

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)		DOCKET NUMBER (2)	PAGE (3)
Turkey Point Unit 3		0 5 0 0 0 2 1 5 1 0	1 OF 0 1 2

TITLE (4)  
"D" Motor Control Center Automatic Transfer

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)	
0 1	1 8	8 6	8 6	0 0 3	0 0 0	2 1	8 8	6	Turkey Point Unit 4	0 5 0 0 0 2 5 1	
									N/A	0 5 0 0 0 1 1	

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)									
1		20.402(b)		20.406(c)		80.73(a)(2)(iv)		73.71(b)			
POWER LEVEL (10)		20.406(a)(1)(i)		80.38(c)(1)		80.73(a)(2)(v)		73.71(c)			
1 0 0		20.406(a)(1)(ii)		80.38(c)(2)		80.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 306A)			
		20.406(a)(1)(iii)		80.72(a)(2)(i)		80.73(a)(2)(viii)(A)					
		20.406(a)(1)(iv)		80.73(a)(2)(ii)		80.73(a)(2)(viii)(B)					
		20.406(a)(1)(v)		80.73(a)(2)(iii)		80.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME		AREA CODE	
Randall D. Hart, Licensing Engineer		3 10 15 2 4 15 1-12 19 11 10	

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)		X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

**Event:** On January 18, 1986, it was determined that the motor control center (MCC) "D" auto-transfer scheme as modified by recently installed plant change modification (PC/M) 79-145 is vulnerable to a single failure, loss of the 3B battery, which upon loss of offsite power and in the presence of a safeguards signal, will result in only one Unit 3 emergency containment cooler (ECC) and filter (ECF) being actuated. An engineering evaluation, dated January 13, 1986, revealed that a single failure, loss of the 3B battery, results in a loss of two of these ECCs and ECFs. The 3A ECC and ECF are lost because the 3B 4160 volt bus sequencer does not have control power and cannot sequence any loads onto the 3B 4160 volt bus. The 3B ECC and ECF are lost for the same reason plus the fact that the auto-transfer of the "D" MCC to its alternate emergency power supply will not occur. This transfer fails because the initiating logic requires an emergency diesel generator (EDG) failure to reach speed or EDG lockout, neither of which occurs. Manual operator action would be required to re-energize the "D" MCC to provide additional ECCs and ECFs to meet the Final Safety Analysis Report (FSAR) design basis. The current emergency operating procedures for loss of off-site power and loss of reactor coolant provide guidance to the operators on how to recognize that the "D" MCC has not automatically transferred and how to manually re-energize the "D" MCC.

**Cause of Event:** A design deficiency allows a single failure to automatically load only one ECC and ECF onto their emergency power supply.

**Corrective Actions:**

- 1) This condition was reviewed with the operating crews during their shift meetings to remind them of current procedural requirements.
- 2) A training brief was issued to alert plant personnel of this potential problem and remind them of current procedural requirements.
- 3) Further evaluations will be conducted by Engineering on this deficiency to determine if any other single failure deficiencies exist and to provide appropriate corrective actions.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Turkey Point Unit 3	05000250	86	003	00	02	OF 02

TEXT (If more space is required, use additional NRC Form 366A's) (17)

**Event:** On January 18, 1986, it was determined that the motor control center (MCC) "D" auto-transfer scheme as modified by recently installed plant change modification (PC/M) 79-145 is vulnerable to a single failure, loss of the 3B battery, which upon loss of offsite power and in the presence of a safeguards signal will result in only one Unit 3 emergency containment cooler (ECC) and filter (ECF) being actuated. The power supplies for the Unit 3 ECCs and ECFs are as follows: the 3B MCC feeds the 3A ECC and ECF, the "D" MCC feeds the 3B ECC and ECF, and the 3C MCC feeds the 3C ECC and ECF.

An engineering evaluation, dated January 13, 1986, revealed that a single failure, loss of the 3B battery, results in a loss of two of these ECCs and ECFs. The 3A ECC and ECF are lost because the 3B 4160 volt bus sequencer does not have control power and cannot sequence any loads onto the 3B 4160 volt bus. The 3B ECC and ECF are lost for the same reason plus the fact that the auto-transfer of the "D" MCC to its alternate emergency power supply will not occur. This transfer fails because the initiating logic requires an emergency diesel generator (EDG) failure to reach speed or an EDG lockout, neither of which occurs. Manual operator action would be required to re-energize the "D" MCC to provide additional ECCs and ECFs to meet the Final Safety Analysis Report (FSAR) design basis.

**Cause of Event:** A design deficiency allows a single failure to automatically load only one ECC and ECF onto their emergency power supply.

**Analysis of Event:** The emergency operating procedures for loss of off-site power and loss of reactor coolant currently provide guidance to the operators on how to recognize that the "D" MCC has not automatically transferred and how to manually re-energize the "D" MCC. The FSAR states in Section 6.3, "Emergency Containment Cooling and Filter System", that adequate containment heat removal capability for the containment is provided by two separate, full capacity, engineered safety feature systems. These are the containment spray system, whose components are described in Section 6.4 and the emergency containment cooling system, whose components operate as described in Section 6.3.2. These systems are of different engineering principles and serve as independent backups for each other. The design basis for containment heat removal considers simultaneous operation of one spray pump and two of three emergency containment coolers. This is the basis for containment pressure transient calculations in the FSAR, Section 14. However, the operation of either of the spray pumps or two of the three emergency containment coolers will provide heat removal capability to maintain the post accident containment pressure below the design value. Based on the above, the health and safety of the public were not affected.

**Corrective Actions:**

- 1) This condition was reviewed with the operating crews during their shift meetings to remind them of current procedural requirements.
- 2) A training brief was issued to alert plant personnel of this potential problem and remind them of current procedural requirements.
- 3) Further evaluations will be conducted by Engineering on this deficiency to determine if any other single failure deficiencies exist and to provide appropriate corrective actions.

**Additional Information:**

Similar occurrences: LER 250-79-022.



FEB 1 8 1986

L-86-72

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Re: Reportable Event 86-03  
Turkey Point Unit 3  
Date of Event: January 18, 1986  
"D" Motor Control Center Automatic Transfer

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR to provide notification of the subject event.

Very truly yours,

*D. N. Paduano*  
for C. O. Woody  
Group Vice President  
Nuclear Energy

COW/PLP:dh

Attachment

cc: Dr. J. Nelson Grace, Region II, USNRC  
Harold F. Reis, Esquire  
PNS-LI-86-57

*1E22*  
*1/1*