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O. J. "Ike" Zeringue
Vice President, Browns Ferry Operations

SEP 21 1992

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

Gentlemen:

In the Matter of	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296

BROWNS FERRY NUCLEAR PLANT (BFN) - SUPPLEMENT 1 TO GENERIC LETTER 87-02, VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS, UNRESOLVED SAFETY ISSUE (USI) A-46 AND SUPPLEMENT 4 TO GENERIC LETTER 88-20, INDIVIDUAL PLANT EXAMINATION OF EXTERNAL EVENTS (IPEEE) FOR SEVERE ACCIDENT VULNERABILITIES

References:
1. NRC Letter, dated May 22, 1992, Supplement 1 to GL 87-02 that Transmits Supplemental Safety Evaluation No. 2 (SSER No. 2) on SQUG Generic Implementation Procedure, Revision 2, as Corrected on February 14, 1992 (GIP-2)

2. NRC letter, dated January 23, 1991, NUREG-1232, Volume 3, Supplement 2, Safety Evaluation Report, TVA's Browns Ferry Nuclear Performance Plan

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3. TVA letter, dated December 20, 1991, Browns Browns Ferry Nuclear Plant, Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities (Generic Letter 88-20, Supplement 4)

4. TVA Letter, dated March 27, 1991, Action Plan to Disposition Concerns Related to Units 1 and 3 Cable Tray Supports.

5. TVA Letter, dated May 6, 1991 Program for Resolving Conduit and Conduit Supports Issue Prior to the Restart of Units 1 and 3.

I. INTRODUCTION

This letter describes the BFN program and schedule for implementation of Supplement 1 to GL 87-02, Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating reactors. Additionally, BFN is providing the methods and implementation schedule for the seismic portion of the Individual Plant Examination of External Events (IPEEE).

On February 19, 1987, NRC issued GL 87-02, Unresolved Safety Issue (USI) A-46. This GL encouraged utilities to participate in a generic program to resolve the seismic verification issues associated with USI A-46. As a result, the Seismic Qualification Utility Group (SQUG) developed the Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment. On May 22, 1992 the NRC staff issued GL 87-02, Supplement 1, reference 1, which constituted the staff's review of the GIP and included Supplemental Safety Evaluation Report Number 2 (SSER-2) on the GIP, Revision 2, corrected on February 14, 1992. The letter to SQUG member utilities enclosing SSER-2 requested that utilities provide to NRC, within 120 days, a schedule for implementing the GIP. This letter responds to the staff request.

II. COMMITMENT TO GIP

As a member of SQUG TVA commits to use the SQUG methodology as documented in the GIP, where CIP refers to Revision 2, corrected February 14, 1992, to resolve USI A-46 at Browns Ferry Nuclear Plant. The GIP, as evaluated by the staff, permits licensees to deviate from the SQUG commitments embodied in the Commitment sections, provided the staff is notified of substantial deviations prior to implementation. TVA recognizes that the staff's position in SSER-2 "is that if licensees use other methods that deviate from the criteria and procedures described in SQUG commitments and in the implementation guidance of the GIP, Revision 2, without prior NRC approval, the method may not be acceptable to the staff and, therefore, may result in a deviation from the provisions of" GL 87-02.

Specifically, BFN commits to the SQUG commitments set forth in the GIP in their entirety, including the clarifications, interpretations, and exceptions identified in SSER-2 as clarified by the August 21, 1992, SQUG letter responding to SSER-2.

BFN generally will be guided by the remaining (non-commitment) sections of the GIP, i.e., GIP implementation guidance, which comprises suggested methods for implementing the applicable commitments. BFN will notify NRC as soon as practicable, but no later than the final USI A-46 summary report of significant or programmatic deviations from the guidance portions of the GIP if any. Justifications for such deviations, as well as for other minor deviations, will be retained on site.

III. IN-STRUCTURE RESPONSE SPECTRA

For defining seismic demand, BFN will use the options provided in the GIP for median-centered and conservative, design in-structure response spectra, as appropriate, depending on the building, the location of equipment in the building, and equipment characteristics. The licensing-basis SSE in-structure response spectra may be used as one of the options provided in the GIP for resolution of USI A-46. The licensing-basis spectra as described in section 12.2.2.8 of the BFN FSAR and accepted by NRC in NUREG 1232, Supplement 1, may be used and are considered to be Conservative Design. The seismic design data was developed from artificial time history input ground motion described in TVA Design Criteria BFN-50-C-7102.

