

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-33-79-32

DATE OF EVENT: February 17, 1979

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Safety Features Actuation System (SFAS) Channel 1
Borated Water Storage Tank (BWST) level transmitter inoperable

Conditions Prior to Occurrence: The unit was in Mode 1, with Power (MWT) = 2435,
and Load (Gross MWE) = 812.

Description of Occurrence: On February 17, 1979 at 0655 hours, a high level fail alarm was received for the BWST level on SFAS Channel 1. This placed the unit in the Action Statement 9 of Technical Specification 3.3.2.1 which requires that all channels be operational in Modes 1, 2, and 3. The Action Statement requires that operation may continue providing the inoperable channel is placed in the tripped condition within one hour. BWST Channel 1 level transmitter was placed in the tripped condition at 0720 hours on February 17, 1979.

1 | Designation of Apparent Cause of Occurrence: The apparent cause of the occurrence was inadequate insulation on a portion of the BWST level instrument piping and poor location of the heat trace temperature sensor. A four inch section of the source line where it penetrates the protective box around the level instrument did not have adequate insulation. Normal insulation thickness would be 1½", actual thickness was ½" of insulation. The line is heat traced but the temperature sensor was located so as to be unrepresentative. Due to this fact, no alarm or indication of the freezing condition which occurred was received until the instrument failed high. The fuel supply ran out for the temporary windbreak enclosure heater which could have also prevented the freezing condition.

Analysis of Occurrence: There was no danger to the health and safety of the public or to unit personnel. The remaining three SFAS BWST level channels were operating properly and would have transferred the decay heat and containment spray suction to the emergency sump if a loss of coolant accident had occurred.

1 | Corrective Action: The fuel tanks for the temporary heaters were replaced, the affected instrument lines thawed, and the system operation checked by Surveillance Test ST 5099.01, "Miscellaneous Instrument Shift Check". The transmitter was returned to operability at 2000 hours on February 17, 1979, removing the unit from the Action Statement of Technical Specification 3.3.2.1.

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Under Maintenance Work Order (MWO) 79-1603, an investigation of existing permanent heat trace was conducted. MWO 79-1640 was written to correct insulation discrepancies found. Design problems are being corrected under Facility Change Requests 79-123 and 78-022.

Failure Data: There has been one previously reported occurrence of freezing of the BWST level transmitter sensing lines, see Licensee Event Report NP-33-78-01.

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