

BALTIMORE GAS AND ELECTRIC COMPANY

P. O. BOX 1475
BALTIMORE, MARYLAND 21203

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

June 26, 1980

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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

Subject: Calvert Cliffs Nuclear Power Plant
Units No. 1 and 2, Docket Nos. 50-317 and 50-318
Margin Improvement Reports

Gentlemen:

Baltimore Gas and Electric Company hereby requests an early review and approval of Enclosures (1) through (11) to this letter. We anticipate some degradation in operating margin occasioned by our particular design for operating both Calvert Cliffs Units in 18 month cycles. The evaluations reported in the enclosures justify the recovery of margin inherently available in the design but heretofore not explicitly taken credit for in the Safety Analysis.

We intend to reference Enclosures (6)(8) & (10) in the license application for operation of both units in their next cycles and we intend to reference all enclosures for subsequent cycles of both units. This stepwise referencing procedure is intended to spread your review burden over several years.

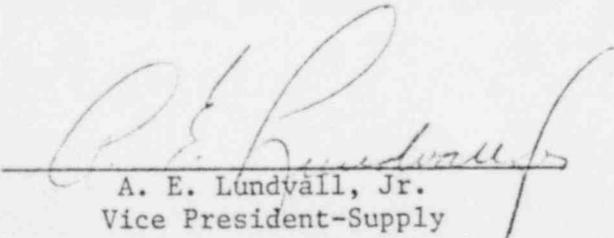
Enclosure (12) to this letter is an affidavit from Combustion Engineering, Inc. requesting that information in Enclosures (1), (3), (6), (8), and (10) be withheld from public disclosure in accordance with 10 CFR 2.790.

The Plant Operations and Safety Review Committee (POSRC) and Off-site Safety and Review Committees (OSSRC) have reviewed the subject reports and concluded that they constitute an unreviewed safety question. However, the OSSRC and POSRC have also concluded that the implementation of the results of the subject reports in future cycles does not present an undue risk to the health and safety of the public.

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

BALTIMORE GAS AND ELECTRIC COMPANY

By:


A. E. Lundvall, Jr.
Vice President-Supply

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June 26, 1980

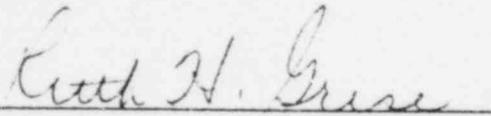
STATE OF MARYLAND:

: TO WIT:

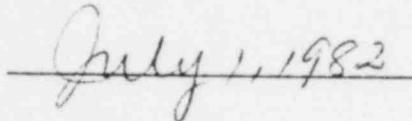
CITY OF BALTIMORE:

Arthur E. Lundvall, Jr., being duly sworn states that he is Vice President of the Baltimore Gas and Electric Company, a corporation of the State of Maryland; that he executed the foregoing Amendment for the purposes therein set forth; that the statements made in said Amendment are true and correct to the best of his knowledge, information, and belief; and that he was authorized to execute the Amendment on behalf of said Corporation.

WITNESS My Hand and Notarial Seal:



My Commission Expires:



cc: J. A. Biddison, Esquire
G. F. Trowbridge, Esquire
Messrs. E. L. Conner, Jr., NRC
P. W. Kruse, CE

- Enclosures:
- (1) BASSS, CEN-119(B)-P, November 1979 (Proprietary)
Copies 19-58
 - (2) BASSS, CEN-119(B), November 1979 (Non-Proprietary)
20 Copies
 - (3) CEAW, CEN-121(B)-P, November 1979 (Proprietary)
Copies 23-62
 - (4) CEAW, CEN-121(B), November 1979 (Non-Proprietary)
20 Copies
 - (5) FIESTA, CEN-133(B), November 1979 (Non-Proprietary)
50 Copies
 - (6) SCU, CEN-124(B)-P, Part 1, December 1979 (Proprietary)
Copies 34-73
 - (7) SCU, CEN-124(B), Part 1, December 1979 (Non-Proprietary)
20 Copies
 - (8) SCU, CEN-124(B)-P, Part 2, January 1980 (Proprietary)
Copies 77-116
 - (9) SCU, CEN-124(B), Part 2, January 1980 (Non-Proprietary)
20 Copies
 - (10) SCU, CEN-124(B)-P, Part 3, March 1980 (Proprietary)
Copies 20-59
 - (11) SCU, CEN-124(B), Part 3, March 1980 (Non-Proprietary)
20 Copies
 - (12) Proprietary Affidavit

