



1650 CALVERT CLIFFS PARKWAY • LUSBY, MARYLAND 20657-4702

GEORGE C. CREEL
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
Reassessment of Schedule for Generic Letter 88-20, Supplement 4,
Individual Plant Examination of External Events (IPEEE) for Severe
Accident Vulnerabilities (TAC Nos. M83603; M83604)

REFERENCES: (a) Generic Letter 88-20, Supplement 4, dated June 28, 1991, Individual
Plant Examination of External Events (IPEEE) for Severe Accident
Vulnerabilities - 10 CFR 50.54(f)

(b) Letter from Mr. D. G. McDonald, Jr. (NRC) to Mr. G. C. Creel
(BG&E), dated June 30, 1992, Review of Response to Generic
Letter 88-20, Supplement 4; Individual Plant Examination of External
Events (IPEEE) for Severe Accident Vulnerabilities -
10 CFR 50.54(f)

Gentlemen:

In accordance with Generic Letter 88-20, Supplement 4 (Reference a), we provided a description of our proposed program and schedule for completing the Individual Plant Examination of External Events (IPEEE). We identified June 1996 as the expected submittal date for the program results. In Reference (b), the NRC requested that Baltimore Gas and Electric Company (BG&E) reassess our IPEEE program with the objective of moving the submittal date up to June 1995.

We have performed this reassessment and have determined that your request cannot be accommodated without challenging the integrity of the IPEEE program and the quality of the results. The reasons supporting our determination are as follows:

Cost #
PDR 603395

9209250003 920918
PDR ADDOCK 05000317
PDR

ADH 1/0

1. *The IPEEE project schedule is sequenced with that of the IPE resulting in the IPE Project resources being unavailable until the end of the first quarter of 1993.*

Calvert Cliffs' IPE Project is still in progress and has a submittal date of May 1993. This project is being developed by BG&E engineers with minimal contractor support. The use of BG&E engineers meets the spirit of Generic Letter 88-20. It helps to develop a continuing appreciation of severe accident behavior by having utility engineers involved in the analysis, as well as the technical review. The staffing of the IPE Project increased from two in January 1989 to the current level of six. This staff is completely dedicated to the development of the plant's examination for internal events. We intend to utilize the same staff to support the plant's examination of external events. Such an approach will ensure the analysis between internal and external events is coordinated.

2. *Using in-house staff to maximize BG&E's knowledge gained from the examination would limit the total available resources.*

Both Generic Letter 88-20 and Generic Letter 88-20, Supplement 4 encourage using the licensee's staff in all aspects of the examination. Baltimore Gas and Electric Company plans to maximize the use of its internal staff. We have also found that this involvement is necessary to ensure a thorough and quality product. Additionally, it will better utilize the significant plant knowledge gained by the IPE team and will make efficient use of our limited plant resources. The IPEEE will require not only participation of the reliability engineering staff, but also the support of operations, fire protection and seismic engineering personnel.

The IPEEE schedule considers the coordination and project impact on these various resources.

3. *Coordinating the IPEEE with the various fire protection activities ensures the appropriate expertise is applied to the project.*

Various fire protection activities are underway at Calvert Cliffs. These activities will limit the availability of key fire protection personnel. The proposed schedule considers the availability of these resources.

4. *Reserving the resources necessary to maintain and apply the IPE to the operation and maintenance of Calvert Cliffs, reduces the total available reliability engineering resources.*

Generic Letter 88-20 identifies several potential benefits of having a completed probabilistic risk assessment (PRA) including: support for licensing actions, licensing renewals, risk management, integrated safety assessment. Licensees are also encouraged to implement accident management programs. In addition to the applications cited in Generic Letter 88-20, considerable industry activity is underway in the areas of maintenance support as a result of the Maintenance Rule (10 CFR 50.65) and in the evaluation of shutdown risk.

Baltimore Gas and Electric Company is actively pursuing application of the Calvert Cliffs PRA. Technical improvements to the PRA, such as the addition of a front-end Failure Modes and Effects Analysis for each component included in the IPE and the development of a component importance ranking are underway. In addition, we plan to maintain this PRA so that it can continue to be used by a knowledgeable in-house staff. With this in mind, some of the current IPE staff is being assigned for such support. It would be imprudent to have completed a powerful in-house PRA tool and not be able to effectively use it because all staff resources were developing the IPEEE.

5. *Coordinating the IPEEE with Unresolved Safety Issue (USI) A-46 requires more up-front planning and links the schedules of the two projects.*

The completion of IPEEE must be carefully coordinated with the resolution of USI A-46. This includes having adequate time to identify IPEEE components which require seismic evaluation to allow inclusion of these components into the scope of the seismic equipment walkdowns. It is BG&E's intent to perform the walkdowns for both USI A-46 and IPEEE in a single effort. This approach is encouraged by Generic Letter 88-20, Supplement 4.

6. *Performing the evaluation on a two-unit site, including the consideration of available outages to perform the necessary walkdowns, establishes clear schedule limitations.*

The Calvert Cliffs units are on a 24-month refueling cycle. These refueling outages will be targeted for the seismic walkdown. An interim maintenance outage is also available, but the scope of walkdowns during these short duration outages is limited. Based on the current outage schedule, the available outages are as follows: Unit 1 - spring 1994 (Refueling Outage (RFO) -11) and 1996 (RFO-12); Unit 2 - spring 1993 (RFO-9) and spring 1995 (RFO-10). It is not anticipated that the identification of the IPEEE seismic walkdown scope will be completed for the spring 1993 outage. Therefore, the completion of all seismic walkdowns could be as late as spring 1995. This leaves just over 12 months to complete the seismic risk evaluation. The post-walkdown evaluation includes the identification of the most likely severe accident sequences that could occur at Calvert Cliffs, understanding the overall likelihood of core damage and radioactive material release, and if necessary, addressing any plant-specific seismic vulnerabilities identified.

Based on the above discussion, we will maintain our current schedule and submit the IPEEE summary report by June 30, 1996.

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

Very truly yours,



GCC/JMO/dlm

cc: 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