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ABB
ASEA BROWN BOVERI

March 5, 1993
LD-93-035

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Submittal of Small Break LOCA Realistic Evaluation Model Topical Report

Dear Sir:

With this letter, ABB Combustion Engineering (ABB-CE) submits as Enclosure I twenty-three (23) copies of Topical Report CEN- 420-P Volume 1, Part 1, "Small Break LOCA Realistic Evaluation Model," for NRC review and approval. The material contained in this Topical Report is proprietary to ABB-CE. As such, we request that it be withheld from public disclosure in accordance with the provisions of 10CFR2.790 and that this material be appropriately safeguarded. The reasons for the classification of this material as proprietary are delineated in the affidavit provided as Enclosure II.

Part 1 of Volume 1 of the Topical Report describes many of the calculational models used in the small break LOCA Realistic Evaluation Model (REM). The methodology described is consistent with the revision to 10CFR50 Appendix K, "ECCS Evaluation Models," published in the Federal Register on September 16, 1988 (53FR35996). Based on this revision to Appendix K, ABB-CE in conjunction with the CE Owners Group sponsored the development of the small break LOCA REM.

Use of the REM will result in more accurate predictions of emergency core cooling system performance during a postulated small break LOCA. The expected margin gains with respect to the acceptance criteria will allow utilities implementing this methodology to improve operating procedures and emergency core cooling system design. Additionally, there are safety benefits such as reduction in risk from pressurized thermal shock that can be derived from alternative fuel management schemes that would be available with use of the REM.

Part 2 of Volume 1, Volume 2, and Volume 3 of the Topical Report are planned to be submitted in the Fall of 1993. These future volumes will describe the remaining calculational models (Volume 1, Part 2), the validation, uncertainty, and application evaluations (Volume 2), and the computer code input and output parameters (Volume 3).

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Expeditious review and approval of this Topical Report will permit participating utilities to utilize the revisions to Appendix K to implement desired plant improvements as soon as possible. In addition, approval of this Topical Report will preclude the need for NRC review on individual plant dockets. In the interest of our ability to support a timely review, we would appreciate a determination from the NRC staff on whether the depth of the documentation provided in Part 1 of Volume 1 of this Topical Report is adequate.

At this time, we are aware of at least one C-E owner who has taken a position on needing to receive NRC approval of the small Break LOCA REM in order to evaluate any future proposed changes that affect the small break LOCA analyses. Specifically, the desire to use the REM was referenced by Entergy Operations for Arkansas Nuclear One in a letter to the NRC dated September 14, 1992. Entergy Operations documented this position in response to an NRC request to perform new small break LOCA evaluations utilizing new and improved methodologies.

Enclosed with this letter is a check in the amount of $150.00 for the application fee for the Topical Report review. Future correspondence regarding review fee payments for this Topical Report should be directed to ABB-CE. If you have any questions on this subject, please do not hesitate to call me or Mr. Mario Robles of my staff at (203) 285-5215.

Very truly yours,

S. A. Toelle

S. A. Toelle
Manager
Nuclear Licensing

mr/lw

Enclosures: I (copies 1 - 23)
II

cc: R. C. Jones (NRC)
F. R. Orr (NRC)
R. F. Burski (Entergy Operations)
B. Daiber (Entergy Operations)
J. Holman (Entergy Operations)
J. A. Mihalcik (BG&E)

AFFIDAVIT PURSUANT

TO 10 CFR 2.790

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

I, S. A. Toelle, depose and say that I am the Manager, 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 for withholding this information.

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

CEN 420-P Volume 1, Part 1, "Small Break LOCA Realistic Evaluation Model," February 1993.

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, which is owned and has been held in confidence by Combustion Engineering, is calculational models used for the realistic evaluation of the small break LOCA analysis of nuclear power plants.

2. The information consists of test data or other similar data concerning a process, method or component, the application of which results in 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 document herein is 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 reactor competitors of Combustion Engineering.

   b. Development of this information by C-E required tens of thousands of manhours 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 to develop the appropriate calculational models used for the realistic evaluation of the small break LOCA analysis of nuclear power plants.

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 calculational models used for the realistic evaluation of the small break LOCA analysis of nuclear power plants, 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.

S. A. Toelle

S. A. Toelle
Manager
Nuclear Licensing

Sworn to before me
this 5th day of March, 1993

Laurie A. White

Notary Public

My commission expires: 3/31/94