Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

Andy Lingenfelter
Vice President, Fuel Engineering
Global Nuclear Fuel – Americas, LLC
Castle Hayne Road, Wilmington, NC 28401
(910) 819-5954 Fax: (949) 221 6961
Andy.Lingenfelter@gnf.com

MFN 11-213 Sup 1

March 15, 2012

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

Subject: **Revised Word Usage on Pg US-44 of US Supplement to GESTAR II in Administrative Amendment 35 Submittal**

Per discussions with Mr. Stephen Philpott, we have made two changes to GESTAR II Amendment 35 proposed in Reference 1. These two word usage changes improve the clarity of the statements in the US Supplement on Pg US-44. There are no other changes to the submittal and only Pg US-44 is included in 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 AA Lingenfelter (GNF) to Document Control Desk (US NRC), Subject: Administrative Amendment 35 to GESTAR II to Implement the Referencing of NEDC-33173 Supplements 2P-A and 3P-A and NEDO-33173 Supplement 4-A, September 23, 2011, MFN 11-213.

Enclosure

1. Markup of GESTAR II US Supplement Pg US-44 – Non-Proprietary Information – Class I (Public)

cc: SS Philpott, USNRC
PL Campbell, GEH/Washington
JG Head, GEH/Wilmington
JF Harrison, GEH/Wilmington
eDRF Section 0000-0137-6356 R2

ENCLOSURE 1

MFN 11-213

Markup of GESTAR II US Supplement Pg US-44

Non-Proprietary Information – Class I (Public)

S.5.2 Operating Flexibility Options

The following operating flexibility options have been developed for BWRs:

(1) Single–Loop Operation.

(2) Load Line Limit.

(3) Extended Load Line Limit.

(4) Increased Core Flow.

(5) Feedwater Temperature Reduction.

(6) ARTS Program (BWR/3–5).

(7) Maximum Extended Operating Domain for BWR/6 and Maximum Extended Load Line Limit Analysis for BWR/3–5.

(8) Turbine Bypass Out of Service.

(9) Safety/Relief Valves Out of Service.

(10) ADS Valve Out of Service.

(11) End–of–Cycle Recirculation Pump Trip Out of Service.

(12) Main Steam Isolation Valves Out of Service.

(13) Maximum Extended Load Line Limit Analysis Plus.

Figure S-5 provides a general illustration of the history of power-flow domain changes.

The supplemental reload licensing report indicates if an option has been chosen.

Some plants referencing GESTAR II as the applied reload methodology may include the GE Licensing Topical Report, Applicability of GE Methods to Expanded Operating Domains (Reference S-101), as part of their licensing basis. For such a plant, the limitations, conditions, and requirements of Reference S-101 are included in the analysis and licensing basis for the reload. **The applicability of Reference S-101 has been expanded to include GNF2 fuel by Reference S-108. Reference S-101 has been updated to NEDC-33173P-A Revision 2 reflecting NRC approval of Supplement 2 (Reference S-109). This approval allows a reduction of the additional margin applied to the Safety Limit Minimum Critical Power Ratio (SLMCPR) in Revision 1. The limitations and conditions included in the NRC Safety Evaluation in Reference S-101 modify the SLMCPR margin to be applied to plants referencing NEDC-33173P, Applicability of GE Methods to Expanded Operating Domains (Reference S-101), as part of their licensing basis. The plan for the implementation of PRIME in downstream methods has been reviewed and approved by the NRC (Reference S-110).**

S.5.2.1 Single–Loop Operation

Technical Specifications for a plant without a Single–Loop Operation (SLO) analysis do not allow operation beyond a relatively short period of time if an idle recirculation loop cannot be