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April 2, 1997



Docket No.: 50-364

10 CFR 50.732

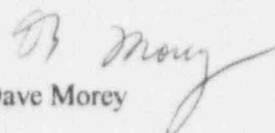
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Joseph M. Farley Nuclear Plant—Unit 2
Licensee Event Report No. 97-002
Inappropriate Interpretation of
Penetration Room Filtration System Power Supply Requirement

Ladies and Gentlemen:

Joseph M. Farley Nuclear Plant - Unit 2 Licensee Event Report No. 97-002 is being submitted in accordance with 10 CFR 50.73. If you have any questions, please advise.

Respectfully submitted,


Dave Morey

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Enclosure

cc: Mr. L. A. Reyes, Region II Administrator
Mr. J. I. Zimmerman, NRR Project Manager
Mr. T. M. Ross, Plant Sr. Resident Inspector

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Joseph M. Farley Nuclear Plant - Unit 2

DOCKET NUMBER (2)

050003641 OF 5

PAGE (3)

TITLE (4)

Inappropriate Interpretation of Penetration Room Filtration System Power Supply Requirement

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														
1	0	3	0	9	6	9	7	-	0	0	2	-	0	0	0	4	0	2	9	7			
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)																					
POWER LEVEL (10)		N		20.2201(b)			20.2203(a)(2)(v)			X			50.73(a)(2)(i)			50.73(a)(2)(viii)							
				20.2203(a)(1)			20.2203(a)(3)(i)						50.73(a)(2)(ii)			50.73(a)(2)(x)							
				20.2203(a)(2)(i)			20.2203(a)(3)(ii)						50.73(a)(2)(iii)			73.71							
				20.2203(a)(2)(ii)			20.2203(a)(4)						50.73(a)(2)(iv)			OTHER							
				20.2203(a)(2)(iii)			50.36(c)(1)						50.73(a)(2)(v)			Specify in Abstract below							
				20.2203(a)(2)(iv)			50.36(c)(2)						50.73(a)(2)(vi)			or in NRC Form 366A							

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER									
R.D. Hill, General Manager - Nuclear Plant										
AREA CODE										
3	3	4	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)

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

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

On March 6, 1997, it was determined that Unit 2 had been operated, beginning on October 30, 1996, in two conditions prohibited by Technical Specifications (TS). Unit 2 had operated in a condition prohibited by TS in that fuel movement and crane operation with loads over the fuel in the spent fuel pool (SFP) had been performed with both trains of penetration room filtration (PRF) systems considered inoperable for approximately 10 hours on October 30, 1996. In addition, with one PRF system considered inoperable, crane operation with loads over the fuel in the SFP exceeded the TS allowed action statement time of 48 hours by approximately 24 hours beginning on October 30, 1996. On October 28, 1996 a portion of the Train A normal and emergency electrical distribution system was removed from service for Unit 2 outage work. SNC concluded that the Train A PRF system was operable and it was appropriate to conduct fuel movement and crane operations in the SFP without entering the action statement of TS 3/4.9.13. In addition, SNC concluded that it was appropriate on October 30, 1996 to continue fuel movement and crane operations in the SFP while performing a surveillance test on the Train B penetration room filtration (PRF) system that would require closing the Train B SFP to PRF system suction damper. These actions were considered appropriate by the application of TS 3/4.8.1.2. Subsequent questions by an operating crew resulted in suspending crane operations in the SFP. An additional review of the TS interpretation concluded the TS interpretation was valid and no TS violations occurred. Subsequently, an NRC inspector concluded that it was an inappropriate interpretation. SNC submitted its interpretation in a letter to the NRC on November 27, 1996. On March 6, 1997, the NRC formally responded to the SNC letter and disagreed with the SNC interpretation of the TS requirements. The cause of this event was cognitive personnel error in that SNC personnel incorrectly interpreted TS requirements by the misapplication of TS 3/4.8.1.2 to TS 3/4.9.13. SNC has revised its interpretation of the TS 3/4.9.13 requirements for Units 1 and 2 to be consistent with the NRC's interpretation.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (7-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Joseph M. Farley Nuclear Plant - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 6 4	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL YEAR	REVISION NUMBER			
		9 7	- 0 0 2	- 0 0	2	OF	5

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

Plant and System Identification

Westinghouse -- Pressurized Water Reactor

Energy Industry Identification System codes are identified in the text as [XX].

