inoperable, Section 7.1 failed to satisfy surveillance requirements for Technical Specification 4.2.1. Section 7.4 was then performed from 0220 hours to 0720 hours, satisfying surveillance requirements for Technical Specification 4.2.1.

Section 7.1 of ST 5020.01 was inadvertently performed from 0820 hours until 1220 hours when it was discovered that computer points C927 and C928 were not updating. Section 7.3 of ST 5020.01 was then performed at 1320 hours and continued to be performed hourly until Group 38 was declared operable on February 20, 1979 at 0002 hours, satisfying surveillance requirements for Technical Specification 4.2.1.

Surveillance requirements for Technical Specification 4.2.1 were therefore not satisfied from 0115 hours to 0215 hours and from 0820 hours to 1220 hours on February 19, 1979 due to Section 7.1 of ST 5020.01 being performed with bad data resulting from inoperable computer points.

Group 38 was declared operable on February 20, 1979 at 0002 hours.

Designation of Apparent Cause of Occurrence: The apparent cause of the occurrence was procedural deficiency. A random hardware failure in the Bailey Computer System caused Group 38 and computer points C927 and C928 to stop updating. ST 5020.01 calls for Section 7.1 to be used to satisfy surveillance requirements of Technical Specification 4.2.1 when Group 38 is inoperable. Unaware that the hardware failure

had also caused computer points C927 and C928 to be inoperable, Section 7.1 was performed until the discovery of the inoperable computer points. The procedure (ST 5020.01) was deficient in that there was no warning or caution that when Group 38 fails to update, there is a possibility that computer points C927 and C928 will not be operable.

Analysis of Occurrence: There was no danger to the health and safety of the public or to unit personnel. A review of hourly axial power imbalance data taken from the computer daily log sheets, indicated that the axial power imbalance did not exceed Technical Specification limits during the occurrence.

Corrective Action: Upon the discovery of the inoperable computer points C927 and C928 at 0215 hours on February 19, 1979, Surveillance Test ST 5020.01, Section 7.4 was performed instead of Section 7.1 of ST 5020.01 in order to satisfy Technical Specification 4.2.1. Upon the discovery of the inoperable computer points at 1320 hours on February 19, 1979, Section 7.3 of ST 5020.01 was performed and was continued to be performed throughout the remainder of the inoperability of Group 38.

A modification to ST 5020.01, T-3538, has been written to caution operators that when Group 38 fails to update, there is a possibility that computer points C927 and C928 will also be inoperable.

Failure Data: There has been one prior occurrence of the failure to satisfy axial power imbalance surveillance requirements, previously reported in Licensee Event Report NP-33-78-136.

LER #79-031