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

MFN 08-644

Docket No. 52-010

August 26, 2008

U.S. Nuclear Regulatory Commission

Document Control Desk
Washington, D.C. 20555-0001

Subject: Response to Portion of NRC Request for Additional Information Letter No. 106 – Related to ESBWR Design Certification Application – RAI Number 21.6-96 Supplement 1

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (GEH) response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) sent by the Reference 1 NRC letter. GEH response to RAI Number 21.6-96 Supplement 1 is addressed in Enclosures 1, 2 and 3.

Enclosure 1 contains GEH proprietary information as defined by 10 CFR 2.390. GEH customarily maintains this information in confidence and withholds it from public disclosure. Enclosure 2 is the non-proprietary version, which does not contain proprietary information and is suitable for public disclosure.

The affidavit contained in Enclosure 3 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 10 CFR 9.17.

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

Sincerely,

Richard E. Kingston
Vice President, ESBWR Licensing

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NRO

References:

1. MFN 07-497, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, GEH, *Request For Additional Information Letter No. 106 Related To ESBWR Design Certification Application*, dated September 6, 2007

Enclosures:

1. MFN 08-644 – Response to Portion of NRC Request for Additional Information Letter No. 106 – Related to ESBWR Design Certification Application – RAI Number 21.6-96 S01 – GEH Proprietary Information
2. MFN 08-644 – Response to Portion of NRC Request for Additional Information Letter No. 106 – Related to ESBWR Design Certification Application – RAI Number 21.6-96 S01 – Non-Proprietary Version
3. MFN 08-644 – Response to Portion of NRC Request for Additional Information Letter No. 106 – Related to ESBWR Design Certification Application – RAI Number 21.6-96 S01 – Affidavit

cc: AE Cubbage USNRC (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
DH Hinds GEH/Wilmington (with enclosure)
eDRF 0000-0083-3700/1

Enclosure 2

MFN 08-644

Response to Portion of NRC Request for

Additional Information Letter No. 106

Related to ESBWR Design Certification Application

RAI Number 21.6-96 S01

Non-Proprietary Version

NRC RAI 21.6-96 S01

The original RAI requested GEH about differences found in the calculated results seen in the ALPHA VMS versus PC versions of TRACG on containment peak pressure.

A. *The RAI response states that TRACG cannot accurately predict non-condensible gas distributions in general and that a conservative approach was to minimize the long-term pressure response sensitivity to non-condensible concentrations by modifying the input model nodalization to force all the air out of the drywell. This approach may not necessarily be conservative for long-term core cooling calculations where the presence of non-condensibles in the PCCS would degrade the capability of the PCCS to condense steam and return inventory back to the vessel. Provide justification that the treatment of non-condensible gases is conservative with respect to long-term core cooling analyses.*

B. *During a phone call with NRC staff on this RAI, the NRC staff expressed concern that GEH was using an unqualified code version to perform design calculations. GEH staff stated that to address the concern they would provide an appropriate sub-set of the TRACG qualification, as determined by GEH, using the PC version of the code to demonstrate that this version of the code produces reasonably accurate or conservative results. Please provide the qualification.*

GEH Response

A NC Gases and Long-term Core Cooling

For the long-term Passive Containment Cooling System (PCCS) operation, the PCCS is over capacity starting at about 3 hours (See discussion in Paragraph A5, Response to RAI 21.6-69S01). Under this over capacity condition, the PCCS regulates the heat removal rate to match the decay heat by accumulating non-condensable (NC) gases in the lower part of the PCCS tubes. During this time period, only the NC gases are purged into the suppression pool and wetwell. There is no bypass of uncondensed steam to the suppression pool.

For the ESBWR design, the long-term core cooling is assured and demonstrated for any LOCA where the water level can be restored and maintained at a level above the top of core, for a time period up to 30 days after the LOCA. The response to RAI 6.3-79 (MFN 07-377, Aug. 24, 2007) summarizes the ECCS performance evaluation.

