

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150-AH98

List of Approved Spent Fuel Storage Casks: HI-STORM 100 Revision 3

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Final rule.

**SUMMARY:** The Nuclear Regulatory Commission (NRC) is amending its regulations by revising the Holtec International HI-STORM 100 cask system listing within the “List of approved spent fuel storage casks” to include Amendment No. 3 to Certificate of Compliance Number 1014. Amendment No. 3 revises Technical Specification (TS) 3.1.3, to eliminate cooling of the Multi-Purpose Canister (MPC) cavity prior to reflood with water, as part of cask unloading operations; TS 3.3.1, to allow linear interpolation between minimal soluble boron concentrations, for certain fuel enrichments in the MPC-32/32F; Appendix B, Section 1 to the CoC, to make modifications to the definitions of fuel debris, damaged fuel assembly, and non-fuel hardware; and Appendix B, Section 2 to the CoC, to permit the storage of pressurized water reactor fuel assemblies with annular fuel pellets in the top and bottom 12 inches of the active fuel length. Other changes are made to incorporate minor editorial corrections. This final rule allows the holders of power reactor operating licenses to store spent fuel in this approved cask in accordance with the revised conditions, under the NRC’s general license provisions.

**DATES:** The final rule is effective on (**insert date that is 30 days from publication in the FEDERAL REGISTER**).

**ADDRESSES:** Publicly available documents related to this rulemaking may be viewed electronically on the public computers located at the NRC's Public Document Room (PDR), Room O1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The PDR reproduction contractor will copy documents for a fee. Selected documents can be viewed and downloaded electronically via the NRC's rulemaking website at <http://ruleforum.llnl.gov>.

Publicly available documents created or received at the NRC are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this site, the public can gain entry into the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. If you do not have access to ADAMS or if there are any problems in accessing the documents located in ADAMS, contact the NRC PDR Reference staff at (800) 397-4209, (301) 415-4737, or by email to [pdr@nrc.gov](mailto:pdr@nrc.gov).

**FOR FURTHER INFORMATION CONTACT:** Jayne M. McCausland, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6219, email [jmm2@nrc.gov](mailto:jmm2@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

## Background

Section 218(a) of the Nuclear Waste Policy Act of 1982 (NWPA), as amended, requires that “[t]he Secretary [of the Department of Energy (DOE)] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the [Nuclear Regulatory] Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission.” Section 133 of the NWPA states, in part, that “[t]he Commission shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 218(a) for use at the site of any civilian nuclear power reactor.”

To implement this mandate, the NRC approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule in 10 CFR Part 72 entitled “General License for Storage of Spent Fuel at Power Reactor Sites” (55 FR 29181; July 18, 1990). This rule also established a new Subpart L within 10 CFR Part 72, entitled “Approval of Spent Fuel Storage Casks,” containing procedures and criteria for obtaining NRC approval of spent fuel storage cask designs. The NRC subsequently issued a final rule on May 1, 2000 (65 FR 25241) that approved the HI-STORM 100 cask system design, and added it to the list of NRC-approved cask designs in 10 CFR 72.214 as Certificate of Compliance Number (CoC No.) 1014.

## Discussion

On November 7, 2005, and as supplemented on April 30, 2006, the certificate holder, Holtec International, submitted an application to the NRC to amend the HI-STORM 100 cask system. The application requested changes to eliminate cooling of the MPC cavity prior to reflood with water as part of cask unloading operations; changes to allow linear interpolation between minimal soluble boron concentrations for certain fuel enrichments in the MPC-32/32F; modifications to the definitions of fuel debris, damaged fuel assembly, and non-fuel hardware; changes to permit the storage of pressurized water reactor fuel assemblies with annular fuel pellets in the top and bottom 12 inches of the active fuel length; and other changes to incorporate minor editorial corrections. No other changes to the HI-STORM 100 cask system were requested in this application. The NRC staff performed a detailed safety evaluation of the proposed CoC amendment request and found that an acceptable safety margin is maintained. In addition, the NRC staff has determined that there continues to be reasonable assurance that public health and safety and the environment will be adequately protected.

