

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1)										DOCKET NUMBER (2)										PAGE (3)			
Oconee Nuclear Station Unit 3										0   5   0   0   0   2   8   7										1   OF   0   3			

**TITLE (4)**

3TE Switchgear Load Shed Source B Fuse Block not installed

EVENT DATE (5)			LER NUMBER (3)				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	0	5	8	4	8	4	---	0	0	1	---	0	0	0	2	0	6	8	4					
																	0   5   0   0   0								
																	0   5   0   0   0								

OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)				
POWER LEVEL (10)		1 0 0	20.402(b)		20.405(e)	60.73(a)(2)(iv)	73.71(b)
			20.405(a)(1)(i)		60.36(e)(1)	60.73(a)(2)(v)	73.71(c)
			20.405(a)(1)(ii)		60.36(e)(2)	60.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
			20.405(a)(1)(iii)	X	60.73(a)(2)(i)	60.73(a)(2)(viii)(A)	
			20.405(a)(1)(iv)		60.73(a)(2)(ii)	60.73(a)(2)(viii)(B)	
			20.405(a)(1)(v)		60.73(a)(2)(iii)	60.73(a)(2)(x)	

LICENSEE CONTACT FOR HIS LER (12)

NAME	TELEPHONE NUMBER	
	AREA CODE	
Jocelyn C. Petty	7104	317131-1812710

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)			
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**ABSTRACT** (Limit to 1400 spaces, i.e. approximately fifteen single-space typewritten lines) (16)

On January 5, 1984 at 1400 hours with Unit 3 at 100% FP, the 3TE Switchgear Load Shed Source B fuse block was discovered to not be installed. This source B fuse block provides power to only load shed relay 3ELS2. This relay is one of the two relays that can trip eight non-essential components during a load shed actuation. Technical Specification 3.7.2(b) states that "the circuits or channels of any single functional unit of the EPSL (Emergency Power Switching Logic) may be inoperable for test of maintenance for periods not exceeding 24 hours" (provided that certain conditions are met). Part of channel B was not operative causing it to be degraded for an undetermined amount of time. This was a violation of Technical Specification 3.7.2(b), and is reportable to the NRC per the requirements of 10 CFR 50.73(a)(2)(i). The fuse block was reinstalled at 1540. A station modification to be completed will add computer alarms for loss of load shed control power. It appears the fuse block was manually pulled by an unknown person at some time since October 1983 when it was last verified to be in place. This is the basis for classifying this incident as unknown.

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PDR ADOCK 05000287  
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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1)  Oconee Nuclear Station Unit 3	DOCKET NUMBER (2)  0 5 0 0 0 2 8 7 8 4 - 0 0 1 - 0 0 0 2 OF 0 3						LER NUMBER (6)			PAGE (3)		
							YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

Description of Occurrence: On January 5, 1984 at 1400 hours with Unit 3 at 100% FP, while examining breaker 3TE #13 in conjunction with a non-associated station modification, it was discovered that the 3TE switchgear load shed source B fuse block was disengaged. The appropriate personnel were notified and the fuse block was reinstalled at 1540. The other Unit 3 load shed fuse blocks were checked and no other fuse blocks were found to be disengaged. The 3TE load shed source B fuse block is located inside breaker cabinet 3TE #13. The 3TE switchgear is comprised of fifteen 4160V breakers and is located on the ground floor of the turbine building. Since breaker 3TE #13 is a spare, there is no load requirement for a component associated with it. This source B fuse block provides power to only load shed relay 3ELS2. This relay is one of the two relays that can trip eight non-essential components during a load shed actuation. A load shed situation causes non-essential loads on the 4160V switchgear to be tripped so that the transformer supplying power to the 4160V Main Feeder Buses will not be overloaded.

