GENERAL & ELECTRIC

#### NUCLEAR POWER SYSTEMS DIVISION

GENERAL ELECTRIC COMPANY ● 175 CURTNER AVENUE ● SAN JOSE, CALIFORNIA 95125

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MFN-121-83

June 28, 1983

U.S. Nuclear Regulatory Commission Office of Nuclear Reactor Regulation Washington, D.C. 20555

Attention:

Mr. Cecil O. Thomas, Chief

Standardization and Special Projects Branch

Gentlemen:

SUBJECT:

FORMAL SUBMITTAL OF FINAL SET OF INFORMATION ON GENERAL

ELECTRIC'S LOCA EVALUATION MODEL (SAFER)

References:

1) Letter from J. F. Quirk (GE) to D. R. Miller (NRC), "General Electric Company Licensing Topical Report (LTR) NEDE-23785-1-P (The GESTR-LOCA and SAFER Models for the Evaluation of the Loss-of-Coolant Accident)" MFN-218-81, December 30, 1981

2) Letter from Cecil O. Thomas (NRC) to G. G. Sherwood (GE) "Request No. 3 for Additional Information on

NEDE-23785-1(P)," October 27, 1982

Transmitted herewith for NRC review and approval are twenty-five (25) copies of four (4) appendices to the proprietary version of General Electric's improved LOCA evaluation model, SAFER (NEDE-23785-1-P, Volume II). The base document was submitted in December 1981 (Reference 1). These appendices contain all the final information related to the SAFER modeling basis.

Appendix A, entitled "Model Changes to SAFER", describes the details of some minor logic improvements and model refinements which have been incorporated into SAFER since the original submittal. Appendix B, entitled "SAFERO2 Qualification with TLTA Tests", is the updated formal version of the SAFER qualification results which were discussed with the staff in January 1983. Appendix C, entitled "Response to NRC Questions on SAFER", contains GE's responses to the NRC questions which were submitted with the reference 2 letter. Appendix D, entitled "Comparison of SAFERO2 and TRACBO2 Prediction of BWR LOCA Transients", contains additional information pertaining to the qualification of the SAFER model.

Some of the information contained in these appendices is of the type which General Electric maintains in confidence and withholds from public disclosure. The specific proprietary pages have been stamped "GE Company



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Proprietary." This information has been handled and classified as proprietary by General Electric as indicated in the attached affidavit and we hereby request it be withheld from public disclosure in accordance with the provisions of 10CFR2.790.

Very truly yours,

J. Quirk, Manager BWR Systems Licensing

Nuclear Safety and Licensing Operation

JFQ:ca1/K06211

Attachments

cc: B. Sheron (NRC)

M. W. Hodges (NRC) T. E. Collins (NRC)

L. S. Gifford (GE-Bethesda)

Mr. Cecil Thomas Page 3

# JFQ: cal/(06211

bcc: G. E. Dix
H. C. Pfefferien
B. S. Shiralkar
H. E. Townsend
D. K. Dennison

G. L. Sozzi G. J. Scatena

## GENERAL ELECTRIC COMPANY

### AFFIDAVIT

- I, Joseph F. Quirk, being duly sworn, depose and state as follows:
- I am Manager, BWR Systems Licensing, Nuclear Safety and Licensing Operation, General Electric Company, 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.
- The information sought to be withheld is contained on those pages marked "GE Company Proprietary" of the attached Appendices A, C and D. This information is being formally submitted as an addendum to General Electric's improved ECCS evaluation model, SAFER (NEDE-23785-1-P, Volume II).
- 3. In designating material as proprietary, General Electric utilizes the definition of proprietary information and trade secrets set forth in the American Law Institute's Restatement Of Torts, Section 757. This definition provides:

"A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.... A substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring information.... Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others."

- 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 where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;

- Information consisting of supporting data and analyses, including test data, relative to a process, method or apparatus, the application of which provide a competitive economic advantage, e.g., by optimization or improved marketability;
- c. 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;
- d. Information which reveals cost or price information, production capacities, budget levels or commercial strategies of General Electric, its customers or suppliers;
- e. Information which reveals aspects of past, present or future General Electric customer-funded development plans and programs of potential commercial value to General Electric;
- Information which discloses patentable subject matter for which it may be desirable to obtain patent protection;
- g. Information which General Electric must treat as proprietary according to agreements with other parties.
- In addition to proprietary treatment given to material meeting the 5. standards enumerated above, General Electric customarily maintains in confidence preliminary and draft material which has not been subject to complete proprietary, technical and editorial review. This practice is based on the fact that draft documents often do not appropriately reflect all aspects of a problem, may contain tentative conclusions and may contain errors that can be corrected during normal review and approval procedures. Also, until the final document is completed it may not be possible to make any definitive determination as to its proprietary nature. General Electric is not generally willing to release such a document to the general public in such a preliminary form. Such documents are, however, on occasion furnished to the NRC staff on a confidential basis because it is General Electric's belief that it is in the public interest for the staff to be promptly furnished with significant or potentially significant information. Furnishing the document on a confidential basis pending completion of General Electric's internal review permits early acquaintance of the staff with the information while protecting General Electric's potential proprietary position and permitting General Electric to insure the public documents are technically accurate and correct.
- 6. Initial approval of proprietary treatment of a document is made by the Subsection Manager of the originating component, the man most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within the Company is limited on a "need to know" basis and such documents at all times are clearly identified as proprietary.

- 7. The procedure for approval of external release of such a document is reviewed by the Section Manager, Project Manager, Principal Scientist or other equivalent authority, by the Section 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 in accordance with the standards enumerated above. Disclosures outside General Electric are generally limited to regulatory bodies, customers and potential customers and their agents, suppliers and licensees only in accordance with appropriate regulatory provisions or proprietary agreements.
- 8. The document mentioned in paragraph 2 above has been evaluated in accordance with the above criteria and procedures and has been found to contain information which is proprietary and which is customarily held in confidence by General Electric.
- The attached appendices to NEDE-23785-1-P, Volume II contain information supporting GE's improved evaluation model, SAFER.
  - The entire Appendix A document ("Model Changes to SAFER") is proprietary because it contains information directly related to the SAFER model. This information is proprietary as specified in Sections 3, 4a and 4c of this affidavit.
  - All pages in the Appendix C document ("Response to NRC Questions on SAFER") are proprietary except for Figure 9.1 and the Question 5 attachment. This information is also related to the SAFER modeling and is proprietary as specified in Sections 3, 4a and 4c.
  - All of the pages in Appendix D ("Comparison of SAFER 02 and TRACB 02 Predictions of BWR LOCA Transients") are proprietary (Section 4c) except for Figures 1 and 2 and Attachments A, B and C. These pages are proprietary because they contain discussions and figures of SAFER 02 calculational results for a BWR/4 and BWR/6. Preliminary release of these results could jeopardize the first sale of a GE SAFER/GESTR analysis. Competitors could use these results to reinforce their own less rigorously developed licensing calculations without purchasing a full SAFER analysis from GE.

STATE OF CALIFORNIA COUNTY OF SANTA CLARA

Joseph F. Quirk, being duly sworn, deposes and says:

That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 28 day of JUNE, 1983.

General Electric Company

Subscribed and sworn before me this 28 day of June 1983.

OFFICIAL SEAL KAREN S. VOGELHUDER
NOTARY PUBLIC - CALIFORNIA
SANTA CLARA COUNTY
My Commission Expires Dec. 21, 1984
Santa Clara County
My Commission Expires Dec. 21, 1984
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