[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

[NRC-2015-0270]

RIN 3150-AJ71

List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM 100 Cask System; Certificate of Compliance No. 1014, Amendment No. 10

AGENCY: Nuclear Regulatory Commission.

ACTION: Direct final rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is amending its spent fuel storage regulations by revising the Holtec International (Holtec or applicant) HI-STORM 100 Cask System listing within the "List of approved spent fuel storage casks" to include Amendment No. 10 to Certificate of Compliance (CoC) No. 1014. Amendment No. 10 adds new fuel classes to the contents approved for the loading of 16X16-pin fuel assemblies into a HI-STORM 100 Cask System; allows a minor increase in manganese in an alloy material for the system's overpack and transfer cask; clarifies the minimum water displacement required of a dummy fuel rod (i.e., a rod not filled with uranium pellets); and clarifies the design pressures needed for normal operation of forced helium drying systems. Additionally, Amendment No. 10 revises Condition No. 9 of CoC No. 1014 to provide clearer direction on the measurement of air velocity and modeling of heat distribution through the storage system. Each of these changes is described in Section IV, "Discussion of Changes," in the SUPPLEMENTARY INFORMATION section of this document.

DATES: The direct final rule is effective May 31, 2016, unless significant adverse comments are received by April 13, 2016. If the direct final rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date. Comments received on this direct final rule will also be considered to be comments on a companion proposed rule published in the Proposed Rules section of this issue of the *Federal Register*.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal Rulemaking Web Site:** Go to http://www.regulations.gov and search for Docket ID NRC-2015-0270. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.
- **E-mail comments to:** Rulemaking.Comments@nrc.gov. If you do not receive an automatic e-mail reply confirming receipt, then contact us at 301-415-1677.
- **Fax comments to:** Secretary, U.S. Nuclear Regulatory Commission at 301-415-1101.
- **Mail comments to:** Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.
- **Hand deliver comments to:** 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. (Eastern Time) Federal workdays; telephone: 301-415-1677.

For additional direction on obtaining information and submitting comments, see "Obtaining Information and Submitting Comments" in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Robert D. MacDougall, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-5175; e-mail: Robert.MacDougall@nrc.gov.

SUPPLEMENTARY INFORMATION:

Table of Contents:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2015-0270 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to http://www.regulations.gov and search for Docket ID NRC-2015-0270.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID NRC-2015-0270 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at http://www.regulations.gov as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the

NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Procedural Background

This rule is limited to the changes contained in Amendment No. 10 to CoC No. 1014 and does not include other aspects of the Holtec HI-STORM 100 Cask System design. The NRC is using the "direct final rule procedure" to issue this amendment because it represents a limited and routine change to an existing CoC that is expected to be noncontroversial. Adequate protection of public health and safety continues to be ensured. The amendment to the rule will become effective on May 31, 2016. However, if the NRC receives significant adverse comments on this direct final rule by April 13, 2016, then the NRC will publish a document that withdraws this action and will subsequently address the comments received in a final rule as a response to the companion proposed rule published in the Proposed Rule section of this issue of the *Federal Register*. Absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

A significant adverse comment is a comment where the commenter explains why the rule would be inappropriate, including challenges to the rule's underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if:

1) The comment opposes the rule and provides a reason sufficient to require a

substantive response in a notice-and-comment process. For example, a substantive response is required when:

a) The comment causes the NRC staff to reevaluate (or reconsider) its position or conduct additional analysis;

b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

c) The comment raises a relevant issue that was not previously addressed or considered by the NRC staff.

2) The comment proposes a change or an addition to the rule, and it is apparent that the rule would be ineffective or unacceptable without incorporation of the change or addition.

3) The comment causes the NRC staff to make a change (other than editorial) to the rule, CoC, or technical specifications (TSs).

For detailed instructions on filing comments, please see the companion proposed rule published in the Proposed Rule section of this issue of the *Federal Register*.

III. Background

Section 218(a) of the Nuclear Waste Policy Act (NWPA) of 1982, as amended, requires that "the Secretary [of the Department of Energy] 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 "[the Commission] shall, by rule, establish procedures for the licensing of any technology approved

by the Commission under Section 219(a) [sic: 218(a)] for use at the site of any civilian nuclear power reactor."

