UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ENCLOSURE

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO THE INSERVICE TESTING PROGRAM REQUESTS FOR RELIEF

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348 AND 50-364

1.0 INTRODUCTION

Title 10 of the Code of Federal Regulations, Section 50.55a, requires that inservice testing (IST) of certain American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code (the Code) and applicable addenda, except where specific written relief has been requested by the licensee and granted by the Commission pursuant to Sections (a)(3)(i), (a)(3)(ii), or (g)(6)(i) of 10 CFR 50.55a. In requesting relief, the licensee must demonstrate that (1) the proposed alternatives provide an acceptable level of quality and safety, (2) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety, or (3) conformance is impractical for its facility. Nuclear Regulatory Commission (NRC) staff guidance contained in Generic Letter (GL) 89-04, "Guidance on Developing Acceptable Inservice Testing Programs," provided alternatives to the Code requirements determined to be acceptable to the staff.

The NRC is authorized by 10 CFR 50.55a to grant relief from ASME Code requirements upon making the necessary findings. The NRC staff's findings with respect to granting or not granting the relief requested as part of the licensee's IST program are contained in this Safety Evaluation (SE).

This SE concerns relief requests and supporting information that were submitted by letters dated July 26, 1991, July 29, 1991, December 3, 1991, December 30, 1991 (2 letters), and April 10, 1992 (2 letters), for Joseph M. Farley Nuclear Plant (Farley), Units 1 and 2, IST program. Southern Nuclear Operating Company's, (the licensee's) submittals include responses to the IST program action items that were identified in a staff SE dated May 23, 1991, and to NRC's request for additional information contained in a letter dated February 14, 1992, that granted interim relief for certain relief requests until the date of issuance of this SE.

The IST program relief requests addressed in this SE apply to the second ten-year IST interval which ends December 1, 1997. The licensee's program is based on the requirements of Section XI of the ASME Code, 1983 Edition through Summer 1983 Addenda.

2.0 EVALUATION

The licensee's IST program requests for relief from the requirements of Section XI have been reviewed by the NRC staff with the assistance of its contractor, Brookhaven National Laboratory (BNL). The Technical Evaluation Report (TER) provided as an Enclosure is BNL's evaluation of the licensee's IST program relief requests. The staff has reviewed the TER and concurs with the evaluations and conclusions contained therein. A summary of the relief request determinations is presented in Table 1. The granting of relief is based upon the fulfillment of any commitments made by the licensee in its basis for each relief request and the alternatives proposed. The implementation of the IST program is subject to inspection by NRC.

The licensee should refer to the TER, Section 5, for a discussion of IST program action items identified during the review. The licensee should resolve all items in accordance with the guidance therein.

3.0 CONCLUSION

The staff has determined that granting relief pursuant to 10 CFR 50.55a(a)(3)(i), (a)(3)(ii), or (g)(6)(i) is authorized by law and will not endanger life or property, or the common defense and security and is otherwise in the public interest. In making this determination the staff has considered the alternative testing being implemented, compliance resulting in a hardship without a compensating increase in safety, and the impracticality of performing the required testing considering the burden if the requirements were imposed. The last column of Table 1 identifies the regulation or GL 89-04 guidance under which the requested relief is approved or denied.

4.0 ATTACHMENT

Technical Evaluation Report, "Pump and Valve Testing Program, Farley Nuclear Power Plant, Units 1 and 2, Southern Nuclear Operating Company," Brookhaven National Laboratory, July 29, 1992

Principal Contributor: K. Dempsey

Dated:

