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September 21, 2001

MFN 01-048
MA4437

US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Attention: Chief, Information Management Branch
Program Management
Policy Development and Analysis Staff

Subject: **Partial Response to Request for Additional Information-GE Nuclear
Energy Licensing Topical Report NEDC-32938P
RAI#’s: 12–17 and 22–25.**

- References:
- 1.) GE Nuclear Letter (MFN 00-023), J. F. Klapproth to US NRC, dated July 11, 2000: Submittal of GE Proprietary Document NEDC-32938P, **Generic Guidelines for General Electric Boiling Water Reactor Thermal Power Optimization.**
 - 2.) US NRC Letter, Robert Pulisfer to J. F. Klapproth (GE), dated April 16, 2001: Topical Report NEDC-32983P, **Generic Guidelines for General Electric Boiling Water Reactor Thermal Power Optimization–Request for Additional Information.**
 - 3.) GE Nuclear Letter (MFN 01-022), J. F. Klapproth to US NRC, dated June 6, 2001: Partial Response to Request for Additional Information-GE Nuclear Energy Licensing Topical Report NEDC-32938P
RAI#’s: 1–11, 20, 21, and 26.

Twenty-six questions associated with the NRC Staff’s review of GE Nuclear Energy Licensing Topical Report NEDC-32938P (Reference 1) were provided in Reference 2. A first partial response to this request was provided in Reference 3. This letter provides specific responses to ten of the twelve remaining questions. The remaining two questions, which address ATWS, will be provided by October 8.

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Please note that the attachment contains proprietary information of the type that GE maintains in confidence and withholds from public disclosure. The information has been handled and classified as proprietary to GE as indicated in the attached affidavit. GE hereby requests that this information be withheld from public disclosure in accordance with the provisions of 10CFR2.790.

Sincerely,



J. F. Klapproth, Manager
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Attachments:

- Affidavit by George B. Stramback, dated September 21, 2001 (5 pages)
- GE responses to RAI's: 12-17 and 22-25 (12 pages).

cc:

R. Caruso	(NRC)	w/o Attachments
R. M. Pulsifer	(NRC)	w/ Attachments
I. Nir	(GE)	w/o Attachments
E. C. Eckert	(GE)	w/o Attachments
R. S. Drury	(GE)	w/ Attachments
M. J. Dick	(GE)	w/ Attachments
M. E. Ball	(GE)	w/ Attachments

General Electric Company

AFFIDAVIT

I, **George B. Stramback**, being duly sworn, depose and state as follows:

- (1) I am Project 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 the Attachment to GE letter MFN 01-048, J. F. Klapproth to NRC, *Partial Response to Request for Additional Information-GE Nuclear Energy Licensing Topical Report NEDC-32938P, RAI#'s: 12-17 and 22-25*, dated September 21, 2001. The proprietary information is delineated by bars marked in the margin adjacent to the specific material in the attachment, *Attachment to MFN 01-048, Response to RAI#'s: 12-17 and 22-25*.
- (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. 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 proprietary presentation material is classified as proprietary because it contains detailed information of evaluations and conclusions regarding GE's work to extend the presently approved GE power uprate process. This information includes extension of the power uprate process based on the reduced uncertainty in plant thermal power approach employing constant steam dome pressure. The information also includes the results of internal design reviews identifying topics that could be addressed generically versus those to be addressed on a plant specific basis. This extension of the power uprate process will utilize analytical models and methods, including computer codes, which GE has developed, obtained NRC approval of, and applied to perform evaluations of transient and accident events in the GE Boiling Water Reactor ("BWR"). The development and approval of these system, component, and thermal hydraulic models and computer codes was achieved at a significant cost to GE, on the order of several million dollars.

The remainder of the information identified in paragraph (2), above, is classified as proprietary because it constitutes a confidential compilation of information, and conclusions extending the results from previous applications, which represent, as a whole, an integrated process or approach which GE has developed. The extensions include: 1) the reduced uncertainty in plant thermal power and 2) uprate analysis with constant steam dome pressure, which GE intends to apply to performance of evaluations of the safety-significant changes necessary to demonstrate the regulatory acceptability of a given increase in licensed power output for a GE BWR. The development and approval of the overall power uprate approach was achieved at a significant additional cost to GE, in excess of a million dollars, over and above the very large cost of developing the underlying individual proprietary analyses. These power uprate process extensions will represent an additional extensive investment costing approximately ½ to ¾ million dollars.

To effect a change to the licensing basis of a plant requires a thorough knowledge of the impact of the change on all postulated accident and transient events, and all other regulatory requirements and commitments included in the plant's FSAR. The analytical process to perform and document these evaluations for a proposed power uprate was developed at a substantial investment in GE resources and expertise. The results from these evaluations identify those BWR systems and components, and those postulated events, which are impacted by the changes required to accommodate operation at increased power levels, and, just as importantly, those

which are not so impacted, and the technical justification for not considering the latter in changing the licensing basis. The scope thus determined forms the basis for GE's offerings to support utilities in both performing analyses and providing licensing consulting services. Clearly, the scope and magnitude of effort of any attempt by a competitor to effect a similar licensing change can be narrowed considerably based upon these results. Having invested in the initial evaluations and developed the solution strategy and process described in the subject document GE derives an important competitive advantage in selling and performing these services. However, the mere knowledge of the impact on each system and component reveals the process, and provides a guide to the solution strategy.

- (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.

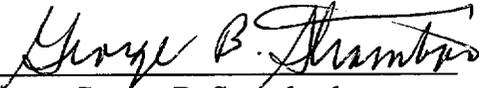
STATE OF CALIFORNIA)
)
COUNTY OF SANTA CLARA)

 ss:

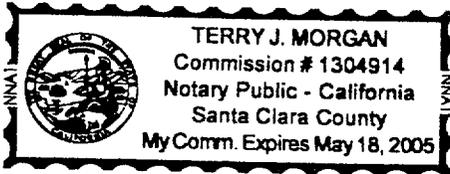
George B. Stramback, being duly sworn, deposes and says:

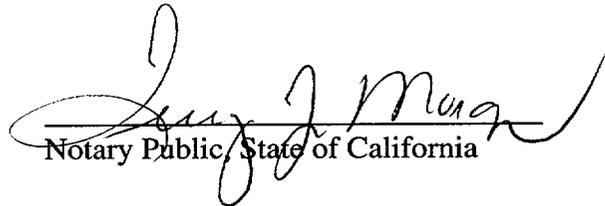
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 21st day of September 2001.


George B. Stramback
General Electric Company

Subscribed and sworn before me this 21st day of September 2001.




Notary Public, State of California