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Proprietary Notice
This letter forwards proprietary information in accordance with 10 CFR 2.390. Upon the removal of Enclosures 1 and 2, the balance of this letter may be considered non-proprietary.

MFN 09-714

Docket No. 52-010

December 2, 2009

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

Subject: **Submittal of Response to Portion of NRC Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6 - RAI Number 18.11-26 S02**

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (GEH) response to a portion of the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) Letter No. 380, dated October 28, 2009 (Reference 1).

Enclosure 1 provides the proprietary GEH response to the subject RAI as requested in Reference 1. Enclosure 2 provides the associated proprietary document markups. Verified LTR changes associated with this RAI response are identified in the enclosed markups by enclosing the text within a black box.

Enclosures 1 and 2 contain GE Hitachi Nuclear Energy (GEH) proprietary information as defined by 10 CFR 2.390. GEH customarily maintains this information in confidence and withholds it from public disclosure. A Non-proprietary version of Enclosure 1 is provided in Enclosure 3. GEH has not submitted a non-proprietary version of Enclosure 2 in accordance with NRC Information Notice 2009-07, Requirements for Submittals, (2): "In instances in which a non-proprietary version would be of no value to the public because of the extent of the proprietary information, the agency does not expect a non-proprietary version to be submitted."

The affidavit contained in Enclosure 4 identifies that the information contained in Enclosures 1 and 2 has been handled and classified as proprietary to GEH. GEH hereby requests that the information of Enclosures 1 and 2 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17.

D068
NRO

If you have any questions or require additional information, please contact me.

Sincerely,

Richard E Kingston

Richard E. Kingston
Vice President, ESBWR Licensing

References:

1. MFN 09-684 - Letter from U.S. Nuclear Regulatory Commission to Jerald G. Head, *Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6*, dated October 28, 2009

Enclosures:

1. MFN 09-714 - Response to Portion of NRC Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6 - RAI Number 18.11-26 S02 – Proprietary Version
2. MFN 09-714 - Markups for Response to Portion of NRC Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6 - RAI Number 18.11-26 S02 – Proprietary Version
3. MFN 09-714 - Response to Portion of NRC Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6 - RAI Number 18.11-26 S02 – Non-Proprietary Version
4. Affidavit – Larry J. Tucker, dated December 2, 2009

cc:		
	AE Cubbage	USNRC (with enclosure)
	RG Head	GEH/Wilmington (with enclosure)
	DH Hinds	GEH/Wilmington (with enclosure)
	DF Taylor	GEH/Wilmington (with enclosure)
	eDRF Section	0000-0110-0712 (RAI 18.11-26 S02)

Enclosure 1

MFN 09-714

Response to Portion of NRC Request for

Additional Information Letter No. 380

Related to Design Control Document (DCD) Revision 6

RAI Number 18.11-26 S02

Proprietary Version

PROPRIETARY INFORMATION NOTICE

This enclosure contains GE Hitachi Nuclear Energy (GEH) proprietary information and is furnished in confidence solely for the purpose(s) stated in the transmittal letter. No other use, direct or indirect, of the document or the information it contains is authorized. Furnishing this enclosure does not convey any license, express or implied, to use any patented invention or, except as specified above, any proprietary information of GEH disclosed herein or any right to publish or make copies of the enclosure without prior written permission of GEH. The proprietary information is identified by a dotted underline inside double square brackets. [[This sentence is an example. {3}]]. Figures and large equation objects are enclosed in double square brackets. The superscript notation {3} refers to Paragraph (3) of the enclosed affidavit, which provides the basis for the proprietary determination.

NRC RAI 18.11-26 S02

1. GEH has modified NEDE-33276P, Section 5.4.4.1, Plant-Core Thermal-Hydraulic Condition, to include [[tech spec safety limits{3}]] as performance measures. [[Tech spec safety limits{3}]] are identified as supplemental measures and not as pass/fail criteria. It is the staff's position that [[tech spec safety limits{3}]] should be included as pass/fail criteria since they define important parameters for defining the safety of plant operations. Please include or explain why [[tech spec safety limits{3}]] should be supplemental measures.

2. With respect to criteria for situation assessment, MFN 09-418 indicated that:

[[Acceptance criteria will be 70/80/90% correct. For this scoring strategy, situational awareness is acceptable at a passing rate of 90% for critical tasks, 80% for non-critical tasks, and 70% for administrative tasks. These values were derived from the 80% pass rate for operator licensing and the increase of criteria for critical tasks and reduction for administrative tasks. These criteria will be applied to the average scores of a group of operators for the task(s) comprising the measurement.{3}]]

While this is an acceptable response the information was not included in the NEDE. Please include or explain why this information is should not be included in the NEDE.

GEH Response

1. GEH added the following statement to paragraph 5.4.4.1 of NEDE-33276P Revision 3 to consolidate the statements concerning acceptance criteria into section 5.4.4 Performance Measures:

   [[Plant operational limits including technical specifications, safety limits, limiting conditions of operations and other regulatory requirements established in the event guide for the scenario serve as plant supplemental measures.{3}]]

   GEH agrees that [[tech spec safety limits{3}]] should not be treated as supplemental measures. GEH will add a new criterion in the [[Personnel Task Assessment{3}]] to address [[crew performance to plant operational limits{3}]].

   Applicable [[technical specifications and other operational limits{3}]] for the scenario are identified as performance objectives in paragraph 5.4.3.5 and recorded in the scenario event guide. In the event the scenario is designed to [[exceed operational, tech spec, or safety limits{3}]], this will be noted in the scenario event guide so that analyst will not consider its occurrence as a violation.

