



1650 CALVERT CLIFFS PARKWAY • LUSBY, MARYLAND 20657-4702

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SENIOR VICE PRESIDENT
(410) 260-3690

September 18, 1992

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Response to Generic Letter 87-02, Supplement 1 on Seismic Qualification
Utility Group (SQUG) Resolution of USI A-46

- REFERENCES:
- (a) Letter from Mr. J. G. Partlow (NRC) to Mr. G. C. Creel (BG&E), dated May 22, 1992, Supplement 1 to Generic Letter (GL) 87-02 that Transmits Supplemental Safety Evaluation Report No. 2 (SSER No. 2) on SQUG Generic Implementation Procedure, Revision 2, as corrected on February 14, 1992 (GIP)
 - (b) Letter from SQUG to Mr. J. G. Partlow (NRC), dated August 21, 1992, SQUG Response to Generic Letter 87-02, Supplement 1 and Supplemental Safety Evaluation Report No. 2 on the SQUG GIP

Gentlemen:

This letter responds to Generic Letter 87-02 Supplement 1 (Reference a).

INTRODUCTION

On February 19, 1987, the NRC issued Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46." This Generic Letter 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 Generic Letter 87-02, Supplement 1 (Reference a), which constituted the NRC Staff's review of the GIP and transmitted Supplemental Safety Evaluation Report Number 2 (SSER-2) on the GIP, Revision 2, as corrected on February 14, 1992. The letter to SQUG enclosing SSER-2 requests that SQUG member utilities provide to the NRC, within 120 days, a schedule for implementing the GIP. By letter dated August 21, 1992 (Reference b), SQUG clarified that the 120 days would expire on September 21, 1992.

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COMMITMENT TO GIP

GIP Commitments

As a member of SQUG, Baltimore Gas and Electric Company (BG&E) commits to use the SQUG methodology as documented in the GIP, where "GIP" refers to GIP Revision 2, as corrected on February 14, 1992, to resolve USI A-46. 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. Baltimore Gas and Electric Company recognizes and concurs with the Staff's position in SSER-2 concerning the use of other methods.

Specifically, BG&E does commit to the SQUG commitments set forth in the GIP, including the clarifications, interpretations and exceptions identified in SSER-2 as clarified by Reference (b), with the exception of the following section.

Section 3.2.3, Safe Shutdown Defined

The SQUG commitment is that safe shutdown is defined as bringing the plant to, and maintaining it in a Hot Shutdown condition during the first 72 hours following a safe-shutdown earthquake (SSE). The Hot Shutdown condition or Mode is defined by a plant's Technical Specifications.

The safe shutdown definition in the GIP is in conflict with BG&E's definition. Calvert Cliffs is licensed as a Hot Standby plant. Thus, BG&E defines the safe shutdown condition at Calvert Cliffs as bringing the units to a Hot Standby condition and maintaining them there (no time period is specified) following an SSE. Hot Standby is defined in our Technical Specifications as having the reactors sub-critical and the average temperature equal to or greater than 300 °F, whereas Hot Shutdown is defined as sub-critical with the average temperature less than 300 °F, but greater than 200 °F. Safe shutdown for Calvert Cliffs is the Hot Standby Mode as defined in the Technical Specifications.

GIP Guidance

Baltimore Gas and Electric Company will be generally guided by the remaining (non-commitment) sections of the GIP; i.e., GIP implementation guidance, which comprises suggested methods for implementing the applicable commitments. We will notify the 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 onsite for NRC review.

IN-STRUCTURE RESPONSE SPECTRA

For defining seismic demand, we 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 our Updated Final Safety Analysis Report, may be used and are considered to be "conservative design." The procedures and criteria which were used to generate the licensing-basis in-structure response spectra are described in Attachment (1).

SCHEDULE

Given the large effort required to achieve resolution of USI A-46, final implementation must be carefully integrated with outage schedules and the seismic Individual Plant Examination of External Events (IPEEE) response. The completion of the IPEEE may be affected by the USI 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 USI A-46 program at Calvert Cliffs Nuclear Power Plant Units 1 and 2 will be submitted to the NRC by June 30, 1996. While this date is in excess of three years from the receipt of the final SER, it is based on our current schedule of planned refueling outages along with the necessary coordination required for our seismic IPEEE response. The USI A-46 program completion could be further affected by the scope and schedule for completing the necessary SQUG training and by the availability of industry resources which may be unavailable because of the large number of licensees implementing this program.

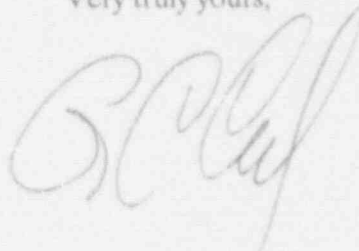
Regarding in-structure response spectra, we will assume that the Staff has accepted our spectra if they do not respond to us by accepting, questioning or rejecting the spectra within 60 days.

PLANT SEISMIC LICENSING BASIS

We may change our licensing basis methodology for verifying the seismic adequacy of new and replacement, as well as existing, electrical and mechanical equipment prior to receipt of a final plant specific SER resolving USI A-46. This change will be conducted under 10 CFR 50.59 and will be consistent with the guidance in Section 2.3.3 or Part I of the GIP, Revision 2, and with the clarifications, interpretations and exceptions identified in SSER-2, as clarified in Reference (b).

Should you have any further questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



STATE OF MARYLAND :
: TO WIT :
COUNTY OF CALVERT :

I hereby certify that on the 18th day of September, 1992, before me, the subscriber, a Notary Public of the State of Maryland in and for Calvert County, personally appeared George C. Creel, being duly sworn, and states that he is Senior Vice President of the Baltimore Gas and Electric Company, a corporation of the State of Maryland; that he provides the foregoing response for the purposes therein set forth; that the statements made are true and correct to the best of his knowledge, information, and belief; and that he was authorized to provide the response on behalf of said Corporation.

WITNESS my Hand and Notarial Seal:


Notary Public

My Commission Expires:

February 2, 1994
Date

GCC/JMO/dlm

Attachment

cc: **Without Attachment**
D. A. Brune, Esquire
J. E. Silberg, Esquire
R. A. Capra, NRC
D. G. McDonald, Jr., NRC
T. T. Martin, NRC
P. R. Wilson, NRC
R. I. McLean, DNR
J. H. Walter, PSC