

March 28, 1978

Docket No.: 50-317

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

Gentlemen:

The Commission has issued the enclosed Amendment No. 31 to Facility Operating License No. DPR-53 for the Calvert Cliffs Nuclear Power Plant Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application dated February 3, 1978, as supplemented March 9, 1978.

The amendment changes the Technical Specifications to delete snubber numbers 1-41-10 and 1-41-11 associated with the charging portion of the Chemical and Volume Control System (CVCS).

Copies of the related Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Enclosures:

1. Amendment No. 31 to DPR-53
2. Safety Evaluation
3. Notice

cc w/enclosures: See next page

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Notified  
1. Rich Olanoff  
BG&E  
2. John Rieck  
and Region I  
of I&E  
3/28/78  
1600  
EZE

Const. 1  
60

OFFICE	ORB#4:DOR	ORB#4:DOR	C-EB-OT:DOR	C-ORB#4:DOR
SURNAME	RIngram	MConner	LShao	RReid
DATE	3/23/78	3/23/78	3/24/78	3/27/78

Baltimore Gas and Electric Company

cc w/enclosures:

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Mr. R. M. Douglass, Chief Engineer  
Calvert Cliffs Nuclear Power Plant  
Baltimore Gas and Electric Company  
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Chief Nuclear Engineer  
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Calvert County Library  
Prince Frederick, Maryland 20678

Mr. Bernard Fowler  
President, Board of County  
Commissioners  
Prince Frederick, Maryland 20768

Chief, Energy Systems Analyses  
Branch (AW-459)  
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U. S. Environmental Protection Agency  
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Washington, D. C. 20460

U. S. Environmental Protection Agency  
Region III Office  
ATTN: EIS COORDINATOR  
Curtis Building (Sixth Floor)  
Sixth & Walnut Streets  
Philadelphia, Pennsylvania 19106

cc w/4 cys. enclosures and 1 cy  
of BG&E filings dtd.: 2/3/78 & 3/9/78

Administrator, Power Plant Siting Program  
Energy and Coastal Zone Administration  
Department of Natural Resources  
Tawes State Office Building  
Annapolis, Maryland 21401



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

BALTIMORE GAS & ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 31  
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 February 3, 1978, as supplemented by letter dated March 9, 1978, 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.

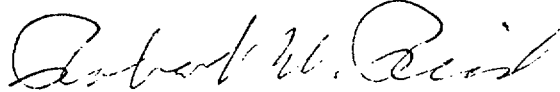
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-53 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 31, 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



Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 28, 1978

ATTACHMENT TO LICENSE AMENDMENT NO. 31

FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Pages

3/4 7-33

3/4 7-34

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS\*

<u>SNUBBER NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
1-41-4	AUX. SPRAY 65'	I	Yes	No
1-41-5	AUX. SPRAY 49'	I	Yes	No
1-41-6	CHARGING LINE LOOP 12B 38'	I	Yes	No
1-41-7	CHARGING LINE LOOP 12B 46'	I	Yes	No
1-41-8	CHARGING LINE LOOP 12B 46'	I	Yes	No
1-41-9	CHARGING LINE LOOP 12B 46'	I	Yes	No
1-41-12	CHARGING LINE LOOP 11A 24'	I	Yes	No
1-41-13	CHARGING LINE LOOP 11A 24'	I	Yes	No
1-41-14	CHARGING LINE LOOP 11A 24'	I	Yes	No
1-41-15	CHARGING LINE LOOP 11A 24'	I	Yes	No

TABLE 3.7-4

SAFETY RELATED HYDRAULIC SNUBBERS\*

<u>SNUBBER NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE** (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
1-41-16	CHARGING LINE LOOP 11A 31'	I	Yes	No
1-41-17	CHARGING LINE LOOP 11A 34'	I	Yes	No
1-41-18	LETDOWN LINE 24'	I	Yes	No
1-45-1	FEEDWATER INLET TO S.G. #11 40'	I	Yes	No
1-45-1A	FEEDWATER INLET TO S.G. #11 40'	I	Yes	No
1-45-2	FEEDWATER INLET TO S.G. #12 50'	I	Yes	No
1-45-3	FEEDWATER INLET TO S.G. #12 55'	I	Yes	No
1-45-6	AUX. FEEDWATER INLET TO S.G. #12 62'	I	Yes	No
1-45-7	AUX. FEEDWATER INLET TO S.G. #11 65'	I	Yes	No
1-45-7A	AUX. FEEDWATER INLET TO S.G. #11 65'	I	Yes	No
1-45-8	STEAM SUPPLY #12 AUX. FEED PUMP 12'	A	No	No



