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Energy to Serve Your WorldSM

July 19, 2001

Docket Nos.: 50-348
50-364

NEL-01-0150

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Joseph M. Farley Nuclear Plant – Unit 1
Licensee Event Report 2001-002-00
Penetration Fire Seals Do Not Meet 3-hour Fire Rating

Ladies and Gentlemen:

Joseph M. Farley Nuclear Plant – Licensee Event Report (LER) No. 2001-002-00 is being submitted in accordance with 10 CFR 50.73(a)(2)(ii)(B).

There is a NRC commitment in the LER; “Additional review of fire barrier penetrations in question will be completed by 180 days from the report date of this LER.”

If you have any questions, please advise.

Respectfully submitted,

A handwritten signature in cursive script that reads "Dave Morey".

Dave Morey

EWC/kaw LERpesfra.doc
Attachment

IE22

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U. S. Nuclear Regulatory Commission

cc: Southern Nuclear Operating Company
Mr. L. M. Stinson, General Manager – Farley

U. S. Nuclear Regulatory Commission, Washington, D. C.
Mr. F. Rinaldi, Licensing Project Manager – Farley

U. S. Nuclear Regulatory Commission, Region II
Mr. L. A. Reyes, Regional Administrator
Mr. T. P. Johnson, Senior Resident Inspector – Farley

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1) Joseph M. Farley Nuclear Plant - Unit 1	DOCKET NUMBER (2) 05000 348	PAGE (3) 1 OF 3
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TITLE (4) Penetration Fire Seals Do Not Meet 3-hour Fire Rating.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
May	23	2001	2001	- 002 - 0		07	19	2001	Joseph M. Farley - Unit 2	05000364
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)								
POWER LEVEL (10)	100	20.2201(b)	20.2203(a)(3)(ii)	<input checked="" type="checkbox"/>	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)				
		20.2201(d)	20.2203(a)(4)		50.73(a)(2)(iii)	50.73(a)(2)(x)				
		20.2203(a)(1)	50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)	73.71(a)(4)				
		20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)	73.71(a)(5)				
		20.2203(a)(2)(ii)	50.36(c)(2)		50.73(a)(2)(v)(B)		OTHER Specify in Abstract below or in NRC Form 366A			
		20.2203(a)(2)(iii)	50.46(a)(3)(ii)		50.73(a)(2)(v)(C)					
		20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)					
		20.2203(a)(2)(v)	50.73(a)(2)(i)(B)		50.73(a)(2)(vii)					
		20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)					
		20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)					

LICENSEE CONTACT FOR THIS LER (12)	
NAME L. M. Stinson, General Manager Nuclear Plant	TELEPHONE NUMBER (Include Area Code) 334-899-5156

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).				<input checked="" type="checkbox"/> NO			

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 23, 2001 it was determined that a condition had existed resulting in an unanalyzed condition that could potentially degrade plant safety in that separation requirements between trains of safe shutdown equipment were not met. An evaluation of twenty-nine large penetration fire seals concluded that there is insufficient industry and test data to ensure that they can be rated as three-hour fire barriers as is required by 10 CFR Part 50 Appendix R. Appendix R defines required separation requirements for safe shutdown equipment to protect the plant in the event of a fire. These penetrations are located throughout both units. The cause of this event is inadequate design in that the fire penetration seals associated with this event were designed and installed without sufficient verification of their rating as three-hour fire barriers. Fire watches have been established since November 8, 2000 in the areas affected by these seals and will continue until this condition is corrected. Modifications are being planned to upgrade these seals to provide a three-hour fire barrier as is required by Appendix R. On June 20, 2001 Southern Nuclear Operating Company's (SNC's) designers identified additional large seals that needed further evaluation. Additional fire watches were established to address these seals. Of these, sixteen have been subsequently determined not to meet three-hour fire barrier rating requirements. Appropriate compensatory actions will be maintained until upgrades are completed. Additional review of fire barrier penetrations in question will be completed by 180 days from the report date of this LER.

LICENSEE EVENT REPORT (LER)

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Joseph M. Farley Nuclear Plant - Unit 1	05000348	2001	- 002	- 0	2 OF 3

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

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

Description of Event

During an inspection in August 1997 (report 50-348, 364 / 97-12) NRC staff reviewed silicone foam penetration seals [NF] at Farley Nuclear Plant (FNP). The report stated "The licensee was unable to locate GL 86-10 engineering evaluation documentation that evaluated the adequacy of the deviations from a tested fire barrier configuration. This does not satisfy the guidance of GL 86-10...." The NRC identified this as Inspector Follow-up Item (IFI) 50-348, 364/97-12-01.

Subsequent to the NRC inspection, Southern Nuclear Operating Company (SNC) initiated a review and evaluation of FNP silicone foam penetration seals. The result of this evaluation was that the seals under review were found to be acceptable except that further review was required for a group of penetrations that are larger than any tested configuration. Additional work was performed in an attempt to verify the acceptability of these large penetrations. Walk-downs of accessible areas were performed to identify large fire barrier seals at FNP. These walk-downs identified a total of twenty-nine large seals for review. In early November 2000, it was noted that these seals might not meet three-hour fire barrier rating requirements. At that time fire watches were established as compensatory actions for this condition. On May 23, 2001 the evaluation was finalized by the SNC design organization and it was concluded that because of insufficient industry and test data none of the twenty-nine seals could be rated as a three-hour fire barrier. On June 20, 2001, as part of the continuing review of large seals at FNP, SNC's designers identified additional large seals that need further evaluation. Additional fire watches were established on June 20, 2001 as compensatory actions for these additional penetrations. Of these, sixteen have been subsequently determined not to meet three-hour fire barrier rating requirements.

Additional review of fire barrier penetrations in question will be completed by 180 days from the report date of this LER.

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

Cause of Event

The cause of this event is inadequate design in that the fire penetration seals associated with this event were designed and installed without sufficient verification of their three-hour fire barrier rating requirements.

Safety Assessment

Because the fire penetration seals involved in this event have been installed without sufficient verification of their three-hour fire barrier rating requirement, their function of preventing a fire from affecting redundant trains of safe shutdown systems is not assured. Eleven of the forty-five penetration seals involved in this event are in areas for which fire watches already existed for other reasons. None of the penetrations involved in this event have been challenged during this period as no fire involving these penetrations has occurred. It is considered that fire suppression, detection and plant response along with the current barriers would provide an adequate level of protection for redundant equipment. Therefore, the health and safety of the public were unaffected by this event.

Corrective Action

Appropriate fire watches for the areas involved were established on November 8, 2000 and are continuing until the condition is corrected. Additional fire watches for the seals identified on June 20, 2001 have also been established.

Review of other fire barrier penetration seals in question will be completed by 180 days from the report date of this LER.

Modifications are being planned to upgrade these seals to provide a three-hour fire barrier as is required by Appendix R. Appropriate compensatory actions will be maintained until upgrades are completed.

Additional Information

The following LERs have been submitted in the past two years related to design issues:

LER 99-003-00 Unit 1 - Control Room Ventilation Radiation Monitors Inoperable

LER 99-001-00 Unit 2 - Reactor Trip Due to Loss of Condenser Vacuum On Steam Dump Drain Line Failure

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