

JUL 29 1982

Docket Nos. 50-317
and 50-318

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

Dear Mr. Lundvall:

The Commission has issued the enclosed Amendment Nos. 73 and 54 to Facility Operating License Nos. DPR-53 and DPR-69 for Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications in response to your application dated June 21, 1982.

These amendments allow reactor operation through several operational modes with one inoperable control element assembly (CEA) position indicating channel per CEA group. In addition, TS 3.1.3.3 is reorganized to improve utilization and interpretation of these requirements.

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

Sincerely,

Original signed by

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

Enclosures:

- 1. Amendment No. 73 to DPR-53
- 2. Amendment No. 54 to DPR-69
- 3. Safety Evaluation
- 4. Notice of Issuance

cc: See next page

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OFFICE	ORB#3:DL	ORB#3:DL	ORB#3DL	AD-OR-DL	OELD	
SURNAME	PM Kreutzer	DJaffe	RAClark	NOVAK	[Signature]	
DATE	7/19/82	7/19/82	7/19/82	7/19/82	7/20/82	



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

DISTRIBUTION:
Docket File
ORB#3 Rdg
PMKreutzer

Docket No. 50-317/318

Docketing and Service Section
Office of the Secretary of the Commission

SUBJECT: BALTIMORE GAS AND ELECTRIC COMPANY, Calvert Cliffs Nuclear
Power Plant, Unit Nos. 1 and 2.

Two signed originals of the Federal Register Notice identified below are enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (12) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
- Other: Amendment Nos. 73 and 54.

Referenced documents have been provided PDR.

Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure:
As Stated

OFFICE →	ORB#3:DL					
SURNAME →	PMKreutzer/pr					
DATE →	7/29/82					

Baltimore Gas and Electric Company

cc:

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. H. Bell
Chief Nuclear Engineer
15740 Shady Grove Road
Gaithersburg, MD 20760

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

Public Document Room
Calvert County Library
Prince Frederick, MD 20678

Director, Department of State Planning
301 West Preston Street
Baltimore, MD 21201

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

Mr. T. L. Syndor, 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.
4853 Cordell Avenue, Suite A-1
Bethesda, MD 20014

Mr. J. A. Tierman, 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

cc w/enclosure(s) and incoming
dated: 6/21/82

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

DESIGNATED ORIGINAL

Certified By Patricia J. Noonan

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 73
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 June 21, 1982, 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.

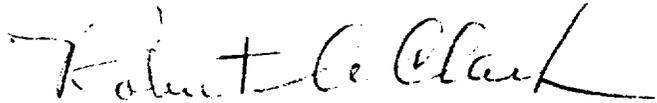
2. Accordingly, Facility License No. DPR-53 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2), is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 73, 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 A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 29, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 73

FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

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

Page

3/4 1-21

3/4 1-22

REACTIVITY CONTROL SYSTEMS

POSITION INDICATOR CHANNELS

LIMITING CONDITION FOR OPERATION

3.1.3.3 All shutdown and regulating CEA reed switch position indicator channels and CEA pulse counting position indicator channels shall be OPERABLE and capable of determining the absolute CEA positions within ± 2.25 inches.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. Deleted
- b. With a maximum of one reed switch position indicator channel per group or one pulse counting position indicator channel per group inoperable and the CEA(s) with the inoperable position indicator channel partially inserted, either:
 1. Within 6 hours
 - a) Restore the inoperable position indicator channel to OPERABLE status, or
 - b) Be in at least HOT STANDBY, or
 - c) Reduce THERMAL POWER to $\leq 70\%$ of the maximum allowable THERMAL POWER level for the existing Reactor Coolant Pump combination; if negative reactivity insertion is required to reduce THERMAL POWER, boration shall be used. Operation at or below this reduced THERMAL POWER level may continue provided that within the next 4 hours either:
 - 1) The CEA group(s) with the inoperable position indicator is fully withdrawn while maintaining the withdrawal sequence required by Specification 3.1.3.6 and when this CEA group reaches its fully withdrawn position, the "Full Out" limit of the CEA with the inoperable position indicator is actuated and verifies this CEA to be fully withdrawn. Subsequent to fully withdrawing this CEA group(s), the THERMAL POWER level may be returned to a level consistent with all other applicable specifications; or
 - 2) The CEA group(s) with the inoperable position indicator is fully inserted, and subsequently maintained fully inserted, while maintaining the withdrawal sequence and THERMAL POWER level required by Specification 3.1.3.6 and when this CEA group reaches its fully

REACTIVITY CONTROL SYSTEMS

POSITION INDICATOR CHANNELS

LIMITING CONDITION FOR OPERATION

inserted position, the "Full In" limit of the CEA with the inoperable indicator is actuated and verifies this CEA to be fully inserted. Subsequent operation shall be within the limits of Specification 3.1.3.6.

