

APR 16 1984

Docket No. 50-317

DISTRIBUTION:

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

Docket File JNGrace  
NRC PDR TBarnhart (4)  
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DJaffe RDiggs  
OELD  
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EJordan

Dear Mr. Lundvall:

The Commission has issued the enclosed Amendment No. 91 to Facility Operating License No. DPR-53 for Calvert Cliffs Nuclear Power Plant, Unit No. 1. This amendment consists of changes to the Technical Specifications in response to your application dated April 4, 1984.

The amendment revises the Technical Specifications to allow use of an alternate remote shutdown instrument (wide range neutron flux.)

A copy of the related Safety Evaluation is enclosed. The notice of issuance will be included in the Commission's next monthly Federal Register notice.

Sincerely,

Original signed by:

David H. Jaffe, Project Manager  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:

- 1. Amendment No. 91 to DPR-53
- 2. Safety Evaluation

cc: See next page

*[Handwritten signature]*  
ORAB/DL

4/13/84

ORB#3:DL  
PKreutzer  
4/9/84

ORB#3:DL  
DJaffe:dd  
4/9/84

ORB#3:DL  
JRMiller  
4/9/84

*[Handwritten note: with changes noted on SER]*  
OELD  
J. GRAY  
4/10/84

AD:OP:DL  
GCL:mas  
4/13/84

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ORAB  
GHolahan  
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*J. Barnhart*

APR 16 1984

Docket No. 50-317

Posted  
Amdt. 91  
to DPR-53

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

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cc: See next page

Baltimore Gas and Electric Company

C:

James A. Biddison, Jr.  
General Counsel  
Baltimore Gas and Electric Company  
P. O. Box 1475  
Baltimore, MD 21203

George F. Trowbridge, Esquire  
Shaw, Pittman, Potts and Trowbridge  
1800 M Street, N. W.  
Washington, D. C. 20036

Mr. R. C. L. Olson, Principal Engineer  
Nuclear Licensing Analysis Unit  
Baltimore Gas and Electric Company  
Room 922 - G&E Building  
P. O. Box 1475  
Baltimore, MD 21203

Mr. Leon B. Russell  
Plant Superintendent  
Calvert Cliffs Nuclear Power Plant  
Maryland Routes 2 & 4  
Lusby, MD 20657

Bechtel Power Corporation  
Attn: Mr. J. C. Ventura  
Calvert Cliffs Project Engineer  
15740 Shady Grove Road  
Gaithersburg, MD 20760

Combustion Engineering, Inc.  
Attn: Mr. R. R. Mills, Manager  
Engineering Services  
P. O. Box 500  
Windsor, CT 06095

Mr. R. M. Douglass, Manager  
Quality Assurance Department  
Baltimore Gas & Electric Company  
Fort Smallwood Road Complex  
P. O. Box 1475  
Baltimore, MD 21203

Mr. S. M. Davis, General Supervisor  
Operations Quality Assurance  
Calvert Cliffs Nuclear Power Plant  
Maryland Routes 2 & 4  
Lusby, MD 20657

Ms. Mary Harrison, President  
Calvert County Board of County Commissioners  
Prince Frederick, MD 20768

U. S. Environmental Protection Agency  
Region III Office  
Attn: Regional Radiation Representative  
Curtis Building (Sixth Floor)  
Sixth and Walnut Streets  
Philadelphia, PA 19106

Mr. Ralph E. Architzel  
Resident Reactor Inspector  
NRC Inspection and Enforcement  
P. O. Box 437  
Lusby, MD 20657

Mr. Charles B. Brinkman  
Manager - Washington Nuclear Operations  
Combustion Engineering, Inc.  
7910 Woodmont Avenue  
Bethesda, MD 20814

Mr. J. A. Tiernan, Manager  
Nuclear Power Department  
Calvert Cliffs Nuclear Power Plant  
Maryland Routes 2 & 4  
Lusby, MD 20657

Mr. W. J. Lippold, Supervisor  
Nuclear Fuel Management  
Baltimore Gas and Electric Company  
Calvert Cliffs Nuclear Power Plant  
P. O. Box 1475  
Baltimore, Maryland 21203

Mr. R. E. Denton, General Supervisor  
Training & Technical Services  
Calvert Cliffs Nuclear Power Plant  
Maryland Routes 2 & 4  
Lusby, MD 20657

Administrator, Power Plant Siting Program  
Energy and Coastal Zone Administration  
Department of Natural Resources  
Tawes State Office Building  
Annapolis, MD 21204

Regional Administrator  
Nuclear Regulatory Commission, Region I  
Office of Executive Director for Operations  
631 Park Avenue  
King of Prussia, Pennsylvania 19406



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

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 91  
License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Baltimore Gas & Electric Company (the licensee) dated April 4, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

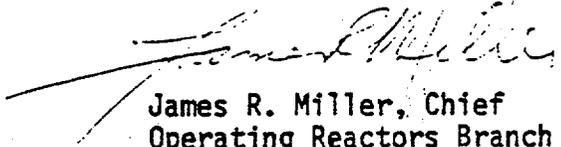
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-53 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 91, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
James R. Miller, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 16, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 91

FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the areas of change. The corresponding overleaf page is provided to maintain document completeness.

