



Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

Global Nuclear Fuel

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~~Proprietary Information Notice~~

~~This letter forwards proprietary information which is to be withheld from public disclosure in accordance with 10CFR2.390. Upon removal of Attachment 2, the balance of this letter may be made public.~~

PDO 14-024

September 17, 2014

Huda Akhavannik
Division of Spent Fuel Storage and Transportation
Office of Nuclear Materials Safety & Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: RAJ-II Engineering Data Correction

References: (1) Model RAJ-II- Certification Number 9309 Rev. 9, Docket Number 71-9309, Package Identification USA/9309/B(U)F-96
(2) NRC/GNF-A Meeting, 5/28/14
(3) NRC/GNF-A Meeting, 7/9/14
(4) GNF Request for Renewal of RAJ-II Package CoC, SAR Revision 7.1, 7/11/14
(5) GNF Request for Letter Authorization to Use the RAJ-II Package, 7/30/14
(6) GNF Submittal of LS Dyna Output Files, 8/7/14

An error was identified in Table 6-3 of Attachment 2 of the letter authorization request GNF submitted to the NRC on July 30, 2014, in support of shipment of GNF3 LUA using the RAJ-II shipping container. The alumina silicate thermal insulator material composition used as input to the 7/30 criticality analyses was inconsistent with those described in the RAJ-II SAR Table 6-8, Rev 7.1. This is an input error in the analysis and does not represent a change in the packaging. The SAR describes the thermal insulator composition as 49% Alumina and 51% Silicate. In the GNF3 LUA submittal 63% Alumina and 37% Silicate was used in the analysis input. Note that the atomic number densities reported in table 6-3 of the GNF3 submittal is consistent with the analysis inputs (63/37).

A subset of revised limiting cases show that when using a split of 49/51, it produces results that are within the statistical uncertainty of the current k-effective results reported in the 7/30 submittal. This is because the thermal insulator materials have low neutron cross-sections and low mass density (0.25 g/cm³) relative to other materials. Therefore, this error would not impact the conclusions of the criticality analysis.

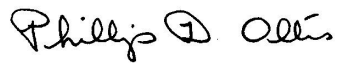
Attachment 2 provides the justification that use of a 63% Alumina and 37% Silicate in the criticality analysis does not change the conclusions stated in the 7/30 submittal.

Attachment 3 provides the corrected information and will replace pages 43 and 44 of the July submittal. It revises the alumina silicate weight percentage in Table 6-3 (first column) to 63% Alumina and 37% Silicate to be consistent with the analysis inputs. A footnote was added to explain this difference.

Representative KENO input and output files containing results using 49% Alumina and 51% Silicate to substantiate the result will be sent to you for review.

This letter forwards proprietary information in accordance with 10 CFR 2.390 and is to be withheld from public disclosure. This cover letter may be made public.

Please contact Scott Murray at (910) 819-5950 or me at (910) 819-6301 if you have any questions or would like to discuss the matter further.



Phillip D. Ollis
Facility Licensing

Commitments: None

Attachment(s): 1. Affidavit
2. Engineering Justification
3. Corrected Pages
4. Input/Output Files (To be provided under separate enclosure)

Cc: None

AFFIDAVIT

I, **Phillip D. Ollis**, state as follows:

- (1) I am the Licensing Engineer, Facility Licensing, of Global Nuclear Fuel – Americas, LLC (GNF-A), and have been delegated the function by GNF-A and GE Hitachi Nuclear Energy, LLC (GEH) 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 attached to GNF-A’s letter number 14-024, Phillip Ollis to Huda Akhavannik entitled “RAJ-II Engineering Data Correction.” GNF-A or GEH proprietary information is contained in the attachments and is identified by “GNF Proprietary Information - Withhold Pursuant to 10 CFR 2.390” or “GEH Proprietary Information - Withhold Pursuant to 10 CFR 2.390.”
- (3) In making this application for withholding of proprietary information of which it is the owner or licensee, GNF-A/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 qualifies 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) The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs (4)a. and (4)b. Some examples of categories of information that 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 or GEH’s competitors without license from GNF-A/GEH constitutes a competitive economic advantage over GNF-A/GEH and/or other companies.
 - b. Information that, if used by a competitor, would reduce their expenditure of resources or improve their competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product.
- (5) To address 10 CFR 2.390(b)(4), the information sought to be withheld is being submitted to the NRC in confidence. The information is of a sort customarily held in confidence by GNF-A/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 GNF-A/GEH, not been disclosed publicly, and not been made available in public sources. All disclosures to third parties, including any required transmittals to the NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary and/or confidentiality agreements that provide for maintaining the information in confidence. The initial designation of this information as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure are as set forth in the following paragraphs (6) and (7).
- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, who is the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge, or who is the person most likely to be subject to the terms under which it was licensed to GNF-A/GEH. Access to such documents within GNF-A/GEH is limited to 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 GNF-A and 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 and/or confidentiality agreements.

- (8) The information identified in paragraph (2) above is classified as proprietary because it contains details of GNF-A's/GEH's processes, design and manufacturing facilities.
- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GNF-A's/GEH's competitive position and foreclose or reduce the availability of profit-making opportunities. The facility design and licensing methodology is part of GNF-A's/GEH's comprehensive 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/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. GNF-A's/GEH's competitive advantage will be lost if its competitors are able to use the results of the GNF-A/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 GNF-A/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 GNF-A/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 is true and correct.

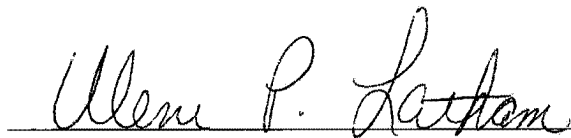
Executed on this 17th day of September, 2014.



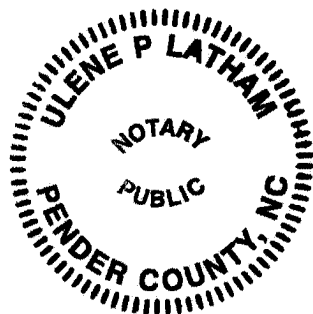
Phillip D. Ollis
Global Nuclear Fuel - Americas LLC

STATE OF NORTH CAROLINA)
)
COUNTY OF NEW HANOVER)

Subscribed and sworn to me, a Notary Public, in and for the State of North Carolina, this 17th day of September, 2014.



Notary Public in and for the
State of North Carolina



My Commission Expires: June 23, 2018