



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609

JUN 28 1996

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

Gentlemen:

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

BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 2 AND 3 - GENERIC LETTER (GL) 87-02, SUPPLEMENT 1, VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS, UNRESOLVED SAFETY ISSUE (USI) A-46 AND GL 88-20, SUPPLEMENT 4, INDIVIDUAL PLANT EXAMINATION OF EXTERNAL EVENTS (IPEEE) FOR SEVERE ACCIDENT VULNERABILITIES - SUBMITTAL OF SEISMIC EVALUATION REPORTS (TAC NOS. M69431, M69432, M83596 AND M83597)

This letter provides the Seismic Evaluation Reports that summarize the results of the USI A-46 and seismic IPEEE programs for BFN Units 2 and 3.

In GL 87-02, NRC established the process for resolution of USI A-46 and encouraged the affected licensees to participate in a generic program. In Supplement 1 to GL 87-02, the staff required a response that included a commitment to the Generic Implementation Procedure, Revision 2, (GIP-2) prepared by the Seismic Qualification Utility Group (SQUG), a schedule for implementation of the GIP, and submission of a report summarizing the results of the USI A-46 program. By letters to NRC dated September 21, 1992, January 19, 1993, and March 19, 1996, TVA committed to implement GIP-2, including the clarifications, interpretations, and exceptions in NRC's Supplemental Safety Evaluation Report Number Two (SSER-2), and to communicate to the staff any significant or programmatic deviations from GIP guidance. For BFN Units 2 and 3, TVA committed to submit the results of the USI A-46 evaluation by *AD25/1* June 28, 1996.

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On June 28, 1991, NRC issued GL 88-20, Supplement 4, which requested that the systematic examination for plant specific vulnerabilities be expanded to include the consideration of five external events. Included in the five external events are seismic events. By letter dated December 20, 1991, TVA committed to address the seismic portion of the IPEEE within 120 days after NRC issued an SSER that resolved USI A-46. The above referenced TVA to NRC letters that addressed the USI A-46 program also provided BFN's commitments regarding the seismic IPEEE evaluation. For BFN Units 2 and 3, TVA committed to submit the results of the seismic IPEEE evaluation by June 28, 1996. The Units 1, 2, and 3 IPEEE evaluation for high winds, external floods, transportation and nearby facilities accidents, and Unit 2 internal fire induced vulnerabilities was submitted by letter dated July 24, 1995. Therefore, the analysis portion of the IPEEE/USI A-46 has been completed for Unit 2.

Section I.2.2.8 of GIP-2 requires that licensees submit a plant specific Summary Report to NRC, including a proposed schedule for future modifications and replacements of those outliers that are yet to be resolved. Further, GIP-2 Section II.9 provides for Safe Shutdown Equipment List (SSEL), Relay Evaluation, Seismic Evaluation, and Completion Reports. This letter constitutes the Summary Report. Enclosure 1 to this letter provides the Seismic Evaluation Report, Enclosure 2 provides the Relay Evaluation Report, and Enclosure 3 contains the Seismic IPEEE Evaluation Report. As permitted in GIP-2, Section II.9.2, the pertinent results from the SSEL Report are included in the enclosed Seismic Evaluation and Relay Evaluation Reports. To permit both the Seismic and Relay Evaluation Reports to be reviewed independently, there are a few areas of redundancy in these reports, e.g., a description of Safe Shutdown Equipment is included in both reports. The Completion Report will be submitted when all planned actions for resolution of USI A-46 have been implemented.

Outliers, as defined by GIP-2, were identified during the seismic and relay reviews. These outliers are described in detail in the enclosed reports. For Unit 2, TVA plans to resolve the outliers prior to restart from the Cycle 9 refueling outage, currently scheduled to start in October 1997. The outliers identified for Unit 3 will be resolved prior to restart from the Cycle 7 refueling outage, currently scheduled to start in February 1997. TVA will formally notify NRC upon completion of the outlier resolutions.

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On June 19, 1996, NRC issued a trip report for an October 16-20, 1995 audit of the BFN Unit 3 USI A-46/IPEEE in-progress seismic walkdown. In the report, NRC states that "the Staff identified a technical concern with the use of GIP-2 criteria by the licensee regarding the alternative method for the comparison of seismic demand with the seismic capacity for equipment installed in the plant." Additionally, it notes that "the Staff does not consider the licensee's choice of the first alternative in the GIP-2 acceptable, since it results in a deviation from the licensing basis for the plant." TVA respectfully disagrees with the Staff position that it is deviating from its licensing basis. Also, TVA is concerned that NRC objects to BFNs use of one of two NRC approved methods for comparing equipment seismic capacity to seismic demand. The GIP allows use of either method.

TVA concludes that it is not deviating from its licensing basis because seismic qualification of components constitutes a new criteria (i.e., new licensing basis) only after implementation of USI A-46. GL 87-02 states that "the NRC has concluded that the seismic adequacy of certain equipment in operating nuclear power plants must be reviewed against seismic criteria not in use when these plants were licensed." Also, it recognizes that "because affected plants are being asked to carry out [USI A-46] evaluations against criteria not used to establish the design basis of the facility, this resolution is a backfit under 10 CFR 50.109." Therefore, the seismic qualification licensing basis of an older plant will be created following implementation of the GIP-2. In fact, the GIP-2, as approved by the NRC states that "a USI A-46 licensee, in accordance with 10 CFR 50.59, may revise the plant licensing bases to reflect the USI A-46 GIP methodology."

Based on the Staff's trip report, TVA understands that the Staff concern is rooted on the GIP-2 itself. The Staff notes that:

The use of the first method in the GIP-2 is only appropriate for facilities that do not have in-structure response spectra in their respective licensing basis documents. The Staff believes that the lack of specificity in the GIP-2 with regard to the selection of the appropriate method for determining equipment seismic adequacy, has led to the identified non-conformance. The Staff is pursuing this issue with the SQUG Steering Group.

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Because neither the GIP-2 nor NRC's SSER-2 for the GIP-2 identify the restriction that NRC advances in its trip report, TVA disagrees that the BFN method of selection constitutes a non-conformance. TVA agrees that this is a matter that should be resolved with the SQUG Steering Group.

A summary of the commitments made in this letter is provided in Enclosure 4. If you have any questions regarding the enclosed reports, please contact me at (205) 729-2636.

Sincerely,



Pedro Salas
Manager of Site Licensing

Subscribed and sworn to before me
on this 28th day of June 1996.

Barbara A. Blanton
Notary Public

My Commissions Expires My Commission Expires 10/06/98

Enclosures

cc (Enclosures):

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ENCLOSURE 1

**TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 2 AND 3**

**GENERIC LETTER 87-02, SUPPLEMENT 1,
VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL
EQUIPMENT IN OPERATING REACTORS, UNRESOLVED SAFETY ISSUE
(USI) A-46**

SEISMIC EVALUATION REPORT

(SEE ATTACHED)