NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Joseph M. Farley - Unit 1	0 5 0 0 0 3 4 8	1 OF 0 3

TITLE (4) Unit Manually Tripped Due To A Leak On An Air Supply Line To A Main Steam Isolation Valve

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)
										0 5 0 0 0
0 1	0 8	8 7	8 7	— 0 0 2	— 0 0	0 2	0 5	8 7		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
	1	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	1 0 0	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
J. D. Woodard, General Manager - Nuclear Plant	2 0 5 8 9 9 - 5 1 5 6

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)

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

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

At 0649 on 1-8-87, the reactor tripped due to the manual tripping of the main turbine. At approximately 0630, the unit operator had observed a main steam line isolation valve (MSIV) position indicator with dual indication. An attempt to fully open the MSIV by moving the MSIV handswitch to the open position was unsuccessful. The decision was made to trip the unit. The unit was stabilized in Mode 3 (Hot Standby).

This event was caused by an air leak from a cracked air supply line to the MSIV. The crack developed when the main steam line thermal growth during heat-up caused an interference between the air line and a rigid tubing support. The root cause for the failure was that inadequate clearance for the main steam line was allowed during placement of the tube support. The air line line was replaced, the tubing support was notched, and the unit was returned to service at 0800 on 1-9-87.

8702180440 870205
PDR ADOCK 05000348
S PDR

IE22
1/1

NRC Form 366
(9-83)

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Joseph M. Farley - Unit 1	0 5 0 0 0 3 4 8	8 7	— 0 0 2	— 0 0	0 2 OF 0 3

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

Plant and System Identification:

Westinghouse - Pressurized Water Reactor
Energy Industry Identification System codes are identified in the text as [XX].

Summary of Event

At 0649 on 1-8-87, the reactor [AB] tripped due to the manual tripping of the main turbine [TA]. At approximately 0630, the unit operator had observed a main steam line isolation valve (MSIV) [SB] position indicator with dual indication. An attempt to fully open the MSIV by moving the MSIV handswitch to the open position was unsuccessful. The decision was made to trip the unit. The unit was stabilized in Mode 3 (Hot Standby).

Description of Event

On 1-8-87, the unit was operating in steady state at 100% reactor power. At approximately 0630, the unit operator observed MSIV 3370A position indicator showing dual indication. A Shift Foreman was dispatched to check the MSIV locally. He reported that the valve had moved approximately one inch from its normal open position. The air supply [LD] to the MSIV actuator was verified open. An attempt to fully open the valve by taking the MSIV handswitch to the open position was unsuccessful. The valve was subsequently observed to have moved approximately one-half inch further closed. The decision was made to manually trip the turbine and reactor at 0649.

Following the trip, the operators implemented FNP-1-EEP-0 (Reactor Trip or Safety Injection) and FNP-1-ESP-0.1 (Reactor Trip Response), ensuring that the unit was safely in Mode 3. The unit was maintained in a stable condition.

Cause of Event

This event was caused by an air leak from a crack where the air supply line attaches to the MSIV actuator. The 0.75 inch pipe air line to the MSIV had moved into and contacted a rigid tubing support due to thermal expansion of the main steam line. The tubing support had been installed during the previous refueling outage as part of a design change to the MSIV air line supply which installed a flexible section intended to prevent air line fatigue failure due to vibration. Since the air line was not subject to a process temperature change, no inspection for thermal expansion interferences with the plant at operating temperature was specified or performed.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Joseph M. Farley - Unit 1	0 5 0 0 0 3 4 8	8 7	— 0 0 2	— 0 0	0 3 OF 0 3

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

Reportability Analysis and Safety Assessment

This event is reportable because of the actuation of the reactor protection system. After the trip, the following safety systems operated as designed: main feedwater was isolated with flow control valves and bypass valves closed, auxiliary feedwater pumps started automatically and provided flow to the steam generators, source range nuclear instrumentation automatically energized, and pressurizer heaters and spray valves operated automatically as required to maintain system pressure. Since all safety systems functioned as designed there was no effect to the health and safety of the public.

Corrective Action

The air line was replaced and the tubing support was notched so that it would not be in contact with the air line. The other MSIV air lines were also inspected and one other air line was found in contact with a tubing support. This interference was also eliminated. Appropriate personnel will be instructed to specify and perform inspections for thermal expansion interferences when structures or components not subject to thermal growth are installed in the vicinity of components that experience significant thermal movements during plant start-up.

Additional Information

No other components failed during this event.

No similar events have been reported at Farley Nuclear Plant.

Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291-0400
Telephone 205 250-1835

R. P. McDonald
Senior Vice President

Alabama Power
the southern electric system

February 5, 1987

Docket No. 50-348

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

Dear Sir:

Joseph M. Farley Nuclear Plant - Unit 1
Licensee Event Report No. LER 87-002-00

Joseph M. Farley Nuclear Plant, Unit 1, Licensee Event Report No. LER 87-002-00 is being submitted in accordance with 10CFR50.73.

If you have any questions, please advise.

Respectfully submitted,

R. P. McDonald

RPM/JAR:dst-D-LER

Enclosure

cc: IE, Region II

IE22
1/1