

July 17, 2008

Ms. Tammy Morin, Licensing Manager
Holtec International
555 Lincoln Drive West
Marlton, NJ 08053

SUBJECT: AMENDMENT NO. 5 TO CERTIFICATE OF COMPLIANCE NO. 1014 FOR THE
HOLTEC INTERNATIONAL HI-STORM 100 CASK SYSTEM

Dear Ms. Morin:

As requested by your application dated December 30, 2004, revised May 16, 2005, (Revision 1) and December 22, 2006, (Revision 2), and as supplemented, enclosed is Certificate of Compliance (CoC) No. 1014, Amendment No. 5 for the HI-STORM 100 System. Changes made to the certificate are indicated by vertical lines in the right margin. As stated in the Federal Register (73 FR 33291, June 12, 2008), the effective date of this certificate is July 14, 2008.

Amendment No. 5 to CoC No. 1014 constitutes U.S. Nuclear Regulatory Commission (NRC) approval of changes to the HI-STORM 100 System. Amendment No. 5 includes deletion of the requirement to perform thermal validation tests on thermal systems; an increase in the design basis maximum decay heat loads, namely, to 34 kilowatts (kW) for uniform loading and 36.9 kW for regionalized loading, and introduction of a new decay heat regionalized scheme; an increase in the maximum fuel assembly weight for boiling water reactor fuel in the Multi-Purpose Canister (MPC)-68 from 700 to 730 pounds; an increase in the maximum fuel assembly weight of up to 1,720 pounds for assemblies not requiring spacers, otherwise 1,680 pounds; changes to the assembly characteristics of 16 x 16 pressurized water reactor fuel assemblies to be qualified for storage in the HI-STORM 100 cask system; a change in the fuel storage locations in the MPC-32 for fuel with axial power shaping rod assemblies and in the fuel storage locations in the MPC-24, MPC-24E, and the MPC-32 for fuel with control rod assemblies, rod cluster control assemblies, and control element assemblies; elimination of the restriction that fuel debris can only be loaded into the MPC-24EF, MPC-32F, MPC-68F, and MPC-68FF canisters; introduction of a requirement that all MPC confinement boundary components and any MPC components exposed to spent fuel pool water or the ambient environment be made of stainless steel or, for MPC internals, neutron absorber or aluminum; the addition of a threshold heat load below which operation of the Supplemental Cooling System would not be required and modification of the design criteria to simplify the system; minor editorial changes to include clarification of the description of anchored casks, correction of typographical/editorial errors, clarification of the definitions of loading operations, storage operations, transport operations, unloading operations, cask loading facility, and transfer cask in various locations throughout the CoC and Final Safety Analysis Report; and modification of the definition of non-fuel hardware to include the individual parts of the items defined as non-fuel hardware.

This certificate constitutes the approval and conditions for use of the HI-STORM 100 System for storage of spent nuclear fuel under the general licensing provisions of 10 CFR 72.210. A general license has been granted to all holders of licenses for nuclear power reactors issued under 10 CFR Part 50. This letter also serves as a reminder for you to notify affected cask users of the effective date for this amendment. If you have any questions regarding this certificate amendment, please contact me at (301) 492-3294 or Mr. James R. Hall of my staff at (301) 492-3319.

Sincerely,

/RA/

Eric Benner, Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No.: 72-1014

Enclosures: 1. CoC No. 1014, Amendment No. 5
2. Safety Evaluation Report

T. Morin

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