2. or, if the failure existed before entry into MODE 2 or occurs prior to an "all CEAs out" configuration, the CEA group(s) with inoperable position indicator channel must be moved to the "Full Out" position and verified to be fully withdrawn via a "Full Out" indicator. These actions must be completed within 10 hours of entry into MODE 2 and prior to exceeding 70% of the maximum allowable THERMAL POWER level for the existing Reactor Coolant Pump combination. The provisions of Specification 3.0.4 are not applicable.
- c. With a maximum of one reed switch position indicator channel per group or one pulse counting position indicator channel per group inoperable and the CEA(s) with the inoperable position indicator channel at either its fully inserted position or fully withdrawn position, operation may continue provided:
 1. The position of this CEA is verified immediately and at least once per 12 hours thereafter by its "Full In" or "Full Out" limit (as applicable).
 2. The fully inserted or fully withdrawn (as applicable) CEA group(s) containing the inoperable position indicator channel is subsequently maintained fully inserted or fully withdrawn (as applicable), and
 3. Subsequent operation is within the limits of Specification 3.1.3.6.
- d. With more than one pulse counting position indicator channels inoperable, operation in MODES 1 and 2 may continue for up to 24 hours provided all of the reed switch position indicator channels are OPERABLE.

SURVEILLANCE REQUIREMENTS

4.1.3.3 Each position indicator channel shall be determined to be OPERABLE by verifying the pulse counting position indicator channels and the reed switch position indicator channels agree within 4.5 inches at least once per 12 hours except during time intervals when the Deviation circuit is inoperable, then compare the pulse counting position indicator and reed switch position indicator channels at least once per 4 hours.



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

DESIGNATED ORIGINAL

Certified By

Patricia J. Noosa

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 54
License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas & Electric Company (the licensee) dated June 21, 1982, 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, Facility License No. DPR-69 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2, is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 54, 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 A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 29, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 54

FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NO. 50-318

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

Page

3/4 1-21

3/4 1-22

REACTIVITY CONTROL SYSTEMS

POSITION INDICATOR CHANNELS

LIMITING CONDITION FOR OPERATION

3.1.3.3 All shutdown and regulating CEA reed switch position indicator channels and CEA pulse counting position indicator channels shall be OPERABLE and capable of determining the absolute CEA positions within ± 2.25 inches.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. Deleted
- b. With a maximum of one reed switch position indicator channel per group or one pulse counting position indicator channel per group inoperable and the CEA(s) with the inoperable position indicator channel partially inserted, either:
 1. Within 6 hours
 - a) Restore the inoperable position indicator channel to OPERABLE status, or
 - b) Be in at least HOT STANDBY, or
 - c) Reduce THERMAL POWER to $< 70\%$ of the maximum allowable THERMAL POWER level for the existing Reactor Coolant Pump combination; if negative reactivity insertion is required to reduce THERMAL POWER, boration shall be used. Operation at or below this reduced THERMAL POWER level may continue provided that within the next 4 hours either:
 - 1) The CEA group(s) with the inoperable position indicator is fully withdrawn while maintaining the withdrawal sequence required by Specification 3.1.3.6 and when this CEA group reaches its fully withdrawn position, the "Full Out" limit of the CEA with the inoperable position indicator is actuated and verifies this CEA to be fully withdrawn. Subsequent to fully withdrawing this CEA group(s), the THERMAL POWER level may be returned to a level consistent with all other applicable specifications; or
 - 2) The CEA group(s) with the inoperable position indicator is fully inserted, and subsequently maintained fully inserted, while maintaining the withdrawal sequence and THERMAL POWER level required by Specification 3.1.3.6 and when this CEA group reaches its fully

REACTIVITY CONTROL SYSTEMS

POSITION INDICATOR CHANNELS

LIMITING CONDITION FOR OPERATION

inserted position, the "Full In" limit of the CEA with the inoperable indicator is actuated and verifies this CEA to be fully inserted. Subsequent operation shall be within the limits of Specification 3.1.3.6.

2. or, if the failure existed before entry into MODE 2 or occurs prior to an "all CEAs out" configuration, the CEA group(s) with inoperable position indicator channel must be moved to the "Full Out" position and verified to be fully withdrawn via a "Full Out" indicator. These actions must be completed within 10 hours of entry into MODE 2 and prior to exceeding 70% of the maximum allowable THERMAL POWER level for the existing Reactor Coolant Pump combination. The provisions of Specification 3.0.4 are not applicable.
- c. With a maximum of one reed switch position indicator channel per group or one pulse counting position indicator channel per group inoperable and the CEA(s) with the inoperable position indicator channel at either its fully inserted position or fully withdrawn position, operation may continue provided:
 1. The position of this CEA is verified immediately and at least once per 12 hours thereafter by its "Full In" or "Full Out" limit (as applicable),
 2. The fully inserted or fully withdrawn (as applicable) CEA group(s) containing the inoperable position indicator channel is subsequently maintained fully inserted or fully withdrawn (as applicable), and
 3. Subsequent operation is within the limits of Specification 3.1.3.6.
- d. With more than one pulse counting position indicator channels inoperable, operation in MODES 1 and 2 may continue for up to 24 hours provided all of the reed switch position indicator channels are OPERABLE.