Description of Event

On March 6, 1997, with Unit 2 in Mode 1 operating at 100 percent reactor power, it was determined that Unit 2 had been operated, beginning on October 30, 1996, in two conditions prohibited by Technical Specifications (TS). Unit 2 had operated in a condition prohibited by TS in that fuel movement and crane operation with loads over the fuel in the spent fuel pool (SFP) had been performed with both trains of penetration room filtration (PRF) [BH] systems considered inoperable for approximately 10 hours on October 30, 1996. In addition, with one PRF system considered inoperable, crane operations with loads over the fuel in the SFP exceeded the TS allowed action statement time of 48 hours by approximately 24 hours beginning on October 30, 1996.

At 2335 on October 28, 1996, with Unit 2 defueled, the Train A 4160 volt bus 2F was energized from its alternate offsite power supply, the 2B startup transformer. Subsequently, the 4160 volt bus 2F, the 2A startup transformer (normal power supply to the Train A safety busses) and the Unit 2 Train A emergency diesel generator (EDG) set (emergency power supplies for the Train A safety busses) were either out of service or unavailable for Unit 2 alignment due to outage work. The Train A 600 volt load control centers were energized and supplied by their alternate off-site power supply, the 2B startup transformer, via a cross-connect alignment.

Fuel oxide measurements and control rod insert change outs were in progress which involved moving selected fuel assemblies within the SFP and moving loads over the fuel in the SFP. FNP TS 3/4.9.13, "Storage Pool Ventilation (Fuel Movement)", requires two independent PRF systems to be operable and aligned to the SFP room during crane operation with loads over the fuel in the spent fuel pool, and during fuel movement within the spent fuel pool. In addition, TS 3/4.8.1.2, "A. C. Sources-Shutdown", requires a single offsite power supply and a single onsite emergency power supply to be operable. Since the 2B startup transformer and the 2B EDG were available, it was considered appropriate to conclude that the single offsite power supply and the single onsite (emergency) power supply were sufficient to satisfy the electrical power requirements to support operability of the two required independent PRF systems. Based on that interpretation it was considered appropriate to conclude that the Train A PRF system was operable and it was appropriate to conduct fuel movement and crane operations with loads over the fuel in the SFP without entering the action statement of TS 3/4.9.13.

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FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Joseph M. Farley Nuclear Plant - Unit 2

YEAR

SEQUENTIAL YEAR

REVISION NUMBER

0500036497-002-0003 OF 5

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

In addition, utilizing the same basis discussed above, SNC concluded on October 30, 1996, that it was appropriate to perform surveillance testing on the Train B PRF system. Therefore, at approximately 1022, FNP commenced performance of FNP-2-STP-20.2, Penetration Room Filtration System Monthly Operability Test, on the Train B PRF system. The lineup for this surveillance test required closing the Train B spent fuel pool (SFP) to PRF system suction damper. This surveillance test also involved operating the PRF system for at least 10 hours to verify PRF system heater operability. Since the Train B PRF system was not aligned to the SFP during the surveillance test, FNP entered the 48-hour limiting condition of operation (LCO) of TS 3/4.9.13 when the Train B SFP to PRF system suction damper was closed. Subsequently, fuel oxide measurements were completed, and following shift turnover control rod insert change outs were recommenced. The oncoming operations crew questioned if the TS requirements for moving loads over fuel in the SFP were being met and the movement of loads over the fuel was suspended at 2020. Operations management conducted a review of the situation and concluded that the TS requirements basis was met. In the interim, at 2122 the surveillance test on the Train B PRF system was completed satisfactorily and the Train B SFP to PRF system suction damper was opened clearing the LCO. The operating crew determined that appropriate TS requirements were met and permission to recommence control rod insert change outs was provided to refueling personnel at 2123.

