



NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

[NRC-2024-0041]

RIN 3150-AL08

List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM 100 Cask System, Certificate of Compliance No. 1014, Renewed Amendment No. 16

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 HI-STORM 100 Cask System listing within the “List of approved spent fuel storage casks” to include Renewed Amendment No. 16 to Certificate of Compliance No. 1014. Renewed Amendment No. 16 revises the certificate of compliance to add a new overpack, include the ability to use computational fluid dynamics analysis to evaluate site-specific accident scenarios, modify the cask design, modify operational and testing requirements, and make changes to the final safety analysis report.

DATES: This direct final rule is effective [INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*], unless significant adverse comments are received by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. If this direct final rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*.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 NRC 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: Submit your comments, identified by Docket ID NRC-2024-0041, at <https://www.regulations.gov>. If your material cannot be submitted using <https://www.regulations.gov>, call or email the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions.

You can read a plain language description of this direct final rule at <https://www.regulations.gov/docket/NRC-2024-0041>. 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: Alexandra Terres, Office of Nuclear Materials Safety and Safeguards, telephone: 301-415-7000, email: Alexandra.Terres@nrc.gov and Yen-Ju Chen, Office of Nuclear Materials Safety and Safeguards, telephone: 301-415-1018 email: Yen-Ju.Chen@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

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I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2024-0041 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 Website:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2024-0041. Address questions about NRC dockets to Helen Chang, telephone: 301-415-3228, email: Helen.Chang@nrc.gov. For technical questions contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, 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 email 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:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time, Monday through Friday, except Federal Holidays.

B. Submitting Comments

Please include Docket ID NRC-2024-0041 in your comment submission. The NRC requests that you submit comments through the Federal rulemaking website at <https://www.regulations.gov>. If your material cannot be submitted using <https://www.regulations.gov>, call or email the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions.

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 <https://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. Rulemaking Procedure

This rule is limited to changes contained in Renewed Amendment No. 16 to Certificate of Compliance No. 1014 and does not include other aspects of the 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 certificate of compliance that is expected to be non-controversial. Adequate protection of public health and safety continues to be reasonably assured. The amendment to the rule will become effective on **[INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. However, if the NRC receives any significant adverse comment on this direct final rule by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, 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 Rules section of this issue of the *Federal Register* or as otherwise appropriate. In general, 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 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.

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 to make a change (other than editorial) to the rule, certificate of compliance, or technical specifications.

III. Background

Section 218(a) of the Nuclear Waste Policy Act of 1982, as amended, requires that “[t]he 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 Nuclear Waste Policy Act states, in part, that “[t]he 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 that 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 HI-STORM 100 Cask System design and added it to the list of NRC-approved cask designs in § 72.214 as Certificate of Compliance No. 1014.

IV. Discussion of Changes

On March 9, 2021, Holtec International submitted a request to the NRC to amend Certificate of Compliance No. 1014 for the HI–STORM 100 Cask System. Holtec International supplemented its request on the following dates: August 11, 2021, August 31, 2022, September 9, 2022, October 3, 2022, January 4, 2023, January 5, 2023, January 13, 2023, March 17, 2023, and September 20, 2023. On February 17, 2022, Holtec International requested to remove the certificate of compliance (CoC) reorganization, also known as graded approach, from this amendment.¹ The Renewed Amendment No. 16 revises the certificate of compliance to:

- Add a new unventilated high density (UVH) overpack, HI-STORM 100 UVH, which includes high density concrete for shielding. The UVH is to be used with the MPC-32M and MPC-68M.
- Include the ability to use the computational fluid dynamics (CFD) analysis to evaluate site-specific fire accident scenario.
- Modify the vent and drain penetrations to include the option of a second port cover plate.
- Include the ability to use CFD analysis to evaluate site-specific burial under debris accident scenario.