To implement this mandate, the Commission approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule which added a new subpart K in part 72 of title 10 of the *Code of Federal Regulations* (10 CFR) 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 in 10 CFR part 72 entitled, "Approval of Spent Fuel Storage Casks," which contains 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 Holtec HI-STORM 100 Cask System design and added it to the list of NRC-approved cask designs in 10 CFR 72.214 as CoC No. 1014.

IV. Discussion of Changes

On January 5, 2015, Holtec submitted a request to the NRC to amend CoC No. 1014. Amendment No. 10 1) adds new fuel classes to the contents approved for the loading of 16X16-pin fuel assemblies into a HI-STORM 100 Cask System; 2) allows a minor increase in manganese in an alloy material for the system's overpack and transfer cask; 3) clarifies the minimum water displacement required of a dummy fuel rod (i.e., a rod not filled with uranium pellets); and 4) clarifies the design pressures expected for normal operation of forced helium drying systems. Additionally, Amendment No. 10 revises Condition No. 9 of CoC No. 1014 to provide clearer direction on the measurement of air velocity and modeling of heat distribution through the storage system. These changes are further discussed in this section, and the

changes to the affected TS Appendices are identified with revision bars in the margin of each document.

1. Addition of new 16X16B and 16X16C fuel classes to the contents approved for storage in a HI-STORM 100 Cask System

The contents, enrichment, weight, and dimensions of the new 16X16 fuel assembly classes are all bounded by previously approved 16X16 classes. The NRC staff determined that the applicant's analysis of the adequacy of the HI-STORM 100 package's shielding for the new fuel classes supports the conclusion that this shielding evaluation is also bounded by the previously evaluated classes of 16X16 fuel. From its criticality evaluations in the safety evaluation report (SER), the NRC staff also determined that the calculated maximum neutron fluences of the 16X16B and 16X16C fuel classes are statistically similar to the already-approved 16X16A fuel class, and both are well bounded by the design basis fuel. The staff therefore has reasonable assurance that the new fuel classes are consistent with the appropriate standards for shielding, criticality, and other required safety analyses, and that the package design and contents satisfy the radiation protection and criticality safety requirements in 10 CFR 72.14, 72.124, 72.106, and 72.236.

2. Addition to American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Alternative Table to allow a newer alloy material

In its request for this amendment, Holtec proposed an additional exemption to the ASME Boiler and Pressure Vessel Code Alternative Table to allow the use of more recent Code versions of material SA-516/516A Grade 70, an alloy like the one used in the overpack and transfer cask of the HI-STORM 100 Cask System. All SA-516 material used in the HI-STORM 100 Cask System is required to meet the material composition described in ASME Boiler and Pressure Vessel Code Section II, 2007 edition. This edition allows for a different manganese content from the 1995 edition, but does not change the structural or thermal properties of the

material. The applicant's request proposed no change in mechanical properties and no alteration in the form, fit, or function of these system components resulting from the minor change in composition of the alloy. The NRC staff therefore finds the requested exemption acceptable for the affected structures, systems, and components of CoC No. 1014.

3. Editorial clarifications

3.a. Clarification of minimum displacement of dummy fuel rods

When reactor operators become aware of a damaged or malfunctioning fuel pin in a fuel assembly, they may remove the assembly from the reactor core, replace the problem pin with a dummy fuel rod containing no uranium, and return the assembly to the reactor core to recover the assembly's remaining energy value. An assembly with a dummy rod may or may not be considered "intact" for handling purposes when it is finally removed from the reactor core. In Appendix A of the TSs, the definition of "Intact Fuel Assemblies" now clarifies the description of "dummy fuel rod" to specify that it must displace at least the same amount of water as would a fuel rod in the active fuel region of the assembly, because criticality safety analyses are based on displacement of water in that location. Specifically, the definition states that "[f]uel assemblies without fuel rods in fuel rod locations shall not be classified as INTACT FUEL ASSEMBLIES unless dummy fuel rods are used to displace an amount of water greater than or equal to that displaced by the fuel rod(s) in the active region [of the fuel assembly]." Intact fuel assemblies are by definition those that can be handled by normal means. In effect, this clarification of the minimum volume of a dummy rod provides that a fuel assembly with any such rods may not be handled by normal means unless these rods displace an equal or greater volume of water than rods containing fuel in the region of the assembly where there is nuclear material. The greater volume of fresh (unborated) water displaced by the dummy rod results in correspondingly less water available to moderate neutrons to a speed that could sustain a nuclear reaction, and consequently, the greater displacement will reduce reactivity in an

accident involving flooding with fresh water.