Control rod insert change outs were recommenced and completed at approximately 0524 on October 31, 1996. Additional crane operations with loads over fuel in the SFP were conducted on the day shift of October 31, 1996 to support the removal of fuel oxide measuring equipment. It appears that no other crane operations with loads over the fuel in the SFP occurred from October 31, 1996 until after the 4160 volt bus 2F was energized from its normal offsite power supply, the 2A startup transformer, at 2145 on November 2, 1996.

As a result of the questions by the operating crew, SNC management performed an additional review of the TS interpretation and concluded the interpretation was valid. SNC concluded that a single offsite (normal) power supply and a single onsite (emergency) power supply were sufficient to satisfy the electrical power requirements to support operability of the two required independent PRF systems. This conclusion was based on TS 3/4.8.1.2, "A. C. Sources-Shutdown", which only requires a single offsite power supply and a single onsite emergency power supply to be operable when in modes 5 and 6. This interpretation was consistent with the degree of mechanical and electrical independence necessary to satisfy the licensing basis during modes 5 and 6 and when defueled. That is, the assumption of a single failure and concurrent loss of all offsite or onsite power is not required.

An NRC inspector conducted a review of this interpretation and concluded that it was an inappropriate interpretation. The difference in the inspector's interpretation and SNC's interpretation was that in addition to the Train B PRF system being inoperable, the inspector concluded that the Train A PRF system should also have been considered inoperable while the Train A normal and emergency power supplies were out of service.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL YEAR	REVISION NUMBER		
Joseph M. Farley Nuclear Plant - Unit 2						
	0 5 0 0 0 3 6 4	9 7	- 0 0 2	- 0 0	4	OF 5

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

This determination was based on a combination of TS 3/4.9.13 and the TS definition of operable which requires both a normal and an emergency power supply.

SNC management disagreed with the NRC inspector's interpretation of the TS requirements for this occurrence. SNC documented its interpretation and submitted a letter to the NRC on November 27, 1996. On March 6, 1997, the NRC formally responded to the SNC letter and disagreed with the SNC interpretation of the TS requirements. Therefore, SNC determined that for this occurrence FNP had operated in conditions prohibited by TS beginning on October 30, 1996 and that those conditions were reportable under 10CFR50.73(a)(2)(i)(B). Although not specifically identified, SNC recognizes that similar situations may have occurred in the past resulting in crane operations with loads over fuel in the SFP or fuel movement within the SFP exceeding the TS allowed action statement time of 48 hours. This situation would have occurred as a result of a similar application of TS 3/4.8.1.2 to TS 3/4.9.13 during periods when the normal or emergency power supply to a PRF system was out of service.

Cause of Event

The cause of this event was cognitive personnel error in that SNC personnel incorrectly interpreted TS requirements by the misapplication of TS 3/4.8.1.2 to TS 3/4.9.13.

Safety Assessment

SNC has reviewed the applicable accident analysis and has concluded that a single PRF system is capable of ensuring that 10CFR100 limits for offsite dose are not reached in the event of the worst case assumed dropped fuel assembly. Train A of the PRF system was operational and capable of performing its intended safety functions during the time period involved in this event. In the unlikely case of a loss of all offsite power during this limited time period, the Train B PRF system could have been restored in a timely manner with operator actions (i.e., reopening the SFP to PRF system suction damper).

The health and safety of the public was not affected by this event.

Corrective Action

SNC has revised its interpretation of the TS 3/4.9.13 requirements for Units 1 and 2 to be consistent with the NRC's interpretation.

Licensed personnel will be informed of the new interpretation. This will be completed by April 5, 1997.

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DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Joseph M. Farley Nuclear Plant - Unit 2

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

Additional Information

The following LERs involved misinterpretation of TS requirements:

- LER 97-001-00 (Shared) - Technical Specification Ventilation System Deficiencies
- LER 96-001-00 (Shared) - Technical Specification Action Statement Requirement Not Met For Solid State Protection System Testing
- LER 95-002-00 (Shared) - Missed Surveillance for Inoperable Axial Flux Difference Monitor Alarm
- LER 92-001-00 (Shared) - Missed Surveillance on Containment Penetrations