NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

Line	Field	Entry
0 1	Licensee Code (2)	A L J M F 1
	License Number (3)	0 0 - 0 0 0 0 0 - 0 0
	License Type (4)	4 1 1 1 1
	CAT (5)	
0 1 (CON'T)	Report Source (6)	1
	Docket Number (7)	0 5 0 0 0 3 4 8
	Event Date (8)	0 4 1 2 7 9
	Report Date (9)	0 5 2 9 7 9

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 In response to IE Bulletin 79-02, Alabama Power Company initiated a program to
0 3 randomly select and test a sample of anchor bolts installed in Seismic Category 1,
0 4 Safety Related 2½" and greater piping systems. Initial results of that program
0 5 revealed that statistical sampling would not be sufficient to provide a high
0 6 probability of greater than 95% anchor bolt reliability. The potential for anchor
0 7 bolt failures and the resultant possibility of hanger failure were reported to the NRC
0 8 on 4/12/79 under the potential applicability of Tech. Spec. 6.9.1.8(i). The health and safety of the public is not affected.

Line	System Code (11)	Cause Code (12)	Cause Subcode (13)	Component Code (14)	Comp. Subcode (15)	Valve Subcode (16)
0 9	Z Z	B	C	S U P O R T	X	Z

(17) LER/RO Report Number	Event Year		Sequential Report No.		Occurrence Code	Report Type		Revision No.
	7 9	—	0 7 1	/	0 1	T	—	2

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)
A	A	Z	Z	0 0 0 0	Y	Y	A	X 9 9 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The anchor bolt testing program has been expanded to include 100% testing and/or
1 1 analyses of anchors on pipe hangers for those systems or portions of systems required
1 2 to meet design basis accidents or required to bring the plant to cold shutdown.
1 3 (See Attachment)
1 4

Line	Facility Status (28)	% Power (29)	Other Status (30)	Method of Discovery (31)	Discovery Description (32)
1 5	H	0 0 0	NA	C	Test Program

Line	Activity Released (33)	Content of Release (34)	Amount of Activity (35)	Location of Release (36)
1 6	Z	Z	NA	NA

Line	Personnel Exposures Number (37)	Type (38)	Description (39)
1 7	0 0 0	Z	NA

Line	Personnel Injuries Number (40)	Description (41)
1 8	0 0 0	NA

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Line	Loss of or Damage to Facility Type (42)	Description (43)
1 9	Z	NA

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Line	Publicity Issued (44)	Description (45)	NRC Use Only
2 0	N	NA	

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ALABAMA POWER COMPANY
JOSEPH M. FARLEY NUCLEAR PLANT
DOCKET NO. 50-348
ATTACHMENT TO LER 79-021/01T-2

Facility: Joseph M. Farley Unit 1

Report Date: 5/29/79

Event Date: 4/12/79

Identification of Event:

Potential for anchor bolt failures and the resultant possibility of hanger failure in certain systems.

Conditions Prior to Event:

The unit was in mode 6 (refueling).

Description of Event:

In response to IE Bulletin 79-02, Alabama Power Company initiated a program to randomly select and test a sample of anchor bolts installed in Seismic Category 1, Safety Related, 2½inch and greater piping systems. Initial results of that program revealed that statistical sampling would not be sufficient to provide a high probability of greater than 95% anchor bolt reliability. The potential for anchor bolt failures and the resultant possibility of hanger failure were reported to the NRC on 4/12/79 under the potential applicability of Technical Specification 6.9.1.8(i). Subject bolts were manufactured by Phillips Drill Co., Hilli Fastening Systems Incorporated and Wej-It Corporation.

Designation of Apparent Cause:

Under investigation.

Analysis of Event:

Alabama Power Company initiated a program to randomly select and test a sample of anchor bolts installed in Seismic Category I, Safety Related, 2½ inch and greater piping systems. Initial results of that program revealed that statistical sampling would not be sufficient to provide a high probability of greater than 95% anchor bolt reliability. Also, it has been found that the hanger designers have not had available to them an official transmittal of the revised loads for 281 supports on lines analyzed by Westinghouse. Potential design, documentation and installation deficiencies exist on pipe hangers. The health and safety of the public is not affected.

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Corrective Action:

The anchor bolt testing program has been expanded to include 100% verification of acceptable anchors on pipe hangers for those systems or portions of systems required to meet design basis accidents and those required to bring the plant to cold shutdown.

This piping includes:

a. Seismic Category 1; Safety-Related 2-1/2 inch and above.

b. Seismic Category 1; Safety-Related Class 1 under 2-1/2 inch.

c. Seismic Category 1; Safety-Related of other classes for which the designer performed detailed analysis.

d. All piping through containment penetrations.

The systems involved in the above verification include the following.:

1. Component Cooling Water System
2. Service Water System
3. Sampling System
4. Chemical Volume and Control System
5. Residual Heat Removal System
6. Main Steam System
7. Containment Cooling System
8. Reactor Coolant System
9. Emergency Core Cooling System
10. Main Feedwater System
11. Emergency Diesel Generator with Fuel Oil System
12. Gaseous Waste System
13. Post Accident Containment Hydrogen Control System
14. Auxiliary Feedwater System
15. Containment Spray System
16. Condensate Storage Tank

17. Containment Isolation System

18. Main Steam Safety and Relief Valve Systems

The overall scope of the above verification program includes approximately 12,000 anchor bolts.

Engineering design organizations are participating in determining test acceptance criteria which will ensure proper anchor safety margins. Designers will verify the adequacy of Seismic supports or the inadequacies requiring corrective measures. This will include an evaluation concerning the 281 supports on which revised loads were not evaluated. The necessary corrective action will be accomplished on each system to ensure operability.

The results of the verification will be included in the evaluation covering all portions of all Seismic Category I systems required by IE Bulletin 79-02.

A supplemental LER will be submitted when corrective actions required have been identified. Farley Nuclear Plant will not return to power range reactor operation until such time as Alabama Power Company and NRC Region II mutually agree that potential safety questions have been satisfactorily resolved.

Failure Data:

None