

DCS MS-016

NOV 24 1982

Docket Nos. 50-317  
and 50-318

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Mr. A. E. Lundvall, Jr.  
Vice President - Supply  
Baltimore Gas & Electric Company  
P. O. Box 1475  
Baltimore, Maryland 21203

Dear Mr. Lundvall:

We have completed our evaluation of the actions which you have taken in response to TMI Items I.A.2.1.4, "Upgrading of RO and SRO Training", and II.B.4.1, "Training for Mitigation of Core Damage." We have enclosed our Safety Evaluation, with the attached evaluation of our consultant Science Applications Inc. (SAI), regarding the above topics.

Based upon our evaluation and the evaluation of SAI, we conclude that the actions that you have taken in response to TMI Items I.A.2.1.4 and II.B.4.1 are acceptable. With regard to II.B.4.1, we also concluded that future changes to the facilities, such as installation of additional instrumentation to detect conditions of inadequate core cooling, should be reflected in updates to the training program. In addition, training in mitigation of accidents involving a degraded core should be included in the continuing program for training of replacement personnel and for retraining as necessary to ensure that personnel remain proficient.

Sincerely,

Original signed by  
Robert A. Clark

Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Enclosure:  
Safety Evaluation

cc: See next page

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DATE	11/1/82	11/27/82	11/2/82			

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ITEMS I.A.2.1.4 and II.B.4.1 of NUREG 0737

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 and 2

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NOS. 50-317 and 50-318

## 1.0 INTRODUCTION

As a consequence of the accident at TMI-2, implementation of a number of new requirements has been recommended for operating reactors. These requirements are described in NUREG-0660, "NRC Action Plan Developed as a Result of the TMI-2 Accident," May 1980, and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980. The NRC staff has requested licensees to submit information sufficient to permit an independent evaluation of their response to these requirements. This report provides an evaluation of the response to TMI Action Plan Items I.A.2.1.4 and II.B.4.1 by Baltimore Gas and Electric Company (BG&E) for Calvert Cliffs Nuclear Power Plant, Units 1 and 2.

## 2.0 EVALUATION

### ITEM I.A.2.1.4

BG&E has modified the initial and requalification training programs to include training in areas required by TMI Action Plan Item I.A.2.1.4. The training programs include instruction in heat transfer, fluid flow, thermodynamics and mitigation of accidents involving a degraded core. The training programs provide an increased emphasis on reactor and plant transients.

An NRC staff contractor, Science Applications Incorporated (SAI), has reviewed the licensee's submittals and prepared the attached Technical Evaluation Report. The NRC staff has reviewed this evaluation and concurs in its basis and findings.

Initial implementation of these training programs was verified to be acceptable during NRC Region I Combined Inspection 50-317/81-07, 50-318/81-07.

### ITEM II.B.4.1

BG&E has developed a training program to teach the use of installed equipment and systems to control or mitigate accidents in which the core is severely damaged.

The program includes training subjects equivalent to those specified in Enclosure 3 to the letter from H. R. Denton to all power reactor applicants and licensees, dated March 28, 1980. SAI's review of BG&E's program indicated that the training content and participants meet the staff requirements of TMI Action Plan Item II.B.4.1 and is therefore acceptable.

Initial implementation of this training program was verified to be acceptable during NRC Region I Combined Inspections 50-317/81-27, 50-318/81-25; 50-317/82-02, 50-318/82-02; and, 50-317/82-04, 50-318/82-04.

This completes the action required by Item II.B.4.1. However, future changes to the facilities, such as installation of additional instrumentation to detect conditions of inadequate core cooling, should be reflected in updates to the training program. In addition, training in mitigation of accidents involving a degraded core should be included in the licensee's continuing program for training of replacement personnel and for retraining as necessary to ensure that personnel remain proficient.

### 3.0 CONCLUSIONS

The information submitted by BG&E provided sufficient details of the programs for upgrading RO and SRO training and for training for mitigating core damage for the staff to conclude that the requirements of TMI Action Plan Items I.A.2.1.4 and II.B.4.1 have been met.

Attachment: SAI Technical  
Evaluation Report