



## GE ENERGY

### Proprietary Notice

This letter forwards proprietary information in accordance with 10CFR2.390. Upon the removal of Enclosure 1, the balance of this letter may be considered non-proprietary.

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MFN 07-241  
May 11, 2007

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

**Subject: MELLLA+ LTR NEDC-33006P, Revision 2, Section 1.0 (TAC No. MB6107)**

By Reference 1, GE transmitted its Licensing Topical Report (LTR), NEDC-33006P, Maximum Extended Load Line Limit Analysis Plus (MELLLA Plus) to the NRC for review and approval. During a meeting with the NRC staff on May 9, 2007, GE agreed to delete an extraneous sentence from the Introduction section of the MELLLA Plus LTR. The sentence refers to plant modifications that could be made subsequent to the plant-specific implementation of MELLLA+. The sentence does not support the analysis or implementation of MELLLA+. Therefore, its deletion does not alter any conclusion, or the basis for any conclusion, in the MELLLA+ LTR.

Enclosure 1 provides the revised page affected by the deletion of the sentence, and identifies the changes by revision bars. The revised page will be incorporated into the '-A' version of NEDC-33006P when is approved.

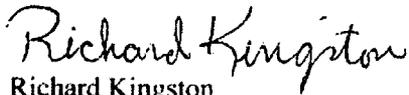
GE has discussed the matter with NRC Project Manager, Michelle Honcharik. GE considers the enclosed revision to be a clarification and is provided to support the completion of the NRC's review of the MELLLA+ LTR.

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 provided in Enclosure 3. 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.

DO65  
NRC

If you have any questions, please contact, Mike Lalor at (408) 925-2443 or me.

Sincerely,



Richard Kingston  
Project Manager, Regulatory Affairs

Project No. 710

Reference:

1. GE letter, L.M. Quintana (GE) to NRC, MFN 05-141, "GE Licensing Topical Report NEDC-33006P, Revision 2, "Maximum Extended Load Line Limit Analysis Plus", dated November 28, 2005

Enclosures:

1. Revised Section 1.0 - Proprietary
2. Revised Section 1.0 - Non-proprietary
3. Affidavit

cc: PL Campbell (GE/Washington)  
MC Honcharik (NRC)  
JF Klapproth (GE/Wilmington)  
MA Lalor (GE/San Jose)  
MJ Colby (GE/Wilmington)  
FT Bolger (GE/Wilmington)  
GB Stramback (GE/San Jose)  
RE Brown (GE/Wilmington)  
PT Tran (GE/Vallecitos)  
eDRF 0000-0011-9147

## **ENCLOSURE 2**

**MFN 07-241**

**Revised Section 1.0**

**Non-Proprietary Version**

### **IMPORTANT NOTICE**

This is a non-proprietary version of Enclosure 1 to MFN 07-241, 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 [[            ]]

## 1.0 Introduction

Power uprates in GE Boiling Water Reactors (BWRs) of up to 120% of original licensed thermal power (OLTP) have been based on the guidelines and approach provided in References 1 and 2 (ELTR1 and ELTR2). A number of extended power uprate (EPU) submittals have been based on these reports. The approach in ELTR1 and ELTR2 allows an increase in the maximum operating reactor pressure, when the reactor power is uprated. Subsequent to the approval of ELTR1 and ELTR2, GE developed an approach to uprate reactor power while maintaining the current reactor maximum operating reactor vessel dome pressure. The power uprate option with no dome pressure increase has been used at several plants, and is expected to be used for most future uprate applications. An improved approach for a Constant Pressure Power Urate (CPPU) has been submitted in Reference 3 (CLTR).

This Licensing Topical Report (LTR) defines the approach and provides the basis for an expansion of the operating range for plants that have uprated power, either with or without a change in the operating pressure. This core flow rate operating range expansion does not change the current plant vessel dome operating pressure. The improvement in the operating range is identified as Maximum Extended Load Line Limit Analysis Plus (MELLLA+). The current Maximum Extended Load Line Limit Analysis (MELLLA) operating range is characterized by the operating statepoint of reactor thermal power of 100% of OLTP at 75% of rated core flow. Some plants currently combine the MELLLA operating region with Increased Core Flow (ICF) resulting in an operating map called Maximum Extended Operating Domain (MEOD). Uprating to 120% OLTP using the MELLLA or MEOD boundary, restricts the core flow to 99% of rated at full power operation. This results in a reduced core flow range available for flexible operation at the uprated power. [[

]]

The following limitations and restrictions must be addressed by Licensees referencing this LTR to obtain a license for a MELLLA+ operating range expansion.

1. The plant-specific analyses supporting MELLLA+ operation will include all operating condition changes that are implemented at the plant at the time of MELLLA+ implementation. Operating condition changes include, but are not limited to, an increase in the dome pressure, maximum core flow, or fuel cycle length, or any changes in the licensed operational enhancements. For example, with an increase in dome pressure, the ATWS analysis, the American Society of Mechanical Engineers (ASME) overpressure analyses, the transient analyses, and the ECCS-LOCA analysis will be reanalyzed based on the increased dome pressure. Any changes to the safety system settings or actuation setpoint changes necessary to operate with the increased dome pressure will be included in the evaluations (e.g., safety relief valve setpoints).

~~This restriction does not apply to modifications that may be licensed and implemented following MELLLA+ implementation.~~

**ENCLOSURE 3**

**MFN 07-241**

**Affidavit**

# General Electric Company

## AFFIDAVIT

I, Richard E. Kingston, state as follows:

- (1) I am Project Manager, Regulatory Affairs, 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 1 of GE’s letter, MFN 07-241, Richard Kingston to US Nuclear Regulatory Commission, entitled “MELLLA+ LTR NEDC-33006P, Revision 2, Section 1.0 (TAC No. MB6107)”, May 11, 2007. The proprietary information in the Enclosure 1, which is entitled “Revised Section 1.0”, is delineated by a [[double underline inside double square brackets.<sup>{3}</sup>]] In each case, the superscript notation <sup>{3}</sup> 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 or licensee, 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 GE's competitors without license from GE 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 GE customer-funded development plans and programs, resulting in potential products to GE;
  - 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, or subject to the terms under which it was licensed to GE. 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 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 supporting evaluations of the safety-significant changes necessary to demonstrate the regulatory acceptability for the expanded power/flow range of MELLLA+ 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.

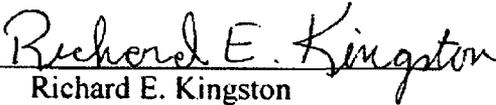
The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

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 and obtaining 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 11<sup>th</sup> day of May 2007.

  
Richard E. Kingston  
General Electric Company