

July 27, 2010

Mr. Jerald G. Head
Senior Vice President, Regulatory Affairs
GE-Hitachi Nuclear Energy Americas LLC
P.O. Box 780, M/C A-18
Wilmington, NC 28401-0780

SUBJECT: BOILING WATER REACTOR OPERATING FLEET – EXTENDED POWER
UPRATE TECHNICAL BASIS FOR THE REQUIREMENT OF A MINIMUM
ALTERNATING STRESS RATIO OF 2.0

Dear Mr. Head:

By letter dated February 22, 2010, GE-Hitachi Nuclear Energy Americas LLC (GEH) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) to determine whether a minimum alternating stress ratio of 2.0 was applicable to GEH's Plant Based Load Evaluation (PBLE) process, and if so, to provide the technical basis for this requirement. The NRC staff has determined that this requirement does apply to GEH's PBLE process. The enclosure to this letter contains the NRC staff's technical basis for the requirement of a minimum alternating stress ratio of 2.0 for steam dryer stresses caused by flow induced vibration in boiling water reactor plants operating at extended power uprate conditions when the steam dryer loading is indirectly determined from the main steam line data.

If you have questions regarding this matter, please contact me at (301) 415-2365.

Sincerely,

/RA/

Stephen S. Philpott, Project Manager
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Project No. 710

Enclosures:

1. Basis for Minimum Alternating Stress Ratio (proprietary version)
2. Basis for Minimum Alternating Stress Ratio (non-proprietary version)

cc w/encl 2 only: See next page

Enclosure 1 transmitted herewith contains proprietary information. When separated from Enclosure 1, this document is decontrolled.
--

OFFICIAL USE ONLY – PROPRIETARY INFORMATION

Mr. Jerald G. Head
Senior Vice President, Regulatory Affairs
GE-Hitachi Nuclear Energy Americas LLC
P.O. Box 780, M/C A-18
Wilmington, NC 28401-0780

SUBJECT: BOILING WATER REACTOR OPERATING FLEET – EXTENDED POWER
UPRATE TECHNICAL BASIS FOR THE REQUIREMENT OF A MINIMUM
ALTERNATING STRESS RATIO OF 2.0

Dear Mr. Head:

By letter dated February 22, 2010, GE-Hitachi Nuclear Energy Americas LLC (GEH) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) to determine whether a minimum alternating stress ratio of 2.0 was applicable to GEH's Plant Based Load Evaluation (PBLE) process, and if so, to provide the technical basis for this requirement. The NRC staff has determined that this requirement does apply to GEH's PBLE process. The enclosure to this letter contains the NRC staff's technical basis for the requirement of a minimum alternating stress ratio of 2.0 for steam dryer stresses caused by flow induced vibration in boiling water reactor plants operating at extended power uprate conditions when the steam dryer loading is indirectly determined from the main steam line data.

If you have questions regarding this matter, please contact me at (301) 415-2365.

Sincerely,
/RA/
Stephen S. Philpott, Project Manager
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Project No. 710

Enclosures:

1. Basis for Minimum Alternating Stress Ratio (proprietary version)
2. Basis for Minimum Alternating Stress Ratio (non-proprietary version)

cc w/encl 2 only: See next page

Enclosure 1 transmitted herewith contains proprietary information. When separated from Enclosure 1, this document is decontrolled.

DISTRIBUTION:

PUBLIC RidsNrrDprPlpb RidsNrrDeEmcb JJolicoeur
PLPB Reading File RidsNrrLAEHylton RidsOgcMailCenter
RidsNrrDpr RidsNrrDe CBasavaraju

ADAMS ACCESSION NO.:

Package: ML101960490 Letter: ML101960147 Enclosure 1 (proprietary version): ML101960459
Enclosure 2 (non-proprietary version): ML101960480

NRR-106

OFFICE	PLPB/PM	PLPB/LA	EMCB/BC	PLPB/PM
NAME	SPhilpott	EHylton	MKhanna	SPhilpott
DATE	7/22/10	7/22/10	7/25/10	7/27/10

OFFICIAL RECORD COPY

GE-Hitachi Nuclear Energy Americas

Project No. 710

cc:

Mr. James F. Harrison
GE-Hitachi Nuclear Energy Americas LLC
Vice President - Fuel Licensing
P.O. Box 780, M/C A-55
Wilmington, NC 28401-0780
james.harrison@ge.com

Ms. Patricia L. Campbell
Vice President, Washington Regulatory Affairs
GE-Hitachi Nuclear Energy Americas LLC
1299 Pennsylvania Avenue, NW
9th Floor
Washington, DC 20004
patriciaL.campbell@ge.com

Mr. Andrew A. Lingenfelter
Vice President, Fuel Engineering
Global Nuclear Fuel–Americas, LLC
P.O. Box 780, M/C A-55
Wilmington, NC 28401-0780
Andy.Lingenfelter@gnf.com

Edward D. Schrull
GE-Hitachi Nuclear Energy Americas LLC
Vice President - Services Licensing
P.O. Box 780, M/C A-51
Wilmington, NC 28401-0780
Edward.schrull@ge.com

Mr. Richard E. Kingston
GE-Hitachi Nuclear Energy Americas LLC
Vice President, ESBWR Licensing
PO Box 780, M/C A-65
Wilmington, NC 28401-0780
rick.kingston@ge.com