3.b. Clarification of helium pressure limits for drying and backfilling of multi-purpose canisters (MPCs) in underground installations

As indicated in Table 3-1 of Appendix A-100U for HI-STORM 100 Cask Systems intended for deployment in underground spent fuel storage installations, use of a closed-loop forced helium dehydration (FHD) system is an alternative to vacuum drying for an MPC containing moderate burnup fuel, and FHD is mandatory for drying MPCs with one or more high burnup fuel assemblies or a higher heat load. Section 3.6.2.2 of Appendix B-100U for HI-STORM Cask Systems was revised to clarify that the design pressure limit for normal operation of the FHD system is for drying only and not for backfilling the MPC with helium at lower pressures for long-term storage.

4. Revised Condition No. 9 of CoC No. 1014

The NRC staff revised Condition No. 9, “Special Requirements for First Systems in Place,” to provide a more appropriate location to perform air velocity measurements to gauge the cooling effect of air convection in the dry cask storage system. The previous language in the CoC required the measurements at the annular gap between the canister and the overpack. This location is difficult to access, and the measured data proved to be unreliable because air velocities can vary chaotically, especially at a location close to the top of the canister. The revised Condition No. 9 directs the user to make the measurements at the inlet vents, where the user can obtain the total mass flow rate of the air and perform a meaningful comparison with predicted results.

The NRC staff also revised Condition No. 9 to specify that measurements of the Supplemental Cooling System be used to validate the analytical methods described in the applicant’s final safety analysis report (FSAR) for the cask. The cask user will therefore need to develop a thermal model of this cask using the analytical methods described in the FSAR. This

will avoid unnecessary approximations in the thermal model that could add uncertainty in the predicted results. The revised language more precisely specifies the parameters to be measured and the analysis necessary to satisfy the Condition.

5. Conclusions

As documented in the SER for Amendment No. 10, the NRC staff performed a detailed safety evaluation of the proposed CoC amendment request. There are no significant changes to cask design requirements in the proposed CoC amendment. Considering the specific design requirements for each accident condition, the design of the cask would prevent loss of containment, shielding, and criticality control. If there is no loss of containment, shielding, or criticality control, the environmental impacts would be insignificant. This amendment does not reflect a significant change in design or fabrication of the cask. In addition, any resulting changes in occupational exposure or offsite dose from the implementation of Amendment No. 10 would remain well within 10 CFR part 20 limits.

Therefore, based on these findings of the SER and those of the environmental assessment below, the NRC staff concludes that the proposed CoC changes will not result in any radiological or non-radiological environmental impacts that differ significantly from the environmental impacts evaluated in the environmental assessment (EA) supporting the May 1, 2000, final rule approving CoC No. 1014. There will be no significant change in the types or amounts of any effluent released, no significant increase in individual or cumulative radiation exposures, and no significant increase in the potential for or consequences of radiological accidents.

This direct final rule revises the Holtec HI-STORM 100 Cask System listing in 10 CFR 72.214 by adding Amendment No. 10 to CoC No. 1014. The amendment consists of the changes previously described, as set forth in the revised CoC and TSs. The revised TSs are identified in the SER.

The amended Holtec HI-STORM 100 Cask System design, when used under the conditions specified in the CoC, the TSs, and the NRC's regulations, will meet the requirements of 10 CFR part 72; therefore, adequate protection of public health and safety will continue to be ensured. When this direct final rule becomes effective, persons who hold a general license under 10 CFR 72.210 may load spent nuclear fuel into HI-STORM 100 Cask Systems that meet the criteria of Amendment No. 10 to CoC No. 1014 under 10 CFR 72.212.

V. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995 (Pub. L. 104-113) requires that Federal agencies use technical standards developed or adopted by voluntary consensus standards bodies unless the use of any such standard is inconsistent with applicable law or otherwise impractical. In this direct final rule, the NRC will revise the Holtec HI-STORM 100 Cask System design listed in 10 CFR 72.214, "List of approved spent fuel storage casks." This action does not constitute the establishment of a standard that contains generally applicable requirements.

VI. 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, as amended, or the provisions of 10 CFR.

Although an Agreement State may not adopt program elements reserved to the NRC, and a Category "NRC" does not confer regulatory authority on the State, the State may wish to inform its licensees of certain requirements by means consistent with the particular State's administrative procedure laws.

VII. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998 (63 FR 31883).

VIII. Environmental Assessment and Finding of No Significant Environmental Impact

A. The Action

The action is to amend 10 CFR 72.214 to revise the Holtec HI-STORM 100 Cask System listing within the "List of approved spent fuel storage casks" to include Amendment No. 10 to CoC No. 1014. Under the National Environmental Policy Act of 1969, as amended (NEPA), and the NRC's regulations in subpart A of 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," 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 (EIS) is not required. The NRC has made a finding of no significant impact on the basis of this EA.

B. The Need for the Action

This direct final rule is needed to allow users of HI-STORM 100 Cask Systems under Amendment No. 10 to load for dry storage under a general license additional classes of fuel assemblies that would otherwise have to remain in spent fuel storage pools. This direct final rule amends the CoC for the Holtec HI-STORM 100 Cask System design 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.

Specifically, Amendment No. 10 1) adds new fuel classes to the contents approved for the loading of 16X16-pin fuel assemblies into a HI-STORM 100 Cask System; 2) allows a minor increase in manganese in an alloy material for the system's overpack and transfer cask; 3) clarifies the minimum water displacement required of a dummy fuel rod (i.e., a rod not filled with uranium pellets); and 4) clarifies the design pressures expected for normal operation of forced helium drying systems. Additionally, Amendment No. 10 revises Condition No. 9 of CoC No. 1014 to provide clearer direction on the measurement of air velocity and modeling of heat distribution through the storage system.

C. Environmental Impacts of the Action

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR part 72 to provide for the storage of spent fuel under a general license in cask designs approved by the NRC. The potential environmental impact of using NRC-approved storage casks was initially analyzed in the EA for the 1990 final rule. The EA for Amendment No. 10 tiers off of the EA for the July 18, 1990, final rule. Tiering on past EAs is a standard process under NEPA by which impact analyses in a previous EA can be cited by a subsequent EA as bounding the expected impacts of a new proposed action within the scope of the previous EA.

The Holtec HI-STORM 100 Cask System is designed to mitigate the effects of design basis accidents that could occur during storage. Design basis accidents account for human-

induced events and the most severe natural phenomena reported for the site and surrounding area. Postulated accidents analyzed for an Independent Spent Fuel Storage Installation, the type of facility at which a holder of a power reactor operating license would store spent fuel in casks in accordance with 10 CFR part 72, include tornado winds and tornado-generated missiles, a design basis earthquake, a design basis flood, an accidental cask drop, lightning effects, fire, explosions, and other incidents.

Considering the specific design requirements for each accident condition, the design of the cask would prevent loss of confinement, shielding, and criticality control. If there is no loss of confinement, shielding, or criticality control, the environmental impacts would be insignificant. This proposed CoC amendment does not reflect a significant change in cask design or fabrication requirements. Because there are no significant design or production process changes, any resulting occupational exposure or offsite dose rates from the implementation of Amendment No. 10 would remain well within all applicable 10 CFR part 20 limits. Therefore, the proposed CoC changes will not result in any radiological or non-radiological environmental impacts that significantly differ from the environmental impacts evaluated in the EA supporting the July 18, 1990, final rule. There will be no significant change in the types or amounts of any effluent released, no significant increase in individual or cumulative radiation exposures, and no significant increase in the potential for or consequences of radiological accidents. The NRC staff documented these safety findings in the SER.

