

Dave Morey  
Vice President  
Farley Project

Southern Nuclear  
Operating Company  
P.O. Box 1295  
Birmingham, Alabama 35201  
Tel 205.992.5131

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Docket Nos.: 50-348  
50-364

10 CFR 50.73

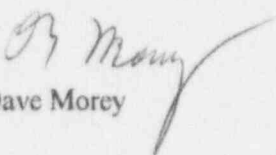
U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Joseph M. Farley Nuclear Plant—Units 1 and 2  
Licensee Event Report No. 97-003  
Failure to Comply with Technical Specifications 4.5.3.2 and 3.5.2

Ladies and Gentlemen:

Joseph M. Farley Nuclear Plant - Units 1 and 2 Licensee Event Report No. 97-003 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)  
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 (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.

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|--|--|----------------|-----------------|-----------------|----------|----|---|
| FACILITY NAME (1)<br><br>Joseph M. Farley Nuclear Plant - Unit 1 | DOCKET NUMBER (2)<br><br>0   5   0   0   0   3   4   8 | LER NUMBER (6) |                 |                 | PAGE (3) |    |   |
|  |  | YEAR           | SEQUENTIAL YEAR | REVISION NUMBER |          |    |   |
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Plant and System Identification

Westinghouse -- Pressurized Water Reactor

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

Description of Event

At 1239 on March 15, 1997 it was determined that Unit 1 had been operated in a condition prohibited by Technical Specifications (TS) in that TS surveillance requirement 4.5.3.2 had not been performed, as required by the operating procedure, prior to entry into mode 4 during a unit shutdown in preparation for a refueling outage. This condition lasted for approximately 6 minutes. During the investigation of this event, it was determined that operating Unit 1 within the requirement of TS 4.5.3.2 as specified in the operating procedure, would have resulted in operating in a condition prohibited by TS 3.5.2, 'Emergency Core Cooling Systems - ECCS Subsystems -  $T_{avg} > 350^{\circ}\text{F}$ '. Therefore, although not specifically identified in this LER, operating procedures have resulted in occurrences in the past where Units 1 and 2 have been operated in a condition prohibited by TS 3.5.2 as a result of ensuring TS 4.5.3.2 was met.

TS 4.5.3.2 specifies that the residual heat removal (RHR) [BP] discharge to charging pump suction motor operated valves (MOVs) 8706A (Train A RHR to charging pump suction) and 8706B (Train B RHR to charging pump suction) be closed with the breaker for the respective valve operator locked open. At 1239 on March 15, 1997, with Unit 1 operating at approximately 350 degrees reactor coolant system (RCS) temperature and approximately 1635 psig RCS pressure, a cooldown was in progress toward stabilizing the RCS at approximately 340 degrees and 350 psig. Mode 4 (i.e., less than 350 degrees average RCS temperature) was entered at 1239. Immediately following mode 4 entry it was noted that the breakers for RHR pump discharge to charging pump suction valves MOV 8706A and 8706B were not locked open prior to entry into mode 4 as required by the procedure and TS 4.5.3.2. Both valves were in the normally closed position, and the breakers for the respective valve operators were in the closed position as required for normal plant operation. Personnel were immediately dispatched to lock open the breakers for the respective valve operators, and the surveillance requirement was satisfied within 6 minutes.

As a result of the investigation, it was determined that operating Unit 1 within the requirement of TS 4.5.3.2 would have resulted in a condition prohibited by TS 3.5.2. TS 3.5.2 requires that in modes 1, 2, and 3, two independent Emergency Core Cooling System (ECCS) subsystems be operable with each subsystem comprised of an operable flow path capable of taking suction from the refueling water storage tank on a safety injection signal and transferring suction to the containment sump during the recirculation phase of operation. In order to transfer to the recirculation phase of operation as assumed in the Farley Nuclear Plant Final Safety Analysis Report (FSAR) in modes 1, 2 and 3, power to the valve operators would be required for the realignment of MOVs 8706A and 8706B. Therefore, in order to comply with TS surveillance requirement 4.5.3.2 concerning

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the removal of power from MOVs 8706A and 8706B prior to mode 4 entry from mode 3, FNP would have to be in a condition prohibited by TS 3.5.2. Although not specifically identified in this LER, current operating procedures have resulted in occurrences in the past where FNP has operated in a condition prohibited by TS 3.5.2 as a result of ensuring TS 4.5.3.2 was met.

