



**GE Nuclear Energy**

General Electric Company  
P. O. Box 780, Wilmington, NC 28402

February 26, 1996

RJR-96-022  
MFN-028-96

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

Attention: R. C. Jones, Jr.

Subject: **R-Factor Calculation Method and GEXL Correlation**

Reference: 1. Letter, J. F. Klapproth to the Document Control Desk (R. C. Jones, Jr., *Safety Limit MCPR for GE13 Fuel*, dated September 28, 1994.  
2. Letter, J. F. Klapproth to the Document Control Desk (R. C. Jones, Jr., *R-Factor Calculation Method*, dated October 20, 1995 (MFN-239-95).

To support the generic GE13 safety limit MCPR (reference 1) review, GE submitted the reference 2 report describing the R-factor calculational methods to the NRC. To facilitate the review of the GE13 generic safety limit GE is now requesting formal review and approval of the R-factor methodology report. Concurrently, the NRC questioned the form of the GEXL-PLUS critical quality correlation for application to GE's advanced fuel designs. A GEXL-PLUS discussion intended to resolve these questions is included in the attachment. We would be pleased to obtain NRC review and approval of these three submittals.

The attachment documents the algebraic form of the GE critical power correlation. This is the form (amended in 1987) which GE believes was approved by the AEC in 1974. As we have been unable to find the documentation necessary to resolve minor discrepancies in the 1974 documents, GE is submitting this attachment and requesting your concurrence that the NRC recognizes the attachment as the legal documentation of the GEXL and GEXL-PLUS critical quality correlations. Upon receipt of your formal concurrence, GE proposes to issue this attachment and your concurrence letter in a single report (analogous to the NRC requirement for approved topical reports) which could be referenced in future submittals.

The form of the GE critical quality correlation documented in the attachment is used by licensees for core monitoring and by GE and licensees for core and safety analyses, and is believed by GE to provide a more accurate fit to the experimental data than the form(s) found in some of the very early GEXL documents.

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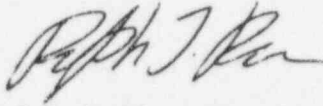
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Per discussions with the NRC staff, we believe these are the last open items needing resolution for approval of the reference 1 submittal. We are anxiously awaiting your timely review and approval of these three requests.

Information contained in the attachment is of the type which GE maintains in confidence and withholds from public disclosure. It has been handled and classified as proprietary by GE as indicated in the attached affidavit. We hereby request that it be withheld from public disclosure in accordance with the provisions of 10CFR2.790.

If you have any questions, please call me or J. L. Embley at (910) 675-5774.

Sincerely,

A handwritten signature in dark ink, appearing to read 'R. J. Reda', is written above the typed name.

R. J. Reda, Manager  
Fuels and Facilities Licensing  
(910) 675-5889, MC J26

cc: L. E. Phillips (NRC)  
T. L. Huang (NRC)  
S. P. Congdon  
J. L. Embley  
W. J. Sependa



## Affidavit

I, **Ralph J. Reda**, being duly sworn, depose and state as follows:

- (1) I am Manager, Fuel Licensing, 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 the attachment to the letter to the Document Control Desk from R. J. Reda, *R-Factor Calculation Method and GEXL Correlation*, February 26, 1996 and is indicated by a bar in the right-hand margin.
- (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), 2.790(a)(4), and 2.790(d)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information," and some portions 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 cost or price information, production capacities, budget levels, or commercial strategies of General Electric, its customers, or its suppliers;
  - d. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, of potential commercial value to General Electric;

- e. 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 both paragraphs (4)a. and (4)b., above.

- (5) 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. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in (6) and (7) following. 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.
- (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) is classified as proprietary because it contains details of GE's GEXL correlation that applies to GE's advanced fuel designs.

The development and approval of this GEXL correlation was achieved at a significant cost, on the order of several million dollars, to GE.

- (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 fuel design 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.

**Affidavit**

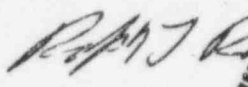
The value of this information to GE would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of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

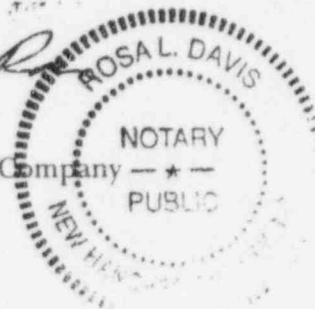
State of North Carolina )  
County of New Hanover ) SS:

Ralph J. Reda, 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 Wilmington, North Carolina, this 28 day of February, 1996

  
Ralph J. Reda  
General Electric Company



Subscribed and sworn before me this 28 day of February, 1996

  
Notary Public, State of North Carolina  
*my commission expires 12-15-97*