Docket No. 50-317

DEC. 27 1974

Baltimore Gas & Electric Co.
ATTN: Mr. A. E. Lundvall, Jr.
Vice President, Supply
Gas and Electric Building
Charles Center
Baltimore, Maryland 21203

Amendment No. 8
Change No. 7
License No. DPR-53

Gentlemen:

By letter dated December 24, 1974, Baltimore Gas and Electric Company (BG&E) requested that its Operating License No. DPR-53 for Calvert Cliffs Units 1 be amended to modify the Technical Specifications requirements during escalation-to-power testing (EPT) to consider the special operating conditions that will be associated with this testing.

BG&E requested that Technical Specification 3.10.E.2.b be modified so that the requirement that the in-core detector alarms be set based on the latest power distribution obtained will not be applicable to the EPT phase of operations and that a special set of requirements that are applicable only to the EPT phase be added. It was proposed that these special requirements would state that during EPT the in-core detector alarms shall be set prior to exceeding 50% power and checked and reset, if necessary, at the 80% and 100% power testing plateaus. The reason for the request is that BG&E expects to measure power distribution frequently during EPT, sometimes as often as every 15 minutes in order to satisfy test requirements, and it would be impractical to reset the 180 in-core detector alarms each time the power distribution is measured. Additionally, these frequent measurements would provide power distributions for transient conditions rather than for the steady state conditions that were intended for the setting of in-core detector alarms.

The proposed modification does not change the linear heat generation rate limit; it merely modifies the requirement during EPT for the frequency of setting the in-core detector alarms. During EPT, the peak linear heat generation rate will be carefully monitored by the operations and test personnel. We conclude that this careful monitoring by the operational and test personnel, in conjunction with the setting of the alarms prior to exceeding 50% power and the checking and resetting of these alarms, as necessary, at the 80% and 100% power testing plateaus, provides adequate assurance that the plant will be operated without exceeding the linear heat generation rate limit of Specification 3.10.E.2.

BG&E also pointed out that Technical Specification 4.1, Table 4.1.1, item 1.a and item 1.b requirements that the power range safety channels and the ΔT power be calibrated daily is not consistent with the EPT requirements for determining the effect of CEA insertions, xenon oscillations, and variations of the reactor temperature on reactor power as measured by the nuclear power and the ΔT power instrumentation. Daily calibration of these instruments would interfere with the tests that require several days to perform. BG&E proposed that the Table 4.1.1 requirements be modified so that the present specifications will not be applicable to the EPT phase of operation and that a special set of requirements that are applicable only to the EPT phase be added. It was proposed that the special set of requirements would state that, during EPT, the calibration of the power range safety channels and the ΔT power channels be verified, as necessary, each time the reactor is at the all rods out, equilibrium xenon condition.

We agree with BG&E that daily calibration of the power range safety channels and the ΔT power channels would interfere with an adequate EPT test and we concur that these daily calibration requirements should be waived during EPT and replaced by special requirements that will be applicable only during EPT.

We believe the special requirements should include calibration of these channels as soon as practical to do so after reaching an all-rods-out equilibrium xenon condition at the four major test plateaus (20%, 50%, 80%, and 100% of rated power) and a check of these channels each time the reactor is at an all-rods-out equilibrium condition, with a channel calibration whenever, at this equilibrium condition, it is determined that a deviation in excess of 1.5% of rated power exists between the calorimetric calculation, the nuclear power or ΔT power channels. This will provide reasonable assurance that the channels are adequately calibrated. The power level and the effects of the tests on the power channels will be carefully monitored by operators and test personnel during EPT. This provides reasonable assurance that the plant operators will have sufficient information concerning the power level and will be able to take action, if required, to prevent operating limits associated with the power level from being exceeded.

On the basis of the above discussion, we conclude that the requirements for daily calibration for the power range safety channels and the ΔT power channels should be waived during EPT and replaced by special requirements for calibration and checking as discussed above. We conclude that this modification will provide reasonable assurance that these power channels are adequately calibrated and that operating limits associated with the power level will not be exceeded.

The modifications to Specifications 3.10.E.2.b and 4.1 do not change any operating limits or significantly affect the probability that an operating limit will be exceeded. On this basis we conclude that there is no significant hazard consideration associated with the planned modifications.

We are hereby amending License DPR-53 to change Specifications 3.10.E.2.b and 4.1 as discussed above. The amended Technical Specifications are attached to the enclosed Amendment No. 8 to the Calvert Cliffs Unit 1 Operating License. A copy of the Federal Register Notice of this Amendment is also enclosed.

Sincerely,

R. C. DeYoung, Assistant Director
for Light Water Reactors Group 1
Directorate of Licensing

Enclosures:
1. Amendment 8 to DPR-53
2. Federal Register Notice

cc: Mr. James A. Biddison, Jr.
General Counsel
Gas and Electric Building
Charles Center
Baltimore, Maryland 21203

James C. Cawood, Jr., Esq.
Vice President
Chesapeake Environmental
Protection Association
4700 Auth Place
Camp Springs, Maryland

George F. Trowbridge, Esq.
Shaw, Pittman, Potts and
Trowbridge
910 17th Street, N. W.
Washington, D. C. 20006

Distribution
AEC PDR
Local PDR
Docket File
LWR 1-3 File
Attorney, OGC
RO (3)
N. Dube
M. Jinks (4)
R. C. DeYoung
G. Rivenbark
V. Wilson
S. Kari
W. Miller
LWR 1 Branch Chiefs
ACRS (16)
B. Scharf (15)
bcc: JRBuchanan, ORNL
TBAbernathy, DTIE