In the scenario run, analysts observe the performance of the crew using the criteria in the [[Personnel Task Assessment. The goal of the Personnel Task Assessment is to ensure that the integrated design elements support task performance for the tasks identified in the scenario development.{3}]]
In the case of [[a tech spec safety limit violation, the analysts would be alerted to the performance objective through the event guide, observe the failure, and then apply the following criteria added to the Personnel Task Assessment:

- Did the crew recognize and maintain plant operational limits (with exception for when operational, tech spec, or safety limits are exceeded as an objective of the pre-planned scenario)
  - 3 = The crew recognized and maintained all plant operational limits
  - 2* = The crew missed or exceeded one or more operational limits but did not exceed a tech spec safety limit
  - 1 = The crew exceeded one or more tech spec safety limits.

For the violation of a tech spec safety limit, the performance rating would fall into category 1 causing a failure in the team's performance of the scenario.{3}]]

2. The paragraph clarifying the acceptance criteria for situation awareness will be added to section 5.4.4.5.2.

DCD Impact

No DCD changes will be made in response to this RAI.

LTR NEDE-33276P Rev 3 will be revised as noted in the attached markups.

Enclosure 3

MFN 09-714

Response to Portion of NRC Request for

Additional Information Letter No. 380

Related to Design Control Document (DCD) Revision 6

RAI Number 18.11-26 S02

Non-Proprietary Version

NRC RAI 18.11-26 S02

1. GEH has modified NEDE-33276P, Section 5.4.4.1, Plant-Core Thermal-Hydraulic Condition, to include [[ ]] *as performance measures.* [[ ]] *are identified as supplemental measures and not as pass/fail criteria. It is the staff's position that* [[ ]] *should be included as pass/fail criteria since they define important parameters for defining the safety of plant operations. Please include or explain why* [[ ]] *should be supplemental measures.*

2. With respect to criteria for situation assessment, MFN 09-418 indicated that:

[[

]]

While this is an acceptable response the information was not included in the NEDE. Please include or explain why this information is should not be included in the NEDE.

GEH Response

1. GEH added the following statement to paragraph 5.4.4.1 of NEDE-33276P Revision 3 to consolidate the statements concerning acceptance criteria into section 5.4.4 Performance Measures:

[[

]]

GEH agrees that [[ ]] should not be treated as supplemental measures. GEH will add a new criterion in the [[ ]] to address [[ ]].

Applicable [[ ]] for the scenario are identified as performance objectives in paragraph 5.4.3.5 and recorded in the scenario event guide. In the event the scenario is designed to [[ ]], this will be noted in the scenario event guide so that analyst will not consider its occurrence as a violation.

In the scenario run, analysts observe the performance of the crew using the criteria in the [[

]]

In the case of [[

-
  -
  -
  -

]]

2. The paragraph clarifying the acceptance criteria for situation awareness will be added to section 5.4.4.5.2.

DCD Impact

No DCD changes will be made in response to this RAI.

LTR NEDE-33276P Rev 3 will be revised as noted in the attached markups.

Enclosure 4

MFN 09-714

Affidavit

GE-Hitachi Nuclear Energy Americas LLC

AFFIDAVIT

I, Larry J. Tucker, state as follows:

(1) I am Manager, ESBWR Engineering, GE-Hitachi Nuclear Energy ("GEH") and have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.

(2) The information sought to be withheld is contained in Enclosures 1 and 2 of GEH's letter, MFN 09-714, Richard E Kingston to Nuclear Regulatory Commission, entitled S*ubmittal of Response to Portion of NRC Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6 - RAI Number 18.11-26 S02*, December 2, 2009. GEH text proprietary information in Enclosure 1, which is entitled "Response to Portion of NRC Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6 - RAI Number 18.11-26 S02 – Proprietary Version" and Enclosure 2, which is entitled "*Markups for Response to Portion of NRC Request for Additional Information Letter No. 380 Related to Design Control Document (DCD) Revision 6 - RAI Number 18.11-26 S02*", is identified by an underline inside double square brackets [[This sentence is an example.{3}]]. Figures and large equation objects containing GEH proprietary information are identified with double square brackets before and after the object. In each case, the superscript notation {3} refers to Paragraph (3) of this affidavit, which provides the basis for the proprietary determination.

(3) In making this application for withholding of proprietary information of which it is the owner or licensee, GEH relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.390(a)(4) for "trade secrets" (Exemption 4). The material for which exemption from disclosure is here sought also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).

(4) Some examples of categories of information which fit into the definition of proprietary information are:

a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by GEH's competitors without license from GEH constitutes a competitive economic advantage over other companies;

b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;

c. Information which reveals aspects of past, present, or future GEH customer-funded development plans and programs, resulting in potential products to GEH;

d. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs (4)a. and (4)b. above.

(5) To address 10 CFR 2.390(b)(4), the information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GEH, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GEH, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties, including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.

(6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge, or subject to the terms under which it was licensed to GEH. Access to such documents within GEH is limited on a "need to know" basis.

(7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist, or other equivalent authority for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GEH are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.

(8) The information identified in paragraph (2) above is classified as proprietary because it identifies details of GEH ESBWR methods, techniques, information, procedures, and assumptions related to the application of human factors engineering to the GEH ESBWR.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GEH asset.

(9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GEH's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GEH's comprehensive BWR safety and technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply

the appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical and NRC review costs comprise a substantial investment of time and money by GEH.

The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GEH's competitive advantage will be lost if its competitors are able to use the results of the GEH experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to GEH would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GEH of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing and obtaining these very valuable analytical tools.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.

Executed on this 2nd day of December, 2009.

Larry J. Tucker
GE-Hitachi Nuclear Energy Americas LLC