SURVEILLANCE REQUIREMENTS

4.1.3.3 Each position indicator channel shall be determined to be OPERABLE by verifying the pulse counting position indicator channels and the reed switch position indicator channels agree within 4.5 inches at least once per 12 hours except during time intervals when the Deviation circuit is inoperable, then compare the pulse counting position indicator and reed switch position indicator channels at least once per 4 hours.



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

DESIGNATED ORIGINAL

Certified By

Patricia J. Hooper

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 73 AND 54 TO

FACILITY OPERATING LICENSE NOS. DPR-53 AND DPR-69

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-317 AND 50-318

Introduction

By application dated June 21, 1982, Baltimore Gas and Electric (BG&E) requested changes to the Technical Specifications (TS) for Calvert Cliffs Units 1 and 2. The changes would allow reactor operation, through several operational modes, with one inoperable control element assembly (CEA) position indicating channel per CEA group. In addition, TS 3.1.3.3, "Position Indicating Channels" is reorganized to improve utilization and interpretation of these requirements.

Discussion

On February 8, 1982 the NRC issued Amendments 66 and 48 to the Operating Licenses for Calvert Cliffs Units 1 and 2 with associated Safety Evaluation Report (SER). These amendments changed TS 3.1.3.3 to permit continued power escalation, to full power, with one CEA position indicating channel per CEA group inoperable. This activity was subject to the provision that the CEA group(s) with inoperable position indicating channels could be verified to be fully withdrawn within ten hours. This allowance was based upon the operability of "full-out" reed switch indication. Since the applicability of TS 3.1.3.3 is for Modes 2 and 1 (startup and power operation, respectively) transition between Modes 1 and 2 would be permitted* while entry from Mode 3 to Mode 2 would be prohibited. By application dated June 21, 1982, BG&E requested a change to TS 3.1.3.3 to allow transition from other operating modes to Mode 2.

* Amendments 66 and 48 provided specific permission for this transition.

Evaluation

As indicated in our Safety Evaluation Report dated February 8, 1982, the startup of the reactor with inoperable CEA position indicating channels is not a greater concern than full power operation with these inoperable channels, which is permitted under TS 3.1.3.3. This provision is based upon the establishment of the CEA with the inoperable channel in the "full-out" position and verification of this position via an operable "full-out" reed switch indication. In the above explanation the phrase "... startup of the reactor ..." is meant to mean the full range of operation from subcritical conditions (Modes 5, 4, and 3) to startup and full power conditions (Modes 2 and 1). Accordingly, the transition between Modes 3 and 2, with regard to TS 3.1.3.3, is within the considerations addressed in the NRC SER dated February 8, 1982. It is therefore appropriate to add the following words to existing T.S. 3.1.3.3b.4.:

"... before entry into MODE 2 or occurs prior to an "all CEAs out" configuration ..."

The above words are intended to reflect the full range of reactor operation and to allow the progression from Mode 3 to Mode 2 within the requirements of TS 3.1.3.3.

In addition to the TS change described above, the action items in TS 3.1.3.3 have been reorganized to clearly segregate the remedial actions to be taken within 6 hours and those actions to be taken within 10 hours, following the determination that CEA position indication channels are inoperable.

Environmental Consideration

We have determined that the amendments do 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 amendments involve 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 these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do 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 the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: July 29, 1982

Principal Contributor:
D. H. Jaffe

DESIGNATED ORIGINAL

Certified By

Patricia J. Noonan

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-317 AND 50-318

BALTIMORE GAS AND ELECTRIC COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY

OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos. 73 and 54 to Facility Operating Licenses Nos. DPR-53 and DPR-69, issued to Baltimore Gas and Electric Company, which revised Technical Specifications for operation of the Calvert Cliffs Nuclear Power Plant, Units Nos. 1 and 2 located in Calvert County, Maryland. The amendments are effective as of the date of issuance.

These amendments allow reactor operation through several operational modes with one inoperable control element assembly (CEA) position indicating channel per CEA group. In addition, TS 3.1.3.3 is reorganized to improve utilization and interpretation of these requirements.

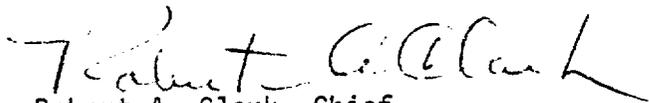
The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of the amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments 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 the amendments.

For further details with respect to this action, see (1) the application for amendments dated June 21, 1982, (2) Amendment Nos. 73 and 54 to License Nos. DPR-53 and DPR-69, 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 Licensing.

Dated at Bethesda, Maryland, this 29th day of July, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION


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