¹ On May 6, 2021, Holtec submitted a request for Amendment No. 16 to CoC No. 1014 (Package ML21126A266, incoming letter ML 21126A267), which included the CoC reorganization, known as graded approach. On February 17, 2022, Holtec requested to remove the graded approach from Amendment No. 16 (ML22048C221). Therefore, this direct final rule, and its companion proposed rule only address Amendment No. 16 to CoC No. 1014, as updated.

- Include the ability to use water without glycol in the HI-TRAC water jacket during transfer operations below 32°F based on the site-specific MPC total heat loads.
- Change the hydrostatic pressure test of the MPC acceptance criteria to be examination for leakage only.
- Remove post hydrostatic test liquid penetrant and magnetic particle examination.
- Reduce the minimum cooling time for pressurized water reactor fuel from 2 years to 1 year.

Renewed Amendment No. 16 also revises the final safety analysis report (FSAR), appendix 1.D, Specification for Plain Concrete in the HI-STORM Family of Overpacks, to enhance certain requirements, to add certain revised shielding assumptions following a significant thermal event, and to add critical characteristics for concrete employed in the HI-STORM 100 UVH System. Renewed Amendment No. 16 replaces the fuel qualification tables in the FSAR, chapter 2, and in the CoC, including the equation for calculation of the maximum allowable burnup as a function of the cooling time and cooling time dependent coefficients, with simpler sets of burnup and cooling time limits.

The changes to the aforementioned documents are identified with revisions bars in the margin of each document.

As documented in the preliminary safety evaluation report, the NRC performed a safety evaluation of the proposed certificate of compliance amendment request. The NRC determined that this amendment does not reflect a significant change in design or fabrication of the cask. Specifically, the NRC determined that the design of the cask would continue to maintain confinement, shielding, and criticality control in the event of each evaluated accident condition. In addition, any resulting occupational exposure or offsite dose rates from the implementation of Renewed Amendment No. 16 would remain well within the limits specified by 10 CFR part 20, "Standards for Protection Against Radiation." Therefore, the NRC found there will be no significant change in the

types or amounts of any effluent released, no significant increase in the individual or cumulative radiation exposure, and no significant increase in the potential for or consequences from radiological accidents.

The NRC staff determined that the amended Holtec International HI-STORM 100 Cask System cask design, when used under the conditions specified in the certificate of compliance, the technical specifications, 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 reasonably assured. When this direct final rule becomes effective, persons who hold a general license under § 72.210 may, consistent with the license conditions under § 72.212, load spent nuclear fuel into HI-STORM 100 casks that meet the criteria of Renewed Amendment No. 16 of Certificate of Compliance No. 1014.

V. 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 direct final rule, the NRC revises the Holtec International HI-STORM 100 Cask System design listed in § 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 "Agreement State Program Policy Statement" approved by the Commission on October 2, 2017, and published in the *Federal Register* on October 18, 2017 (82 FR 48535), this rule is classified as Compatibility Category NRC – Areas of Exclusive NRC Regulatory Authority. 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 chapter I. Therefore, compatibility is not required for program elements in this category.

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 31885).

VIII. Environmental Assessment and Finding of No Significant Impact

Under the National Environmental Policy Act of 1969, as amended, and the NRC's regulations in 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," the NRC has determined that this direct final 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. The NRC has made a finding of no significant impact on the basis of this environmental assessment.

A. The Action

The action is to amend § 72.214 to revise the Holtec International HI-STORM 100 Cask System listing within the "List of approved spent fuel storage casks" to include Renewed Amendment No. 16 to Certificate of Compliance No. 1014.

B. The Need for the Action

This direct final rule amends the certificate of compliance for the Holtec International HI-STORM 100 Cask System design within the list of approved spent fuel storage casks to allow power reactor licensees to store spent fuel at reactor sites in casks with the approved modifications under a general license. Specifically, Renewed Amendment No. 16 revises the certificate of compliance as follows:

- Add a new UVH overpack, HI-STORM 100 UVH, which includes high density concrete for shielding. The UVH is to be used with the MPC-32M and MPC-68M.

