

January 22, 2010

Mr. Andrew A. Lingenfelter
Vice President, Fuel Engineering
Global Nuclear Fuel–Americas, LLC
P.O. Box 780, M/C A-55
Wilmington, NC 28401

SUBJECT: FINAL SAFETY EVALUATION FOR GLOBAL NUCLEAR FUEL – AMERICAS
TOPICAL REPORTS NEDC-33256P, NEDC-33257P, AND NEDC-33258P, “THE
PRIME MODEL FOR ANALYSIS OF FUEL ROD THERMAL-MECHANICAL
PERFORMANCE” (TAC NO. MD4114)

Dear Mr. Lingenfelter:

By letter dated January 19, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML070250417), Global Nuclear Fuel – Americas, LLC (GNF) submitted Topical Reports (TRs) NEDC-33256P, NEDC-33257P, and NEDC-33258P, “The PRIME Model for Analysis of Fuel Rod Thermal-Mechanical Performance” to the U.S. Nuclear Regulatory Commission (NRC) staff. By letter dated December 24, 2009, an NRC draft safety evaluation (SE) regarding our approval of NEDC-33256P, NEDC-33257P, and NEDC-33258P was provided for your review and comment. By letter dated January 8, 2010, GNF commented on the draft SE. The NRC staff’s disposition of GNF’s comments on the draft SE are discussed in the attachment to the final SE enclosed with this letter.

The NRC staff has found that NEDC-33256P, NEDC-33257P, and NEDC-33258P are acceptable for referencing in licensing applications for GNF-designed fuel for boiling water reactors to the extent specified and under the limitations delineated in the TRs and in the enclosed final SE. The final SE defines the basis for our acceptance of the TRs.

Our acceptance applies only to material provided in the subject TRs. We do not intend to repeat our review of the acceptable material described in the TRs. When the TRs appear as references in license applications, our review will ensure that the material presented applies to the specific plant involved. License amendment requests that deviate from these TRs will be subject to a plant-specific review in accordance with applicable review standards.

In accordance with the guidance provided on the NRC website, we request that GNF publish accepted proprietary and non-proprietary versions of these TRs within three months of receipt of this letter. The accepted versions shall incorporate this letter and the enclosed final SE after the title page. Also, they must contain historical review information, including NRC requests for additional information and your responses. The accepted versions shall include an “-A” (designating accepted) following the TR identification symbol.

As an alternative to including the RAIs and RAI responses behind the title page, if changes to the TRs were provided to the NRC staff to support the resolution of RAI responses, and the NRC staff reviewed and approved those changes as described in the RAI responses, there are two ways that the accepted version can capture the RAIs:

A. Lingenfelter

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1. The RAIs and RAI responses can be included as an Appendix to the accepted version.
2. The RAIs and RAI responses can be captured in the form of a table (inserted after the final SE) which summarizes the changes as shown in the approved version of the TRs. The table should reference the specific RAIs and RAI responses which resulted in any changes, as shown in the accepted version of the TRs.

If future changes to the NRC's regulatory requirements affect the acceptability of these TRs, GNF and/or licensees referencing them will be expected to revise the TRs appropriately, or justify their continued applicability for subsequent referencing.

Sincerely,

/RA/

Thomas B. Blount, Deputy Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Project No. 712

Enclosures:

1. Proprietary version of the Final SE
2. Proprietary Technical Evaluation Report (TER) - Pacific Northwest National Laboratory (PNNL)
3. Non-proprietary version of the Final SE

cc w/encl 3 only: See next page

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Sincerely,

/RA/

Thomas B. Blount, Deputy Director
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ADAMS ACCESSION NOs.:

PUBLIC documents:

Package ML100210284
 Cover Letter ML100190258
 Final SE (non-proprietary version) ML100150653
 Attachment (comment resolution table) (non-proprietary version) ML100150681

NON-PUBLIC documents:

Final SE (proprietary version) ML100150650
 PNNL TER (proprietary) ML093560460
 Attachment (comment resolution table) (proprietary version) ML100150675

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