

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
EDWIN I. HATCH, UNIT II	0 5 0 0 0 3 6 6	1 OF 0 3

TITLE (4)

BLOWN FUSE CAUSES LOSS OF POWER TO "A" RPS BUS AND RESULTS IN ESF ACTUATIONS

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)											
1	2	2	8	5	8	5	0	3	8	0	1	0	2	0	6	8	6	0	5	0	0	0
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																			
POWER LEVEL (10)			20.402(b)			20.406(e)			50.73(a)(2)(iv)			73.71(b)										
1 1 0 1 0			20.406(a)(1)(i)			50.38(a)(1)			50.73(a)(2)(v)			73.71(c)										
			20.406(a)(1)(ii)			50.38(a)(2)			50.73(a)(2)(vii)			OTHER (Specify in Abstract below and in Text, NRC Form 388A)										
			20.406(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(viii)(A)													
			20.406(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)													
			20.406(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(ix)													

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Raymond D. Baker, Licensing Manager - Hatch	4 0 4 5 2 6 - 7 0 1 6

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

At approximately 0200 CST on 12/22/85, with Unit 2 operating at 2428 MWT (approximately 100% rated power), plant personnel determined that power had been lost on the "A" Reactor Protection System (RPS) bus. This loss of power resulted in a half reactor scram; a half group isolation signal on primary containment isolation valves in valve groups 1, 2, and 5; a trip of the main steam line radiation monitors 2D11-K603A and 2D11-K603C; and the automatic start of the "A" standby gas treatment train.

An immediate investigation determined that subsequent to the performance of the weekly "APRM INSTRUMENT F.T.&C." procedure (34SV-C51-002-2), operations personnel were replacing the cover on reactor scram relay 2C71-K14C when the relay's coil power supply fuse blew and deenergized the relay. This tripped the output circuit breakers on RPS motor/generator set 2C71-S001A, resulting in the loss of power on the "A" RPS bus, and a reactor half-scam.

Subsequent to replacing the relay fuse, the half scram was reset, and the plant returned to normal operation at approximately 1000 CST on 12/22/85.

Plant engineered safety features responded to the loss of power on the "A" RPS bus as expected. Therefore, the health and safety of the public were not adversely affected.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
EDWIN I. HATCH, UNIT II	0 5 0 0 0 3 6 6	8 5	- 0 3 8	- 0 1	0 2	OF 0 3

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

This 30 day LER is required by 10CFR 50.73(a)(2)(iv) because of the unplanned actuation of Engineered Safety Features (ESFs).

At approximately 0200 CST on 12/22/85, with the plant operating at 2428 MWt (approximately 100% rated power), plant personnel determined that power had been lost on the "A" Train of the Reactor Protection System (RPS).

An immediate investigation showed that the following sequence of events took place:

1. The required weekly performance of the "APRM INSTRUMENT F.T.&C." procedure (34SV-C51-002-2) had just been completed.
2. Following completion of that procedure, operations personnel were replacing the cover (it had been removed for visual observation of the relay) on reactor scram relay 2C71-K14C when the coil power supply fuse on that device (2C71-F14C) blew.
3. The blowing of the fuse deenergized the scram relay and tripped the "A" RPS bus motor/generator set (2C71-S001A) output breakers, resulting in loss of power on RPS bus "A".
4. The loss of power on the "A" RPS bus resulted in the following:
  - a. A reactor half-scam signal occurred.
  - b. A half-group isolation signal was received for certain primary containment isolation valves in valve groups 1, 2, and 5. The following valves isolated as required:
    - 1) Reactor water sample line inboard isolation valve 2B31-F019 (group 1).
    - 2) Drywell equipment drain sump discharge inboard isolation valve 2G11-F019 (group 2).
    - 3) Drywell floor drain sump discharge inboard isolation valve 2G11-F003 (group 2).
    - 4) Reactor water cleanup system inboard suction isolation valve 2G31-F001 (group 5).
  - c. Main steam line radiation monitors 2D11-K603A and 2D11-K603C went to their fail safe condition (tripped) on loss of supply voltage.
  - d. The "A" Standby Gas Treatment automatically started.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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

Operations personnel immediately began an investigation to identify the cause of the blown fuse; however, the cause was not positively identified. It is postulated that during the replacement of the cover on 2C71-K14C, the relay was bumped, thus causing one or more energized relay contacts to briefly contact a neutral point within the relay. This contact caused a momentary surge of current of sufficient strength to blow the fuse, and at the same time cause the RPS motor/generator output circuit breakers to trip. It should be noted that the removal/replacement of the relay covers is an extremely tedious action, and it must be performed weekly for the surveillance earlier specified.

Subsequent to the investigation, the following actions were taken to restore the Unit to normal operating status:

1. Reactor scram relay fuse 2C71-F14C was replaced.
2. The RPS motor generator set (2C71-S001A) output circuit breakers were reset.
3. The half-group isolation signal was reset, and each of the valves which had isolated was returned to its normally open position.
4. The supply power for Main Steam Line radiation monitors 2D11-K603A and 2D11-K603C was restored.
5. The "A" Standby Gas Treatment train was shut down, and its controls were returned to the standby mode.
6. The reactor half-scram was reset.

Subsequent to the above actions, the plant resumed normal operation at approximately 1000 CST on 12/22/85.

The reactor scram relays are presently scheduled to be replaced during the next scheduled Unit 2 refueling outage. The new relays will have a hinged cover with two screws, instead of the present cover which is secured by two tabs at the top of the cover and a spring loaded mechanical latch on the bottom of the cover. The new hinged cover will allow personnel to remove two screws and pivot the cover on its hinge without removing it from the relay. This should prevent recurrence of this event.

There have been no past similar events where a RPS bus lost its power because of a blown reactor scram relay fuse.

Plant engineered safety features responded as expected to the loss of power on the "A" RPS bus. Therefore, the health and safety of the public were not adversely affected by this event.

Georgia Power Company  
333 Piedmont Avenue  
Atlanta, Georgia 30308  
Telephone 404 526-6526

Mailing Address:  
Post Office Box 4545  
Atlanta, Georgia 30302

L. T. Gucwa  
Manager Nuclear Safety and  
Licensing Department



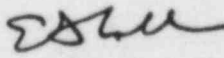
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February 6 1986

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

Attached is Licensee Event Report 50-366/1985-038, Rev. 1. This report meets the reporting requirements of 10 CFR 50.73(a)(2)(iv).

Very truly yours,

  
for L. T. Gucwa

CBS/lc

Attachment

c: Mr. J. T. Beckham, Jr.  
Mr. H. C. Nix, Jr.  
NRC-Region II  
GO-NORMS

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