GE Energy

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Project 717

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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20852-2738

Subject: **Previous ESBWR Level 1 PRA**

As requested by NRC Research, the 1997 version of an earlier version of the ESBWR level 1, full power, internal events PRA is provided in Enclosure 2 (CD). The model was created and quantified using NUPRA version 2.2. The model should be considered an unverified draft. GE has not tested the completeness of this model. All of the fault trees, event trees, and data appear to be included, however, the complete quantification was not re-done following extraction of the archived files.

Also included is a conversion of the fault trees from the NUPRA files to CAFTA 5.1. All of the independent modules have been imported into their respective fault trees. Also, many of the individual trees were merged into files associated with their system. Two PDF files are provided to show which fault trees contain the top gates and to identify where transfer logic is modeled.

Finally, the PRA for the Standard Safety Analysis Report of the SBWR is included as a PDF file. It does not totally match the NUPRA model, but it is very close. The descriptions of the systems and event trees can be used to gain insights into the modeling and the results.

Enclosure 2 contains GE proprietary information as defined by 10 CFR 2.390. With the exception of the PRA for the Standard Safety Analysis Report of the SBWR, all of the files contained in Enclosure 2 (~ 1950 files) contain GE Proprietary Information. However, due to the nature of these data files, it is not possible to mark each as "GE

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Proprietary." GE customarily maintains this information in confidence and withholds it from public disclosure. The non-proprietary file, consisting of the PRA for the Standard Safety Analysis Report of the SBWR, is provided in Enclosure 1.

The affidavit contained in Enclosure 3 identifies that the information contained in Enclosure 2 has been handled and classified as proprietary to GE. GE hereby requests that the information of Enclosure 2 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17.

If you have any questions about the information provided here, please contact Rich Wachowiak at 910-765-5680 (Richard.Wachowiak@ge.com) or myself.

Sincerely,

Robert E. Gamble
Manager, ESBWR

Enclosures:

1. MFN 04-138 – SBWR Level 1 PRA - PRA for the Standard Safety Analysis Report of the SBWR – Non Proprietary
2. MFN 04-138 – SBWR Level 1 PRA (CD) – GE Proprietary Information
3. Affidavit, George B. Stramback, dated December 17, 2004

cc:	WD Beckner	USNRC (w/o enclosures)
	AE Cubbage	USNRC (with enclosures)
	MB Fields	USNRC (with enclosures)
	GB Stramback	GE (with enclosures)
	RM Wachowiak	GE (with enclosures)

General Electric Company

AFFIDAVIT

I, George B. Stramback, state as follows:

(1) I am Manager, Regulatory Services, General Electric Company ("GE") and 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 2 of GE letter MFN 04-138, Robert E. Gamble to NRC, *European SBWR Level 1 PRA,* dated December 17, 2004. The proprietary information is in Enclosure 2 (CD), *European SBWR Level 1 PRA.* The CD is identified by the marking "GE Proprietary Information" on the label. However, due to the nature of the data files contained on the CD, it is not possible to mark each as "GE Proprietary." Paragraph (3) of this affidavit 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 contains the detailed probabilistic model that GE developed to estimate the core damage frequency of the European SBWR. A large portion of this model is also directly applicable to other SBWR product lines developed by GE. This model was developed over several years at a significant cost to GE.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GE asset.

(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 17th day of December 2004

George B. Stramback
General Electric Company