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GE Hitachi Nuclear Energy

Proprietary Notice

This letter transmits proprietary information in accordance with 10CFR2.390. Upon the removal of Enclosure 1, the balance of the letter may be considered non-proprietary.

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MFN 10-119
April 5, 2010

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

Subject: Supplement 1 to NEDC-33173P, "Void Fraction Uncertainty Based on 10x10 Fuel Pressure Drop Data"

In Reference 1, GE-Hitachi (GEH) committed to provide a report of GE14 pressure drop data and an analysis of this data relating to void fraction uncertainty. Subsequently, the NRC issued its Safety Evaluation (SE) (Reference 2) for the Licensing Topical Report (LTR), NEDC-33173P. The SE for NEDC-33173P contains a limitation that requires an additional 0.01 to be added to the operating limit minimum critical power ratio (OLMCPR) until such time as the NRC staff reviews and approves a void-quality correlation supplement or revision to NEDC-33173P.

Supplement 1 to NEDC-33173P provides an assessment of the void-quality correlation applied to fuel designs operating at original licensed thermal power, as well as fuel operated at EPU and MELLLA+ power-flow conditions. The supplement includes additional comparisons to measured data to qualify the performance of the correlation and the associated uncertainties. Therefore, GEH requests that the NRC review and approve the enclosed report and supplement the SE associated with NEDC-33173P to remove the additional 0.01 margin applied to the OLMCPR.

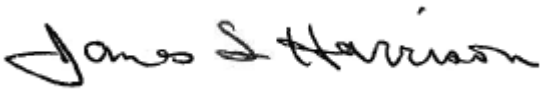
Supplement 1 is complementary to the Supplement 2 submittal (Reference 3), which was submitted August 14, 2009. Supplement 2 presents a three-part supplement to NEDC-33173P documenting the analysis of bundle and pin-by-pin gamma scans. The analysis presented in the three-part Supplement 2 supports the original uncertainties used in GEH methods.

In accordance with Reference 4, GEH requests that the NRC review be completed within 12 months following the receipt of this submittal. This supplement is applicable to all plants referencing NEDC-33173P in an EPU or MELLLA+ license amendment request or that currently have NEDC-33173P as part of their licensing basis.

Enclosure 1 contains proprietary information of the type that GEH maintains in confidence and withholds from public disclosure. The information has been handled and classified as proprietary to GEH as indicated in the affidavit. The affidavit contained in Enclosure 3, a copy of which is provided in the proprietary version of the report, identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to GEH. GEH 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, please contact me or Brian Moore at 910-819-6684.

Sincerely,



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Regulatory Affairs
GE Hitachi Nuclear Energy

Project No. 710

References:

1. Letter from R.E. Brown (GEH) to Document Control Desk (NRC), Subject: Commitment to Update GE's Void Fraction Data, MFN 06-435, November 3, 2006.
2. Letter from TB Blount, (NRC) to JG Head (GEH), Subject: Final Safety Evaluation for GE Hitachi Nuclear Energy Americas, LLC Licensing Topical Report NEDC-33173P, "Applicability Of GE Methods To Expanded Operating Domains" (TAC No. MD0277), July 21, 2009.
3. Letter from J.F. Harrison (GEH) to Document Control Desk (NRC), Subject: NEDC-33173P, Revision 2 and Supplement 2, Parts 1-3 – Analysis of Gamma Scan Data and Removal of Safety Limit Critical Power Ratio (SLMCPR) Margin, MFN 09-552, August 14, 2009.
4. Letter from H.N. Berkow (NRC) to J.F. Klapproth (GE), Subject: Implementation of a Revised Review Process for Topical Reports, October 21, 2003.

Enclosures:

1. Void Fraction Uncertainty Based on 10x10 Fuel Pressure Drop Data, NEDC-33173P Supplement 1, Revision 0, April 2010 – GEH Proprietary Information
2. Void Fraction Uncertainty Based on 10x10 Fuel Pressure Drop Data, NEDO-33173 Supplement 1, Revision 0, April 2010 –Non-Proprietary Information
3. Affidavit

cc: SS Philpott, NRC
JG Head, GEH Wilmington
PL Campbell, GEH Washington
JS Bowman, GEH/Wilmington
AA Lingenfelter, GNF/ Wilmington
JGM Andersen, GNF/ Wilmington
PT Tran, GEH/Vallecitos
eDRF Section 0000-0115-3575 R0

Document Components:
001 MFN 10-119 Cover Letter.pdf
002 MFN 10-119 Enclosure 1 Proprietary.pdf
003 MFN 10-119 Enclosure 2 Non-Proprietary.pdf
004 MFN 10-119 Enclosure 3 Affidavit.pdf