



72-1014
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January 22, 2009

Mr. E. William Brach
Director, Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards
Mail Code E3 D2M
Executive Boulevard Building
6003 Executive Boulevard
Rockville, MD 20852

Dear Mr. Brach:

We are pleased to inform you that Holtec International has completed the design of the HI-STORM FW vertical ventilated dry storage system and will make a license application (LA) to the United States Nuclear Regulatory Commission (USNRC) under the provisions of 10CFR72 Subpart L. While the development of the HI-STORM FW was initially prompted by the USNRC's questions related to the effects of a sustained wind on a storage system (Docket No. 72-1014), we have also engineered several new design innovations to improve the system's ALARA, thermal, and criticality performance to meet the emerging needs of the current users of our systems and the industry. Among the enhancements are:

- i. Introduction of MPC-37 (PWR) and MPC-89 (BWR), the latter qualified to 5% initial enrichment (BWR) fuel without need for burnup or gadolinium credit.
- ii. A design with more than a 25% increase in the heat rejection capacity compared to the HI-STORM 100 MPCs.
- iii. Ability to place high burnup fuel with as little as two years of cooling time into dry storage (to meet some users' preference to reduce the population of high heat load fuel in the spent fuel pool on an ASAP basis)
- iv. A transfer cask design that will provide a significant reduction in the occupational dose at every user site.
- v. A HI-STORM overpack configuration that can endure a sustained low-flood of the ISFSI that blocks the bottom vents or a sustained adverse wind environment.

The HI-STORM FW system is operationally backward compatible with HI-STORM 100, i.e. the ancillary equipment needed to load HI-STORM FW is *identical* to those for HI-STORM 100. 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).



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The HI-STORM FW design features have been presented to the Holtec User Group (HUG) members and have received an enthusiastic endorsement. We would like to present the essentials of this system to the Staff prior to the LA submittal.

In spite of the significant commonality between the "FW" and "100" systems, we are proceeding on the premise that the NRC will require a new docket assignment and we appreciate your direction in this matter after we have provided the appropriate briefing to the Staff. We would like to request a four-hour meeting with the Staff on a day suitable to your calendar in the week of March 9, 2009. Our LA submittal is planned for April 2009.

If you have any questions please feel free to contact me or Ms. Tammy Morin at 856-797-0900 x687. She will be happy to discuss the details of the meeting at your or your Staff's convenience.

Sincerely,

Dr. Stefan Anton
Vice President of Engineering
Holtec Technical Services
Holtec International

cc: Mr. Nader Mamish, USNRC
Mr. Eric Benner, USNRC
Holtec Group 1 (via email)
Holtec Users Group (via email)