The NRC published a direct final rule (71 FR 60659; October 16, 2006) and the companion proposed rule (71 FR 60672) in the *Federal Register* to amend the HI-STORM 100 cask system listing in 10 CFR 72.214 to include the changes requested by Holtec International as Amendment No. 3 to CoC No. 1014. The comment period ended on November 15, 2006. One comment letter was received on the proposed rule. The comments contained within the letter were considered to be significant and adverse and warranted withdrawal of the direct final rule. A notice of withdrawal was published in the *Federal Register* on December 27, 2006 (71 FR 77586). Additionally, the NRC staff is amending the TS to remove non-fuel hardware from the definition of fuel debris, as discussed in the response to Comment C.1 in the

preamble. The safety evaluation report (SER) has been modified to describe the NRC's staff's determination.

The NRC finds that the Holtec International HI-STORM 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, use of the Holtec International HI-STORM cask system, as approved by the NRC, will provide adequate protection of public health and safety and the environment. With this final rule, the NRC is approving the use of the Holtec International HI-STORM 100 cask system under the general license in 10 CFR Part 72, Subpart K, by holders of power reactor operating licenses under 10 CFR Part 50. Simultaneously, the NRC is issuing a final SER and CoC that will be effective on **[insert date that is 30 days from publication in the FEDERAL REGISTER]**. Single copies of the CoC and SER are available for public inspection and/or copying for a fee at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD. Copies of the public comments are available for review in the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD.

### **Discussion of Amendments by Section**

#### **Section 72.214 List of approved spent fuel storage casks.**

Certificate No. 1014 is revised by adding the effective date of Amendment Number 3.

### **Summary of Public Comments on the Proposed Rule**

The NRC received one comment letter on the proposed rule from Public Citizen and the Nuclear Information and Resource Service. Copies of the public comment letter are available

for review in the NRC's Public Document Room, O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland.

*Comments on the Holtec HI-STORM 100 Cask System Revision 3*

The commenters provided specific comments on Holtec's TS. To the extent possible, the comments on a particular subject are grouped together. The listing of the Holtec HI-STORM 100 cask system within 10 CFR 72.214, "List of approved spent fuel storage casks," has not been changed as a result of the public comments. A review of the comments and the NRC staff's responses follow:

*A. Holtec's proposal to eliminate cooling of the MPC cavity prior to reflood with water as part of cask unloading operations.*

**Comment A.1:** The commenters stated that if adequate cooling is not done prior to reflooding with water during cask unloading, the casks could experience brittle fracturing caused by a sudden temperature change from hot to cold. The fracturing could be in addition to the brittle fracturing already introduced into the casks by forced cooling during their original manufacture. The commenters stated that forced cooling violates NRC regulations and applicable ASME and ANSI codes.

**Response:** The Holtec spent fuel canisters are fabricated from austenitic stainless steel. This is an extremely tough material with excellent ductility at all temperatures. Also, this material does not have a ductile-to-brittle transformation temperature that is typical of some other types of steel. Hence, this material and the casks which are fabricated from it are not susceptible to any kind of brittle fracture as suggested by the comment. For the design

environmental temperatures, the range varies from -40 degrees F to 775 degrees F for the MPC, and this range of temperatures formed the design bases for the MPC of the cask system. The structural analyses performed for the cask system considered this range of temperatures.

There are no heating or cooling rate restrictions imposed by any regulatory or code requirement for this material or for this application.

**Comment A.2:** The commenters stated that during welding, the strength of the material decreases dramatically with the increased temperature of the material. After welding, Federal regulations require cooling at 100 degrees F without forced cooling. They further stated that if the material does not cool properly, voids inside the heated zones caused by welding could remain and cause cracking in the future, and that these cracks may not be detected by testing that is performed immediately after cooling. The commenters believed that the potential delayed cracking is the reason why Federal regulations require specific tests to assess whether the material's strength, which is reduced by welding, is returned to its original design strength. The commenters believed that such cracking is also why forced cooling, such as immersion in water baths or forced air fan cooling, is not allowed by NRC regulations and applicable ASME and ANSI codes.

