

CONTROL BLOCK:

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 (1)

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
4		9 LICENSEE CODE 14							15 LICENSE NUMBER 25											26 LICENSE TYPE JU 57 CAT 58									

CON'T

0	1
7	8

REPORT SOURCE

1	6	0	5	0	0	0	3	4	8	7	0	4	1	2	7	9	8	0	6	1	9	7	9	9
60	61	DOCKET NUMBER						68	69	EVENT DATE						74	75	REPORT DATE						80

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 I,

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

0 8 | NRC on 4/12/79 under the potential applicability of Tech. Spec. 6.9.1.8(i). The health

7 8 9 | and safety of the public is not affected.

SYSTEM CODE 0 9		CAUSE CODE Z 10		CAUSE SUBCODE B 12		COMPONENT CODE C S U P P O R T				COMP. SUBCODE X 15		VALVE SUBCODE Z 16	
17 LER/RO REPORT NUMBER 7 9		EVENT YEAR 7 9		SEQUENTIAL REPORT NO. 0 2 1		OCCURRENCE CODE / 0 1				REPORT TYPE T		REVISION NO. 3	
ACTION TAKEN A 18		FUTURE ACTION A 19		EFFECT ON PLANT Z 20		SHUTDOWN METHOD Z 21		HOURS 0 0 0 0		ATTACHMENT SUBMITTED Y 23		NPRD-4 FORM SUB. Y 24	
										PRIME COMP. SUPPLIER A 25		COMPONENT MANUFACTURER 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
7 8 9
FACILITY STATUS
1 5 H 23 0 0 0 29 NA 30
7 8 9 10 11 12 13 44
METHOD OF DISCOVERY
C 31 Test Program 32
45 46 80
ACTIVITY CONTENT
RELEASED OF RELEASE
1 6 Z 33 Z 34 NA 35
7 8 9 10 11 44
DISCOVERY DESCRIPTION
LOCATION OF RELEASE 36
45 80

PERSONNEL EXPOSURES										
NUMBER			TYPE	DESCRIPTION						
1	7	0	0	0	(37)	2	(38)	NA		

7	8	9	11	12	13	PERSONNEL INJURIES		POOR ORIGINAL		2238 200		80
NUMBER			DESCRIPTION			(41)						
1	2	3	4	5	6	7	8	9	10	11	12	13
									NA			

7906250 252 S

8 9 10
PUBLICITY
ISSUED DESCRIPTION (45)
2 11 N (44) NA
NRC USE ONLY 80

NRC USE ONLY

W. G. Hairston, III

Ref: (205) 899-5156

ALABAMA POWER COMPANY
JOSEPH M. FARLEY NUCLEAR PLANT
DOCKET NO. 50-348
ATTACHMENT TO LER 79-021/01T-3

Facility: Joseph M. Farley Unit 1

Report Date: 6/19/79

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 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. 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., Hilti 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 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 I; Safety-Related 2-1/2 inch and above.
- b. Seismic Category I; Safety-Related Class 1 under 2-1/2 inch.
- c. Seismic Category I; 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 bolt safety margins. Designers will verify the adequacy of pipe hangers within the verification program. This will include verification of hanger design and anchor bolt loadings. 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

2238 203