Global Nuclear Fuel
A Joint Venture of GE, Toshiba, & Hitachi

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.

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MFN 13-008
February 13, 2013

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

Subject: Application of NSF to GNF Fuel Channel Designs, Licensing Topical Report, NEDE-33798P

GNF has been studying and testing a distortion-resistant zirconium alloy for use in BWR fuel bundle channels. This alloy, known as NSF, is a zirconium (Zr) based alloy with niobium (Nb), tin (Sn) and iron (Fe) as the primary alloying elements. The in-reactor experience to date with NSF channels indicates that NSF may eliminate the levels of channel bow causing increased friction – thus, improving safety.

GNF requests that the NRC review and approve the enclosed, Licensing Topical Report (LTR), NEDE-33798P, *Application of NSF to GNF Fuel Channel Designs*. The NSF material as applied to fuel bundle channels is new technology that will improve safety. It is anticipated that NSF channels will be implemented on all GNF fuel products lines and over time applied to the entire BWR fleet using GNF fuel. Various customers in the BWR fleet have expressed significant interest in NSF channels. Following submittal of this LTR, we expect several customers will provide docketed intent to use NSF channels as soon as the LTR is approved by the NRC. Further, several plants have immediate plans to use expanded quantities of NSF channels in lead-use programs following approval of Reference 1.

Please note that Enclosure 1 contains proprietary information of the type that GNF-A maintains in confidence and withholds from public disclosure. The affidavit contained in Enclosure 3 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to GNF-A. In addition, Enclosure 1 also contains proprietary information of the Electric Power Research Institute, Inc. (EPRI). The affidavit contained in Enclosure 4 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to EPRI. GNF-A and EPRI 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) 819-5954 or Jim Harrison at (910) 819-6604.

Sincerely,

Andrew A. Lingenfelter
Vice President, Fuel Engineering
Global Nuclear Fuel – Americas, LLC

Project No. 712

References

1. Letter from A.A. Lingenfelter (GNF) to Document Control Desk (US NRC), Subject: Enhanced Lead Use Channel (LUC) Program for NSF Fuel Bundle Channels, MFN 12-074, September 25, 2012.

Enclosures

1. Application of NSF to GNF Fuel Channel Designs, NEDE-33798P – GNF-A Proprietary Information – Class III (Confidential)
2. Application of NSF to GNF Fuel Channel Designs, NEDO-33798 – Non-Proprietary Information – Class I (Public)
3. GNF-A Affidavit
4. EPRI Affidavit

cc: SS Philpott, USNRC
PL Campbell, GEH/Washington
JG Head, GEH/Wilmington
JF Harrison, GEH/Wilmington
eDRF Section 0000-0156-1567 R3

Document Components:

001 MFN 13-008 Cover Letter.pdf
002 MFN 13-008 Enclosure 1 Proprietary.pdf
003 MFN 13-008 Enclosure 2 Non-Proprietary.pdf
004 MFN 13-008 Enclosure 3 Affidavit.pdf
005 MFN 13-008 Enclosure 4 EPRI Affidavit.pdf