

Joseph H. Plona
Site Vice President

6400 N. Dixie Highway, Newport, MI 48166
Tel: 734.586.5910 Fax: 734.586.4172

DTE Energy



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10 CFR 50.46

June 23, 2008
NRC-08-0046

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

- References: 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
- 2) Detroit Edison Letter to USNRC, "30-Day 10 CFR 50.46 Report, Plant Specific ECCS Evaluation Changes," (NRC-08-0003) dated January 16, 2008
- 3) USNRC Letter to Detroit Edison "Fermi 2 – Plan for Reanalysis of Plant-Specific Emergency Core Cooling System Evaluation," dated May 1, 2008

Subject: Submittal of Plant Specific Emergency Core Cooling System (ECCS) Evaluation Model Reanalysis

In Reference 2, Detroit Edison Company (DECO) reported an error in the General Electric (GE) Plant Specific Emergency Core Cooling System (ECCS) evaluation for Fermi 2. DECO also identified plans to reanalyze the SAFER/GESTR-Loss-of-Coolant Accident Analysis due to that error, and to submit the reanalysis to NRC by June 30, 2008. In Reference 3, NRC staff found this schedule for reanalysis to be acceptable.

GE has completed the reanalysis for Fermi 2 to establish a new Licensing Basis Peak Clad Temperature (LBPCT). The reanalysis was performed using the SAFER/GESTR- LOCA analysis methodology for both the GE11 and GE14 fuel types. A summary of the current LOCA model assessment is provided in Enclosure 1.

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The reanalysis for Fermi 2 reveals that the small break LOCA is the limiting case for LBPCT for both GE11 and GE14 fuel types. The reanalysis for GE11 (Enclosure 3 and 5) results in a LBPCT of 1830°F. The reanalysis for GE14 (Enclosure 4 and 6) results in a LBPCT of 1990°F.

General Electric-Hitachi Nuclear Energy (GEH) considers GE-NE-0000-0047-1716 Revision 1 and GE-NE-0000-0030-6565 Revision 1 (Enclosures 3 and 4) to be proprietary information. Therefore, these documents should be withheld from public disclosure in accordance with 10 CFR 9.17 and 10 CFR 2.390. An affidavit supporting this request for withholding these documents from public disclosure is provided in Enclosure 2. Non-proprietary versions of these documents are included as Enclosures 5 and 6.

The reanalysis concludes that the Fermi 2 LBPCT is below the 2200°F limit for both fuel types and all LOCA events. As described in Enclosures 3 through 6, the other four 10 CFR 50.46 ECCS-LOCA Analysis Acceptance Criteria are also well within the acceptable range.

Should you have any questions or require additional information, please contact Mr. Ronald W. Gaston of my staff at (734) 586-5197.

Sincerely,

A handwritten signature in cursive script, reading "Joseph H. Plone". The signature is written in black ink and is positioned below the "Sincerely," text.

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Enclosures:

1. Current LOCA Model Assessment for GE11 and GE14 Fuel
2. Affidavit from General Electric-Hitachi Nuclear Energy (GEH) regarding withholding from public disclosure in accordance with the provisions of 10 CFR 9.17 and 10 CFR 2.390
3. "DTE Energy ENRICO FERMI 2 SAFER/GESTR Loss-of-Coolant Accident Analysis for GE11 Fuel," GE-NE-0000-0047-1716-R1, dated June 2008. [PROPRIETARY INFORMATION]
4. "DTE Energy ENRICO FERMI 2 SAFER/GESTR Loss-of-Coolant Accident Analysis for GE14 Fuel," GE-NE-0000-0030-6565-R1, dated June 2008. [PROPRIETARY INFORMATION]
5. "DTE Energy ENRICO FERMI 2 SAFER/GESTR Loss-of-Coolant Accident Analysis for GE11 Fuel," GE-NE-0000-0047-1716-R1, dated June 2008. [NON-PROPRIETARY VERSION]
6. "DTE Energy ENRICO FERMI 2 SAFER/GESTR Loss-of-Coolant Accident Analysis for GE14 Fuel," GE-NE-0000-0030-6565-R1, dated June 2008. [NON-PROPRIETARY VERSION]

cc: NRC Project Manager
NRC Resident Office (w/o Enclosures 3 and 4)
Reactor Projects Chief, Branch 4, Region III (w/o Enclosures 3 and 4)
Regional Administrator, Region III (w/o Enclosures 3 and 4)
Supervisor, Electric Operators,
Michigan Public Service Commission (w/o Enclosures 3 and 4)

