NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	O H D B S 1 (2) LICENSEE CODE	0 0 - 0 0 0 0 0 - 0 0 (3) LICENSE NUMBER	4 1 1 1 1 (4) LICENSE TYPE	CAT (5)	
CON'T 0 1	REPORT SOURCE L (6)	0 5 0 0 0 3 4 6 (7) DOCKET NUMBER	0 4 1 8 8 1 (8) EVENT DATE	0 6 0 5 8 1 (9) REPORT DATE	

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 (NP-33-81-26) On 4/18/81 at 0330 hours, it was necessary to rapidly take 345 KV Bus
0 3 "J" out of service due to two burning potential devices on that bus. It was isolated
0 4 per SP 1107.01. However, the loads on the 13.8 KV Bus "A" power supply from
0 5 Startup Transformer "01" (which is fed by "J" bus) had not been transferred to "02".
0 6 The result was the loss of Decay Heat Pump 1-1 and entry into the action statement of
0 7 T.S. 3.4.1. There was no danger to the health and safety of the public or station
0 8 personnel. Reactor Coolant System pressure and temperature varied only slightly.

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	C F (11)	A (12)	A (13)	Z Z Z Z Z Z (14)	Z (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 1	—	0 2 4	/	0 3	X	—	1

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
X (18)	H (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	Z (25)	Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The cause was personnel and procedural error. In an attempt to rapidly isolate the
1 1 bus, operators failed to provide an alternate power supply for DH Pump 1-1 prior to
1 2 isolating "J" bus. The procedure only provides a short note of warning. DH Pump 1-1
1 3 was restarted 1 minute and 28 seconds after it was stopped. Memo 81-1013 was written
1 4 to inform the operators and modification M-4853 was written for procedure SP 1107.01.

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	G (28)	0 0 0 (29)	NA	A (31)	Operator observation

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	NA .

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	NA

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	N (44)	NA	

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DVR #81-051 NAME OF PREPARER David H. Brown PHONE: (419) 259-5000, Ext. 296

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-33-81-26

DATE OF EVENT: April 18, 1981

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Inadvertent Loss of Decay Heat Flow

Conditions Prior to Occurrence: The unit was in Mode 5 with Power (MWT) = 0 and Load (Gross MWE) = 0.

Description of Occurrence: At 0330 hours on April 18, 1981, Power Systems instructed Davis-Besse Operations to take 345 KV Bus "J" out of service as soon as possible due to the discovery of two burning potential devices on that bus. An equipment operator was quickly dispatched to the switchyard to isolate "J" bus per SP 1107.01, "345 KV Switchyard, No. 1 (Main) Transformer, No. 11 (Auxiliary) Transformer and Startup Transformers (01 and 02)", Section 10. A "no signoff" note in this procedure requires the Reactor Operators to transfer 13.8 KV bus "A" power supply from Startup Transformer "01" (which is fed by "J" bus) to Startup Transformer "02" prior to isolating "J" bus. The Reactor Operators failed to transfer the "A" bus power supply before "J" bus was isolated. As a result, essential 4160 volt bus C1 was de-energized via loss of power to "A" bus and non-essential 4160 volt bus "C2". At the time, reactor coolant system decay heat cooling flow was being provided by Decay Heat Pump 1-1 (which is powered by bus C1) and, as a result of the loss of power to bus "C1", Decay Heat Pump 1-1 was de-energized and decay heat flow was lost at 0351:36 on April 18, 1981. Loss of bus "C1" initiated an automatic start of Emergency Diesel Generator 1-1 and power was restored to bus "C1" at 0351:42 on April 18, 1981. Decay heat flow was restored at 0353:04 on April 18, 1981.

Loss of Decay Heat Pump 1-1 placed the unit in violation of the action statement of Technical Specification 3.4.1 which states that while in Modes 3, 4, or 5 and with no reactor coolant pumps running, operations may proceed provided at least one reactor coolant loop is in service with an associated decay heat removal pump. Total time in which the Reactor Coolant System was without decay heat flow was one minute, twenty-eight seconds.

Designation of Apparent Cause of Occurrence: This occurrence was caused by a combination of operator error and procedural inadequacy. The Reactor Operators, in their attempt to isolate "J" bus as quickly as possible, failed to provide an alternate power supply for Decay Heat Pump 1-1 prior to having their equipment operator isolate "J" bus.

Procedurally, SP 1107.01, Section 10 does not provide adequate instructions to provide an alternate power supply for "A" bus. At present, it only provides a short note to ensure that air circuit breakers HX01A and HX01B, the breakers which connect "01" transformer to the 13.8 KV buses, are open prior to taking "J" bus out of service. There is no signoff required for this note.

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Analysis of Occurrence: There was no danger to the health and safety of the public or to station personnel. Heatup of the reactor coolant system was minimal as decay heat flow was lost for a very short time (one minute, twenty-eight seconds) and the condition of the reactor coolant system (atmospheric pressure and approximately 100°F) was such that it could have accommodated a loss of decay heat removal for longer periods of time without damage to the reactor.

Corrective Action: Power was restored to essential 4160 volt bus "C1" by the automatic start of Emergency Diesel Generator 1-1 at 0351:42 on April 18, 1981, and the operators restored decay heat flow by starting Decay Heat Pump 1-1 at 0353:04 on April 18, 1981.

A major modification, M-4853, has been written for SP 1107.01 to provide a separate signoff for shifting 13.8 KV bus power supplies prior to taking the 345 KV buses out of service. All operations personnel have been made aware of this occurrence through Intra-Company Memorandum #M81-1013.

Failure Data: Previous inadvertent loss of decay heat flow was reported in Licensee Event Reports NP-33-80-54 (80-054), NP-32-80-14 (80-060), and NP-32-80-12 (80-058) which includes three incidents.

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