B 1.0 Qualification of TRACG PC Version - Summary

During 2004, a subset of the qualification studies from References 1and 2 were updated using the 9-Apr-2004 Program Library Version of TRACG04 (designated as V40). These studies consist of cases from separate effects tests, component performance tests, integral system tests and natural circulation and flow oscillation tests. These studies include features of importance for application to ESBWR. The results of these studies were presented in Reference 3. The purpose of that document is to provide

interim assurance that the conclusions drawn from References 1 and 2 are still valid, for applications using TRACG04 V40.

Since 2004, more code improvements have been implemented into TRACG04. The Program Library version of TRACG04 PC Version 53 (29-Sept-2005) has been used to perform the LOCA and containment analyses supporting the ESBWR DCD Revisions 3 and 4. The PC Version 5704 (14-Apr-2008) has been used to perform the LOCA and containment analyses supporting the ESBWR DCD Revision 5. Both the PC Version 53 and PC Version 5704 have been confirmed to be acceptable through comparisons of PC results versus ALPHA results (Program Library Level 2 ALPHA version), from several identical ESBWR ECCS and Containment cases.

To address the concerns related to the TRACG PC Version 53 and to provide additional assurance, the same set of qualification cases in Reference 3 are performed using PC Version 53. Reference 3 provides a brief description of each test facility and test matrix and the TRACG model of each facility. The key results of the current updated studies using PC Version 53 are summarized in the following paragraphs (Paragraphs B2 through B5).

In summary, the updated results using PC Version 53 do not show any significant deviation from either previous or original comparisons between the calculated and measured values. The conclusions drawn from References 1, 2 and 3 are still valid, for applications using TRACG04 PC V53.

B 2.0 Separate Effects Tests

B 2.1 Toshiba Low Pressure Void Fraction Tests

Table 21.6-96S01-1 summarizes the comparison between the data and TRACG results, for the Toshiba Low Pressure Void Fraction Tests.

B 2.2 Ontario Hydro Void Fraction Tests

Table 21.6-96S01-2 summarizes the comparison between the data and TRACG results, for Ontario Hydro Void Fraction Tests.

B 2.3 Summary - Separate Effects Tests

The updated TRACG04 V53 results for the Toshiba Low Pressure Void Fraction and Ontario Hydro Void Fraction tests do not show any significant deviation from test data and the previous results reported in Reference 3.

B 3.0 Component Performance Tests

B 3.1 PANTHERS PCC Performance

Table 21.6-96S01-3 summarizes the comparison between the data and TRACG results, for the PANTHERS PCC Steady-State steam-air tests (Test 15 – 7 points and Test 23 – 6 points). The comparison includes the condensation efficiencies and pressure drops. Table 21.6-96S01-4 summarizes the comparison of the heat transfer rate between the

data and TRACG results, for the PANTHERS PCC Steady-State pure steam tests (T41_1, T43_2 and T49_1).

Figure 21.6-69S01-1 shows the comparison between the data and TRACG results, for the PANTHERS PCC Transient test T54. This figure compares the measured and calculated inlet pressures as a function of the secondary-side pool collapsed level.

These tables and figure show that the updated results are essentially the same as the previous results in Reference 3.

B 3.2 PANTHERS IC Performance

Table 21.6-96S01-5 summarizes the comparison between the data and TRACG results, for the PANTHERS IC Steady-State tests. This table compares the average and standard deviation for 5 steady-state tests on the heat transfer rate.

Figures 21.6-69S01-2 and 21.6-69S01-3 show the previous and updated comparisons between the measured and calculated inlet pressure and IC heat removal versus time for the transient non-condensable buildup test T12.

These figures and table show similar agreement between the TRACG calculations and the test measurements for the original and updated TRACG calculations.

B 3.3 PANDA PCC Performance Tests

Table 21.6-96S01-6 summarizes the comparison between the data and TRACG results, for the PANDA PCC tests. This table compares the condensation efficiencies for the steam-air tests (S-2, S-3, S-4, S-5, S-10, S-11), the inlet pressures and heat transfer rate for the pure-steam tests (S-1, S-6, S-12, S-13).

The updated results are essentially identical to the previous Reference 3 comparisons.

