

Southern Nuclear Operating Company  
Post Office Box 1295  
Birmingham, Alabama 35201  
Telephone (205) 868-5131



Southern Nuclear Operating Company  
*the southern electric system*

Dave Morey  
Vice President  
Farley Project

September 13, 1993

Docket No. 50-348  
50-364

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555

Joseph M. Farley Nuclear Plant  
Inservice Testing (IST) Program Description

Gentlemen:

This letter completes the Southern Nuclear Operating Company (SNC) response to the Nuclear Regulatory Commission (NRC) Safety Evaluation/Technical Evaluation Report (SE/TER) dated September 17, 1992. The SE/TER provided the results of the NRC staff's review of the relief requests for Joseph M. Farley Nuclear Plant Units 1 and 2, Inservice Testing (IST) Program for Pumps and Valves and included a request for a description of the process used in developing the IST Program to be submitted within one year of the date of the SE/TER.

The requested IST Program description including details of the documents used, the method of determining if a component requires inservice testing, the basis for the testing required, the basis for categorizing valves, and the method or process used for maintaining the program current with design modifications or other activities performed under 10 CFR 50.59, is submitted in the attached Enclosure titled "Farley Nuclear Plant - IST Program Basis Summary".

170052

9309200061 930913  
PDR ADOCK 05000348  
P PDR

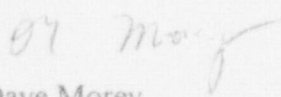
A047  
11

SNC is currently reviewing the Unit 1 and 2 IST Programs to identify non-code or optionally upgraded components which are included in the IST Programs but are not within the scope of ASME Section XI requirements for pump and valve testing. As a result of this review, SNC may delete certain items from the IST Program document. SNC will perform safety evaluations for these changes and will continue to perform appropriate testing as required commensurate with the safety function of each item. SNC will notify the NRC of any deletions to the program through the distribution of the IST program manual.

If there are any questions or if additional information is needed, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

  
Dave Morey  
Vice President

AJP/EFB istdesc.doc

Enclosure

cc: Mr. S. D. Ebnetter  
Mr. T. A. Reed  
Mr. G. F. Maxwell

## Enclosure

### Farley Nuclear Plant - IST Program Basis Summary

This basis summary, per the NRC September 17, 1992 SE, provides a description of the process used in developing the Inservice Testing (IST) program and includes "...*details of the documents used, the method of determining if a component requires inservice testing, the basis for the testing required, the basis for categorizing valves, and the method or process used for maintaining the program current with design modification or other activities performed under 10 CFR 50.59.*" Each of these areas of interest are addressed individually below.

#### Details of the Documents Used.

10 CFR 50.55 a(g) *Inservice Inspection Requirements* specifies Section XI of the ASME Boiler and Pressure Vessel (B&PV) Code as the document specifying Inservice Testing requirements of pumps and valves. Farley Nuclear Plant (FNP) is committed to the 1983 Edition with Summer 83 Addenda.

The method of component classification is described in the plant FSAR Section 3.2.2 "System Quality Group Classification" which states that the plant design standards conform to the standards of the American Nuclear Society, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants," August 1970 draft (eventually N18.2).

The FSAR further states that the design in general complies with the intent of Regulatory Guide 1.26 "Quality Group Classification and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants" (formerly Safety Guide 26).

Regulatory Guide 1.26 specifically excluded a number of systems as not covered by the guide. Some of these systems include diesel fuel, instrument and service air, fuel handling, etc. Components in these systems were, according to the Regulatory Guide, to be tested to quality standards commensurate with the safety function to be performed. These systems were also not included in the description of Safety Class 1, 2, or 3 in the draft N18.2 document used for the original component classification.

In developing the program, consideration was given to and guidance provided by the following documents:

NRC letter, "*Guidance for Preparing Pump and Valve Testing Program Descriptions and Associated Relief Requests Pursuant to 10 CFR 50.55 a(g)*".

*Regulatory Guide (Draft) "Identification of Valves for Inclusion in Inservice Testing Programs"* - November 1982.

NRC Standard Review Plan 3.2.2, "*System Quality Group Classification.*"

NRC Generic Letter 89-04 (Draft)

The IST program is in compliance with NRC Generic Letter 89-04 "*Guidance on Developing Acceptable Inservice Testing Programs*" In GL 89-04 (Table 1), Farley Nuclear Plant is listed as being one of the plants whose program was reviewed based on

the guidance provided by GL 89-04. Final compatibility with GL 89-04 was resolved after receipt of the resultant SER during subsequent reviews and submittals as specified in GL 89-04.

#### **The Method of Determining if a Component Requires Inservice Testing**

Class 1, 2, and 3 components which meet the requirements of Section XI of the ASME B&PV Code Subarticle IWV-1100 (valves) or Subarticle IWP-1100 (pumps) are included in the IST program and tested accordingly.

Certain non-code or optionally upgraded components which meet the other requirements of the above stated Subarticles IWV-1100 or IWP-1100 are tested to quality standards commensurate with the safety function to be performed.

#### **The Basis for the Testing Required**

ASME Section XI forms the basis for the testing of components included in the program. The IST program specifies testing of pumps and valves as required in Section XI unless it has been determined that such testing would:

- Be impractical due to system or component design
- Render a safety related system inoperable
- Cause a reactor scram or turbine trip
- Require significant deviations from normal operations
- Require entry into inaccessible plant areas
- Increase the possibility of an intersystem loss of coolant accident
- Compromise personnel safety

Where the Section XI testing requirements cannot be met relief requests are submitted for granting per the provisions of 10 CFR 50.55a.

#### **The Basis for Categorizing Valves**

Subarticle IWV-2200 of Section XI ASME B&PV Code specifies the definitions of Category A, B, C and D valves. In addition, Subarticle IWV-2100 specifies the definition of *active* and *passive* valves.

Category A includes containment isolation valves specified for Appendix J, Type C local leak rate testing and pressure isolation valves as designated in Table 3.4-1 of plant Technical Specifications.

Category B includes valves for which seat leakage in the closed position is inconsequential for fulfillment of their safety function.

Category C includes check valves and pressure relief valves. Only relief valves which perform a system pressure relief function are included.

Category D - There are no Category D valves in the IST program.

#### **The Method or Process used for Maintaining the Program Current with Design Modifications or Other Activities Performed Under 10 CFR 50.59.**

The IST program documents the inspection and testing required for compliance with Section XI of the ASME B&PV Code. ISI boundary diagrams have been developed

and issued as controlled drawings to illustrate the scope of the ISI/IST programs for FNP Units 1 and 2. The design organization preparing plant design changes affecting the IST program is responsible for identifying any changes necessary to the boundary diagrams in the design change package to insure that the necessary IST program changes are developed. Additionally, design change implementation is governed by plant procedures. These procedures require such design changes to be subjected to an interdisciplinary review which includes a determination of whether the IST program must be modified.