**Response:** As stated in the response to Comment A.1, above, there is no regulatory or code requirement or restriction for heating or cooling rates for austenitic stainless steel, nor is there any need to impose such requirements. Further, cooling rates as alluded to by the commenters only apply during post-weld heat treatment (PWHT). PWHT is not required by the ASME code for this material, nor is it desirable because of the deleterious effect the PWHT temperatures would have upon the fuel payload.

The part of the cask which is welded while the cask is in the loading pool is some distance from the surface of the loading pool during welding of the closure lid. Any potential

“forced cooling” effect by the pool water would be negligible compared to the normally occurring cooling effect which arises from the thermal mass of the structural lid which is being welded. Likewise, the inert gas purge which is employed during welding is just sufficient to displace any hydrogen which may evolve from the fuel payload. It also provides a backing gas to protect the root pass of the weld from oxidation. It is insufficient to provide any significant cooling effect. To provide any significant cooling would require a gas flow such that welding would not be possible.

No credible delayed cracking mechanism exists for this material, unlike the situation for other types of steel. Given this, the excellent ductility of the material, and the lack of any kind of ductile-to-brittle transformation for the material, no suggested “brittle fracturing” mechanism is credible.

**Comment A.3:** The commenters stated that nine quality assurance (QA) violations affecting Holtec casks at the U.S. Tool and Die factory in Pittsburgh, PA, were identified by a former senior lead QA inspector for Commonwealth Edison/Exelon and his QA team in June and July 2000. The major QA violations included regulatory code violations, weld flaws, design flaws, and manufacturing flaws that call into question the structural integrity of the Holtec shipping containers, especially under transport accident conditions. The commenters stated that an NRC Region III dry cask inspector shared the concerns about the QA violations, and that despite this, NRC failed to address these issues.

**Response:** Region III forwarded the allegations raised by the former senior lead QA inspector for Commonwealth Edison/Exelon and his QA team in June and July 2000 to the former Spent Fuel Project Office (SFPO) at NRC Headquarters in memoranda dated February 20, 2002, and April 19, 2002. SFPO staff reviewed his allegations and concluded that there were no safety-significant problems with Holtec’s QA program, and more importantly, that there

were no identified defects in any casks previously manufactured. When the former senior lead QA inspector for Commonwealth Edison/Exelon asserted that NRC did not adequately address his issues, the NRC 's independent Office of the Inspector General (OIG) conducted an investigation. The OIG report, dated July 27, 2004 (available on the NRC website: <http://www.nrc.gov/reading-rm.html>), concluded that: (1) the NRC staff did not fail to provide adequate oversight of Holtec and US Tool and Die; (2) the NRC appropriately inspected those companies, found deficiencies, and verified that corrective actions were taken; (3) NRC's handling of the allegations from the former senior lead QA inspector for Commonwealth Edison/Exelon was appropriate; and (4) the NRC conducted a timely inspection and had a valid basis to determine that no safety significant problems existed.

*B. Holtec's proposal to allow linear interpolation between minimal soluble boron concentrations for certain fuel enrichments in the MPC-32/32F.*

**Comment:** The commenters stated that boron concentrations must be maintained very carefully given the risk of inadvertent criticality due to the fissile materials (such as U-235 and Pu-239) still present in the irradiated fuel. They stated that the NRC should not allow rollbacks on criticality safety regulations.

**Response:** During the review of the proposed amendment the staff carefully considered the additional risk of an inadvertent criticality given a corresponding reduction in the soluble boron levels based on enrichment. The original requirement to load any fuel over 4.1 weight percent uranium-235 as if it were 5.0 weight percent uranium-235 fuel was extremely conservative. Based on the study performed in the license amendment request, staff finds that linear interpolation of the soluble boron levels is conservative in this instance and continues to provide an ample margin of safety against inadvertent criticality.