B 3.4 Suppression Pool Stratification Tests

Table 21.6-96S01-7 shows the relative differences between the calculated and measured average pool temperatures (averaged over volumes 1 through 6) at the end of the PSTF Test 5807-29. Figures 21.6-69S01-4 shows the schematic of the suppression pool nodalization and volumes used in the average calculation. The above table compares against the original uncertainty analysis in Reference 1, the previous results in Reference 3 and the TRACG ALPHA program library results. The comparisons are also shown graphically (includes bottom volumes 7 and 8) in Figure 21.6-69S01-5.

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B 3.5 Summary - Component Performance Tests

The updated TRACG04 V53 results for PANTHERS PCC Performance Tests, PANTHERS IC Performance Tests, PANDA PCC Performance Tests and Suppression Pool Stratification test do not show any significant deviation from test data and results reported in Reference 3.

B 4.0 Integral Systems Tests

B 4.1 GIST

Table 21.6-96S01-8 summarizes the comparison between the data and TRACG results, for the GIST test (Test C01A). The comparison includes the GDCS initiation time, long-term annulus pressure drop and long-term core pressure drop.

The updated comparisons are similar to the original results in Reference 3.

B 4.2 GIRAFFE Helium Test

Table 21.6-96S01-9 summarizes the comparison between the data and TRACG results, for the GIRAFFE Helium Test (Test H1). The comparison includes the DW and WW peak pressures.

In general, the updated results are similar to the original results in Reference 3.

B 4.3 GIRAFFE Systems Interactions Test

Table 21.6-96S01-10 summarizes the comparison between the data and TRACG results, for the GIRAFFE system interactions Test (Test GS1). The comparison includes the minimum chimney level, minimum downcomer level, GDCS initiation time, GDCS termination time, maximum GDCS flow and DW pressure at end of test.

In general, the updated results are similar to the original results in Reference 3.

B 4.4 One-Sixth Scale Boron Mixing Test

Figures 21.6-69S01-6 to -13 show the comparisons between the measured and calculated mixing coefficient responses in different regions for the Boron Mixing Test (Test 342).

The updated results are essentially identical to the original results in Reference 3.

B 4.5 PSTF Mark III Containment Test

Table 21.6-96S01-11 summarizes the comparison between the data and TRACG results, for the PSTF Mark III Containment Test (Test 5703-1). This table compares the short-term peak pressure in the DW. Figure 21.6-96S01-14 shows the comparisons of the calculated and measured DW pressure.

In general, the updated results are similar to the original results in Reference 3.

B 4.6 4T/Mark II Containment Test

Table 21.6-96S01-12 summarizes the comparison between the data and TRACG results, for the 4T/Mark II Containment Test (Test 5101-34). This table compares the short-term peak (First Peak) pressure in the DW. Figures 21.6-96S01-15 and -16 shows the comparisons of the calculated and measured DW and WW pressures.

In general, the updated results are similar to the original results in Reference 3, and the updated results are slightly higher than those in Reference 3.

B 4.7 PANDA Transient Tests (M-Series)

Table 21.6-96S01-13 summarizes the comparisons between the data and TRACG results, for the PANDA Transient Tests (M-Series, Test M03 and Test M10b). This table compares the long-term pressures in the DW.

The updated results are essentially identical to the previous Reference 3 comparisons.

B 4.8 PANDA Transient Tests (P-Series)

Table 21.6-96S01-14 summarizes the comparisons between the data and TRACG results, for the PANDA Transient Tests (P-Series, Test P04 and Test P06). This table compares the long-term pressures in the DW.

The updated results are essentially identical to the previous Reference 3 comparisons.

B 4.9 Summary - Integral Systems Tests

The updated TRACG04 V53 results for the Integral System Tests (GIST, GIRAFFE Helium Test, GIRAFFE Systems Interactions Test, One-Sixth Scale Boron Mixing Test, PSTF Mark III Containment Test, 4T/Mark II Containment Test, PANDA Transient Tests (M- and P-Series)) do not show any significant deviation from the test data and results reported in Reference 3.

