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Joseph M. Farley Nuclear Plant
Verification of Seismic Adequacy of Mechanical and
Electrical Equipment in Operating Reactors,
Unresolved Safety Issue (USI) A-46, Generic Letter 87-02

Gentlemen:

By letter dated February 19, 1987, the NRC issued Generic Letter (GL) 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46." On May 22, 1992 the NRC issued GL 87-02 Supplement 1. As documented in NUREG-1211, "Regulatory Analysis for Resolution of Unresolved Safety Issue A-46, Seismic Qualification of Equipment in Operating Plants," GL 87-02 is applicable to Farley Nuclear Plant (FNP) Unit 1. Southern Nuclear Operating Company (SNC) replied to GL 87-02 by letter dated September 10, 1992. The SNC letter included a commitment to use the Seismic Qualification Utility Group (SQUG) methodology as documented in the Generic Implementation Procedure (GIP) for resolution of seismic issues identified in GL 87-02 for FNP Unit 1. The SQUG methodology is based on application of earthquake experience data to verify the seismic adequacy of equipment.

The seismic evaluation for FNP Unit 1 is complete. The results are documented in the attached document, "Unresolved Safety Issue A-46 Summary Report." In general, the evaluated equipment at FNP was found to be rugged and well anchored. However, raceway and equipment outliers with regard to the GIP criteria were identified as documented in Appendices J and K of the attached report. In addition, relays categorized as "low ruggedness" per SQUG criteria were found to be installed as discussed in Section 3.0 of the attached report. Resolution of outliers, other than relays, will be completed by December 31, 1995. Any modifications or replacements necessary to resolve relay outliers will be implemented by December 31, 1996. SNC will inform the NRC after necessary actions to resolve all outliers have been completed.

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NUREG-1211 documents the applicability of GL 87-02 to Unit 1 only. Plants outside the scope of GL 87-02 were generally excluded on the basis that the original seismic qualification of equipment was performed in accordance with IEEE 344-1975. Although FNP Unit 2 was excluded from the scope of GL 87-02, the original seismic licensing and design basis for both Units 1 and 2 was IEEE 344-1971. During licensing of Unit 2 seismic qualification criteria were evolving, and as a result, an NRC review was conducted by a Seismic Qualification Review Team (SQRT). NUREG-75/034 Supplement 5 documents that the intent of the SQRT review was "to determine whether the original test and analyses were adequate in light of current criteria in SRP 3.10." The SQRT concluded that an adequate margin of safety existed as required by the then current criteria of SRP 3.10.

In order to maintain consistency between the licensing bases for the units, a seismic evaluation was performed for Unit 2 using SQUG GIP guidance. This evaluation, including walkdowns, has been completed for all applicable equipment other than relays. Due to the similarity of FNP Units 1 and 2, the detailed relay evaluation for Unit 1 is considered applicable to Unit 2. On this basis, the Unit 2 counterparts to the relays categorized as low ruggedness during the Unit 1 evaluation have been identified and are scheduled for resolution. Detailed relay chatter evaluations of Unit 2 safe shutdown circuits are limited to circuits determined to be dissimilar to the Unit 1 circuits. The Unit 2 relay evaluation for dissimilar circuits is in-progress and will be completed by December 31, 1995. Documentation of the Unit 2 SQUG GIP evaluation is not provided with this submittal. However, the detailed documentation of the Unit 2 evaluation is consistent with the Unit 1 documentation and available for review at SNC.

SNC intends to revise the licensing basis for Units 1 and 2 to allow application of earthquake experience data as an acceptable alternative for documenting the seismic adequacy of appropriate mechanical and electrical equipment. This change to the FNP licensing basis will be evaluated under the guidance of 10CFR50.59.

If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

Dave Morey

DPH:maf SQUGNRC.DOC

Attachment: Unresolved Safety Issue A-46 Summary Report

cc: Mr. S. D. Ebneter
Mr. B. L. Siegel
Mr. T. M. Ross