C. Holtec's proposal to modify the definitions of fuel debris, damaged fuel assembly, and nonfuel hardware.

**Comment C.1:** The commenters stated that fuel debris and damaged fuel assemblies are among the most risky high-level radioactive waste to handle, store, transport, and dispose of, because the integrity of the fuel cladding has been ruined. They stated that radioactive particles and gases and entire nuclear fuel pellets are able to escape the fuel rods, worsening contamination of the Holtec inner canister and cask systems. They believed this could increase radiation doses for nuclear workers and the public as well as increase criticality risks in certain accident scenarios such as underwater submersions. Thus, the commenters believe that the definitions of these terms should not be modified.

**Response:** In its review of the final rule that added the Holtec HI-STORM 100 cask system to the listing in 10 CFR 72.214 (65 FR 25241; May 1, 2000), the staff found that fuel debris, as defined in that amendment, can be stored safely in the HI-STORM 100 cask system. The basis for the staff's finding is explained in the SER for that final rule. The current amendment does propose, however, to expand the definition of fuel debris to include additional materials.

In response to the comment, staff reevaluated this proposal and determined that expanding the definition of fuel debris to include containers or structures that are supporting intact or damaged fuel assembly parts is acceptable, as stated in the SER. However, staff determined that expanding the definition of fuel debris to include non-fuel hardware in order to permit storage of non-fuel hardware separately from (i.e., not within) a fuel assembly was not acceptable, and modified the Technical Specifications to remove non-fuel hardware from the definition of fuel debris. The SER has been modified to describe the staff's determination.

**Comment C.2:** The commenters stated that the nonfuel hardware is a hazardous material due to the radioactive contamination and radioactive activation it has experienced and presents a danger to workers and the public.

**Response:** In its review of Amendment 1 to the HI-STORM 100 cask system (67 FR 46369; July 15, 2002), the staff found that non-fuel hardware, as defined in that amendment, can be stored safely in the HI-STORM 100 cask system. The basis for the staff's finding is explained in the SER for that previous amendment. The current amendment proposes to add neutron source assemblies (NSA) to the definition of allowable non-fuel hardware and limits the number and the locations of NSAs to one per MPC stored in one of the four center-most fuel basket positions. Also, the staff found in its review that the shielding source term for an NSA is bounded by the shielding source terms of the cask contents approved in the previous amendment. Thus, the staff finds the cask system can safely store non-fuel hardware as defined in the current amendment.

*D. Holtec's proposal to permit the storage of pressurized water reactor (PWR) fuel assemblies with annular fuel pellets in the top and bottom 12 inches of the active fuel length.*

**Comment:** The commenters expressed concern that permitting the storage of PWR fuel assemblies with annular fuel pellets in the top and bottom 12 inches of the active fuel length would risk increasing doses to nuclear workers and the public during cask loading, handling, storage, transport, and disposal operations. They stated that this storage should not be allowed by NRC.

**Response:** The current amendment proposes to modify the allowable PWR contents to include PWR assemblies containing annular fuel pellets in the top and bottom 12 inches of the active fuel length. NRC staff considered the difference between annular and solid fuel pellets in

this part of the fuel from two aspects - source term and shielding - and concluded that the effect would not be noticeable. The annular pellet would produce a smaller source term than the solid pellet, since there is less fuel in the annular pellet, though the difference would be small, considering the lower burnup that the ends of the active fuel experience and the fact that the majority of fissions occur in the outer portions of a fuel pellet. Also, while solid pellets may be more effective than annular pellets as shielding, the amount of shielding provided by the MPC lid and the cask lid would make this effect small. Thus, the staff finds that the cask system can safely store PWR assemblies with annular pellets in the top and bottom 12 inches of the active fuel length.

### **Summary of Final Revisions**

In Appendix B to the CoC, Section 1.0, Definitions, the TS has been revised in response to Comment C.1. to remove non-fuel hardware from the definition of fuel debris. The SER has also been revised to document this change.

### **Voluntary Consensus Standards**

The National Technology Transfer and Advancement Act of 1995 (Pub. L. 104-113) requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this final rule, the NRC is revising the HI-STORM 100 cask system design listed in 10 CFR 72.214 (List of NRC-approved spent fuel

storage cask designs). This action does not constitute the establishment of a standard that contains generally applicable requirements.