OFFICE	L:LWR 1-3	L:LWR 1-3	L:CPB	OGC	L:AD:LWR-1	
SURNAME	GRivenbark:sjh	ODParr	DRoss	SA Tilley	RCDeYoung	
DATE	12/27/74	12/27/74	12/27/74	12/ /74	12/ /74	

Mr. Warren D. Hodges, Director
Department of State Planning
301 West Preston Street
Baltimore, Maryland 21201

Mr. Bernard Fowler, President
Board of County Commissioners
Prince Frederick, Maryland 20678

Mr. Robert J. Blanco, Region III
Environmental Protection Agency
Sixth and Walnut Streets
Philadelphia, Pennsylvania 19106

Mr. Bruce Blanchard
Environmental Projects Review
Department of the Interior
Room 5321
18th and C Streets, N. W.
Washington, D. C. 20240

Mr. Sheldon Myers
ATTN: Mr. Jack Anderson
Office of Federal Activities
EPA, Room W-541, Waterside Mall
401 M Street, S. W.
Washington, D. C. 20460

Colonel Howard Sargent
Executive Director of Civil Works
Office of the Chief of Engineers
Corps of Engineers
Department of Amry
Forrestal Building, Room 4-G060
Washington, D. C. 20314

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BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 8
License No. DPR-53

1. The Atomic Energy Commission (the Commission) having found that:

   A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated December 24, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

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

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"(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 7."

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

FOR THE ATOMIC ENERGY COMMISSION

R. C. DeYoung, Assistant Director
for Light Water Reactors Group 1
Directorate of Licensing

Attachment:
Change No. 7 to Appendix A
Technical Specifications

Date of Issuance: December 27, 1974

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ATTACHMENT TO LICENSE AMENDMENT NO. 8

CHANGE NO. 7 TO THE TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-53

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS UNIT 1

DOCKET NO. 50-317

Technical Specification 3.10.E.2.b is modified to read as follows:

b. The in-core detector system may be used to monitor power distribution provided:

(1) Except during escalation-to-power testing, the in-core detector alarms are set based on the latest power distribution obtained, such that the peak linear heat rate with appropriate consideration of normal flux peaking, flux peaking augmentation factors (Figure 3-5), measurement-calculational uncertainty (8%), engineering factor (3%), increase in linear heat rate due to axial fuel densification and thermal expansion (1.0%) and power measurement uncertainty (2%), shall not exceed the kW/ft limit shown in Figure 3-5 at the alarm setpoint. If four or more coincident alarms are received, the validity of the alarms shall be determined immediately, and, if valid, power shall be immediately decreased below alarm setpoint.

(2) During escalation-to-power testing, the in-core detector alarms are set prior to exceeding 50% power and checked and reset, if necessary, during the 80% and 100% power testing plateaus, such that the peak linear heat rate with appropriate consideration of normal flux peaking, flux peaking augmentation factors (Figure 3-6), measurement-calculational uncertainty (8%), engineering factor (3%), increase in linear heat rate due to axial fuel densification and thermal expansion (1.0%) and power measurement uncertainty (2%), shall not exceed the kW/ft limit shown in Figure 3-5 at the alarm setpoint. If four or more coincident alarms are received, the validity of the alarms shall be determined immediately, and, if valid, power shall be immediately decreased below alarm setpoint.

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Table 4.1.1 of Technical Specification 4.1 is modified to add a note concerning the testing during escalation-to-power testing (EPT) to the frequency column for items 1.a and 2.b as follows:

Channel Description	Surveillance Function	Frequency	Surveillance Method
1. Power Range Safety Channels	a. Calibration	D(SD)(EPT)	a. Adjust "Nuclear Power Calibrate" potentiometer to null "Nuclear Pwr - ΔT Pwr"
2. ΔT Power	b. Calibration	D(SD)(EPT)	b. Adjust ΔT PWR CALIBRATE potentiometers to make T power signals agree with calorimetric calculation (only when above 50% power).

(EPT) During escalation-to-power testing, a channel calibration shall be performed as soon as it is practical to do so after reaching an all-rods-out equilibrium xenon condition at the four major test plateaus (20%, 50%, 80%, and 100% of rated power). A channel check shall be made each time the reactor is at an all-rods-out equilibrium condition and a channel calibration shall be performed if, under this equilibrium condition, a deviation in excess of 1.5% of rated power is determined to exist between the calorimetric calculation, nuclear power, or ΔT power. In addition, channel checks shall be performed prior to proceeding to the next major test plateau and during the initial escalation from 80% to 100% of rated power.

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-317

BALTIMORE GAS AND ELECTRIC COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO

FACILITY OPERATING LICENSE

Notice is hereby given that the U. S. Atomic Energy Commission (the Commission) has issued Amendment No. 8 to Facility Operating License No. DPR-53 issued to Baltimore Gas and Electric Company which revised Technical Specifications for operation of the Calvert Cliffs Nuclear Power Plant, Unit 1, located in Calvert County, Maryland. The amendment is effective as of its date of issuance.

The amendment modifies the Specifications to delete the applicability of some requirements related to calibration of power channels and setting in-core detector alarms during escalation-to-power testing and to add special requirements, applicable only to escalation-to-power testing, for power channel calibration and in-core detector alarms.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

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For further details with respect to this action, see (1) the application for amendment, dated December 24, 1974, (2) Amendment No. 8 to License No. DPR-53, with any attachments, and (3) the related safety evaluation contained in the Commission's letter to Baltimore Gas and Electric Company. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at the Calvert County Library, Prince Frederick, Maryland 20678.

A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this day of December 1974.

FOR THE ATOMIC ENERGY COMMISSION

George W. Rivenbark, Acting Chief
Light Water Reactors
Project Branch 1-3
Directorate of Licensing

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