



Regulatory Affairs

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January 10, 2018

Docket Nos.: 50-321

NL-18-0026

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

Edwin I. Hatch Nuclear Plant – Unit 1  
Information Reports for Lead Test Assemblies

Ladies and Gentlemen:

These information reports communicate Southern Nuclear Operating Company (SNC) plans to load eight (8) Lead Test Assemblies (LTAs) as part of the Edwin I. Hatch Nuclear Plant, Unit 1 (HNP-1) Reload 28 Cycle 29 during the 2018 refueling outage. Four (4) of these bundles, also referred to as Accident Tolerant Fuel (ATF) LTAs, are conventional GNF2 assemblies in which a number of fuel rods are replaced with unfueled GNF FeCrAl clad test rods. These LTAs are planned to be in operation as part of a joint program with Global Nuclear Fuel – Americas, LLC (GNF) on behalf of the United States Department of Energy's ATF program. Enclosures 1 and 2 contain a description of the GNF FeCrAl clad and the ATF LTAs, a discussion of the licensing analyses, a description of the LTA program objectives, and measurements planned for assemblies. In accordance with 10 CFR 2.390(b)(1), an affidavit attesting to the proprietary nature of the enclosed information and requesting withholding from public disclosure is included with Enclosure 1 prior to the report. Enclosure 2 is the same report with the proprietary portions removed, and is provided for public disclosure. While both versions of the report discuss the option to use either fueled or unfueled GNF FeCrAl clad test rods, SNC, as stated above, has elected to only use the unfueled version of the test rods in HNP-1 Cycle 29.

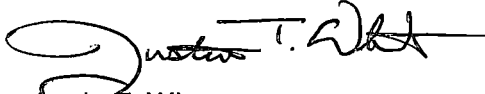
The other four (4) bundles, also referred to as Abrasion Resistant, More Oxidation Resistant (AMROR) LTAs, are conventional GNF2 assemblies in which a number of fuel rods are replaced with ARMOR coated Lead Test Rods. Enclosure 3 and 4 contain a description of the ARMOR coating and the ARMOR LTAs, a discussion of the licensing analyses, a description of the ARMOR LTA program objectives, and measurements planned for the ARMOR LTAs. In accordance with 10 CFR 2.390(b)(1), an affidavit attesting to the proprietary nature of the enclosed information and requesting withholding from public disclosure is included with Enclosure 3 prior to the report. Enclosure 4 is the same report with the proprietary portions removed, and is provided for public disclosure.

Enclosures 1 and 3 to this letter contain Proprietary Information to be withheld from public disclosure per 10 CFR 2.390. When separated from Enclosures 1 and 3 this transmittal document is decontrolled.

A001  
NRR

This letter contains no NRC commitments. If you have any questions, please contact Ken McElroy at 205.992.7369.

Respectfully submitted,



Justin T. Wheat  
Nuclear Licensing Manager

JTW/kgj/cg

Enclosures:

1. Affidavit and Proprietary Report NEDC-33884P, Revision 0, GNF FeCrAl ATF Lead Test Assembly
2. Non-Proprietary Report NEDC-33884, Revision 0, GNF FeCrAl ATF Lead Test Assembly
3. Affidavit and Proprietary Report NEDC-33883P, Revision 0, GNF ARMOR Lead Test Assembly
4. Non-Proprietary Report NEDC-33883, Revision 0, GNF ARMOR Lead Test Assembly

Cc: Regional Administrator, Region II  
NRR Project Manager – Hatch  
Senior Resident Inspector – Hatch  
RTYPE: CHA02.004

Enclosures 1 and 3 to this letter contain Proprietary Information to be withheld from public disclosure per 10 CFR 2.390. When separated from Enclosures 1 and 3 this transmittal document is decontrolled.

## Global Nuclear Fuel – Americas

### AFFIDAVIT

I, **Brian R. Moore**, state as follows:

- (1) I am the General Manager, Core & Fuel Engineering, Global Nuclear Fuel – Americas, LLC (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 GNF-A proprietary report NEDC-33884P Revision 0, “GNF FeCrAl ATF Lead Test Assembly for Edwin I. Hatch Nuclear Plant, Unit 1,” October 2017. GNF-A proprietary information in NEDC-33884P Revision 0, “GNF FeCrAl ATF Lead Test Assembly for Edwin I. Hatch Nuclear Plant, Unit 1” within the text and tables is identified by a dotted underline inside double square brackets. [[This sentence is an example.<sup>{3}</sup>]] Figures and large objects containing GNF proprietary information are identified with double square brackets before and after the object. In all cases, 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” (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, 975 F2d 871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704 F2d 1280 (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 aspects of past, present, or future GNF-A customer-funded development plans and programs, resulting in potential products to GNF-A;

- 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 GNF-A, 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 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. 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 GNF-A.
- (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 detailed data and results including the process and methodology for the design and application of FeCrAl cladding for GNF fuel designs. The development, evaluation, and design details of FeCrAl cladding and its application to GNF fuel designs was achieved at a significant cost to GNF-A or its licensor.

The development of FeCrAl cladding and its application to GNF fuel designs along with the interpretation and application of the analytical results is derived from an extensive experience database that constitutes a major GNF-A asset.

- (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 information 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.

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 is true and correct.

Executed on this 4th day of October 2017.

A handwritten signature in black ink, appearing to read "Brian R. Moore". The signature is fluid and cursive, with the first name "Brian" being the most prominent.

Brian R. Moore  
General Manager, Core & Fuel Engineering  
Global Nuclear Fuel - Americas, LLC  
3901 Castle Hayne Road  
Wilmington, NC 28401  
Brian.Moore@ge.com

## Global Nuclear Fuel – Americas

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I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 8th day of September 2017.



Brian R. Moore  
General Manager, Core & Fuel Engineering  
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3901 Castle Hayne Road  
Wilmington, NC 28401  
Brian.Moore@ge.com