



GE Energy

Proprietary Notice

*This letter forwards proprietary information in accordance with 10CFR2.390. Upon the removal of Enclosure 1, the balance of this letter may be considered non-proprietary.*

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MFN 06-243

Docket No. 52-010

July 25, 2006

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001

**Subject: Data to Support Estimation and Modeling of Effective Fission Product Decontamination Factor for ESBWR Containment**

Enclosure 1 contains the subject data requested by the NRC during a July 20, 2006 telecon discussion of the referenced report. This information forms the basis for the values contained in Table 1 of the referenced report.

Enclosure 1 contains GE proprietary information as defined by 10 CFR 2.390. GE customarily maintains this information in confidence and withholds it from public disclosure.

The affidavit contained in Enclosure 3 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to GE. GE hereby requests that the information of Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17. The VTT cover letter that transmits this data is contained in Enclosure 2. This constitutes the extent of available non proprietary information.

If you have any questions about the information provided here, please let me know.

Sincerely,

David H. Hinds  
Manager, ESBWR

Reference:

1. NEDE-33279P, "ESBWR Containment Fission Product Removal Evaluation Model (Unverified Draft)," June 2006

Enclosures:

1. MFN 06-243 – Data to Support Estimation and Modeling of Effective Fission Product Decontamination Factor for ESBWR Containment – GE Proprietary Information
2. MFN 06-243 – Data to Support Estimation and Modeling of Effective Fission Product Decontamination Factor for ESBWR Containment – Non Proprietary Version
3. Affidavit – George B. Stramback – dated July 25, 2006

cc: WD Beckner USNRC (w/o enclosures)  
AE Cabbage USNRC (with enclosures)  
LA Dudes USNRC (w/o enclosures)  
GB Stramback GE/San Jose (with enclosures)  
eDRF 0000-0056-2200

## **ENCLOSURE 2**

**MFN 06-243**

**Data to Support Estimation and Modeling of Effective  
Fission Product Decontamination Factor  
for ESBWR Containment**

**Non Proprietary Version**

June 28, 2006

1(1)

GE Nuclear Energy  
Wayne Marquino  
3901 Castle Hayne Road M/C L60  
Cube AE-5039  
Wilmington, NC 28402  
U.S.A.

**Subject: ESTIMATION AND MODELING OF EFFECTIVE FISSION PRODCUT  
DECONTAMINATION FACTOR FOR ESBWR CONTAINMENT**

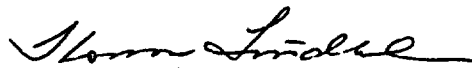
The data of the attached spreadsheet "Csl-tables.xls" is obtained from the MELCOR 1.8.6 tabular output and plot files "ESBWR-BDL-90-O" and "ESBWR-BDL-90.PTF", respectively. The MELCOR runs were performed with the MELGEN input file "ESBWR\_BDL\_base\_90.txt" (attachment 2).

The results presented as draft MELCOR calculation in the report:

"I. Lindholm, A. Auvinen, Y. Enqvist, K. Penttilä, R. Zilliacus, Estimation and Modeling of Effective Fission Product Decontamination Factor for ESBWR Containmen, Research Report VTT-R-04413-06, June 2006"

are from the the same MELCOR run and from the data in the files "ESBWR-BDL-90-O", "ESBWR-BDL-90-M" and "ESBWR-BDL-90.PTF".

Sincerely Yours,



Ilona Lindholm  
Senior Research Scientist,  
Nuclear Energy,  
VTT Technical Research Centre of Finland

Attachments: 1. Spreadsheet "Csl-tables.xls"  
2. MELGEN input "ESBWR\_BDL\_base\_90.txt"

**ENCLOSURE 3**

**MFN 06-243**

**Affidavit**

## General Electric Company

### AFFIDAVIT

I, George B. Stramback, state as follows:

- (1) I am Manager, Regulatory Services, General Electric Company ("GE"), have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in Enclosure 1 of GE letter MFN 06-243, David H. Hinds to NRC, *Data to Support Estimation and Modeling of Effective Fission Product Decontamination Factor for ESBWR Containment*, dated July 25, 2006. The proprietary information in Enclosure 1, *Data to Support Estimation and Modeling of Effective Fission Product Decontamination Factor for ESBWR Containment*, contains the designation GE Proprietary Information <sup>{3}</sup> on each page. The superscript notation{3} refers to Paragraph (3) of this affidavit, which provides the basis for the proprietary determination.
- (3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.790(a)(4) for "trade secrets" (Exemption 4). The material for which exemption from disclosure is here sought also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
  - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;
  - b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;
  - c. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, resulting in potential products to General Electric;

- d. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs (4)a. and (4)b. above.

- (5) To address 10 CFR 2.390 (b) (4), the information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GE, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GE, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.
- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GE are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
- (8) The information identified in paragraph (2), above, is classified as proprietary because it describes the details and intermediate results of models and methodologies GE uses in evaluating the dose consequences of design basis accidents (DBAs) for the ESBWR. GE and its partners performed significant additional research and evaluation to develop a basis for these revised methodologies to be used in evaluating the ESBWR over a period of several years at a cost of over one million dollars.
- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GE's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GE's comprehensive BWR safety and technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes

development of the expertise to determine and apply the appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical and NRC review costs comprise a substantial investment of time and money by GE.


The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GE's competitive advantage will be lost if its competitors are able to use the results of the GE experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to GE would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.

Executed on this 25<sup>th</sup> day of July 2006

  
George B. Stramback  
General Electric Company