NRC FOUR 366 **U. S. NUCLEAR REGULATORY COMMISSION** (7.77) LICENSEE EVENT REPORT CONTROL BLOCK: ] (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION) LICENSE NUMBER 10 0 3 4 2 IS 10 LICENSEE CODE CON'T (3) 0 7 3 0 REPORT L(6) 0 5 0 0 0 2 9 5 0 69 EVENT DATE 9 0 1 7 9 DOCKET NUMBER EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10) On 6/8/79 at 0642 hrs, with Unit 1 in HSD following a reactor trip, 0 2 operators marually initiated SI after momentary false steam pressure 0 3 differential signals caused control room SI annunciation but no 0 4 safeguards equipment actuation. T.S. 3.3.2.F.3 requires a 90-day 0 5 Visual inspection indicated no damage occurred as a result report. 0 6 The RCS remained intact. The health and safety of the of the SI. 0 7 public were not affected. SYSTEM COMP CAUSE CAUSE VALVE COMPONENT CODE SUBCODE SUBCODE Z Z ZIZ Z Z|(14 | F XI ZZ (16) (11 0 9 (13) OCCURRENCE REVISION SEQUENTIAL REPORT EVENTYEAR NÖ. LER RO 0 919 Х 0 4 4 REPORT NUMBER COMPONENT NPRD-4 ATTACHMENT PHIME COMP. FUTURE SHUTDOWN METHOD HOURS Zj9 P 0 014 Y (23) N Z 0 X(18) X C 1(24) (25) (26) CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27 waterhammer shock occurred in Loop D Steam Generator causing 1B and A 1D steamline pressure transmitters to spike high. A momentary SI signal was received for less than 1/60th of a second. This was long enough to give control room SI annunciation but not long enough to latch in SI mechanical relays. Waterhammer causes are currently under investigation METHOD OF DISCOVERY OTHER STATUS (30) FACILITY STATUS DISCOVERY DESCRIPTION (32) % POWER A (31) Operator Observation 00 4.4 ACTIVITY CONTENT AMOUNT OF ACTIVITY (35 LOCATION OF RELEASE (36) OF HELEASE Z (34) NA NA PERSONNEL EXPOSURES DESCRIPTION (39 NUMBER TYPE 0 0 NA PERSONNEL INJURIES DESCRIPTION (41) NUMBER. 0 0 0 40 NA LOSS OF OR DAMAGE TO FACILITY (43) TYPE DESCRIPTION 7908140785 Z (42) NA 650 PUBLICITY 104 NRC LISE ONLY DESCRIPTION (45 N 1(44 NA 312-746-2084 X341 D. Ugolini NAME OF PREPARER .

ATTACHMENT TO LER NO. 79-044/99X-0 COMMONWEALTH EDISON CO. ZION GENET TING STATION

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Description of Event: At 0626 hrs. on 6/8/79, Unit 1 experienced an inadvertent reactor trip due to 1D steam generator low level and feedwater flow mismatch caused by a 1C feedwater pump trip. Following the reactor trip, the steam generators were initially refilled at 150 gpm. While operators were throttling back auxiliary feedwater from 150 gpm to 100 gpm, a waterhammer shock occurred in loop D steam generator. The shock mementarily spiked 1B and 1D steamline pressure transmitters high. A momentary safety injection signal indicating "Steamline A High  $\Delta P$ " was received. Recording equipment indicates that this signal was present for less than 1/60th of a second. The signal duration was apparently sufficient to set off the solid state electronics which operate the control room annunciator but was not sufficient to latch in the SI actuation relays. Thus, operators received SI annunciation but no actuation of safeguards equipment took place. Operators immediately began analyzing plant parameters. Although no abnormalities were apparent, operator's conservatively initiated manual SI about 1.5 minutes later.

Consequence of Occurrence: Visual inspection of the Unit 1 containment and steam tunnel indicated no structural damage occured as a result of the safety injection or water hammer. All safeguards equipment operated as required. The effects of the thermal transient on the SI nozzles were evaluated and were found to be of minimal consequence. The integrity of the reactor coolant system remained intact. The health and safety of the public were not affected.

Cause of Occurrence: Operators manually initiated safety injection since a control room annunciator and the computer printout indicated safety injection had occurred but no safeguards equipment had actuated. A "Steamline A High **A**P" safety injection signal was received for less than 1/60th of a second due to a waterhammer in loop D steam generator. This caused the control room annunciation and computer printout of safety injection actuation, but was not of sufficient duration to latch in SI relays, so no safeguards equipment actuated until the SI was manually initiated.

Corrective Actions: Proper operation of the safeguards logic was verified by special PT-10A and 10B testing. Zion Station is currently investigating the cause of waterhammer shocks.

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