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REPORT SOURCE L 6 0 5 0 - 0 3 4 6 7 0 1 1 2 7 9 8 0 2 0 8 7 9 9

60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

On 1/12/79, power to Vital Bus Y2 was lost entering the unit into the Action Statement

of T.S. 3.8.2.1 Channel 2 of RPS, SFAS, and SFRCS lost AC power and caused a false

Integrated Control System signal which resulted in a rapid reduction of feed flow and

a rapid increase in reactor power. A reactor and full SFRCS trip occurred. No. 2

S/G level went below the minimum required by T.S. 3.4.5. Auxiliary feedwater re-

turned the S/G level above the low limit. Power was restored to the Y2 Bus. There

was no danger to the public or unit personnel. (NP-33-79-13)

SYSTEM CODE		CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE						COMP. SUBCODE		VALVE SUBCODE			
E	B	B	A	C	K	T	B	K	R	X	Z						
EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.									
7	9	0	0	9	0	3	L	0									
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER	
A	Z	A	C	0	0	2	4	Y	Y	A	C	7	8	2			

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (21)
The combined occurrence of an accidental grounding of the Containment Hydrogen Analy-

zer and the installation of a standard fuse to the analyzer resulted in a blown 125

volt DC fuse to the inverter which supplies the Vital Bus Y2. Under Maintenance

Work Order 79-1285, all 120 VAC essential bus output fuses will be checked and all

standard fuses replaced with fast-acting fuses as required by equipment specifications.

7 8 9
FACILITY STATUS % POWER OTHER STATUS (30) METHOD OF DISCOVERY DISCOVERY DESCRIPTION (32)
[1][5] [E] (28) [1][0][0] (29) NA [A] (31) Operator observation

7 8 9 10 11 12 13 14 15 16 17 18 19 20
ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (36)
[1][6] [Z] (33) [Z] (34) NA [NA]

7 8 9 10 11 12 13 14 15 16 17 18 19 20
PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION (39)
[1][7] [0][0][0] (37) [Z] (38) NA

7 8 9 10 11 12 13 14 15 16 17 18 19 20
PERSONNEL INJURIES NUMBER DESCRIPTION (41)
[1][8] [0][0][0] (40) NA

7 8 9 10 11 12 13 14 15 16 17 18 19 20
LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION (43)
[1][9] [Z] (42) NA

7 8 9 10 11 12 13 14 15 16 17 18 19 20
PUBLICITY ISSUED DESCRIPTION (45)
[2][0] [N] (44) NA

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DVR 79-015 & 016

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PHONE

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-33-79-13

DATE OF EVENT: January 12, 1979

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Loss of Vital Bus Y2 and loss of Steam Generator (SG) level

Conditions Prior to Occurrence: The unit was in Mode 1, with Power (MWT) = 2772, and Load (Gross MWE) = 900. Reactor Protection System (RPS) Channel 3 and Auxiliary Feed Pump 1-2 were inoperable for surveillance testing.

Description of Occurrence: At 0933 hours on January 12, 1979, an accidental ground caused a loss of 120 VAC Vital Bus Y2 and a subsequent loss of SG level. The event was initiated by an accidental grounding of Containment Hydrogen Analyzer AE 5028 at 09:33:03 hours. The ground was large enough to blow both the 10 amp 120 volt AC fuse feeding the Hydrogen Analyzer and the 200 amp 125 volt DC fuse in the inverter feeding Bus Y2. The loss of Y2 Bus caused a loss of power to the 120 volt AC section of the Reactor Protection System (RPS) Channel 2, Safety Features Actuation System (SFAS) Channel 2 and Steam and Feedwater Rupture Control System (SFRCS) Channel 2.

The loss of RPS Channel 2, which was feeding the Reactor Coolant System (RCS) flow indication to the Integrated Control System (ICS), caused a low RCS flow reactor power runback. The loss of RPS Channel 2 combined with the bypassed RPS Channel 3 also caused the auctioneered reactor power signal to drop from 100% to approximately 50% of full power. This caused the ICS to increase reactor power and reduce feedwater flow. The loss of Channel 2 120 volt AC to the SFRCS caused a closure of the startup feedwater control valve to SG 2. The combination of these events caused the level of SG 2 to fall rapidly.

A reactor trip occurred at 09:33:16 hours due to a RPS flux/delta flux/flow trip and SG 2 level continued to drop until at 09:34:44 hours, the level fell low enough (17 inches) to cause a full SFRCS trip and isolation of both SGs. Auxiliary feedwater was supplied to SG 1 but Auxiliary Feed Pump 2 was in manual in preparation for surveillance testing, so no water reached SG 2 from Auxiliary Feed Pump 2 until the operator took manual control of Auxiliary Feed Pump 2 speed to control the level of SG 2.

SG 2 level remained below 18 inches for about five minutes. The Control Room operator assured the safety of test personnel and placed Auxiliary Feed Pump 2 in operation to restore SG level.

Power to Bus Y2 was restored at 0940 hours although it was not fed from its normal source. The fuses were replaced and normal power was restored by 1445 hours.

Designation of Apparent Cause of Occurrence: Although an accidental ground caused by station personnel initiated the event, the 10 amp fuse feeding the Containment Hydrogen Analyzer should have blown fast enough to clear the fault before the 200 amp inverter fuse blew. Investigation shows that the 10 amp fuse was a standard fuse, and the 120 volt AC equipment specification called for fast-acting (current limiting) fuses.

Analysis of Occurrence: There was no danger to the health and safety of the public or to unit personnel. The loss of power to the Y2 Bus at 0933 hours resulted in unit entry into the Action Statement of Technical Specification 3.8.2.1 which requires in Modes 1-4, on loss of energization of a vital bus, the bus be restored to an operable status within eight hours or be in at least Hot Standby within the next six hours and in Cold Shutdown within the next thirty hours. At 1455 hours, the unit was removed from the Action Statement by fuse replacement and restoration of normal power. The loss of Y2 Bus caused safety related instrumentation to fail to the safe condition.

The low SG level put the unit in Action Statement (b) of Technical Specification 3.4.5, which requires in Modes 1-4, that with the SG inoperable due to water level being outside the limits, the unit be in Hot Standby within six hours and in Cold Shutdown within the next thirty hours. The unit was removed from the Action Statement after five minutes by level restoration using No. 2 Auxiliary Feedwater Pump. The loss of level made one SG unavailable for reactor heat removal, but the other SG had sufficient capacity during the short time period for decay heat removal.

Corrective Action: The inverter fuses were replaced under Maintenance Work Order (MWO) 79-1272. MWO 79-1285 was issued to check all 120 VAC essential bus output fuses, and all other fuses were found to be fast-acting.

Failure Data: There have been no previous reported occurrences.