Enclosure (12)

PROPRIETARY AFFIDAVITS

AFFIDAVIT PURSUANT

TO 10 CFR 2.790

Combustion Engineering, Inc.)
State of Connecticut)
County of Hartford) SS.:

I, A. E. Scherer depose and say that I am the Director, Nuclear Licensing of Combustion Engineering, Inc., duly authorized to make this affidavit, and have reviewed or caused to have reviewed the information which is identified as proprietary and referenced in the paragraph immediately below. I am submitting this affidavit in conformance with the provisions of 10 CFR 2.790 of the Commission's regulations and in conjunction with the application of Baltimore Gas and Electric Co., for withholding this information.

The information for which proprietary treatment is sought is contained in the following document:

CEN-119(B)-P, BASSS - Use of the Incore Detector System to Monitor the DNB-LCO on Calvert Cliffs Unit 1 and Unit 2.

This document has been appropriately designated as proprietary.

I have personal knowledge of the criteria and procedures utilized by Combustion Engineering in designating information as a trade secret, privileged or as confidential commercial or financial information.

Pursuant to the provisions of paragraph (b) (4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure, included in the above referenced document, should be withheld.

1. The information sought to be withheld from public disclosure is

an algorithm which is used to determine allowable power level as a function of rod insertion, core average axial shape index, and total integrated radial peaking factor, which is owned and has been held in confidence by Combustion Engineering.

2. The information consists of test data or other similar data concerning a process, method or component, the application of which results in a substantial competitive advantage to Combustion Engineering.

3. The information is of a type customarily held in confidence by Combustion Engineering and not customarily disclosed to the public. Combustion Engineering has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The details of the aforementioned system were provided to the Nuclear Regulatory Commission via letter DP-537 from F.M. Stern to Frank Schroeder dated December 2, 1974. This system was applied in determining that the subject documents herein are proprietary.

4. The information is being transmitted to the Commission in confidence under the provisions of 10 CFR 2.790 with the understanding that it is to be received in confidence by the Commission.

5. The information, to the best of my knowledge and belief, is not available in public sources, and any disclosure to third parties has been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.

6. Public disclosure of the information is likely to cause substantial harm to the competitive position of Combustion Engineering because:

a. A similar product is manufactured and sold by major pressurized water reactors competitors of Combustion Engineering.

b. Development of this information by C-E required hundreds of man-hours of effort and tens of thousands of dollars. To the best of my knowledge and belief a competitor would have to undergo similar expense in generating equivalent information.

c. In order to acquire such information, a competitor would also require considerable time and inconvenience related to obtaining access to test reactor facilities, conducting extensive in-pile testing and performing extensive computer analysis.

d. The information required significant effort and expense to obtain the licensing approvals necessary for application of the information. Avoidance of this expense would decrease a competitor's cost in applying the information and marketing the product to which the information is applicable.

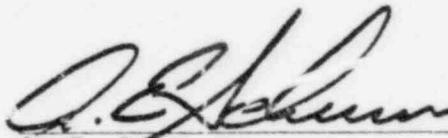
e. The information consists of an algorithm which is used to determine allowable power level as a function of rod insertion, core average axial shape index, and total integrated radial peaking factor, the application of which provides a competitive economic advantage. The availability of such information to competitors would enable them to modify their product to better compete with Combustion Engineering, take marketing or other actions to improve their product's position or impair the position of Combustion Engineering's product, and avoid developing similar data and analyses in support of their processes, methods or apparatus.

f. In pricing Combustion Engineering's products and services, significant research, development, engineering, analytical, manufacturing, licensing, quality assurance and other costs and expenses must be included. The ability of Combustion Engineering's competitors to utilize such information

without similar expenditure of resources may enable them to sell at prices reflecting significantly lower costs.

g. Use of the information by competitors in the international marketplace would increase their ability to market nuclear steam supply systems by reducing the costs associated with their technology development. In addition, disclosure would have an adverse economic impact on Combustion Engineering's potential for obtaining or maintaining foreign licensees.

