



Holtec Center, 555 Lincoln Drive West, Marlton, NJ 08053

Telephone (856) 797-0900

Fax (856) 797-0909

Mr. John Goshen
c/o Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

February 6, 2009

Subject: Response to Request for Additional Information on HI-STORM 100 System – Supplement 1 (100U License Amendment Request 1014-6), USNRC Docket 72-1014, TAC NO. L24085

Reference: [1] NRC Letter (Wharton) to Holtec (Morin) dated December 4, 2008 (ML083400068)
[2] Holtec Letter 5014618, dated April 27, 2007, “License Amendment Request #6 to HI-STORM 100 CoC”
[3] Holtec Letter 5014674, dated January 16, 2009, “Response to Request for Additional Information on HI-STORM 100 System (100U License Amendment Request 1014-6), USNRC Docket 72-1014, TAC NO. L24085”
[4] Holtec Letter 5014675, dated January 21, 2009, “Proprietary Documents Supporting Response to Request for Additional Information on HI-STORM 100 System – (100U License Amendment Request 1014-6), USNRC Docket 72-1014, TAC NO. L24085”

Dear Mr. Goshen:

Holtec International submitted the responses to U. S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) [1] for the review of the HI-STORM 100 System License Amendment Request (LAR) 1014-6 [2] in a non-proprietary submittal [3] and a proprietary submittal [4].

This submittal is a supplement to the responses [3] which includes, and updated response to RAI question 3-2 (Attachment 1), Holtec Proprietary Report HI-2053389, Revision 6 (Attachment 2); and an affidavit pursuant to 10CFR 2.390 requesting the withholding of information from the public (Attachment 3).

Document ID 5014677
Page 1 of 2

*Add: John Goshen
E-RIDS NMS501*



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Holtec is providing a complete copy of Revision 6 of HI-2053389; however only Calculation 11 has been revised. Again, thank you for your continued effort toward timely approval of this amendment, any additional information requested will be promptly provided.

Feel free to contact me if you have any questions.

Sincerely,

Tammy Morin
Acting Licensing Manager
Holtec International

cc (letter only VIA EMAIL):
Mr. Eric Benner, USNRC
Mr. Michael Scott, USNRC
Holtec Group 1

Attachment 1 to Holtec Letter 5014677
Updated Response to RAI question 3-2

NRC RAI

3-2 For the LS-DYNA seismic model, provide a convergence study to demonstrate that the maximum stresses in the MPC shell elements in the vicinity of the impact with the MPC Guide Ribs are reasonably accurate.

The MPC shell elements use single point integration in the plane of the element with three integration points through the thickness. This is the lowest order of integration, and as such, the element can only develop a constant moment along its length. In addition the shell mesh in the vicinity of the Guide Ribs is very coarse. The coarseness of the mesh combined with single point integration may lead to a significant underestimate of maximum stresses. Accuracy of the results from a finite element model is essential to demonstrating the structural integrity of the confinement boundary during an accident event.

This information is necessary to ensure compliance with 10 CFR 72.11.

Holtec Response to 3-2: As mentioned in response to RAI 3-1, a refined mesh for the MPC Confinement Boundary with fully integrated elements has been prepared and the local impact problem has been analyzed to determine local strains. The number of thru-thickness integration points has been set at the maximum available (10). A mesh convergence study has been performed using a finer grid size to verify that the results are acceptable (see Calculation 011 in HI-2053389 Rev. 6). The new analysis, described in paragraph 3.I.4.7.3 would allay Staff's concern with respect to convergence and safety margins in the confinement boundary during the seismic event.

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I, Tammy S. Morin, 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 is Holtec Reports provided in Attachment 2 to Holtec letter Document ID 5014677, which contains 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, above.

- (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

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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.

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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.

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Updated Response to RAI question 3-2

NRC RAI

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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Document ID 5014677
Non-Proprietary Attachment 3

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

Ms. Tammy S. Morin, 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 6th day of February, 2009.



Tammy S. Morin
Holtec International

Subscribed and sworn before me this 6th day of February, 2009.



MARIA C. MAGGI
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires April 25, 2010