



Holtec Technology Campus, 1 Holtec Blvd., Camden, NJ 08104

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March 30, 2017

Mr. Michael Layton, Director  
Division of Spent Fuel Management  
Office of Nuclear Material Safety and Safeguards

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

Ref: USNRC Docket No. 72-1051

Subject: Holtec International HI-STORE CIS (Consolidated Interim Storage Facility) License Application

Reference: [1] Holtec Letter 5025001, "Notice of Intent to License the ELEA Interim Storage Facility and Request to Establish a New Part 72 Docket," from S. Anton (Holtec) to M. Lombard (NRC), dated August 3, 2015.

[2] Holtec Letter 5025003, "Updated Schedule for Holtec Licensing of HI-STORE Interim Storage Facility Docket Number 72-1051," from E. Mayer (Holtec) to M. Lombard (NRC) dated September 20, 2016.

Dear Mr. Layton:

Holtec International is pleased to submit its specific license application for a consolidated interim storage facility in Southeast New Mexico called HI-STORE CIS under the provisions of 10 CFR Part 72 [1] by the target date previously communicated to the NRC [2].

Holtec is requesting an initial authorization for 500 canisters of spent nuclear fuel for a 40- year license duration. The proposed away from reactor (AFR) installation is envisaged to fulfill the national commitment for an interim storage facility for used nuclear fuel as articulated in the Blue Ribbon Commission's report which was subsequently adopted by the DOE.

Holtec International plans to deploy its state-of-the-art HI-STORM UMAX canister storage system (docket # 72-1040) at the HI-STORE CIS, which stores fuel safely in a subterranean configuration, and has thus far been adopted by Callaway and SONGS, as well as an earlier low heat load version currently in use at Humboldt Bay. As stated in its FSAR, the HI-STORM UMAX Canister storage system has been engineered to store the entire complement of canisters currently deployed at ISFSIs around the country. This HI-STORE CIS submittal relies on the

NMSSZ6



information already submitted to and approved by the NRC under the HI-STORM UMAX docket.

To help facilitate expedited licensing, Holtec International has ensured that the margins for all design basis safety metrics are even larger than those (already large margins) that undergird the general certification of the HI-STORM UMAX system in Docket number 72-1040.

A listing of the attachments to this letter and their regulatory nexus to fully comply with the requirements in 10 CFR Part 72 and the current regulatory practice is provided in the following:

- A Safety Analysis Report (SAR) prepared pursuant to 10CFR72.24 and following the guidance of NUREG-1567. Both proprietary and non-proprietary versions of this document are included in Attachments 1 and 2.
- A proposed license and associated technical specifications in accordance with 10CFR72.26 and 72.44, included as Attachment 3.
- An Environmental Report, pursuant to 10 CFR 72.34 which evaluates the cumulative impact of up to 10,000 canisters at the site, included as Attachment 4.
- A training program pursuant to 10 CFR 72.28 is included as Attachment 5, and further described in Chapter 10 of the SAR.
- Proposed decommissioning and decommissioning funding plans are included as Attachments 6 and 7, pursuant to the requirements in 10 CFR 72.22(e) and 72.30.
- The HI-STORE Emergency Response Plan is included pursuant to 10 CFR 72.32, as Attachment 8.
- A description of Holtec's financial qualifications is included as Attachment 9, pursuant to 10 CFR 72.22.
- To support the request for a 40 year license, detailed information on the aging management of the facility is included in Attachment 10, and described in Chapter 18 of the SAR.
- The Calculation Packages which support the technical information in the SAR are provided to aid the staff's review as Attachments 11 through 21. These attachments also include the input and output files for those reports, as necessary.
- The Physical Security Plan, Safeguards Contingency Plan, and Security Training Plan will be submitted under a separate letter due to their Safeguards Information Status.
- Holtec International is utilizing a previously NRC-approved QA program, under docket 71-0784. In accordance with 10CFR72.140(d), this program is incorporated by reference into the HI-STORE CIS application, as described in Chapter 12 of the SAR.
- A description of Holtec International's technical qualifications is provided in Chapter 1 of the SAR, pursuant to 10 CFR 72.22 and 72.28(a).



