



2 February, 2000  
LD-2000-0008

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

**SUBJECT: RESOLUTION OF AN ISSUE CONCERNING APPLICATION OF THE  
ABB CENP LARGE BREAK LOCA EVALUATION MODEL FOR PWRs  
{ENCLOSURE 1-P CONTAINS PROPRIETARY INFORMATION}**

The purpose of this letter is to inform the Nuclear Regulatory Commission (NRC) of the resolution of an issue concerning the application of the ABB C-E Nuclear Power, Inc. (ABB CENP) Large Break Loss-of-Coolant Accident (LBLOCA) Appendix K Evaluation Model (EM) for Pressurized Water Reactors (PWRs). The subject issue is the potential inconsistent prediction of cladding rupture time calculated by the blowdown hydraulics computer code, CEFLASH-4A and the limiting fuel rod heatup computer code, STRIKIN-II. In particular, under certain circumstances, CEFLASH-4A may predict cladding rupture to occur in the limiting fuel assembly during blowdown, whereas, STRIKIN-II predicts cladding rupture of the limiting fuel rod later in the transient. STRIKIN-II uses blowdown hydraulic boundary conditions calculated by CEFLASH-4A. Therefore, standard application of the ABB CENP LBLOCA EM in this situation would mean introducing the use of inconsistent "ruptured" CEFLASH-4A boundary conditions during blowdown in STRIKIN-II since STRIKIN-II does not predict cladding rupture until later in the transient.

ABB CENP has evaluated the issue and has identified and implemented a resolution. The resolution is to use STRIKIN-II, with its more detailed representation of the fuel and cladding, to determine if cladding rupture occurs during blowdown. Enclosure 1-P describes the issue and the basis for its resolution in more detail.

ABB CENP has determined that the material provided in Enclosure 1-P is PROPRIETARY in nature. Consequently, it is requested that Enclosure 1-P be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790 and that copies be appropriately safeguarded. The reasons for the classification of this information as PROPRIETARY are delineated in the affidavit provided in Enclosure 2.

This information is being provided for your information to assure that the NRC is aware of current ABB CENP application of its LBLOCA EM. ABB CENP has concluded that the resolution described for the treatment of the issue is reasonable based on a review of the licensing basis, is technically correct — given the more detailed STRIKIN-II model and is, therefore, acceptable for use within the constraints of existing regulatory approvals. The resolution conforms to 10 CFR 50, Appendix K requirements and complies with the documented

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licensing basis of the 1985 EM. As such, implementing the resolution does not constitute a change to the 1985 EM. Consequently, this letter is not a request for NRC review and acceptance.

If you have any questions regarding this matter, please do not hesitate to call me or Mr. Charles Molnar of my staff at 860-285-5205.

Very truly yours,  
ABB C-E NUCLEAR POWER, INC.



Ian C. Rickard  
Director, Nuclear Licensing

Enclosures: As stated

xc: J. S. Cushing (NRC)  
R. Caruso (NRC)

**ABB C-E NUCLEAR POWER, INC.**

**PROPRIETARY AFFIDAVIT  
FOR  
LD-2000-0008, ENCLOSURE 1-P**

**RESOLUTION OF AN ISSUE CONCERNING APPLICATION  
OF THE ABB CENP LARGE BREAK LOCA  
EVALUATION MODEL FOR PWRs**

## AFFIDAVIT PURSUANT TO 10 CFR 2.790

I, Ian C. Rickard, depose and say that I am the Director, Nuclear Licensing, of ABB C-E Nuclear Power, Inc. (ABB CENP), 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:

Enclosure 1-P to LD-2000-0008, "Resolution of an Issue Concerning Application of the ABB CENP Large Break LOCA Evaluation Model for PWRs", 2 February, 2000

This document has been appropriately designated as proprietary.

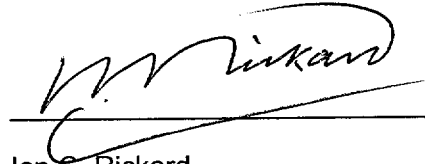
I have personal knowledge of the criteria and procedures utilized by of ABB CENP in designating information as a trade secret, privileged or as confidential commercial or financial information.

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 owned and has been held in confidence by ABB CENP. It consists of information concerning the resolution of an issue regarding application of the cladding rupture model in the ABB CENP Large Break LOCA ECCS performance evaluation model for PWRs.
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 ABB CENP.
3. The information is of a type customarily held in confidence by ABB CENP and not customarily disclosed to the public. ABB CENP 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 that 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 ABB CENP because:

- a. A similar product is manufactured and sold by major pressurized and/or boiling water reactor competitors of ABB CENP.
- b. Development of this information by ABB CENP required hundreds of thousands of dollars and thousands of man-hours of effort. 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 information concerning the resolution of an issue regarding application of the cladding rupture model in the ABB CENP Large Break LOCA ECCS performance evaluation model for PWRs.
- d. The information consists of the resolution of an issue regarding application of the cladding rupture model in the ABB CENP Large Break LOCA ECCS performance evaluation model for PWRs, 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 ABB CENP, take marketing or other actions to improve their product's position or impair the position of ABB CENP's product, and avoid developing similar data and analyses in support of their processes, methods or apparatus.
- e. In pricing ABB CENP's products and services, significant research, development, engineering, analytical, manufacturing, licensing, quality assurance and other costs and expenses must be included. The ability of ABB CENP's competitors to utilize such information without similar expenditure of resources may enable them to sell at prices reflecting significantly lower costs.
- f. Use of the information by competitors in the international marketplace would increase their ability to market nuclear steam supply systems, nuclear fuel, analyses or other support services by reducing the costs associated with their technology development. In addition, disclosure would have an adverse economic impact on ABB CENP's potential for obtaining or maintaining foreign licensees.

Further the deponent sayeth not.

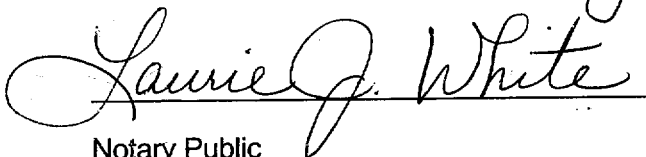


Ian C. Rickard

Director, Nuclear Licensing

Sworn to before me

this 2<sup>nd</sup> day of February, 2000



Notary Public

My commission expires: 8/31/04