Further the deponent sayeth not.



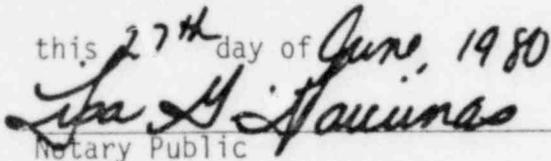
A. E. Scherer

Director

Nuclear Licensing

Sworn to before me

this 27th day of June, 1980



Notary Public

LISA G. WAICUNAS, NOTARY PUBLIC
State of Connecticut No. 54492
Commission Expires March 31, 1983

AFFIDAVIT PURSUANT

TO 10 CFR 2.790

Combustion Engineering, Inc.)
State of Connecticut)
County of Hartford) SS.:

I, A. E. Scherer depose and say that I am the Director, Nuclear Licensing of Combustion Engineering, Inc., duly authorized to make this affidavit, and have reviewed or caused to have reviewed the information which is identified as proprietary and referenced in the paragraph immediately below. I am submitting this affidavit in conformance with the provisions of 10 CFR 2.790 of the Commission's regulations and in conjunction with the application of Baltimore Gas and Electric Co., for withholding this information.

The information for which proprietary treatment is sought is contained in the following document:

CEN-121(B)-P, CEAW - Method of Analyzing Sequential Control Element Assembly Group Withdrawal Event for Analog Protected Systems.

This document has been appropriately designated as proprietary.

I have personal knowledge of the criteria and procedures utilized by Combustion Engineering in designating information as a trade secret, privileged or as confidential commercial or financial information.

Pursuant to the provisions of paragraph (b) (4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure, included in the above referenced document, should be withheld.

1. The information sought to be withheld from public disclosure are

new methods used in analyzing the sequential CEA Group Withdrawal (CEAW) event for C-E's analog protected systems, which is owned and has been held in confidence by Combustion Engineering.

2. The information consists of test data or other similar data concerning a process, method or component, the application of which results in a substantial competitive advantage to Combustion Engineering.

3. The information is of a type customarily held in confidence by Combustion Engineering and not customarily disclosed to the public. Combustion Engineering has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The details of the aforementioned system were provided to the Nuclear Regulatory Commission via letter DP-537 from F.M. Stern to Frank Schroeder dated December 2, 1974. This system was applied in determining that the subject documents herein are proprietary.

4. The information is being transmitted to the Commission in confidence under the provisions of 10 CFR 2.790 with the understanding that it is to be received in confidence by the Commission.

5. The information, to the best of my knowledge and belief, is not available in public sources, and any disclosure to third parties has been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.

6. Public disclosure of the information is likely to cause substantial harm to the competitive position of Combustion Engineering because:

a. A similar product is manufactured and sold by major pressurized water reactors competitors of Combustion Engineering.

b. Development of this information by C-E required hundreds of

man-hours of effort and tens of thousands of dollars. To the best of my knowledge and belief a competitor would have to undergo similar expense in generating equivalent information.

c. In order to acquire such information, a competitor would also require considerable time and inconvenience related to computer modeling and algorithm development.

d. The information required significant effort and expense to obtain the licensing approvals necessary for application of the information. Avoidance of this expense would decrease a competitor's cost in applying the information and marketing the product to which the information is applicable.

e. The information consists of supporting data for the reclassification of the CEA Group Withdrawal event, the application of which provides a competitive economic advantage. The availability of such information to competitors would enable them to modify their product to better compete with Combustion Engineering, take marketing or other actions to improve their product's position or impair the position of Combustion Engineering's product, and avoid developing similar data and analyses in support of their processes, methods or apparatus.

f. In pricing Combustion Engineering's products and services, significant research, development, engineering, analytical, manufacturing, licensing, quality assurance and other costs and expenses must be included. The ability of Combustion Engineering's competitors to utilize such information without similar expenditure of resources may enable them to sell at prices reflecting significantly lower costs.

g. Use of the information by competitors in the international marketplace would increase their ability to market nuclear steam supply

systems by reducing the costs associated with their technology development. In addition, disclosure would have an adverse economic impact on Combustion Engineering's potential for obtaining or maintaining foreign licensees.

