419-259-5000, Ext.

PHONE:-

PUBLICITY

DVR 80-037 NAME OF PREPARER -

1(11)

DESCRIPTION (45)

Benjamin F. Hill

TOLEDO EDISON COMPANY DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE SUPPLEMENTAL INFORMATION FOR LER NP-33-80-25

DATE OF EVENT: February 26, 1980

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Borated Water Storage Tank (BWST) Level Indication in Safety Features Actuation System (SFAS) Channel 3 inoperable

Conditions Prior to Occurrence: The unit was in Mode 1, with Power (MWT) = 2533, and Load (Gross MWE) = 852.

Description of Occurrence: On February 26, 1980 at 0317 hours, it was noted by operations personnel that the SFAS Channel 3 BWST level indication was reading approximately four feet higher than the other three BWST level indications. The channel was declared inoperable by operations personnel at 0411 hours and was placed in the tripped condition. This occurrence placed the unit in Action Statement 9 of Technical Specification 3.3.2.1. This technical specification states that BWST level instrument strings shall be operable in Modes 1, 2, and 3. Action Statement 9 states that with one channel inoperable, operation may proceed provided (a) the inoperable unit is placed in the tripped condition within one hour, and (b) the remaining three channels are operable.

On February 29, 1980 at 0750 hours, it was noted that SFAS Channel 3 BWST level indication had failed again. The channel was declared inoperable and placed in the tripped condition at 0819 hours in accordance with the action statement of Technical Specification 3.3.2.1. The remaining three channels were operable.

Designation of Apparent Cause of Occurrence: The cause of the occurrence is the inadequacy of the design of the freeze prot on which presently has to be supplemented with a temporary windbreak. High winds troyed the windbreak (made out of laminated plastic sheets) and blew out the flame of the portable proper and heater that was inside the windbreak. Extreme cold temperatures then caused the sensing line of the level transmitter (LT 1525C) to begin to freeze up.

The second occurrence was due to the portable propane heater running out of fuel. Extreme cold temperatures then caused the sensing line of the level transmitter to freeze.

Facility Change Request 79-123 (implemented December 13, 1979) which installed new enclosures around the level transmitters and relocated heat trace temperature sensors to worst case locations was insufficient to protect against freezing during high wind conditions.

Analysis of Occurrence: There was no danger to the health and safety of the public or to station personnel. The remaining three BWST level instrument strings were operable during the period in which the SFAS Channel 3 BWST level instrument was inoperable.

Corrective Action: On February 26, 1980, a temporary windbreak was constructed out of canvas and placed around the BWST level transmitter and a portable propane heater was placed inside the windbreak. Within a short period of time, after the application of additional heating, LT 1525C indication returned to normal. Surveillance Test ST 5099.01 was performed and at 0922 hours on February 26, 1980, LT 1525C was declared operable. This removed the unit from the action statement.

The second occurrence was corrected by replacing the propane tank with a full one. Once heat was applied, BWST Channel 3 level indication returned to normal. At 1845 hours on February 29, 1980, LT 1525C was declared operable by the criteria of ST 5099.01. A program has been established to check the propane tanks to ensure an adequate supply of fuel to keep the heaters operating. There have been no subsequent problems. Toledo Edison is investigating further improvements to the freeze protection.

Failure Data: Previous incidents have occurred concerning BWST level indication failures due to freezing, see Licensee Event Reports NP-33-77-107, NP-33-78-01 (78-001), NP-33-80-23 (80-017), NP-33-79-32 (79-028), and NP-33-78-142 (78-121)

LER #80-018