### **Agreement State Compatibility**

Under the “Policy Statement on Adequacy and Compatibility of Agreement State Programs” approved by the Commission on June 30, 1997, and published in the Federal Register on September 3, 1997 (62 FR 46517), this rule is classified as Compatibility Category “NRC.” Compatibility is not required for Category “NRC” regulations. The NRC program elements in this category are those that relate directly to areas of regulation reserved to the NRC by the Atomic Energy Act of 1954 (AEA), as amended, or the provisions of Title 10 of the Code of Federal Regulations. Although an Agreement State may not adopt program elements reserved to NRC, it may wish to inform its licensees of certain requirements via a mechanism that is consistent with the particular State’s administrative procedure laws but does not confer regulatory authority on the State.

### **Finding of No Significant Environmental Impact: Availability**

Under the National Environmental Policy Act of 1969, as amended, and the NRC regulations in Subpart A of 10 CFR Part 51, the NRC has determined that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. This final rule amends the CoC for the HI-STORM 100 cask system within the list of approved spent fuel storage casks that power-reactor licensees can use to store spent fuel at reactor sites under a general

license. Amendment No. 3 modifies the present cask system design by revising TS 3.1.3 to eliminate cooling of the MPC cavity prior to reflood with water as part of cask unloading operations; TS 3.3.1 to allow linear interpolation between minimal soluble boron concentrations for certain fuel enrichments in the MPC-32/32F; Appendix B, Section 1 to the CoC, to make modifications to the definitions of fuel debris, damaged fuel assembly, and non-fuel hardware; and Appendix B, Section 2 to the CoC, to permit the storage of pressurized water reactor fuel assemblies with annular fuel pellets in the top and bottom 12 inches of the active fuel length. Other changes are made to incorporate minor editorial corrections.

The environmental assessment (EA) and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD. Single copies of the EA and finding of no significant impact are available from Jayne M. McCausland, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6219, e-mail [jmm2@nrc.gov](mailto:jmm2@nrc.gov).

### **Paperwork Reduction Act Statement**

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, Approval Number 3150-0132.

## Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

### **Regulatory Analysis**

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR Part 72 to provide for the storage of spent nuclear fuel under a general license in cask designs approved by the NRC. Any nuclear power-reactor licensee can use NRC-approved cask designs to store spent nuclear fuel if it notifies the NRC in advance, spent fuel is stored under the conditions specified in the cask's CoC, and the conditions of the general license are met. A list of NRC-approved cask designs is contained in 10 CFR 72.214. On May 1, 2000 (65 FR 25241), the NRC issued an amendment to Part 72 that approved the HI-STORM 100 cask system design by adding it to the list of NRC-approved cask designs in 10 CFR 72.214. On November 7, 2005, and as supplemented on April 30, 2006, the certificate holder, Holtec International, submitted an application to the NRC to amend the HI-STORM 100 cask system. The amendment revises TS 3.1.3 to eliminate cooling of the MPC cavity prior to reflood with water as part of cask unloading operations; TS 3.3.1 to allow linear interpolation between minimal soluble boron concentrations for certain fuel enrichments in the MPC-32/32F; Appendix B, Section 1 to the CoC, to make modifications to the definitions of fuel debris, damaged fuel assembly, and non-fuel hardware; and Appendix B, Section 2 to the CoC, to permit the storage of pressurized water reactor fuel assemblies with annular fuel pellets in the

top and bottom 12 inches of the active fuel length. Other changes are made to incorporate minor editorial corrections. The alternative to this action is to withhold approval of this amended cask system design. Withholding approval, in the absence of any safety reason for doing so, would not comply with the requirements of sections 218(a) and 133 of the Nuclear Waste Policy Act.

Approval of the final rule is consistent with previous NRC actions. Further, the final rule will have no adverse effect on public health and safety. This final rule has no significant identifiable impact or benefit on other Government agencies. Based on this discussion of the benefits and impacts of the alternatives, the NRC concludes that the requirements of the final rule are commensurate with the NRC's responsibilities for public health and safety and the common defense and security. No other available alternative is believed to be as satisfactory, and thus, this action is recommended.

