



GE ENERGY

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Proj-710

MFN 06-056
February 10, 2006

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

Attention: Alan B. Wang, Program Manager

Subject: **GE Licensing Topical Report NEDC-33173P, Applicability of GE Methods to Expanded Operating Domains**

The subject generic Licensing Topical Report (LTR), provided in Enclosure 1, supports the applicability of GE methods to expanded operating domains. GE believes that both GE and the NRC share the mutually desirable objective to support near-term BWR licensing applications for expanded operating domains on a generic basis. There is also mutual interest, we believe shared by utilities as well, in minimizing redundant requests for additional information (RAI) for each utility application utilizing GE methods for expanded operating domains. A generic LTR such as Enclosure 1 provides an effective mechanism for more efficient use of NRC, utility, and GE time and resources. Therefore, GE requests that the subject LTR be reviewed for approval on a schedule that supports current BWR licensee applications for expanded operating domains.

The enclosed LTR is consistent with and based on the approach taken during the Vermont Yankee extended power uprate (EPU) review (Reference 1). The scope of this LTR addresses any expanded operating range up to 120% of Original Licensed Thermal Power and including the MELLLA+ operating domain expansion (Reference 2). The enclosed LTR is intended to be referenced by near-term licensees' applications for EPU, including Constant Pressure Power Update (CPPU), and MELLLA+ operation. The enclosed LTR describes an additional critical power ratio margin to be applied consistently for operation at EPU/CPPU and MELLLA+ conditions. The enclosed LTR is to be implemented on a temporary basis pending final resolution of the NRC's RAIs regarding GE methods.

GE is committed to the activities necessary to further demonstrate the adequacy of GE's methods for expanded operating domains. GE has obtained a portion of the field data it intends to obtain to support final resolution of the related NRC RAIs. Initial analysis of this limited field data is still in process, and we have not reached any conclusions with respect to this limited data.

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Please note that Enclosure 1 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 affidavit, also included in the report. 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 in Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17. Enclosure 2 is a non-proprietary version of Enclosure 1.

If you have any questions, please contact James Harrison, at (910) 675-6604, or myself.

Sincerely,



Louis M. Quintana
Manager, Licensing

Project No. 710

References:

1. Entergy letter to U.S. Nuclear Regulatory Commission, Vermont Yankee Nuclear Power Station, License No. DPR-28 (Docket No. 50-271), Technical Specification Proposed Change No. 263, Extended Power Uprate " BVY 03-80, September 10, 2003.
2. Letter from L. M. Quintana (GE) to Alan B Wang (NRC), GE Licensing Topical Report NEDC-33006P, Revision 2, Maximum Extended Load Line Limit Analysis Plus, (TAC No. MB6157), MFN 05-141, November 28, 2005.

Enclosures:

1. GE Licensing Topical Report, NEDC-33173P, Applicability of GE Methods to Expanded Operating Domains – Proprietary (CD-ROM)
2. GE Licensing Topical Report, NEDO-33173, Applicability of GE Methods to Expanded Operating Domains – Non-Proprietary
3. Affidavit, dated February 10, 2006.

cc: AA Lingenfelter (GNF/Wilmington)
JF Harrison (GE/Wilmington)
MC Honcharik (NRC)
JF Klapproth (GE/Wilmington)
MA Lalor (GE/San Jose)
GB Stramback (GE/San Jose)
PT Tran (GE/San Jose)
eDRF 0000-0012-1297

ENCLOSURE 1 - CD-ROM

MFN 06-056

GE Licensing Topical Report NEDC-33173P,
“Applicability of GE Methods to Expanded Operating Domains”

GE Proprietary Information

PROPRIETARY INFORMATION NOTICE

This enclosure contains proprietary information of the General Electric Company (GE) and is furnished in confidence solely for the purpose(s) stated in the transmittal letter. No other use, direct or indirect, of the document or the information it contains is authorized. Furnishing this enclosure does not convey any license, express or implied, to use any patented invention or, except as specified above, any proprietary information of GE disclosed herein or any right to publish or make copies of the enclosure without prior written permission of GE. The header of each page in this enclosure carries the notation “GE Proprietary Information.”

GE proprietary information is identified by a double underline inside double square brackets. In each case, the superscript notation⁽³⁾ refers to Paragraph (3) of the affidavit provided in Enclosure 3, which documents the basis for the proprietary determination. [[This sentence is an example.⁽³⁾]] Specific information that is not so marked is not GE proprietary.

ENCLOSURE 2

MFN 06-056

**GE Licensing Topical Report NEDO-33173,
“Applicability of GE Methods to Expanded Operating Domains”**

Non-Proprietary Version

IMPORTANT NOTICE

This is a non-proprietary version of Enclosure 1 to MFN 05-056, which has the proprietary information removed. Portions of the enclosure that have been removed are indicated by an open and closed bracket as shown here [[]]

ENCLOSURE 3

MFN 06-056

Affidavit

General Electric Company

AFFIDAVIT

I, **Louis M. Quintana**, state as follows:

- (1) I am Manager, 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 GE proprietary report NEDC-33173P, "*Applicability of GE Methods to Expanded Operating Domains*," Class III (GE Proprietary Information), dated February 2006. The proprietary information is delineated by a double underline inside double square brackets. Figures and large equation objects are identified with double square brackets before and after the object. In each case, 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 2.390(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 detailed results and conclusions regarding GE Methods supporting evaluations of the safety-significant changes necessary to demonstrate the regulatory acceptability for the expanded power/flow operating domains including Extended Power Uprates, Constant Pressure Power Uprates, and the MELLLA+ domain for a GE BWR, utilizing 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 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 10th day of February 2006

A handwritten signature in cursive script that reads "Louis M. Quintana".

Louis M. Quintana
General Electric Company