Cause of Occurrence: The length of time that the breaker 3TE #13 load shed source B fuse block was not installed is indeterminable since there is no alarm associated with the disengaging of it. However, there is a plastic red tag permanently mounted beside the fuse block stating "3TE Load Shed Source B - DO NOT REMOVE". This tag and other similar tags were permanently mounted beside this fuse block and all other load shed fuse blocks to inform personnel of their importance. These tags were installed July 15, 1983 as a result of an incident on Unit 1. In late June 1983 while performing a PM on breaker 1TC #2, load shed source A fuse block had been inadvertently pulled. When the importance of the fuse block was discovered, it was replaced and temporary white tags were installed on all similar fuse blocks on all three units until permanent red tags could be made and installed. As the tags were installed, all fuse blocks were checked to verify installation. A follow-up inspection performed in October, 1983 verified the tags and fuse blocks were installed. A station modification had been issued earlier to install dedicated fuse blocks for each local load shed trip relay and add computer alarms for loss of load shed control power. Technical Specification 3.7.2(b) states that "the circuits or channels of any single functional unit of the EPSL may be inoperable for test or maintenance for periods not exceeding 24 hours provided that:

1. The conditions of Table 3.7-1 for degraded operation are satisfied for that specific functional unit; and
2. The conditions of Table 3.7-1 for normal operation are satisfied for all other functional units."

Table 3.7-1 allows only 1 of the 2 channels to be degraded for a period of up to 24 hours. Part of channel B was not operative causing it to be degraded for an undetermined amount of time. Had this station modification been installed before this breaker 3TE #13 source B fuse block was disengaged, a notification of the removed fuse block would have prevented a Technical Specification 3.7.2(b) violation.

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

Cause of Occurrence (cont'd):

It has not been determined when the fuse block was pulled. The last time installation was verified was October, 1983. There has been no work request issued for the breaker in the last two years. Since the cabinet is not locked and the breaker is a spare, how and when the fuse block was removed is undeterminable at this time. This is the basis for classifying this incident as unknown.

Analysis of Occurrence: During the time the fuse block was out, Unit 3 did not experience any electrical problem with either the auxiliary or startup transformers which would have required CT4 to be energized. Therefore, Unit 3 never experienced a load shed situation requiring the non-essential components to trip. Also Load Shed Source C of the 3TE breakers had power available and would have energized the redundant ELS1 relay, thereby tripping the associated non-essential components. A load shed actuation and simultaneous failure of ELS1 relay would be necessary before ELS2 would be needed to trip the 3TE non-essential components. Even if all these failures had occurred simultaneously, the amount of power the non-essential components plus the essential components would require is approximately 16 MVA. This power requirement is less than the capacity of CT3 or CT4 and would not create an overload situation.

Since CT4 could handle the essential loads as well as the affected non-essential loads of Unit 3, the health and safety of the public were not affected.

Corrective Action: The 3TE load shed source B fuse block was reinstalled at 1540 hours. The other Unit 3 load shed fuse blocks for sources A and B were checked to verify proper installation. All personnel whose jobs involve working with the 4160V switchgear were questioned about the incident. The station modification to install dedicated fuse blocks for each local load shed trip relay and add computer alarms for loss of load shed control power will be completed. The load shed periodic tests will be reviewed and modified as necessary to ensure the load shed circuitry is adequately tested. This report shall be reviewed with all personnel in the Transmission Department, Station Support Division - Electrical, Station Maintenance Support - Electrical, and Instrument and Electrical sections.

DUKE POWER COMPANY

P.O. BOX 33189  
CHARLOTTE, N.C. 28242

HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

TELEPHONE  
(704) 373-4531

14 A 8:26  
February 6, 1984

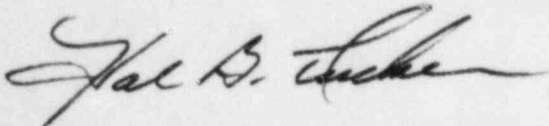
Mr. James P. O'Reilly, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

Re: Oconee Nuclear Station  
Docket No. 50-287

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-287/84-01. This report is submitted pursuant to 10 CFR 50.73(a)(2)(i), and describes an incident which is considered to be of no significance with respect to its effect on the health and safety of the public.

Very truly yours,



Hal B. Tucker

JCF/php

Attachment

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

INPO Records Center  
Suite 1500  
1100 Circle 75 Parkway  
Atlanta, Georgia 30339

Mr. J. C. Bryant  
NRC Resident Inspector  
Oconee Nuclear Station

Mr. John F. Suermann  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

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11