Cause of Event

The cause of operating in a condition prohibited by TS 4.5.3.2 was personnel error in that operations personnel failed to adequately review the operating procedure prior to mode 4 entry and recognize a procedure caution statement that required MOVs 8706A and 8706B to be closed with power locked out prior to mode 4 entry. A contributing cause was that procedural guidance could have been clearer in providing criteria to be satisfied prior to mode 4 entry.

The cause of previously operating in a condition prohibited by TS 3.5.2 as described above was due to an inconsistency existing within TS. Specifically, TS failed to provide an allowed time between modes 3 and 4 to lock open the MOV breakers. Operating procedures were written to ensure the specific surveillance requirement of TS 4.5.3.2 was met, however, personnel failed to note that TS 3.5.2 was not being met.

Safety Assessment

The reason for ensuring the breakers remain open during mode 4 operation is to prevent possible overpressurization of the charging pump suction line piping. Possible overpressurization of this piping was mitigated by the following: (1) the RHR loop suction valves had not been opened, (2) immediately following entry into mode 4 operations personnel recognized the need to maintain MOVs 8706A and 8706B closed and remove power from the MOVs. During the 6 minutes that Unit 1 was operated in a condition prohibited by TS 4.5.3.2, MOVs 8706A and 8706B would have remained closed due to operator awareness and due to the lack of automatic actions associated with the MOVs.

Concerning this event, the ability to establish the recirculation mode of operation as required by TS 3.5.2 was not affected by the failure to lock open the breaker for the respective MOV valve operator.

Concerning past occurrences where FNP has operated in a condition prohibited by TS 3.5.2 as described above, current operating procedures specify removal of power from the valve operators while in mode 3 after RCS pressure has been established between 325 to 375 psig. Based on Westinghouse Owners Group work presented in WCAP 12476, Evaluation of LOCA During Mode 3 and Mode 4 Operation For Westinghouse NSSS Plants, dated November, 1991, the NSSS vendor has confirmed that since RCS pressure was less than 1000 psig while in mode 3, FNP has remained within the bounds of the accident analyses postulated for modes 3 and 4. This conclusion is substantiated by information contained in WCAP 12476, which concludes that



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recirculation capability is not required when less than 1000 psig while in mode 3. Therefore, this is a compliance issue and not a safety issue.

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

Corrective Action

The RHR discharge to charging pump suction MOVs 8706A and 8706B were verified closed and the breakers for the valve operators locked open at approximately 1245.

Operations personnel involved in this event will be coached concerning procedure adherence.

Appropriate operations procedures will be revised to more clearly provide criteria to be satisfied prior to mode 4 entry.

A review of Technical Specifications has been performed to determine if similar situations of inconsistencies during mode changes exist.

Corrective actions will be completed by April 18, 1997.

Additional Information

Southern Nuclear Operating Company (SNC) has discussed the inconsistency in Technical Specifications with Nuclear Reactor Regulation and SNC is currently determining a resolution to the issue.

The following are recent LERs involving operating in a condition prohibited by TS due to inadequately performing a procedure:

- LER 97-001-00 (Shared) - Technical Specification Ventilation System Deficiencies
- LER 96-005-00 (Unit 1) - Valve Misalignment Due to Personnel Error Results in Missed Surveillance
- LER 95-002-00 (Unit 1) - Missed Surveillance for Inoperable Axial Flux Difference Monitor Alarm
- LER 95-003-00 (Unit 2) - Loop 2A Overtemperature Delta Temperature Channel Inoperable Due to Personnel Error
- LER 95-006-00 (Unit 2) - Missed Technical Specification Surveillance Requirement 4.4.9
- LER 95-009-01 (Unit 2) - Entry Into Specified Condition With An Intermediate Range Neutron Flux Detector Inoperable

No similar LERs have been submitted involving Technical Specification inconsistencies.