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 | A L J M F 1 | (2) | 0 0 - 0 0 0 0 0 - 0 0 | (3) | 4 1 1 1 1 | (4) | | (5)

LICENSEE CODE 7-14; LICENSE NUMBER 15-25; LICENSE TYPE 26-30; CAT 57-58

CON'T

0 1 REPORT SOURCE | L | (6) | 0 5 0 0 0 3 4 8 | (7) | 0 6 2 2 7 9 | (8) | 0 9 0 5 7 9 | (9)

DOCKET NUMBER 61-68; EVENT DATE 69-74; REPORT DATE 75-80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | Westinghouse notified Alabama Power Company that a high energy line break inside
0 3 | Containment could result in heatup of the steam generator level transmitter reference
0 4 | legs. A resulting level bias caused by reference leg density decrease could delay or
0 5 | prevent automatic generation of reactor trip and aux. feedwater initiation signals by
0 6 | low-low steam generator water level bistables. Review of this notification resulted
0 7 | in a determination on 6/22/79 that this condition is potentially reportable under Tech.
0 8 | Spec. 6.9.1.8(h). The health and safety of the public were not affected.

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

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	7 9	—	0 2 3	/	0 1	T	—	1

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

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | Increased reference leg water column temp. will result in a decrease of the water
1 1 | column density with a consequent apparent increase in the indicated S.G. water level
1 2 | (i.e. apparent level exceeding actual level). This in turn could delay or prevent
1 3 | generation of the signals described in item 10. A design change, Technical Specification
1 4 | change and procedure changes have been initiated to alleviate this potential problem.

	FACILITY STATUS (28)	% POWER (29)	OTHER STATUS (30)	METHOD OF DISCOVERY (31)	DISCOVERY DESCRIPTION (32)
1 5	G	0 0 0	NA	D	Notification from NSSS vendor.

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

PERSONNEL EXPOSURES

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

PERSONNEL INJURIES

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

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE (42)	DESCRIPTION
1 9	Z	NA

7909110619

PUBLICITY

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

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NAME OF PREPARER W. G. Hairston, III PHONE (205) 899-5156

ALABAMA POWER COMPANY
JOSEPH M. FARLEY NUCLEAR PLANT
DOCKET NO. 50-348
ATTACHMENT TO LER 79-023/01T-1

Facility: Joseph M. Farley Unit 1

Report Date: 9/5/79

Event Date: 6/22/79

Identification of Event:

On 6/22/79 it was determined that a high energy line break inside containment could result in heatup of the steam generator level transmitter reference legs, which in turn could initiate a sequence of events resulting in delay or prevention of the automatic generation of reactor trip and auxiliary feedwater initiation signals.

Conditions Prior to Event:

Plant was in Mode 5.

Description of Event:

Westinghouse notified Alabama Power Company that a high energy line break inside containment could result in heatup of the steam generator level transmitter reference legs. A resulting level bias caused by reference leg density decrease could delay or prevent automatic generation of reactor trip and aux. feedwater initiation signals by low-low steam generator water level bistables. Review of this notification resulted in a determination on 6/22/79 that the condition was potentially reportable under Tech. Spec. 6.9.1.8(h). The health and safety of the public were not affected.

Designation of Apparent Cause:

Increased reference leg water column temperature will result in a decrease of the water column density with a consequent apparent increase in the indicated S.G. water level (i.e. apparent level exceeding actual level). This in turn could delay or prevent generation of the signals listed in the "Description of Event".

Analysis of Event:

An analysis of this potential occurrence has resulted in the identification of three areas requiring corrective action.

Corrective Action:

1. A design change (addition of insulation to the steam generator level instrumentation impulse lines) will minimize the magnitude of the steam generator level measurement error during the first few minutes of a postulated high energy line break.

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2. The low-low steam generator level setpoints will be changed from the present $\geq$ 15% to $\geq$ 17% and a Technical Specification change will be submitted for NRC approval. This 2% change accommodates the shift associated with the temperature change.

3. Plant emergency operating procedures FNP-1-EOP-1 (Loss of Reactor Coolant) and FNP-1-EOP-2 (Loss of Secondary Coolant) will be revised. The revisions will caution the operator as to the possibility of erroneous steam generator water level indications. The operator will be directed to use several plant indications to verify the existence of steam generator water level.

Failure Data:

None

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