- Include the ability to use the CFD analysis to evaluate site-specific fire accident scenario.
- Modify the vent and drain penetrations to include the option of a second port cover plate.
- Include the ability to use CFD analysis to evaluate site-specific burial under debris accident scenario.
- Include the ability to use water without glycol in the HI-TRAC water jacket during transfer operations below 32°F based on the site-specific MPC total heat loads.
- Change the hydrostatic pressure test of the MPC acceptance criteria to be examination for leakage only. Remove post hydrostatic test liquid penetrant and magnetic particle examination.
- Reduce the minimum cooling time for pressurized water reactor fuel from 2 years to 1 year.

Renewed Amendment No. 16 also revises the final safety analysis report (FSAR) appendix 1.D, Specification for Plain Concrete in the HI-STORM Family of Overpacks, to enhance certain requirements, to add certain revised shielding assumptions following a significant thermal event, and to add critical characteristics for concrete employed in the HI-STORM 100 UVH System. Renewed Amendment No. 16 replaces the fuel qualification tables in the FSAR, chapter 2, and in the CoC, including the equation for calculation of the maximum allowable burnup as a function of the cooling time and cooling time dependent coefficients, with simpler sets of burnup and cooling time limits.

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 analyzed in the environmental assessment for the 1990 final rule. The environmental assessment for this Renewed Amendment No. 16 tiers off of the

environmental assessment for the July 18, 1990, final rule. Tiering on past environmental assessments is a standard process under the National Environmental Policy Act of 1969, as amended.

Holtec International 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, can 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.

This amendment does not reflect a significant change in design or fabrication of the cask. Because there are no significant design or process changes, any resulting occupational exposure or offsite dose rates from the implementation of Renewed Amendment No. 16 would remain well within the 10 CFR part 20 limits. The NRC has also determined that the design of the cask as modified by this rule would maintain confinement, shielding, and criticality control in the event of an accident. Therefore, the proposed changes will not result in any radiological or non-radiological environmental impacts that significantly differ from the environmental impacts evaluated in the environmental assessment supporting the July 18, 1990, final rule. There will be no significant change in the types or significant revisions in the amounts of any effluent released, no significant increase in the individual or cumulative radiation exposures, and no significant increase in the potential for, or consequences from, radiological accidents. The NRC documented its safety findings in the preliminary safety evaluation report.

D. Alternative to the Action

The alternative to this action is to deny approval of Renewed Amendment No. 16 and not issue the direct final rule. Consequently, any 10 CFR part 72 general licensee

that seeks to load spent nuclear fuel into Holtec International HI-STORM 100 Cask System in accordance with the changes described in proposed Renewed Amendment No. 16 would have to request an exemption from the requirements of §§ 72.212 and 72.214. Under this alternative, interested licensees 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. The environmental impacts would be the same as the proposed action.

E. Alternative Use of Resources

Approval of Renewed Amendment No. 16 to Certificate of Compliance No. 1014 would result in no irreversible commitment of resources.

F. Agencies and Persons Contacted

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

G. Finding of No Significant Impact

The environmental impacts of the action have been reviewed under the requirements in the National Environmental Policy Act of 1969, as amended, and the NRC's regulations in subpart A of 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." Based on the foregoing environmental assessment, the NRC concludes that this direct final rule, "List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM 100 Cask System, Certificate of Compliance No. 1014, Renewed Amendment No. 16," will not have a significant effect on the human environment. Therefore, the NRC has determined that an environmental impact statement is not necessary for this direct final rule.

