

June 13, 2002

MEMORANDUM TO: William D. Travers  
Executive Director for Operations

FROM: Patricia K. Holahan, Chief  
Rulemaking and Guidance Branch  
Division of Industrial and **/RA/**  
Medical Nuclear Safety, NMSS

SUBJECT: FINAL RULE TO AMEND 10 CFR PART 72 LIST OF APPROVED  
SPENT FUEL STORAGE CASKS (HI-STORM 100,  
AMENDMENT 1)

On March 27, 2002, a direct final rule, along with its companion proposed rule, was published in the Federal Register. This would have amended 10 CFR Part 72, to revise the Holtec International HI-STORM 100 cask system listing, within the list of approved spent fuel storage casks, to include Amendment 1 to Certificate of Compliance (CoC) Number 1014. In response to the request for public comments, a significant adverse comment was received, and the direct final rule was withdrawn as a result.

Attached for your signature is a final rule (Attachment 1) amending U.S. Nuclear Regulatory Commission (NRC) regulations by revising the cask system listing for the Holtec International HI-STORM 100. The amendment will modify the present cask system design as follows: (1) add four new multipurpose canisters - three for pressurized-water-reactor fuel and one for boiling-water-reactor fuel; (2) add new containers for damaged fuel; (3) add the HI-STORM 100S overpack and the 100A and 100SA high-seismic anchored overpacks; (4) allow the storage of high-burnup fuel; (5) delete the Technical Specifications, for special requirements for the first systems in place and for training requirements, relocating these requirements to the main body of CoC 1014; and (6) allow the storage of selected non-fuel hardware. The amendment also will use revised thermal analysis tools to include natural convection heat transfer; revise the helium backfill requirements, to allow a helium-density measurement to be used; allow a helium-drying system, rather than the existing vacuum-drying system; and require soluble boron during canister loading, for certain higher-enriched fuels. In addition, modifications will be made to: Conditions 1.a., 1.b., 2, 3, 5, 9, 10, and 11 of the CoC; Sections 3.0 and 5.0 of Appendix A to the CoC; and Sections 1.0, 2.0, and 3.0 of Appendix B to the CoC, to reflect the changes.

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Background: On March 27, 2002, NRC published a direct final rule (67 FR 14627) and a companion proposed rule (67 FR 14662), which would have amended Part 72 to revise the Holtec International HI-STORM 100 cask system listing, within the "List of approved spent fuel storage casks," to include Amendment No. 1 to CoC Number 1014. The comment period ended on April 26, 2002. Three comment letters were received on the proposed rule.

Based on review and analysis of public comments, the office of Nuclear Material Safety and Safeguards and Office of General Counsel (OGC) staffs identified a significant adverse comment that required a response from NRC. The comment involved the completeness of the record regarding adverse material interactions between the cask contents and the cask. The staff has responded to the comment in a final rule. Additionally, two nonsignificant comments were received regarding minor editorial changes to Appendix B (Technical Specifications) of the CoC for the HI-STORM 100 cask system. The staff has made those editorial changes. No changes were made to the Safety Evaluation Report.

The NRC staff finds that the amended Holtec International HI-STORM 100 cask system, as designed and when fabricated and used in accordance with the conditions specified in its CoC, meets the requirements of 10 CFR Part 72; thus, adequate protection of public health and safety is ensured. NRC is approving the use of the Holtec International HI-STORM 100 cask system under the general license provisions in 10 CFR Part 72, Subpart K. This rulemaking will be effective on publication in the Federal Register.

Notices: A notice that the Executive Director for Operations has signed the attached notice is provided for inclusion in the daily staff notes ("Notice of Final Rule Signed by EDO," Attachment 2). The "Approved for Publication," the "Environmental Assessment," and the SBREFA forms can be found in Attachments 3 through 5, respectively, of this paper. The appropriate Congressional committees will be notified and a Press Release will be issued.

Resources: No additional resources will be needed to implement this rule.

Coordination: The Office of Administration concurs with this amendment. The OGC has no legal objection.

Attachments:

1. FRN of Final Rulemaking
2. "Notice of Final Rule Signed by EDO"
3. "Approved for Publication"
4. "Environmental Assessment"
5. SBREFA Forms

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