An affidavit pursuant to 10CFR2.390 is included herein as Attachment 22, requesting withholding of the business-sensitive and proprietary attachments to this letter from public disclosure.

If you have any questions, please contact me at 856-797-0900. extension 3951.

Sincerely,

Kimberly Manzione  
Licensing Manager,  
Holtec International

**Attachments:**

- Attachment 1: HI-STORE Safety Analysis Report, HI-2167374R0 (proprietary)
- Attachment 2: HI-STORE Safety Analysis Report, HI-2167374R0 (non-proprietary)
- Attachment 3: HI-STORE Proposed License and Technical Specifications (non-proprietary)
- Attachment 4: Environmental Report on the HI-STORE CIS Facility, HI-2167521R0 (non-proprietary)
- Attachment 5: HI-STORE Consolidated Interim Storage Facility – Training and Qualification Program, HI-2177562R0 (proprietary)
- Attachment 6: HI-STORE Consolidated Interim Storage Facility – Decommissioning Plan, HI-2177558R0 (proprietary)
- Attachment 7: HI-STORE Consolidated Interim Storage Facility – Decommissioning Cost Estimate and Funding Plan, HI-2177565R0 (proprietary)
- Attachment 8: HI-STORE Consolidated Interim Storage Facility – Emergency Response Plan, HI-2177535R0 (proprietary)
- Attachment 9: HI-STORE Financial Assurance & Project Life Cycle Cost Estimates, HI-2177593R0 (proprietary)
- Attachment 10: Aging Assessment and Management Program for HI-STORE CIS, HI-2167378R0 (proprietary)
- Attachment 11: HI-STORE Structural Calculation Package, HI-2177585R0, (proprietary)
- Attachment 12: HI-STORM UMAX Structural Calculation Package, HI-2125228R9 (proprietary)
- Attachment 13: Regulatory Guide 1.60 Time Histories Using EZ-FRISK, HI-2146083R2 (proprietary)
- Attachment 14: HI-STORE Structural Calculations, Input/Output Files (proprietary)
- Attachment 15: HI-TRAC CS Thermal Analysis, HI-2177553R0 (proprietary)
- Attachment 16: Thermal Analysis of HI-STORM UMAX and HI-STORE, HI-2177591R0 (proprietary)
- Attachment 17: HI-STORE CTF Thermal Analysis, HI-2177597R0 (proprietary)



- Attachment 18: HI-STORE Thermal Calculations, Input/Output Files (proprietary)
- Attachment 19: HI-STORE Site Boundary Dose Analysis, HI-2177599R0 (proprietary)
- Attachment 20: HI-STORE Occupational Dose Analysis, HI-2177600R0 (proprietary)
- Attachment 21: HI-STORE Shielding Calculations, Input/Output Files (proprietary)
- Attachment 22: Affidavit in Accordance with 10CFR2.390

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**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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I, Kimberly Manzione, 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, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, and 21 to Holtec Letter 5025012, 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).

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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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 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

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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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 5025012  
Non-Proprietary Attachment 22

**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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

Kimberly Manzione, being duly sworn, deposes and says:

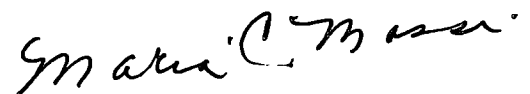
That she has read the foregoing affidavit and the matters stated therein are true and correct to the best of her knowledge, information, and belief.

Executed at Camden, New Jersey, this 29<sup>th</sup> day of March 2017.



Kimberly Manzione  
Holtec International

Subscribed and sworn before me this 29 day of March, 2017.



MARIA C. MASSI  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires April 25, 2020