B 5.0 Natural Circulation and Flow Oscillation Tests

B 5.1 Analysis of February 1992 Startup of Dodewaard Natural Circulation BWR

Table 21.6-96S01-15 summarizes the comparisons between the data and TRACG results, for the Dodewaard Startup test. This table compares the downcomer velocity.

The updated results are essentially identical to the previous Reference 3 comparisons.

B 5.2 CRIEPI Low Pressure Oscillation Tests

Table 21.6-96S01-16 summarizes the comparisons between the data and TRACG results, for the CRIEPI Low Pressure Oscillation Tests (Test P-5, with 5 points). This table compares the downcomer velocity.

The updated results are essentially identical to the previous Reference 3 comparisons.

B 5.3 PANDA Exploratory Tests

Figures 21.6-69S01-17 and -18 show the comparisons between the measured and calculated steam flows to PCC3 for the PANDA Exploratory Test (Test E2).

The updated results are essentially identical to the previous Reference 3 comparisons.

B 5.4 SIRIUS Two-Phase Flow Instability Tests

Table 21.6-96S01-17 summarizes the comparisons between the data and TRACG results, for the SIRIUS Two-Phase Flow Instability Tests (Test P20, with 19 points). This table compares the inlet velocity.

The updated results are essentially identical to the previous Reference 3 comparisons.

B 5.5 Summary - Natural Circulation and Flow Oscillation Tests

The updated TRACG04 results for the Dodewaard Startup test, CRIEPI Low Pressure Oscillation Tests, PANDA Exploratory Tests and SIRIUS Two-Phase Flow Instability Tests do not show any significant deviation from test data and results reported in Reference 3.

B 6.0 References

1. NEDC-32725P, "TRACG Qualification for SBWR", Rev. 1, August 2002
2. NEDC-33080P, "TRACG Qualification for ESBWR", Rev. 0, August 2002
3. MFN 04-059, Dated June 2, 2004, "Update of ESBWR TRACG Qualification for NEDC-32725P and NEDC-33080P Using the 9-Apr-2004 Program Library Version of TRACG04".

DCD Impact

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

Table 21.6-96S01-1 Summary of TRACG Results for the Toshiba Low Pressure Void Fraction Tests

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Table 21.6-96S01-2 Summary of TRACG Results for the Ontario Hydro Void Fraction Tests

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Table 21.6-96S01-3 Summary of TRACG Results for the PANTHERS PCC SS Steam-Air Tests

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Table 21.6-96S01-4 Summary of TRACG Results for the PANTHERS PCC SS Pure Steam Tests

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Table 21.6-96S01-5 Summary of TRACG Results for the PANTHERS IC Tests
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Table 21.6-96S01-6 Summary of TRACG Results for the PANDA PCC Tests
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Table 21.6-96S01-7 Summary of TRACG Results for the Suppression Pool Stratification Test (PSTF Test 5807-29)

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Table 21.6-96S01-8 Summary of TRACG Results for the GIST Test (Test C01A)

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Table 21.6-96S01-9 Summary of TRACG Accuracy for GIRAFFE Helium Tests

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Table 21.6-96S01-10 Summary of TRACG Results for the GIRAFFE Systems Interactions Test

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Table 21.6-96S01-11 Summary of TRACG Results for the PSTF MARK III Test 5703-01

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Table 21.6-96S01-12 Summary of TRACG Results for the 4T MARK II Test 5101-34

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Table 21.6-96S01-13 Summary of TRACG Results for the PANDA M-Series

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Table 21.6-96S01-14 Summary of TRACG Results for the PANDA P-Series

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Table 21.6-96S01-15 Summary of TRACG Results for the Dodewaard Startup Test

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Table 21.6-96S01-16 Summary of TRACG Results for the CRIEPI Low Pressure Tests

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Table 21.6-96S01-17 Summary of TRACG Results for the SIRIUS Two-Phase Instability Tests

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Figure 21.6-96S01-1. Comparison of TRACG and PANTHERS Inlet Pressure for Test 54
(Figure 4.1-28, Ref. 3)

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Figure 21.6-96S01-2. **Comparison of TRACG and PANTHERS Inlet Pressure Transient for Test 12**
(Figure 4.2-6, Ref. 3)

