

NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 6, 1997

Mr. D. N. Morey Vice President - Farley Project Southern Nuclear Operating Company, Inc. Post Office Box 1:295 Birmingham, Alabama 35201-1295

SUBJECT:

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 - TECHNICAL SPECIFICATION INTERPRETATION (TAC NOS. M97339 AND M97340)

Dear Mr. Morey:

By letter dated November 27, 1996, Southern Nuclear Operating Company, Inc. (SNC), requested NRC review of its interpretation of the application of Technical Specification (TS) 3/4.9.13, "Storage Pool Ventilation (Fuel Movement)," at Farley Nuclear Plant (Farley) Units 1 and 2 during modes 5 or 6, or when defueled. SNC had prepared the interpretation to address a concern stemming from an observation made by the NRC resident inspectors during the Farley Unit 2 fall 1996 refueling outage. This concern was documented as Unresolved Item 50-364/96-13-01, "Penetration Room Filtration Operability Requirements for Spent Fuel Pool," in NRC Inspection Report 50-364/96-13, dated December 23, 1996. Specifically, on October 30, 1996, while fuel movement within the spent fuel pool was in progress, the inspectors observed Farley performing surveillance testing on Train B of the penetration room filtration (PRF) system, making the system inoperable with respect to the spent-fuel-room-filtration function. The inspectors' concern was that, during the test, PRF Train A appeared to be inoperable also. This concern was based upon a literal reading of TS 3.9.13, which requires two independent PRF systems to be operable during fuel movement, and the TS definition of operability, which requires both a normal and an emergency ac electrical power source. During the testing, the Train A PRF system was supported by the Train B offsite and onsite emergency ac power sources, because the Train A ac sources were inoperable.

In your written interpretation for applying TS 3/4.9.13 during modes 5 and 6 and when defueled, you concluded that a single offsite ac source and a single onsite emergency ac source are sufficient to satisfy the ac electrical power requirements to support the operability of the two required independent PRF systems. This conclusion is based on consistency with (a) TS 3/4.8.1.2, "A.C. Sources—Shutdown," which only requires a single offsite ac source and a single onsite emergency ac source to be operable, and (b) 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.

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Although TS 3.8.1.2 only requires a single operable offsite ac source and a single operable onsite emergency ac source, satisfying these requirements is insufficient to meet TS 3.9.13, which requires two operable PRF systems. Each PRF system must be able to start automatically to satisfy the assumptions for the PRF spent-fuel-room-filtration function as described in FSAR Section 15.4.5 for the design basis fuel handling accident. The analysis or any design basis accident during shutdown conditions, including the analysis of the design basis fuel handling accident, assumes a loss of the offsite ac source (but not a concurrent single failure). In the Farley design, with both trains of the onsite ac electrical power distribution system cross connected and supported by a single onsite emergency ac source, a loss of the offsite ac source will result in load shedding of the opposite train loads which defeats the automatic actuation capability of the opposite train PRF system. Therefore, each PRF system must have its own operable onsite emergency ac source to maintain its automatic actuation capability and be considered operable in accordance with TS 3.9.13. Consequently, the NRC staff does not agree with SNC's interpretation of the application of TS 3/4.9.13 during modes 5 and 6 and when defueled.

It is recognized that the assumptions of the fuel handling accident as described in FSAR Section 15.4.5 may be overly conservative. Nevertheless, TS must ensure that the assumptions of the FSAR accident analysis remain valid. TS 3.9.13 and the Farley TS definition of operability do this. If SNC desires a less restrictive licensing basis relative to the fuel handling accident, it should consider revising its licensing basis analysis and TS 3/4.9.13 by seeking a license amendment in accordance with 10 CFR 50.90. Until such a change in the operating license is granted by the Commission, Farley Units 1 and 2 must be operated in compliance with the current TS requirements.

Sincerely,

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Jacob I. Zimmerman, Project Manager

Project Directorate II-2

Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

cc: See next page

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State Health Officer Alabama Department of Public Health 434 Monroe Street Montgomery, Alabama 36130-1701

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Regional Administrator, Region II U.S. Nuclear Regulatory Commission 101 Marietta Street, NW., Suite 2900 Atlanta, Georgia 30323

Resident Inspector U.S. Nuclear Regulatory Commission 7388 N. State Highway 95 Columbia, Alabama 36319 Although TS 3.8.1.2 only requires a single operable offsite ac source and a single operable onsite emergency ac source, satisfying these requirements is insufficient to meet TS 3.9.13, which requires two operable PRF systems. Each PRF system must be able to start automatically to satisfy the assumptions for the PRF spent-fuel-room-filtration function as described in FSAR Section 15.4.5 for the design basis fuel handling accident. The analysis or any design basis accident during shutdown conditions, including the analysis of the design basis fuel handling accident, assumes a loss of the offsite ac source (but not a concurrent single failure). In the Farley design, with both trains of the onsite ac electrical power distribution system cross connected and supported by a single onsite emergency ac source, a loss of the offsite ac source will result in load shedding of the opposite train loads which defeats the automatic actuation capability of the opposite train PRF system. Therefore, each PRF system must have its own operable onsite emergency ac source to maintain its automatic actuation capability and be considered operable in accordance with TS 3.9.13. Consequently, the NRC staff does not agree with SNC's interpretation of the application of TS 3/4.9.13 during modes 5 and 6 and when defueled.

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Sincerely.

Original signed by:

Jacob I. Zimmerman, Project Manager Project Directorate II-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

cc: See next page

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