

June 6, 2002

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

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 RE: INSERVICE
TESTING RELIEF REQUESTS FOR SAFETY VALVES (TAC NOS. MB4026
AND MB4027)

Dear Mr. Morey:

By letter dated October 25, 2001, you submitted Relief Requests Q1B13-RR-V-1 and Q2B13-RR-V-1 that are associated with the inservice testing of safety valves at the Farley Nuclear Plant, Units 1 and 2. You requested to use the American Society of Mechanical Engineers (ASME) OMa-1996 Code, Appendix I, paragraph I 7.3.1 in lieu of the corresponding requirements in the Code of record (ASME OMa-1990). The ASME OMa-1996 Addenda was incorporated by reference in 10 CFR 50.55a(b) on September 22, 1999, (64 FR 51370) with no modifications nor limitations placed on Appendix I requirements.

On the basis of its review, the staff concludes that your request to use the OMa-1996 Code, Appendix I, paragraph I 7.3.1 is approved pursuant to 10 CFR 50.55a(f)(4)(iv) for the remainder of the term of the current operating licenses.

Sincerely,

/RA G. Edison for/

John A. Nakoski, Chief, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO THE INSERVICE TESTING PROGRAM

RELIEF REQUESTS Q1B13-RR-V-1 AND Q2B13-RR-V-1

SOUTHER NUCLEAR OPERATING COMPANY, INC.

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* (10 CFR) 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* and the ASME *Code for Operation and Maintenance of Nuclear Power Plants* (ASME OM Code) and applicable addenda, except when alternatives have been authorized or relief has been requested by the licensee and granted by the Commission pursuant to 10 CFR 50.55a(a)(3)(i), 10 CFR 50.55a(a)(3)(ii), or 10 CFR 50.55a(f)(6)(i). In proposing alternatives or requesting relief, the licensee must demonstrate that: (1) the alternatives will 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 would be impractical for its facility. The 10 CFR 50.55a regulation authorizes the Commission to approve alternatives and to grant relief from ASME Code requirements upon making the necessary findings. The 10 CFR 50.55a(f)(4)(iv) regulation states that IST of pumps and valves may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in 10 CFR 50.55a(b), subject to Commission approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions and addenda are met.

By letter dated October 25, 2001, the Southern Nuclear Operating Company, Inc. (SNC), submitted Inservice Testing Relief Requests (Q1B13-RR-V-1 and Q2B13-RR-V-1) for Farley Nuclear Plant, Units 1 and 2 (Farley) pressurizer safety valves, requesting the U.S. Nuclear Regulatory Commission's (NRC's) approval to implement the safety valve portion of the ASME OM Code, 1995 edition, 1996 addenda (OMa-1996 Code), Appendix I, "Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices," at the Farley Nuclear Plant. SNC proposed the implementation of the ASME OMa-1996 Code, Appendix I, specifically paragraph I 7.3.1, "Class 1 Safety Valves," for all safety valves at Farley. SNC committed to full implementation of this portion of the ASME OMa-1996 Code by September 1, 2002. The current Code of record for the Farley IST safety valve program is the ASME OMa-1990 Code.

The NRC staff's findings with respect to SNC's request to use the safety valve portion of the OMa-1996 Code, Appendix I, and related regulatory requirements, and SNC's proposed implementation of the OMa-1996 Code, Appendix I, requirements at Farley, are contained in this Safety Evaluation.

2.0 SCN'S RELIEF REQUEST

SNC requested relief from the requirements of ASME OMa-1990 Code, Appendix I, paragraph I 7.3.1, to implement the ASME OMa-1996 Code, Appendix I, paragraph I 7.3.1, at Farley. SNC requested approval in order to support the scheduled IST of safety valves during September 2002. SNC proposed that the ASME OMa-1996 Code, Appendix I, paragraph I 7.3.1, be implemented for all safety valves at Farley. Relief was requested for the implementation of OMa-1996 paragraph I 7.3.1, pursuant to 10 CFR 50.55a(a)(3)(i). This code update for safety valves is 6 years in advance of the required 10-year IST program code update. SNC commits to the full implementation of ASME OMa-1996 Code, Appendix I, paragraph I 7.3.1 by September 1, 2002.

2.1 SNC'S Basis for Relief

The ASME OMa-1996 Code, Appendix I, paragraph I 7.3 specifies that the periodic testing of certain pressure relief valves is required. No maintenance, adjustment, disassembly, or other activity that could affect the as-found pressure or seat tightness data is permitted before testing.

