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September 14, 2012

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Reference: 1. USNRC Docket No. 72-1014 (HI-STORM 100), Amendments 5, 6, 7 and 8  
2. Entergy letter to NRC for Thermal Validation Test using Air Mass Flow Rate, OCAN021201 (ML12038A177, February 3, 2012)

Subject: HI-STORM 100 Cask System Thermal Validation Test Using Air Mass Flow Rate

Dear Mr. Goshen:

Section 9 (Special Requirements of First System in Place) for Amendments 5, 6, 7 and 8 to Certificate of Compliance 72-1014 (HI-STORM 100) [1] requires a report summarizing the results of the thermal validation test and analysis. A cask system meeting the above CoC requirement was loaded at Arkansas Nuclear One (ANO) on April 20, 2009. ANO submitted results and analysis of the testing to NRC on February 3<sup>rd</sup>, 2012 [2] and the results and analysis of the testing is contained in Attachment 1. The results indicate that the air mass flow rate predicted by the thermal model utilizing the licensing-basis analysis methodology (and the geometry of the tested cask system) is lower than the corresponding value based on the measurements from the actual loaded cask. This demonstrated the overall conservatism of the licensing-basis analysis methodology, confirms the suitability of the methodology for demonstrating the thermal- hydraulics safety of the HI-STORM 100 cask system and satisfies the requirements from the CoC.

Attachment 1 contains the Holtec Report, "HI-STORM 100 Cask System Thermal Performance Validation Using Air Flow Test Data for ANO," Report Number HI-2114925. Holtec considers Attachment 1 to be proprietary information, therefore Attachment 2 to this letter is a non-proprietary affidavit written in accordance with 10 CFR 2.390 requesting that the file transmitted be withheld from the public due to their proprietary nature.

Please contact me at 856-797-0900 x 3659 if you have any questions.

NIMS526

Designated Original  
John Goshen 9/17/2012



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Sincerely,

Stefan Anton  
Acting Licensing Manager  
Holtec International

List of Attachments:

Attachment 1: "HI-STORM 100 Cask System Thermal Performance Validation Using Air Flow Test Data for ANO," Report Number HI-2114925 (Proprietary)

Attachment 2: Affidavit Pursuant to 10CFR2.390 to Withhold Information from Public Disclosure

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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I, Veena Gubbi, being duly sworn, depose and state as follows:

- (1) I have reviewed the information described in paragraph (2) which is sought to be withheld, and am authorized to apply for its withholding.
- (2) The information sought to be withheld are Attachment 1 to Holtec Letter 5014744, which contain Holtec Proprietary information.
- (3) In making this application for withholding of proprietary information of which it is the owner, Holtec International 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 10CFR Part 9.17(a)(4), 2.390(a)(4), and 2.390(b)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions 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).

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- (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 Holtec's competitors without license from Holtec International 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 cost or price information, production, capacities, budget levels, or commercial strategies of Holtec International, its customers, or its suppliers;
  - d. Information which reveals aspects of past, present, or future Holtec International customer-funded development plans and programs of potential commercial value to Holtec International;
  - e. 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.

- (5) The information sought to be withheld is being submitted to the NRC in confidence. The information (including that compiled from many sources) is of a sort customarily held in confidence by Holtec International, 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 Holtec International. No public disclosure has been made, and it is not available in public sources. All

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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disclosures to third parties, including any required transmittals to the 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. Access to such documents within Holtec International 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, by the manager of the cognizant marketing function (or his designee), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside Holtec International 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 classified as proprietary was developed and compiled by Holtec International at a significant cost to Holtec International. This information is classified as proprietary because it contains detailed descriptions of analytical approaches and methodologies not available elsewhere. This information would provide other parties, including competitors, with information from Holtec International's technical database and the results of evaluations performed by Holtec International. A substantial effort has been expended by Holtec International to develop this information. Release of this information would improve a competitor's position because it would enable Holtec's competitor to copy our technology and offer it for sale in competition with our company, causing us financial injury.

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to Holtec International's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of Holtec International's comprehensive spent fuel storage 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.

The research, development, engineering, and analytical costs comprise a substantial investment of time and money by Holtec International.

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.

Holtec International's competitive advantage will be lost if its competitors are able to use the results of the Holtec International 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 Holtec International 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 Holtec International of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Document ID 5014744  
Non-Proprietary Attachment 2

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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STATE OF NEW JERSEY     )  
  )     ss:  
COUNTY OF BURLINGTON )

Ms. Veena Gubbi, being duly sworn, deposes and says:

That she has read the foregoing affidavit and the matters stated therein are true and correct to the best of her knowledge, information, and belief.

Executed at Marlton, New Jersey, this 14<sup>th</sup> day of September, 2012.

*Veena Gubbi*  
Veena Gubbi  
Holtec International

Subscribed and sworn before me this 14<sup>th</sup> day of September, 2012.

*Maria C. Massi*

MARIA C. MASSI  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires April 25, 2015