



September 18, 2009

Mr. E. William Brach  
Director, Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety and Safeguards  
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ATTN: Document Control Desk  
Director, Spent Fuel Storage and Transportation Office  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: Submittal of Certification Request for the HI-STORM FW MPC Storage System  
Under 10CFR72, Subpart L

Reference: USNRC Docket 72-1032  
USNRC TAC No. L24321

Dear Mr. Brach:

We are pleased to submit Holtec Report No. HI-2084239, "(Proposed) Final Safety Analysis Report on the HI-STORM FW MPC Storage System", for certification in accordance with 10CFR72.230 under the provisions of 10CFR72 Subpart L. To facilitate the Staff's review, the safety analysis report (Attachment 1) has been prepared to comport with the guidelines of Reg. Guide 3.61 and NUREG-1536. In addition to the proposed FSAR, we also provide draft proposed editions of the Certificate-of-Compliance and the associated Technical Specification (Attachment 2).

The HI-STORM FW MPC storage system consists of the HI-STORM FW storage overpack, the HI-TRAC VW transfer cask, and two high capacity MPC models (MPC-37 and MPC-89).

We request that the SFST give consideration to an expedited review of this submittal because, in addition to being well edited and technically complete, it seeks to meet certain urgent evolving needs of the dry storage industry. Among the acutely needed technology advances embedded in the HI-STORM FW system are:

1. Ability to store and transport BWR fuel with high initial enrichment (up to 4.8 wt. % U-235 planar average) without reliance on burn-up or gadolinium credit. This is possible because of a significantly greater B-10 areal density in the MPC-89 fuel basket panels than was possible in prior designs. This fuel basket will be needed shortly by our dry storage users because the BWR fuel currently in spent fuel pools at several sites has a greater initial enrichment than is allowed in our currently licensed MPC-68s in the HI-STORM 100 docket.

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2. Ability to load and store all Commercial Spent Fuel (CSF) from the longest to the shortest-currently and expected to be produced in the United States without sacrificing ALARA (prudent occupational dose limits) or requiring expensive crane upgrades. In particular, the extra-long South Texas fuel and AP-1000 fuel and the extra-short Ft. Calhoun fuel can all be loaded and stored in the HI-STORM FW system without limitation. In this sense, the HI-STORM FW is the first universal storage system in the dry storage industry.
3. The burn-up credit requirement under 10CFR71 for the PWR basket will be reduced, making transport of 5 wt. % U-235 fuel with moderate burn-up readily licensable with no additional credit beyond that approved in the HI-STAR 100 docket in 2006. (This capability alleviates the plant owners' concern with respect to the transportability of loaded MPCs.)
4. The storage cell opening sizes in both PWR and BWR canisters, based on Holtec's decades of wet storage equipment design experience, are made sufficiently large to ensure that *even the most distorted irradiated fuel will fit without difficulty*. The MPC cavities are also sized to permit canisterized (damaged) fuel to be stored in certain designated locations.
5. A significantly greater heat rejection capacity with significantly lower peak fuel cladding temperature (than is available in the presently licensed systems) which will permit the utilities to transfer fuel from their pools to dry storage at a more rapid rate. This will help the utilities maintain a reduced the in-pool inventory, which is generally deemed to be a desirable on-site fuel management approach.
6. The transfer cask (HI-TRAC VW), configured to leverage the full capacity of a plant's cask crane, results in a much smaller dose rate emission than is possible with presently used transfer casks.

Finally, we should observe that the HI-STORM FW MPC Storage System has been engineered to be operationally compatible with HI-STORM 100 so that our existing users of HI-STORM 100 can seamlessly switch to HI-STORM FW using their existing principal ancillaries and operating procedures. Indeed, the HI-STORM FW MPC Storage System is operationally backwards compatible with the HI-STORM 100 System. As a result, the fuel loading and unloading operations will remain unchanged from the current practice and present users of the HI-STORM 100 System can readily install the improved HI-STORM FW system on their independent spent fuel storage installation (ISFSI).

The above list of feature and capabilities of the HI-STORM FW MPC Storage System indicate the critical role the "FW" technology will play to solve emerging industry challenges and to provide ALARA and economical solutions to our present and prospective HUG membership in the post-Yucca age.

We request that the SFST assign a dedicated team to this certification effort.

To help ensure an accelerated certification process, we have incorporated technical material in this SAR that pro-actively addresses recent NRC queries in our own as well as other dry storage dockets.



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We request that the entire Attachment 1 and 2 be withheld from public disclosure under the provisions of 10CFR2.390 (see Attachment 3). We will submit a non-proprietary (redacted) version of the FSAR and proposed CoC/TS well before the completion of the NRC's acceptance review.

If you have any questions please feel free to contact me at 856-797-0900 x687.

Sincerely,

Tammy S. Morin  
Licensing Manager  
Holtec Technical Services  
Holtec International

Approved:

Dr. Stefan Anton  
Vice President  
Holtec Technical Services  
Holtec International

cc: Mr. Eric Benner, USNRC  
Mr. Ray Lorson, USNRC  
Mr. John Goshen, USNRC  
Holtec Group 1 (via email)  
Holtec Users Group (via email)

List of Attachments:

Attachment 1: Proposed FSAR (Holtec Report No. HI-2084239 (Proprietary))  
Attachment 2: Proposed CoC and Technical Specification (Proprietary)  
Attachment 3: Affidavit Pursuant to 10CFR2.390 to Withhold Information from Public Disclosure

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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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 provided in Attachments 1 and 2 to Holtec letter Document ID 5018004, 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, 4.b, and 4.e 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.