The 1990 OM Code requires that all specified tests be performed before valve maintenance or set pressure adjustments. The 1990 OM Code specifies, in Section I 7.3.1, the sequence in which the tests must be performed. Tests before maintenance or set pressure adjustments, or both, shall be performed in the following sequence:

- (a) visual examination;
- (b) seat tightness determination;
- (c) set pressure determination;
- (d) determination of compliance with the Owner's seat tightness criteria;
- (e) determination of electrical characteristics and operation of bellows alarms switch;
- (f) verification of the integrity of balancing device on balanced valves; and
- (g) determination of operation and electrical characteristics of position indicators.

SNC's reason for requesting relief is that Farley is unable to perform steps (d), (f), and (g) in the OMa-1990 Code specified sequence for the pressurizer safety relief valves.

SNC's alternative will use the testing specified in the ASME OMa-1996 Code, Appendix I, paragraph I 7.3.1, on Farley safety relief valves in the testing sequence described below:

I 7.3.1 Class 1 Safety Valves. Tests before maintenance or set-pressure adjustment, or both, shall be performed for (a), (b), and (c) in sequence. The remaining tests shall be performed after maintenance of set-pressure adjustment:

- (a) visual examination;
- (b) seat tightness determination, if practicable;
- (c) set pressure determination;
- (d) determination of operational and electrical characteristics of bellows alarms switch
(*not applicable to FNP*);
- (e) verification of the integrity of balancing device on balanced valves;
- (f) determination of operation and electrical characteristics of position indicators; and
- (g) determination of compliance with the Owner's seat tightness criteria;

Further, the licensee will perform an additional test of the position indicator devices prior to step (a) of this sequence. This additional test will be similar to that specified in step (f) and will serve as an as-found verification of the devices.

3.0 NRC STAFF'S EVALUATION

SNC stated that it will perform the IST testing sequence of ASME OMa-1996 Code, Appendix I, paragraph I 7.3.1 instead of the testing sequence of the ASME OMa-1990 Code, Appendix I, paragraph I 7.3.1, for the testing of the pressurizer safety valves at Farley, Units 1 and 2. SNC indicated also that the proposed alternative testing is technically a sound engineering approach and would provide adequate assurance of the integrity of the valve. Testing of the position indicating devices in the sequence proposed provides an as-found indication of their proper operation and electrical characteristics. Any condition associated with these devices that would have affected the valve set pressure or leaktightness data will be detected during this testing.

The major change introduced in the OMa-1996 Code, Appendix I, paragraph I 7.3.1, was that tests before maintenance or set-pressure adjustment, or both, shall be performed for (a), (b), and (c) in sequence, and the remaining steps shall be performed after maintenance or set pressure adjustment (in any particular order), not necessarily in the fixed order stated in the 1990 Edition. This change will not affect the IST of the valves nor the performance and reliability of them.

On September 22, 1999, the NRC amended its regulations in 10 CFR 50.55a to incorporate by reference the OM Code 1995 Edition including the 1996 Addenda (64 FR 51370). The NRC staff did not stipulate any modifications nor limitations to the portion of the OM Code related to testing of safety and relief valves (Appendix I). This satisfies the condition of 10 CFR 50.55a(f)(4)(iv) with regards to incorporation by reference of subsequent editions and addenda. Based on this, the staff determined that the proposed use of the portion of the 1996 OM Code Addenda is acceptable for the Farley, Units 1 and 2, pressurizer safety valves.

4.0 CONCLUSION

Based on its review, the staff concludes that SNC's proposed alternative (relief requests Q1B13-RR-V-1 and Q2B13-RR-V-1) to use the OMa-1996 Code, Appendix I, paragraph I 7.3.1, as described in the licensee's letter dated October 25, 2001, is acceptable. Therefore, the alternative is approved for use at Farley, Units 1 and 2, pursuant to 10 CFR 50.55a(f)(4)(iv) for the remainder of the term of the current operating licenses.

Principal Contributor: J. Arroyo

Date: June 6, 2002

Joseph M. Farley Nuclear Plant

cc:

Mr. Don E. Grissette
General Manager -
Southern Nuclear Operating Company
Post Office Box 470
Ashford, Alabama 36312

William D. Oldfield
SAER Supervisor
Southern Nuclear Operating Company
P. O. Box 470
Ashford, Alabama 36312

Mr. Mark Ajluni, Licensing Manager
Southern Nuclear Operating Company
Post Office Box 1295
Birmingham, Alabama 35201-1295

Mr. M. Stanford Blanton
Balch and Bingham Law Firm
Post Office Box 306
1710 Sixth Avenue North
Birmingham, Alabama 35201

Mr. J. D. Woodard
Executive Vice President
Southern Nuclear Operating Company
Post Office Box 1295
Birmingham, Alabama 35201

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

Chairman
Houston County Commission
Post Office Box 6406
Dothan, Alabama 36302

Resident Inspector
U.S. Nuclear Regulatory Commission
7388 N. State Highway 95
Columbia, Alabama 36319