Farley Nuclear Plant Units 1 and 2 - SE Table 1 - Summary of Relief Requests

Relief Request No. (Submittal date)	TER Sect.	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
PRR-10 (December 30, 1991 with additional information supplied April 10, 1992)	2.1	IWP-3100, 3110, and 3400, measure individual pumps' flowrates.	P001A-A, P001B-A, P001C-AB, P001D-B, and P001E-B; Service Water pumps.	Measure flow and establish reference values of combinations of two pumps quarterly.	Relief granted with provisions in accordance with 10CFR50.55a(g)(6)(i). (See TER Section 5.1)
Q1(2)B13-RV-1 (December 30, 1991)	3.1	IWV-3411, 3412, 3413, and 3415, stroke exercising frequency.	HV-1, 2, 3, and 4, Reactor head vent valves.	Measure stroke time and fail-safe test at refueling outages or at least every 18 months and at cold shutdowns if the RCS pressure is less than 100 psig.	Relief denied. (See TER Section 5.2)
Q2E13-RV-1 (December 30, 1991)	3.2	IWV-3521 and 3522, full-stroke exercise test method and frequency.	QV002A and B, QV014 Containment spray header and RWST suction check valves.	Disassemble and inspect valves until a system modification that would allow full-flow tests at refueling outages is installed. The valves will be partial stroke exercised with air following reassembly.	Interim relief granted with provisions in accordance with Generic Letter 89-04. Long term relief granted with provisions in accordance with 10CFR50.55a(g)(6)(i). (See TER Section 5.3)
Q1(2)E21-RV-1 (December 30, 1991)	3.3	IWV-3521 and 3522, full-stroke exercise frequency.	QV026, RWST to charging pump suction check valve.	Full-flow test valve each refueling outage.	Relief granted with provisions in accordance with 10CFR50.55a(g)(6)(i). (See TER Section 5.4)
Q1(2)E21-RV-4 (December 30, 1991)	3.4	IWV-3521 and 3522, full-stroke exercise test method.	QV062A, B, C; 66A, B, C; 78A, B, C; and 79A, B, C; Safety injection to RCS check valves.	Disassemble and inspect valves and partial stoke exercise with flow after reassembly.	Relief granted with provisions in accordance with 10CFR50.55a(g)(6)(i). (See TER Section 5.5)
Q1(2)N23-RV-1 (December 30, 1991)	3.5	IWV-3521 and 3522, full-stroke exercise frequency.	QV006, QV007A and B, CST to auxiliary feedwater pump suction check valves.	Verify closure capability by performing a leak test each refueling outage.	Relief denied. (See TER Section 5.6)
Q1(2)P17-RV-3 (December 30, 1991)	3.6	IWV-3521 and 3522, full-stroke exercise frequency.	QV087A, B, and C, Component cooling water to RCP thermal barrier check valves.	Verify closure capability by performing a leak test each refueling outage.	Relief granted in accordance with 10CFR50.55a(g)(6)(i).

Farley Nuclear Plant Units 1 and 2 - SE Table 1 - Summary of Relief Requests (Cont'd)

Relief Request No (Submittal date)	TER Sect.	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Q1(2)P19-RV-2 (December 30, 1991)	3.7	IWV-3521 and 3522, full-stroke exercise frequency.	QV004, Backup nitrogen supply to PORV check valve.	Verify forward flow capability each refueling outage.	Relief denied. (See TER Section 5.7)
Q1(2)P19-RV-3 (Unit 1-December 30, 1991, Unit 2-April 10, 1992)	3.8	IWV-3521 and 3522, full-stroke exercise frequency.	NV135, NV137A and B (Unit 1) and NV243, NV236A and B (Unit 2), Backup nitrogen supply to PORV check valve.	Verify closure capability using a disassembly and inspection program. The valves will be partial-stroke exercised with flow after reassembly.	Interim relief granted for one year or until the next refueling outage, whichever is later in accordance with 10CFR50.55a(g)(6)(i). (See TER Section 5.8)
Q1(2)E21-RV-15 (July 26 and 29, 1991)	3.9	IWV-3521 and 3522, full-stroke exercise frequency.	QV115A, B, and C, CVCS seal injection to RCP containment isolation check valves.	Verify closure capability by performing a leak test each refueling outage.	Relief granted in accordance with 10CFR50.55a(g)(6)(i).
Q1(2)PR-18 (July 26 and 29, 1991)		IWP-4120, instrument range requirements.			No evaluation-relief request was deleted. (See TER Section 5.9)
Q1(2)E21-RV-3 (July 26 and 29, 1991)		IWV-3522, Test frequency.	QV052, 058, 119, 213	Verify closure capability at refueling outages using the Appendix J, Type C test.	No evaluation required. Request was revised to delete QV115A, B, and C from relief request. See TER Section 3.9 for evaluation of these valves.
Q1(2)PR-13 (July 26 and 29, 1991)		Table IWP-4110-1, Instrument accuracy.	P001A-A, P001B-A, P001C-AB, P001D-B, and P001E-B; Service Water pumps.	Use installed instruments.	No technical changes were made to request evaluated in May 23, 1991 SE. Relief remains not necessary.