



Westinghouse Electric Company  
CE Nuclear Power LLC

2000 Day Hill Road  
Windsor, CT 06095  
USA

3 May, 2000  
LD-2000-0019

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

**SUBJECT: REVISION TO ENDF/B-VI LIBRARY**

{Enclosure 1-P Contains PROPRIETARY INFORMATION}

- Reference(s): 1) Letter, I. C. Rickard (ABB CENP) to USNRC Document Control Desk, "Application of an ENDF/B-VI Based DIT™ Cross Section Library to Nuclear Core Design and Safety Analyses", LD-99-016, March 11, 1999
- 2) Letter, C. A. Carpenter (NRC) to I. C. Rickard (ABB CENP), "Safety Evaluation of ABB-CENP Report, Application of a DIT Cross Section Library Based on ENDF/B-VI (TAC No. MA5282)", June 8, 1999

On March 11, 1999, ABB CE Nuclear Power, Inc. (now CE Nuclear Power LLC, CENP) provided the Nuclear Regulatory Commission (NRC) with a letter (Reference 1) that included information pertinent to the development of an ENDF/B-VI cross section library. This submittal was subsequently reviewed and approved by the NRC via Reference 2. CENP has identified a transcription error in its original submittal letter. Specifically, the quoted uncertainty for rod worth calculations was specified incorrectly.

CENP regularly updates/improves the ENDF/B-VI biases and uncertainties manual for our customers as core follow results warrant. CENP has recently improved the biases and uncertainties applicable for the ENDF/B-VI cross section library and updated these values in the latest revision of our Physics Biases and Uncertainties Manual (CE-CES-129 Rev. 8-P). CENP has changed the uncertainty for the rod worth to make it exactly equal to the value employed for rod worth calculations based upon the older ENDF/B-IV cross section library. This approach was followed because benchmarking analysis indicated that the rod worth uncertainty for core calculations using the ENDF/B-VI cross sections set were bounded by the rod worth uncertainty currently in use for the core calculations with the ENDF/B-IV cross section set. In order to avoid changes to a significant number of the nuclear design analysis procedures (and potentially increasing risk of calculation errors) CENP chose to conservatively use the existing rod worth uncertainty for all rod worth calculations. Note that the bias for the rod worth calculations has not changed. Lastly, the bias and uncertainty for dropped CEA calculations have been updated, slightly, to reflect the most recent available information.

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Enclosure 1-P provides a comparison of the biases and uncertainties employed for the former ENDF/B-IV cross section library, the values contained in Reference 1, and the most recent biases and uncertainties contained in our Physics Biases and Uncertainties Manual. The comparison confirms that the overall effect of the transcription error is minor. Consequently, the use of the previous uncertainty values would not have introduced any analysis errors that would create an operational safety concern.

CENP has determined that Enclosure 1-P contains information that 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 these copies be appropriately safeguarded. The reasons for the classification of this information as PROPRIETARY are delineated in the affidavit provided in Enclosure 2.

As previously mentioned, CENP regularly updates/improves the ENDF/B-VI biases and uncertainties manual for our customers as core follow results warrant, therefore, at this time, CENP is not requesting any re-evaluation/approval from NRC. Rather, this is only an information transmittal to provide notice of the aforementioned transcription error and the updating of the biases and uncertainties applicable to the ENDF/B-VI cross section library.

If you have any questions concerning this matter, please do not hesitate to call me or Chuck Molnar of my staff at (860) 285-5205.

Very truly yours,  
CE NUCLEAR POWER LLC

A handwritten signature in black ink, appearing to read 'I. Rickard', written over a horizontal line.

Ian C. Rickard, Director  
Nuclear Licensing

Enclosure: As stated

xc: J. S. Cushing (NRC)

**CE NUCLEAR POWER LLC**

**PROPRIETARY AFFIDAVIT**

**FOR**

**REVISION TO ENDF/B-VI LIBRARY**

**AFFIDAVIT PURSUANT**

**TO 10 CFR 2.790**

I, Ian C. Rickard, depose and say that I am the Director of Nuclear Licensing, of CE Nuclear Power LLC (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-2000-0019, "Revision to ENDF/B-VI Library", May 3, 2000

This document has been appropriately designated as proprietary.

I have personal knowledge of the criteria and procedures utilized by of 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 CENP. It consists of the ENDF/B-VI DIT cross section library and verified biases and uncertainties.
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 CENP.
3. The information is of a type customarily held in confidence by CENP and not customarily disclosed to the public. 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 CENP because:
  - a. A similar product is manufactured and sold by major pressurized and/or boiling water reactor competitors of CENP.
  - b. Development of this information by 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 the ENDF/B-VI DIT cross section library and verified biases and uncertainties.
  - d. The information consists of the ENDF/B-VI DIT cross section library and verified biases and 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 CENP, take marketing or other actions to improve their product's position or impair the position of CENP's product, and avoid developing similar data and analyses in support of their processes, methods or apparatus.
  - e. In pricing 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 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 CENP's potential for obtaining or maintaining foreign licensees.

Further the deponent sayeth not.

  
\_\_\_\_\_  
Ian C. Rickard  
Director of Nuclear Licensing

Sworn to before me  
this 3<sup>rd</sup> day of May, 2000

  
\_\_\_\_\_  
Notary Public  
My commission expires: 8/31/04

**Proprietary Information  
CE Nuclear Power LLC**

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**MAY, 2000**

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