### **Regulatory Flexibility Certification**

Under the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the NRC certifies that this rule will not, if issued, have a significant economic impact on a substantial number of small entities. This final rule affects only the licensing and operation of nuclear power plants, independent spent fuel storage facilities, and Holtec International. The companies that own these plants do not fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or the Small Business Size Standards set out in regulations issued by the Small Business Administration at 13 CFR Part 121.

## **Backfit Analysis**

The NRC has determined that the backfit rule (10 CFR 50.109 or 10 CFR 72.62) does not apply to this final rule because this amendment does not involve any provisions that would impose backfits as defined. Therefore, a backfit analysis is not required.

## **Congressional Review Act**

Under the Congressional Review Act of 1996, the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory Affairs, Office of Management and Budget.

### List of Subjects in 10 CFR Part 72

Administrative practice and procedure, Criminal penalties, Manpower training programs, Nuclear materials, Occupational safety and health, Penalties, Radiation protection, Reporting and recordkeeping requirements, Security measures, Spent fuel, Whistleblowing.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 552 and 553; the NRC is adopting the following amendments to 10 CFR Part 72.

**PART 72--LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF  
SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE, AND  
REACTOR-RELATED GREATER THAN CLASS C WASTE**

1. The authority citation for Part 72 continues to read as follows:

**Authority:** Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); Pub. L. 95-601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 102-486, sec. 7902, 106 Stat. 3123 (42 U.S.C. 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241, sec. 148, Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note); sec. 651(e), Pub. L. 109-58, 119 Stat. 806-10 (42 U.S.C. 2014, 2021, 2021b, 2111).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330-232, 1330-236 (42 U.S.C. 10162(b), 10168(c), (d)). Section 72.46 also issued under sec. 189, 68 Stat. 955 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C. 10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10165(g)). Subpart J also issued under secs. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2224 (42 U.S.C. 10101, 10137(a), 10161(h)). Subparts K and L are also issued under sec. 133, 98 Stat. 2230 (42 U.S.C. 10153) and sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

2. In § 72.214, Certificate of Compliance 1014 is revised to read as follows:

**§ 72.214 List of approved spent fuel storage casks.**

\* \* \* \* \*

Certificate Number: 1014.

Initial Certificate Effective Date: June 1, 2000.

Amendment Number 1 Effective Date: July 15, 2002.

Amendment Number 2 Effective Date: June 7, 2005.

Amendment Number 3 Effective Date: **(insert date that is 30 days from publication in the FEDERAL REGISTER).**

SAR Submitted by: Holtec International.

SAR Title: Final Safety Analysis Report for the HI-STORM 100 Cask System.

Docket Number: 72-1014.

Certificate Expiration Date: June 1, 2020.

Model Number: HI-STORM 100.

\* \* \* \* \*

Dated at Rockville, Maryland, this 13 day of April, 2007.

For the Nuclear Regulatory Commission.

/RA/  
Luis A. Reyes,  
Executive Director for Operations.

2. In § 72.214, Certificate of Compliance 1014 is revised to read as follows:

**§ 72.214 List of approved spent fuel storage casks.**

\* \* \* \* \*

Certificate Number: 1014.

Initial Certificate Effective Date: June 1, 2000.

Amendment Number 1 Effective Date: July 15, 2002.

Amendment Number 2 Effective Date: June 7, 2005.

Amendment Number 3 Effective Date: **(insert date that is 30 days from publication in the FEDERAL REGISTER).**

SAR Submitted by: Holtec International.

SAR Title: Final Safety Analysis Report for the HI-STORM 100 Cask System.

Docket Number: 72-1014.

Certificate Expiration Date: June 1, 2020.

Model Number: HI-STORM 100.

\* \* \* \* \*

Dated at Rockville, Maryland, this 13 day of April, 2007.

For the Nuclear Regulatory Commission.

/RA/  
 Luis A. Reyes,  
 Executive Director for Operations.

**ML070920335**

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