Further the deponent sayeth not.



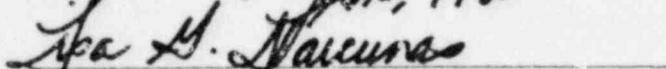
A. E. Scherer

Director

Nuclear Licensing

Sworn to before me

this 27th day of June, 1980



Notary Public

LISA G. WACOURAS, NOTARY PUBLIC
State of Connecticut No. 54492
Commission Expires March 31, 1983

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County of Hartford) SS.:

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The information for which proprietary treatment is sought is contained in the following document:

CEN-124(B)-P, "Statistical Combination of Uncertainties Methodology Part 1: C-E Calculated Local Power Density and Thermal Margin/Low Pressure LSSS for Calvert Cliffs Units I and II."

This document has been appropriately designated as proprietary.

I have personal knowledge of the criteria and procedures utilized by Combustion Engineering in designating information as a trade secret, privileged or as confidential commercial or financial information.

Pursuant to the provisions of paragraph (b) (4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure, included in the above referenced document, should be withheld.

1. The information sought to be withheld from public disclosure is the method for combining uncertainties used in the generation of limiting safety system settings, which is owned and has been held in confidence by Combustion Engineering.

2. The information consists of test data or other similar data concerning a process, method or component, the application of which results in a substantial competitive advantage to Combustion Engineering.

3. The information is of a type customarily held in confidence by Combustion Engineering and not customarily disclosed to the public. Combustion Engineering has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The details of the aforementioned system were provided to the Nuclear Regulatory Commission via letter DP-537 from F.M. Stern to Frank Schroeder dated December 2, 1974. This system was applied in determining that the subject documents herein are proprietary.

4. The information is being transmitted to the Commission in confidence under the provisions of 10 CFR 2.790 with the understanding that it is to be received in confidence by the Commission.

5. The information, to the best of my knowledge and belief, is not available in public sources, and any disclosure to third parties has been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.

6. Public disclosure of the information is likely to cause substantial harm to the competitive position of Combustion Engineering because:

a. A similar product is manufactured and sold by major pressurized water reactors competitors of Combustion Engineering.

b. Development of this information by C-E required thousands of man-hours of effort and hundreds of thousands of dollars. To the best of my knowledge and belief a competitor would have to undergo similar expense in generating equivalent information.

c. In order to acquire such information, a competitor would also require considerable time and inconvenience related to methods development, data reduction and uncertainty evaluations.

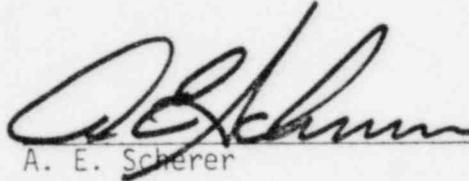
d. The information required significant effort and expense to obtain the licensing approvals necessary for application of the information. Avoidance of this expense would decrease a competitor's cost in applying the information and marketing the product to which the information is applicable.

e. The information consists of the methodology and data for the statistical combination of uncertainties, the application of which provides a competitive economic advantage. The availability of such information to competitors would enable them to modify their product to better compete with Combustion Engineering, take marketing or other actions to improve their product's position or impair the position of Combustion Engineering's product, and avoid developing similar data and analyses in support of their processes, methods or apparatus.

f. In pricing Combustion Engineering's products and services, significant research, development, engineering, analytical, manufacturing, licensing, quality assurance and other costs and expenses must be included. The ability of Combustion Engineering's competitors to utilize such information without similar expenditure of resources may enable them to sell at prices reflecting significantly lower costs.

g. Use of the information by competitors in the international marketplace would increase their ability to market nuclear steam supply systems by reducing the costs associated with their technology development. In addition, disclosure would have an adverse economic impact on Combustion Engineering's potential for obtaining or maintaining foreign licensees.

Further the deponent sayeth not.



A. E. Scherer

Director

Nuclear Licensing

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this 27th day of June, 1980

Lisa G. Waicunas
Notary Public

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The information for which proprietary treatment is sought is contained in the following document:

CEN-124(B)-P, "Statistical Combination of Uncertainties Methodology, Part 2: Combination of System Parameter Uncertainties in Thermal Margin Analyses for Calvert Cliffs Units I and II."

