

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Joseph M. Farley - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 4 8 1	PAGE (3) OF 0 3
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TITLE (4) **Control Room Pressurization Unable To Maintain Required Pressure Due To Open Penetrations**

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 NAME(S)		DOCKET NUMBER(S)
0 4 1	1 8 8	8 8	8 8	0 1 0	0 0	0 5 1	1 8 8		J. M. Farley - Unit 2		0 5 0 0 0 3 6 4
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OPERATING MODE (9) 6	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)						
	20.405(a)(1)(i)	50.38(c)(1)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)	73.71(c)						
	20.405(a)(1)(ii)	50.38(c)(2)	50.73(a)(2)(viii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)						
	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)(ix)							

LICENSEE CONTACT FOR THIS LER (12)

NAME J. D. Woodard, General Manager-Nuclear Plant	TELEPHONE NUMBER
	AREA CODE: 2 0 5 NUMBER: 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 NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On 4-11-88, it was determined that individually neither of the control room pressurization units was able to maintain the required pressure of at least 0.125 inches water gauge due to an excessive amount of cross-electrical area being open due to breached penetrations in the control room. This event is reportable because neither of the two independent trains of the control room pressurization was able to meet the Technical Specification surveillance requirements due to a single cause.

The cause of this event is cognitive error in that the testing performed to specify the allowable amount of open penetrations in the control room was performed incorrectly. The normal system alignment was used rather than the post-LOCA alignment. This resulted in the procedural inadequacy of FNP-0-AP-16 (Conduct of Operation - Operations Group) that led to this event.

Two of the open penetrations were sealed and the control room pressure stabilized at 0.14 inches water gauge. FNP-0-AP-16 has been revised to limit the amount of control room penetration openings to a cross sectional area of 21.21 square inches.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Farley Nuclear Plant - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 4 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	- 0 1 0	- 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

On 4-11-88, it was determined that individually neither of the control room pressurization units [VI] was able to maintain the required pressure of at least 0.125 inches water gauge due to an excessive amount of cross-sectional area being open due to breached penetrations in the control room.

Description of Event

On 4-10-88, Unit 1 was in a refueling outage and Unit 2 was operating at 100% reactor power. FNP-0-STP-26.2 (B Train Control Room Pressurization/Filtration Operability Test) was in progress. The control room pressurization system was unable to maintain the required pressure of at least 0.125 inches water gauge. During investigation, on 4-11-88, it was determined that the inability to maintain the required pressure was due to open penetrations. Four penetrations were open (three conduits with three inch diameters and one conduit with a five inch diameter) for a modification to the digital electrohydraulic control system. With these penetrations open, only 0.1 inch water gauge pressure could be maintained. The control room pressurization system is required to be able to maintain a pressure of at least 0.125 inches water gauge. Two of the penetrations were closed and the control room pressure stabilized at 0.14 inches water gauge.

The limit on the amount of open penetrations allowed in the control room was changed in April 1981 to 150 square inches based on a test conducted in March 1981. It is believed that this test was conducted with the computer room air handling system and the pressurization unit in operation. The computer room air handling system would have provided positive pressurization of the control room. This positive pressure would have augmented the control room pressurization unit. Consequently, more penetrations would have been allowed to be opened prior to reaching 0.125 inches of pressure.

This configuration (e.g., with the computer room air handling unit and pressurization unit in operation) is not a post-LOCA alignment in that the computer room air handling unit would be isolated. In 1985, it was recognized that FNP-0-STP-26.2 (which verifies the capability of the control room pressurization unit) did not test the system with the computer room air handling unit secured. This procedure was changed to require the system to be placed in a post-LOCA alignment for testing of the pressurization units. However, it was not recognized that the open penetration limit had apparently been established with the computer room air handling unit in operation. Until the test on 4-10-88, each FNP-0-STP-26.2 had been successfully performed since 1985.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	- 0 1 0	- 0 0	0 3	OF	0 3

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

Cause of Event

The cause of this event is cognitive personnel error in that the testing performed to specify the allowable amount of open penetrations in the control room was performed incorrectly. The normal system alignment was used rather than the post-LOCA alignment. This resulted in the procedural inadequacy of FNP-0-AP-16 (Conduct of Operation - Operations Group) that led to this event.

Reportability Analysis and Safety Assessment

This event is reportable because the two independent trains of the control room pressurization were unable to meet Technical Specification surveillance requirements due to a single cause. The shared control room pressurization units are components in the control room emergency air cleanup system. Both trains of the emergency air cleanup system are required to be operable by Technical Specification 3.7.7.

There have been other occasions when the amount of control room penetration openings have exceeded the now known allowable cross-sectional area. If the cross-sectional area of open penetrations had been excessive when the control room pressurization unit was required, personnel in the control room (which is manned at all times) could have easily taken action to cover the penetrations and maintain positive pressure in the control room. Further, work on penetrations is expedited to minimize the amount of time that the penetrations are open. No adverse effects resulted from this system being inoperable and there was no impact on plant operation. The isolation function of the control room emergency air cleanup system was unaffected. Therefore, the health and safety of the public were not affected by this event.

Corrective Action

Two of the open penetrations were sealed and the control room pressure stabilized at 0.14 inches water gauge. FNP-0-AP-16 has been revised to limit the amount of control room penetration openings to a cross sectional area of 21.21 square inches. An evaluation will be conducted to determine if the control room pressure lower limit of 0.125 inches water gauge can be reduced.

Additional Information

No components failed during this event.

No similar events have been reported by Farley Nuclear Plant.

This event would not have been more severe if it had occurred under different operating conditions.

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



May 11, 1988

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 88-010-00

Joseph M. Farley Nuclear Plant, Unit 1, Licensee Event Report No. LER 88-010-00 is being submitted in accordance with 10CFR50.73.

If you have any questions, please advise.

Respectfully submitted,

W. B. Hamster
R. P. McDonald *fw*

RPM/JAR:dst-V8.38

Enclosure

cc: IE, Region II

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11