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Figure 21.6-96S01-3. Comparison of TRACG and PANTHERS Heat Transfer for Test 12
(Figure 4.2-7, Ref. 3)

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Figure 21.6-96S01-4. TRACG Suppression Pool Nodalization
(Suppression Pool Stratification Tests)

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Figure 21.6-96S01-5. Final Pool Temperature Comparison, TRACG04 Version 53, TRACG04 Version 40 and TRACG04 ALPHA Program Library
(Suppression Pool Stratification Tests)

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Figure 21.6-96S01-6. Channel at 41-in. Center: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-3, Ref. 3)

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Figure 21.6-96S01-7. Channel at 55-in. Middle: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-4, Ref. 3)

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Figure 21.6-96S01-8. Channel at 41-in. Periphery: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-5, Ref. 3)

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Figure 21.6-96S01-9. Bypass at 41-in. Center: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-6, Ref. 3)

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Figure 21.6-96S01-10. Bypass at 55-in. Middle: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-7, Ref. 3)

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Figure 21.6-96S01-11. Bypass at 41-in. Periphery: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-8, Ref. 3)

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Figure 21.6-96S01-12. Lower Plenum at 14-in. Middle: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-9, Ref. 3)

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Figure 21.6-96S01-13. Lower Plenum Center: Well-Mixed Model
(Boron Mixing Tests, Figure 5.4-10, Ref. 3)

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Figure 21.6-96S01-14. DW Pressure Response
(PSTF Mark III Test 5703-01, Figure 5.5-5, Ref. 3)

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Figure 21.6-96S01-15. DW Pressure Response
(4T/Mark II Test 5101-34, Figure 5.6-5, Ref. 3)

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Figure 21.6-96S01-16. WW Pressure Response
(4T/Mark II Test 5101-34, Figure 5.6-6, Ref. 3)

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Figure 21.6-96S01-17. Steam Flow to PCC3 for Test E2 - Power Reduced 50%
(PANDA Exploratory Tests, Figure 6.4-18, Ref. 3)

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Figure 21.6-96S01-18. Steam Flow to PCC3 for Test E2 - Power Reduced 70%
(PANDA Exploratory Tests, Figure 6.4-18, Ref. 3)

Enclosure 3

MFN 08-644

Response to Portion of NRC Request for

Additional Information Letter No. 106

Related to ESBWR Design Certification Application

RAI Number 21.6-96 S01

Affidavit

GE-Hitachi Nuclear Energy Americas LLC

AFFIDAVIT

I, David H. Hinds, state as follows:

(1) I am General Manager, New Units 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 enclosure 1 of GEH's letter, MFN 08-644, Mr. Richard E. Kingston to U.S. Nuclear Energy Commission, entitled "*Response to Portion of NRC Request for Additional Information Letter No. 106 – Related to ESBWR Design Certification Application – RAI Number 21.6-96 Supplement 1,*" dated August 26, 2008. The proprietary information in enclosure 1, which is entitled "*MFN 08-644 – Response to Portion of NRC Request for Additional Information Letter No. 106 – Related to ESBWR Design Certification Application – RAI Number 21.6-96 S01 – GEH Proprietary Information,*" is delineated by a [[dotted underline inside double square brackets$^{\{3\}}$]]. Figures and large equation objects 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 contains the results of TRACG analytical models, methods and processes, including computer codes, that GEH has developed and applied to ESBWR containment response evaluations. GEH has developed this TRACG code for over fifteen years, at a significant cost. The reporting, evaluation and interpretation of the results, as they relate to the containment response evaluations for the ESBWR was achieved at a significant cost to GEH.

(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

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.

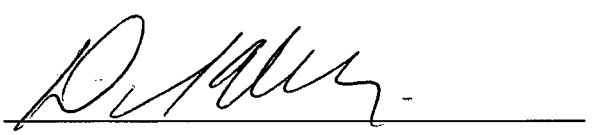
The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

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 26th day of August 2008.



David H. Hinds
GE-Hitachi Nuclear Energy Americas LLC