D. Alternative to the Action

The alternative to this action is to deny approval of Amendment No. 10 and withdraw the direct final rule. Consequently, any 10 CFR part 72 general licensee that seeks to load spent nuclear fuel into the Holtec HI-STORM 100 Cask System in accordance with the changes

described in proposed Amendment No. 10 would have to request an exemption from the requirements of 10 CFR 72.212 and 72.214. Under this alternative, interested licensees would have to prepare, and the NRC would have to review, each separate exemption request, thereby increasing the administrative burden upon the NRC and the costs to each licensee. The environmental impacts of this alternative would therefore be the same as or greater than the preferred action.

E. Alternative Use of Resources

Approval of Amendment No. 10 to CoC No. 1014 would result in no irreversible commitments of resources.

F. Agencies and Persons Contacted

No agencies or persons outside the NRC were contacted in connection with the preparation of this EA.

G. Finding of No Significant Impact

The environmental impacts of the action have been reviewed under the requirements in 10 CFR part 51. Based on the foregoing EA, the NRC concludes that this direct final rule entitled, "List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM 100 Cask System; Certificate of Compliance No. 1014, Amendment No. 10," will not have a significant

effect on the human environment. Therefore, the NRC has determined that an EIS for this direct final rule is not necessary.

IX. Paperwork Reduction Act Statement

This rule does not contain any information collection requirements, and is therefore not subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

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 Office of Management and Budget control number.

X. 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 direct final rule affects only nuclear power plant licensees and Holtec. These entities do not fall within the scope of the definition of small entities set forth in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

XI. 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, the 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 10 CFR part 72 that approved the Holtec HI-STORM 100 Cask System design by adding it to the list of NRC-approved cask designs in 10 CFR 72.214.

On January 5, 2015, Holtec submitted an application to amend the HI-STORM 100 Cask System CoC as described in Section IV, "Discussion of Changes," of this document.

The alternative to this action is to withhold approval of Amendment No. 10 and require any 10 CFR part 72 general licensee seeking to load spent nuclear fuel into the Holtec HI-STORM 100 Cask System under the changes described in Amendment No. 10 to request an exemption from the requirements of 10 CFR 72.212 and 72.214. Under this alternative, each interested 10 CFR part 72 licensee would have to prepare, and the NRC would have to review, a separate exemption request, thereby increasing the administrative burden upon the NRC and the costs to each licensee.

Approval of the direct final rule is consistent with previous NRC actions. Further, as documented in the SER and the EA, the direct final rule will have no adverse effect on public health and safety or the environment. This direct final rule has no significant identifiable impact on or benefit to other Government agencies. Based on this regulatory analysis, the NRC concludes that the requirements of the direct 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 therefore, this action is recommended.

XII. Backfitting and Issue Finality

The NRC has determined that the backfit rule (10 CFR 72.62) does not apply to this direct final rule. Therefore, a backfit analysis is not required. This direct final rule revises CoC No. 1014 for the Holtec HI-STORM 100 Cask System, as currently listed in 10 CFR 72.214, "List of approved spent fuel storage casks." The revision consists of Amendment No. 10, which 1) adds new fuel classes to the contents approved for the loading of 16X16-pin fuel assemblies into a HI-STORM 100 Cask System; 2) allows a minor increase in manganese in an alloy material for the system's overpack and transfer cask; 3) clarifies the minimum water displacement required of a dummy fuel rod (i.e., a rod not filled with uranium pellets); and 4) clarifies the design pressures expected for normal operation of forced helium drying systems. Additionally, Amendment No. 10 revises Condition No. 9 of CoC No. 1014 to provide clearer direction on the measurement of air velocity and modeling of heat distribution through the storage system.

Amendment No. 10 to CoC No. 1014 for the Holtec HI-STORM 100 Cask System was initiated by Holtec, and was not submitted in response to new NRC requirements or an NRC request for amendment. Amendment No. 10 applies only to new casks fabricated and used under Amendment No. 10. These changes do not affect existing users of the Holtec HI-STORM 100 Cask System; the current Amendment No. 9 and earlier amendments continue to be effective for existing users. While current CoC users may comply with the new requirements in Amendment No. 10, this would be a voluntary decision on the part of current users. For these reasons, Amendment No. 10 to CoC No. 1014 does not constitute backfitting under 10 CFR 72.62, 10 CFR 50.109(a)(1), or otherwise represent an inconsistency with the issue finality provisions applicable to combined licenses in 10 CFR part 52. Accordingly, no backfit analysis or additional documentation addressing the issue finality criteria in 10 CFR part 52 has been prepared by the NRC staff.