This document has been appropriately designated as proprietary.

I have personal knowledge of the criteria and procedures utilized by Combustion Engineering in designating information as a trade secret, privileged or as confidential commercial or financial information.

Pursuant to the provisions of paragraph (b) (4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure, included in the above referenced document, should be withheld.

1. The information sought to be withheld from public disclosure is the method for combining uncertainties in the reference thermal margin analyses, which is owned and has been held in confidence by Combustion Engineering.

2. The information consists of test data or other similar data concerning a process, method or component, the application of which results in a substantial competitive advantage to Combustion Engineering.

3. The information is of a type customarily held in confidence by Combustion Engineering and not customarily disclosed to the public. Combustion Engineering has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The details of the aforementioned system were provided to the Nuclear Regulatory Commission via letter DP-537 from F.M. Stern to Frank Schroeder dated December 2, 1974. This system was applied in determining that the subject documents herein are proprietary.

4. The information is being transmitted to the Commission in confidence under the provisions of 10 CFR 2.790 with the understanding that it is to be received in confidence by the Commission.

5. The information, to the best of my knowledge and belief, is not available in public sources, and any disclosure to third parties has been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.

6. Public disclosure of the information is likely to cause substantial harm to the competitive position of Combustion Engineering because:

a. A similar product is manufactured and sold by major pressurized

water reactors competitors of Combustion Engineering.

b. Development of this information by C-E required thousands of man-hours of effort and hundreds of thousands of dollars. To the best of my knowledge and belief a competitor would have to undergo similar expense in generating equivalent information.

c. In order to acquire such information, a competitor would also require considerable time and inconvenience related to methods development, data reduction and uncertainty evaluations.

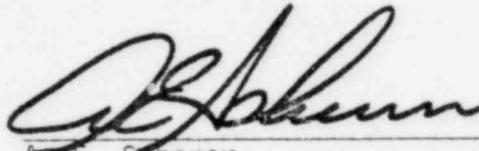
d. The information required significant effort and expense to obtain the licensing approvals necessary for application of the information. Avoidance of this expense would decrease a competitor's cost in applying the information and marketing the product to which the information is applicable.

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f. In pricing Combustion Engineering's products and services, significant research, development, engineering, analytical, manufacturing, licensing, quality assurance and other costs and expenses must be included. The ability of Combustion Engineering's competitors to utilize such information without similar expenditure of resources may enable them to sell at prices reflecting significantly lower costs.

g. Use of the information by competitors in the international marketplace would increase their ability to market nuclear steam supply systems by reducing the costs associated with their technology development. In addition, disclosure would have an adverse economic impact on Combustion Engineering's potential for obtaining or maintaining foreign licensees.

Further the deponent sayeth not.



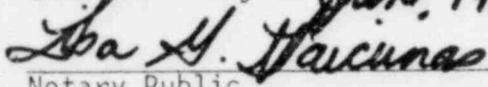
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Notary Public

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The information for which proprietary treatment is sought is contained in the following document:

CEN-124(B)-P, "Statistical Combination of Uncertainties Methodology Part 3: C-E Calculated Departure from Nucleate Boiling and Linear Heat Rate Limiting Conditions for Operation for Calvert Cliffs, Units I and II."

This document has been appropriately designated as proprietary.

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Pursuant to the provisions of paragraph (b) (4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be

withheld from public disclosure, included in the above referenced document, should be withheld.

1. The information sought to be withheld from public disclosure is the method for combining uncertainties used in the generation of limiting conditions for operation, which is owned and has been held in confidence by Combustion Engineering.

2. The information consists of test data or other similar data concerning a process, method or component, the application of which results in a substantial competitive advantage to Combustion Engineering.

3. The information is of a type customarily held in confidence by Combustion Engineering and not customarily disclosed to the public. Combustion Engineering has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The details of the aforementioned system were provided to the Nuclear Regulatory Commission via letter DP-537 from F.M. Stern to Frank Schroeder dated December 2, 1974. This system was applied in determining that the subject documents herein are proprietary.

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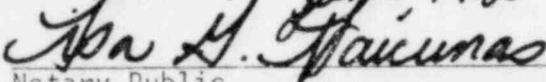
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