



Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

**Margaret E. Harding**

October 3, 2005

FLN-2005-022

Document Control Desk  
US Nuclear Regulatory Commission  
Washington, DC 20852-2738

**Subject:** Transmittal of GNF-A Proprietary Report, NEDE-33214P, and Non-proprietary Report, NEDO-33214, dated September 2005.

- References:**
1. USNRC Regulatory Guide 1.126, An Acceptable Model and Related Statistical Methods for the Analysis of Fuel Densification, Rev. 1, March 1978
  2. Transmittal of GNF-A Proprietary Report and Non-proprietary Report, "Densification Testing," FLN\_2005\_001, dated October 2004, submitted for information purposes January 2005.
  3. "Cladding Creep Collapse," GNF Reference Number FLN-2005-001), NEDC-33139P-A, submitted for approval December 2003.

In the absence of an alternate method, GNF has been applying the guidance provided in Reference 1. However, today's fuel designs contain higher sintered-density pellets that are manufactured by modern processing sequences and only densify to a fraction of the magnitude for which the guide was originally prepared. As such, GNF has developed an alternative method in accordance with Section D of Reference 1, which is documented in the attached transmittal. This information was originally transmitted to the NRC for information purposes per Reference 2.

Consistent with discussions held between GNF and the NRC in 6/2005, the attached LTR is being submitted for approval to eliminate the densification testing on a routine basis. Densification will continue to be evaluated on a qualification basis at such times when changes to the manufacturing process or raw materials may effect densification of the pellets. GNF plans to evaluate alternate methods to determine the densification of the pellets to replace the current test method, i.e., 1700 °C for 24 hours.

After NRC review and approval, GNF plans to implement the changes to the densification sampling at the earliest possible opportunity. The NRC recently approved an updated GNF methodology for assessing cladding creep collapse in BWR reactors (Reference 3). Due to the similar and related rationale, which supported the changes to the cladding creep collapse analysis, GNF requests approval of this transmittal by March 31, 2006.

*Add: F. AKstulewicz  
J. Wermiel  
w/ CD-Prop Version*

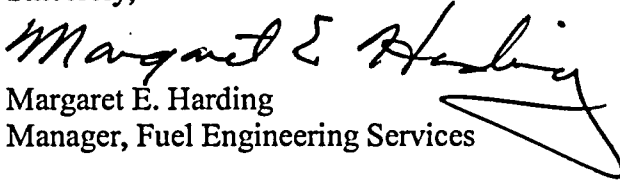
T007

Document Control Desk  
October 3, 2005  
Page 2

Please note that Enclosure 2 contains information that has been handled and classified as proprietary to GNF as indicated in the attached affidavit (Enclosure 1). GNF hereby requests that the information of Enclosure 2 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17.

If you have any questions, please call me at 910-675-5762 or Brett Schulz at 910-675-6466.

Sincerely,

  
Margaret E. Harding  
Manager, Fuel Engineering Services

cc: F. Akstulewicz (NRC)  
J. Wermiel (NRC)  
J. F. Klapproth (GE)

**Affidavit**

**I, Margaret E. Harding, state as follows:**

- (1) I am Manager, Fuel Engineering Services, Global Nuclear Fuel – Americas, L.L.C. (“GNF-A”) 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, “Densification Testing,” NEDE33214P, FLN-2005-022, dated September, 19 2005. GNF proprietary information is indicated by enclosing it in double brackets. 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, GNF-A 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 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 GNF-A’s competitors without license from GNF-A 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 GNF-A, its customers, or its suppliers;
  - d. Information which reveals aspects of past, present, or future GNF-A customer-funded development plans and programs, of potential commercial value to GNF-A;
  - 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 paragraphs (4)a. and (4)b., above.

- (5) To address the 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 GNF-A, 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 GNF-A, 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, or subject to the terms under which it was licensed to GNF-A. Access to such documents within GNF-A 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 GNF-A 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 GNF-A's fuel design and licensing methodology.

The development of the methods used in these analyses, along with the testing, development and approval of the supporting methodology was achieved at a significant cost, on the order of several million dollars, to GNF-A or its licensor.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GNF-A's competitive position and foreclose or reduce the availability of profit-making opportunities. The fuel design and licensing methodology is part of GNF-A'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 GNF-A or its licensor.

Affidavit

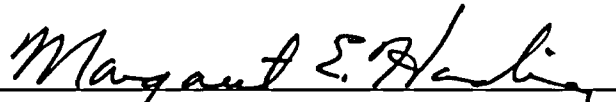
The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GNF-A's competitive advantage will be lost if its competitors are able to use the results of the GNF-A 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 GNF-A 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 GNF-A 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 at Wilmington, North Carolina, this 3rd day of October, 2005.

  
\_\_\_\_\_  
Margaret E. Harding  
Global Nuclear Fuel – Americas, LLC