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 31 TO LICENSE NO. DPR-53

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 1

DOCKET NO. 50-317

Introduction

By application for license amendment dated February 3, 1978, and supplement thereto dated March 9, 1978, Baltimore Gas & Electric Company (BG&E) requested changes to the Technical Specifications (TS) for Calvert Cliffs Nuclear Power Plant (CCNPP) Unit No. 1. The proposed changes to the Technical Specifications consist of revising Table 3.7-4 to permit deletion of certain hydraulic shock suppressors (snubbers) listed in that Table as part of a redesign of the support systems of the charging portion of the Chemical and Volume Control System (CVCS) on which the snubbers are installed.

Discussion and Evaluation

BG&E is in the process of systematically reviewing all snubber installations at Calvert Cliffs. The intention of this review is to eliminate as many snubbers as possible. The reliability of the piping system is increased by reducing the number of hydraulic snubbers necessary to satisfy the design criteria. Hydraulic snubbers have a potential for leakage and miscalibration. This potential makes them inherently less reliable than other types of rigid and mechanical supports. Also a snubber without hydraulic fluid provides essentially no piping support.

BG&E has proposed a change to Table 3.7-4 of the CCNPP Unit No. 1 TS to delete the requirement for hydraulic snubbers 1-41-10 and 1-41-11 from the charging portion of the Chemical Volume Control System (CVCS).

They state that the design criteria for deletion of the above snubbers are identical to the original design criteria except that the hanger restraint system is modified in connection with CVCS modifications being made under 10 CFR 50.59. BG&E is physically rerouting the charging pump discharge piping to allow for the installation of



manual isolation valves. The new valves will facilitate positive isolation from the reactor coolant system for system maintenance.

The charging pump discharge portion of the CVCS was reanalyzed in accordance with the design code specified in Table 6-6 of the Final Safety Analysis Report. The reanalysis was performed by Bechtel Power Corporation and utilized their ME 632 computer code. ME 632 utilizes a linear elastic modeling technique and is capable of handling 350 degrees of freedom and 999 data points. The code performs thermal, dead weight, and seismic analysis. This analysis is similar to that originally performed at the time of initial installation and shows that all design criteria of this support system are satisfied without the above snubbers. We agree with this reanalysis.

The redesign of this support system reduces the surveillance burden, improves the overall system reliability and thus reduces the potential of a safety system piping failure due to a malfunction of the support system. Thus the reliability of the charging portion of the CVCS will be increased by reducing the number of hydraulic snubbers necessary to satisfy the design criteria.

#### 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 accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (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.

Dated: March 28, 1978

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-317BALTIMORE GAS AND ELECTRIC COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 31 to Facility Operating License No. DPR-53, issued to Baltimore Gas & Electric Company (the licensee), which revised Technical Specifications for operation of the Calvert Cliffs Nuclear Power Plant Unit No. 1 (the facility) located in Calvert County, Maryland. The amendment is effective as of its date of issuance.

The amendment changes the Technical Specifications to delete snubber numbers 1-41-10 and 1-41-11 associated with the charging portion of the Chemical and Volume Control System (CVCS).

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. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

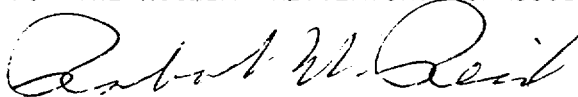
- 2 -

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated February 3, 1978, and supplement dated March 9, 1978, (2) Amendment No. 31 to License No. DPR-53, and (3) the Commission's related Safety Evaluation. 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. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 28th day of March 1978.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors