



**Global Nuclear Fuel**

A Joint Venture of GE, Toshiba, & Hitachi

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**Proprietary Notice**

This letter transmits proprietary information in accordance with 10 CFR 2.390. Upon removal of Enclosure 1, the balance of the letter may be considered non-proprietary.

MFN 16-011  
March 2, 2016

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

**Subject: Amendment 42 to GESTAR II Supporting the Transition from the 3D-MONICORE Core Monitoring System to ACUMEN**

Global Nuclear Fuel - Americas (GNF-A) is in the process of updating its core monitoring system for compatibility with Windows-based computer platforms and operating systems, and to streamline the cybersecurity aspects of core monitoring. Further, the user interface is being improved to be consistent with modern functionalities and expectations. As a result, GNF-A has changed the name of the updated core monitoring system from 3D-MONICORE to ACUMEN. Because the change in name is in effect a commercial decision and not a methodology change, GNF does not intend to change all of the current 3D-MONICORE citations to ACUMEN. The GESTAR II markups included are to provide clarity to this change in name.

Enclosure 1 provides additional discussion regarding the basis for the name change as well as a demonstration of the equivalence of the two systems from the standpoint of performance of the nuclear kernel. The Enclosure 1 markups are based on Revision 22 of GESTAR II. The NRC has several amendments under review at this time. The changes in this amendment do not overlap or depend on the other amendments to GESTAR II currently under review.

Two plants are planning on making the transition to the ACUMEN core monitoring system this year. In order to support that change the final safety evaluation will be needed by the end of August.

Enclosure 1 contains proprietary information of the type that GNF-A maintains in confidence and withholds from public disclosure. The affidavit contained within Enclosure 3 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to GNF-A. GNF-A 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.

If you have any questions about the information provided here, please contact me at (910) 819-6684 or Jim Harrison at (910) 620-1826.

Sincerely,

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

Brian R. Moore  
Core & Fuel Engineering Manager  
Global Nuclear Fuel – Americas, LLC

Project No. 712

**Enclosures:**

1. Supporting Discussion, Information and GESTAR II Markups – GNF Proprietary Information – Class II (Internal)
2. Supporting Discussion, Information and GESTAR II Markups - Non-Proprietary Information – Class I (Public)
3. Affidavit

cc: J Golla, US NRC  
JG Head, GEH/Wilmington  
PL Campbell, GEH/Washington  
JF Harrison, GEH/Wilmington  
PLM Specification NEDE-24011 R22.2

001 MFN 16-011 Cover Letter.pdf  
002 MFN 16-011 Enclosure 1 Proprietary.pdf  
003 MFN 16-011 Enclosure 2 Non-Proprietary.pdf  
004 MFN 16-011 Enclosure 3 Affidavit.pdf