IV. SCHEDULE

In reference 2, sections 2.2.2.3, 2.2.2.7, 2.2.4.2 and 3.12 four action items are identified by NRC related to the resolution of USI A-46:

1. TVA should evaluate and upgrade as needed, the steel and aluminum conduits and supports qualified to the interim criteria against USI A-46.

2. The long-term (i.e., post-restart) evaluation of the Browns Ferry cable tray/support seismic qualification will be covered within the framework of the USI A-46 program.

3. For long-term operation, BFN is to comply with the final NRC resolution of generic issues related to seismic interactions (seismic Class II features over seismic Class I features) including USI A-46.

4. For long-term considerations, BFN should fully comply with the final criteria applicable to flexible conduit associated with the resolution of USI A-46.

TVA confirms that its program to implement GL 87-02, Supplement 1, will incorporate the long term qualification of conduits and supports, flexible conduits, cable trays and supports, and seismic interactions (Class II features over Class I features) for BFN Units 1, 2, and 3. For Units 1 and 3, TVA committed in references 4 and 5, to seismically qualify cable trays, conduits and their supports in accordance with the Unit 2 criteria and implementation precedent prior to unit restart. TVA also stated it may reevaluate its position for interim seismic qualification, for conduit and cable trays, pending the generic resolution of USI A-46. TVA has re-evaluated its commitment, and now intends to only utilize the GIP for seismic qualification of cable trays and conduit for Units 1 and 3.

In reference 3, TVA responded to GL 88-20, Supplement 4, Individual Plant Examination of External Events (IPEEE, for severe Accident Vulnerabilities and committed to identify the methods, approach and provide a schedule for performing the seismic portion of the IPEEE within 120 days from receipt of the SSER-2 for the resolution of USI A-46. BFN will conduct the seismic portion of the IPEEE using the Seismic Margins Methodology developed by the Electric Power Research Institute (EPRI), previously accepted by the staff in GL 88-20, Supplement 4.

Given the magnitude of the effort required tc achieve resolution of USI A-46, final implementation must be carefully integrated with outage schedules and the seismic IPEEE response, the completion of which may be affected by the A-46 implementation start date. Considering the workload set forth by the criteria of the GIP, a Seismic Evaluation Report summarizing the results of the A-46 and seismic IPEEE programs for BFN Units 1, 2 and 3 will be submitted to NRC prior to the restart of Unit 1. TVA currently plans to restart BFN Unit 1 in July of 1996. This schedule is such that the submittal of the Seismic Evaluation Report is beyond three years from the issuance of SSER-2. Justification for this schedule is based on TVA's intention to use TVA in-house resources for the implementation of these programs (as recommended by GL 88-20 for IPEEE). Additionally, BFN is a three unit plant with program implementation requiring coordination with the on going recovery efforts of Units 1 and 3, and resource allocation during Unit 2 refueling outages.

If the contents of this letter are not acceptable to the staff, the BFN A-46/IPEEE completion date must be rescheduled to permit coordination with planned refueling outages. Therefore, it is requested that NRC notify TVA if this letter and the commitments contained herein are not acceptable to the staff.

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The enclosure to this letter provides a summary of commitments made in this letter. If you have any questions, contact G. D. Pierce, Manager of Site Licensing, at (205) 729-7566.

Sincerely,

O. J. Zeringue

Enclosure
cc: See page 6

Subscribed and sworn to before me
on this 21 day of Sept., 1992.

Notary Public

My Commission Expires 4/15/95

Enclosure
cc (Enclosure):
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ENCLOSURE
BROWNS FERRY NUCLEAR PLANT
GENERIC LETTER 87-02, SUPPLEMENT 1
LIST OF COMMITMENTS

1. TVA commits to use the SQUG methodology as documented in the GIP, where GIP refers to Revision 2, corrected February 14, 1992 to resolve USI A-46 at Browns Ferry Nuclear Plant.

2. BFN's program to implement GI 87-02, Supplement 1, for Units 1, 2, and 3, will incorporate the long-term qualification of conduits and supports, flexible conduits, cable trays and supports, and seismic interactions (Class II features over Class I features).

3. BFN will conduct the seismic portion of the IPEEE using the Seismic Margins Methodology developed by the Electric Power Research Institute (EPRI).

4. A Seismic Evaluation Report summarizing the results of the A-46 and seismic IPEEE programs for BFN Units 1, 2, and 3 will be submitted to NRC prior to the restart of Unit 1.