ENCLOSURE 1 TO

NRC-08-0046

**CURRENT LOCA MODEL ASSESSMENT
FOR GE11 AND GE14 FUEL**

Current LOCA Model Assessment for GE11 and GE14 Fuel

Fuel Type	Net PCT Per NRC-08-0003 dated January 16, 2008	New PCT Per GE Reanalysis
GE11	1696° F	1830° F
GE14	1930° F	1990° F

Evaluation Model:

1. NEDC-23785-1-PA Rev. 1, "The GESTR-LOCA and SAFER Models for the Evaluation of the Loss-Of-Coolant Accident Volume II, SAFER-Long Term Inventory Model for BWR Loss-Of-Coolant Analysis," October 1984.
2. NEDC-30996P-A, "SAFER Model for Evaluation of Loss-of-Coolant Accidents for Jet Pump and Non-jet Pump Plants, Volume I, SAFER-Long Term Inventory Model for BWR Loss-of-Coolant Analysis," October 1987.
3. NEDC-32950P, "Compilation of Improvements to GENE's SAFER ECCS-LOCA Evaluation Model," January 2000.
4. NEDC-23785-1-PA Rev. 1, "The GESTR-LOCA and SAFER Models for the Evaluation of the Loss-Of-Coolant Accident Volume III, SAFER/GESTR Application Methodology," October 1984. (Jet Pump Plant-SAFER)

ENCLOSURE 2 TO

NRC-08-0046

**Affidavit Regarding Withholding From Public Disclosure in Accordance
With the Provisions of 10 CFR 9.17 and 10 CFR 2.390**

GE-Hitachi Nuclear Energy Americas LLC

AFFIDAVIT

I, **Tim E. Abney**, state as follows:

- (1) I am Vice President, Services Licensing, GE-Hitachi Nuclear Energy Americas LLC (“GEH”). I 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 GEH proprietary reports, GE-NE-0000-0047-1716-R1, DTE Energy ENRICO FERMI 2, SAFER/GESTR Loss-of-Coolant Accident Analysis for GE11 Fuel, Class III (GEH Proprietary Information), June 2008 and GE-NE-0000-0030-6565-R1, DTE Energy ENRICO FERMI 2 SAFER/GESTR- Loss-of-Coolant Accident Analysis for GE14 Fuel, Class III (GEH Proprietary Information), June 2008. GEH text proprietary information in these reports, is identified by a dark red dotted underline inside double square brackets [[This sentence is an example.^{3}]]. Figures and large equation objects containing GEH proprietary information 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 or licensee, GEH 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 GEH's competitors without license from GEH 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 GEH customer-funded development plans and programs, resulting in potential products to GEH;

- 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 GEH, 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 GEH, 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 GEH. Access to such documents within GEH 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 GEH 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 results and details of analysis using the GEH proprietary SAFER/GESTR-LOCA licensing methodology which contains methods and techniques developed by GEH for evaluations of BWR loss of coolant accidents. The SAFER/GESTR-LOCA licensing methodology has been approved by NRC. Development of these methods, techniques, and information and their application for the analysis of loss of coolant accidents was achieved at a significant cost to GEH.

The development of the methodology along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GEH asset.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GEH's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GEH'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 GEH.

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.

GEH's competitive advantage will be lost if its competitors are able to use the results of the GEH 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 GEH 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 GEH 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 16th day of June 2008.

A handwritten signature in black ink, appearing to read "Tim E. Abney". The signature is written in a cursive style with a large, sweeping flourish at the end.

Tim E. Abney
Vice President, Services Licensing
GE-Hitachi Nuclear Energy Americas LLC