XIII. Congressional Review Act

The Office of Management and Budget has not found this to be a major rule as defined in the Congressional Review Act.

XIV. Availability of Documents

The documents identified in the following table are available to interested persons as indicated.

DOCUMENT	ADAMS ACCESSION NO.
Holtec International HI-STORM 100 Cask System - License Amendment Request (1014-10)	ML15007A435
Proposed CoC No. 1014, Amendment No. 10	ML15331A307
Appendix A for Proposed CoC No. 1014, Amendment No. 10	ML15331A310
Appendix B for Proposed CoC No. 1014, Amendment No. 10	ML15331A311
Appendix A – 100U for Proposed CoC No. 1014, Amendment No. 10	ML15331A312
Appendix B – 100U for Proposed CoC No. 1014, Amendment No. 10	ML15331A313
Preliminary SER for Proposed CoC No. 1014, Amendment No. 10	ML15331A309

The NRC may post materials related to this document, including public comments, on the Federal Rulemaking Web site at http://www.regulations.gov under Docket ID NRC-2015-0270. The Federal Rulemaking Web site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: 1) Navigate to the docket folder

(NRC-2015-0270); 2) click the “Sign up for E-mail Alerts” link; and 3) enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly).

List of Subjects in 10 CFR Part 72

Administrative practice and procedure, Criminal penalties, Hazardous waste, Indians, Intergovernmental relations, Manpower training programs, Nuclear energy, 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; the Nuclear Waste Policy Act of 1982, 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: Atomic Energy Act of 1954, secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 223, 234, 274 (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2210e, 2232, 2233, 2234, 2236, 2237, 2238, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); National Environmental Policy Act of 1969 (42 U.S.C. 4332); Nuclear Waste Policy Act of 1982,

secs. 117(a), 132, 133, 134, 135, 137, 141, 145(g), 148, 218(a) (42 U.S.C. 10137(a), 10152, 10153, 10154, 10155, 10157, 10161, 10165(g), 10168, 10198(a)) 44 U.S.C. 3504 note.

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: May 31, 2000.

Amendment Number 1 Effective Date: July 15, 2002.

Amendment Number 2 Effective Date: June 7, 2005.

Amendment Number 3 Effective Date: May 29, 2007.

Amendment Number 4 Effective Date: January 8, 2008.

Amendment Number 5 Effective Date: July 14, 2008.

Amendment Number 6 Effective Date: August 17, 2009.

Amendment Number 7 Effective Date: December 28, 2009.

Amendment Number 8 Effective Date: May 2, 2012, as corrected on November 16, 2012 (ADAMS Accession No. ML12213A170).

Amendment Number 9 Effective Date: March 11, 2014.

Amendment Number 10 Effective Date: May 31, 2016.

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: May 31, 2020.

Model Number: HI-STORM 100.

* * * * *

Dated at Rockville, Maryland, this 2nd day of March, 2016.

For the Nuclear Regulatory Commission.

/RA/

Victor M. McCree,
Executive Director of Operations.

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

Docket Number: 72-1014.

Certificate Expiration Date: May 31, 2020.

Model Number: HI-STORM 100.

* * * * *

Dated at Rockville, Maryland, this 2nd day of March, 2016.

For the Nuclear Regulatory Commission.

/RA/

Victor M. McCree,
Executive Director of Operations.

ML16032A054

OFC	RPMB/MSTR	RPMB/MSTR	SFLB/DSFM	OGC
NAME	RMacDougall	TYoung for SWhaley*	JGoshen/ SRuffin*	LLondon/ JBielecki*
DATE	12/7/15	2/5/16	1/13/16	1/27/16
OFC	ADM	Tech Ed	MSTR/NMSS	EDO
NAME	LTerry/ CBladey*	CGallagher*	DCollins	VMcCree
DATE	1/7/16	2/12/16	2/23/16	03/02/16

OFFICIAL RECORD COPY
*Concurred by e-mail