Pages

3/4 3-38

## INSTRUMENTATION

### REMOTE SHUTDOWN INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.3.5 The remote shutdown monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.
- b. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 91

TO FACILITY OPERATING LICENSE NO. DPR-53

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 1

DOCKET NO. 50-317

Introduction

By application dated April 4, 1984, the Baltimore Gas and Electric Company (BG&E) requested changes to the Technical Specifications (TS) for Calvert Cliffs Unit 1. The proposed changes to the TS would allow the use of an alternate remote shutdown instrument (wide range neutron flux) until the primary instrumentation has been repaired. In the interim period until this instrumentation is repaired, BG&E will make compensatory procedural changes including the use of emergency boration, as described herein, to prevent recriticality in the event of a control room evacuation.

Discussion

BG&E has proposed a change to the requirements for the Remote Shutdown Monitoring Instrumentation, which is required to be OPERABLE by Unit 1 Technical Specification 3.3.3.5, with the associated instrumentation listed in Table 3.3-9. During the Unit 1 refueling outage in late 1983, BG&E modified the Wide Range Nuclear Instrumentation by providing an extended range from .1 cps to 200% power in lieu of the original range, .1 cps to 150% power. The instrument location was also changed from the Auxiliary Feed Pump Room instrumentation panel to the Alternate Shutdown Panel 1C43 in the 45 foot elevation switchgear room. License Amendment No. 88 for Unit No. 1, issued on November 17, 1983, substituted a description of the new instrument (1. cps to 200% power) for the existing instrument (.1 cps to 150% power) in TS Table 3.3-9.

On March 19, 1984, the newly installed wide range neutron flux instrument began showing evidence of possible impending failure. These indications included the following:

- (1) initially indicated low (i.e., 50% when power was 100%)
- (2) then indicated high (i.e., between 100% and 200%)

The instrument was subsequently declared inoperable. The proposed change to TS 3.3.3.5 would permit BG&E to utilize the instrumentation at the

Auxiliary Feed Pump (AFP) Room instrumentation panel to meet the requirements of Technical Specification 3.3.3.5 and Table 3.3-9 until the next outage of sufficient duration to allow repair/replacement of the detectors' defective component(s). During this period, the nuclear instrumentation on the panel in the Unit 1 AFP room will be subjected to the surveillance requirements in Table 4.3-6. Thus, the same instrumentation and the same surveillance would be provided as existed prior to the NRC's issuance of Amendment No. 88.

The remote shutdown monitoring instruments allow the operator to monitor key safety parameters outside the control room. No automatic safety features are actuated from remote shutdown monitoring instrumentation. The purpose of the instrumentation is to provide required information to assure safe shutdown of the plant. Utilizing the instruments located in the Auxiliary Feedwater Pump Room still provides substantial assurance that the operator will be able to monitor neutron flux throughout the required range for remote safe shutdown of the plant, .1 cps to 150% power.

In the unlikely event of a fire which might require evacuation of the control room, and a recriticality occurs, the operator has several methods available to initiate reactivity control and ensure the reactor is maintained safely shutdown. To address the recriticality concern, when a fire in the control room requires control room evacuation, and the nuclear instrument indication in the Auxiliary Feedwater Pump Room is lost, procedural controls will be established to require initiation of emergency boration while this Technical Specification change is in effect. Other means are available to monitor the shutdown condition of the plant from the Auxiliary Shutdown Panel, 1C43. These indications include Pressurizer Pressure and Reactor Coolant Temperatures. Provisions will be made in the Abnormal Operating Procedures for use of the wide range neutron flux instrumentation in the Auxiliary Feedwater Pump Room. The proposed alternate remote shutdown monitoring instrumentation provides monitoring capability equivalent to that of the primary instrumentation (except for upper range) and is, therefore, acceptable for the interim period until the primary instrumentation can be repaired.

Since the remote shutdown instrumentation does not initiate any plant safety features, and since alternate means exist to determine post-scrum reactor power, accidents previously analyzed will not be more severe nor will new or different types of accidents occur as a result of this TS change. In addition, since no design modifications are involved, no safety margins have been reduced.

#### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve significant hazards considerations, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

### Final No Significant Hazards Determination

Under existing technical specifications, the licensee will be required, without the instant amendment, to commence shutdown on April 18, 1984. The licensee notified the NRC promptly of its inability to repair the inoperable instrumentation prior to the shutdown required by the existing technical specifications and promptly applied for the instant amendment on April 4, 1984. We have determined that, through no fault of the licensee, the facility will be required to shutdown without the instant amendment and this constitutes a valid emergency licensee amendment to avoid the need to shutdown. Accordingly, we have determined that the instant amendment may be issued without prior notice of consideration of issuance of the amendment.

The State Maryland was consulted concerning the instant amendment application on April 9, 1984 and had no comments.

Because use of the alternate remote shutdown instrumentation (and the primary instrumentation it would replace) under the proposed amendment does not initiate any plant safety features and alternate means exist to determine post-scrum reactor power, neither the probability nor the consequences of accidents previously evaluated will be significantly increased by the proposed amendment and the possibility of new or different accidents from any previously evaluated will not be created. Because no design modifications are involved and because monitoring capability essentially equivalent to that of the primary instrumentation is provided the amendment will not result in a significant reduction in any safety margin. Accordingly, the proposed amendment does not involve significant hazards considerations.

Date: April 16, 1984

Principal Contributor:  
D. H. Jaffe