IX. Paperwork Reduction Act Statement

This direct final rule does not contain any new or amended collections of information subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing collections of information 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 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 direct final 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 International. 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 (§ 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 1) it notifies the NRC in advance; 2) the spent fuel is stored under the conditions specified in the cask's certificate of compliance; and 3) the conditions of the general license are met. A list of NRC-approved cask designs is contained in § 72.214. On May 31, 2000 (65 FR 25241), the NRC issued an amendment to 10 CFR part 72 that approved the HI-STORM 100 Cask System by adding it to the list of NRC-approved cask designs in § 72.214.

March 9, 2021, as supplemented on August 11, 2021, August 31, 2022, September 9, 2022, October 3, 2022, January 4, 2023, January 5, 2023, January 13, 2023, March 17, 2023, and September 20, 2023, Holtec International submitted a request to amend the HI-STORM 100 Cask System as described in Section IV, "Discussion of Changes," of this document.

The alternative to this action is to withhold approval of Renewed Amendment No.

16 and to require any 10 CFR part 72 general licensee seeking to load spent nuclear fuel into Holtec International HI-STORM 100 Cask System under the changes described in Renewed Amendment No. 16 to request an exemption from the requirements of §§ 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 this direct final rule is consistent with previous NRC actions. Further, as documented in the preliminary safety evaluation report and environmental assessment, this 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 or benefit on other government agencies. Based on this regulatory analysis, the NRC concludes that the requirements of this 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; therefore, this action is recommended.

XII. Backfitting and Issue Finality

The NRC has determined that the backfit rule (§ 72.62) does not apply to this direct final rule. Therefore, a backfit analysis is not required. This direct final rule revises Certificate of Compliance No. 1014 for the Holtec International HI-STORM 100 Cask System, as currently listed in § 72.214. The revision consists of the changes in Renewed Amendment No. 16 previously described, as set forth in the revised certificate of compliance and technical specifications.

Renewed Amendment No. 16 to Certificate of Compliance No. 1014 for the Holtec International HI-STORM 100 Cask System was initiated by Holtec International and was not submitted in response to new NRC requirements, or an NRC request for amendment. Renewed Amendment No. 16 applies only to new casks fabricated and used under Renewed Amendment No. 16. These changes do not affect existing users of

the Holtec International HI-STORM 100 Cask System, and the current Amendment No. 15 continues to be effective for existing users. While current users of this storage system may comply with the new requirements in Renewed Amendment No. 16, this would be a voluntary decision on the part of current users.

For these reasons, Renewed Amendment No. 16 to Certificate of Compliance No. 1014 does not constitute backfitting under § 72.62 or § 50.109(a)(1), or otherwise represent an inconsistency with the issue finality provisions applicable to combined licenses in 10 CFR part 52. Accordingly, the NRC has not prepared a backfit analysis for this rulemaking.

XIII. Congressional Review Act

This direct final rule is not a 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. / WEB LINK / <i>FEDERAL REGISTER CITATION</i>
Amendment Request Documents	
Holtec International, Submittal of HI-STORM 100 Multipurpose Canister Storage System Amendment 16 Request, dated March 9, 2021	ML21068A360 (package)
HI-STORM 100 Amendment 16 Responses to Requests for Supplemental Information, dated August 11, 2021	ML21223A045 (package)
HI-STORM 100 Amendment 16 Responses to Requests for Additional Information (Batches 1 and 2), dated August 31, 2022	ML22243A269 (package)
Holtec International, HI-STORM 100 Amendment 16 Responses to Requests for Additional Information (Batch 2), dated September 9, 2022	ML22249A347 (package)
HI-STORM 100 Amendment 16 Responses to Requests for Additional Information (Batch 3), dated October 3, 2022	ML22276A286 (package)
Holtec International, HI-STORM 100 Amendment 16 Responses to Requests for Additional Information (Batch 4), dated January 4, 2023	ML23005A000 (package)

Holtec International, HI-STORM 100 Amendment 16 Responses to Requests for Additional Information (Batch 4) – Additional Supporting Document, dated January 5, 2023	ML23005A273 (package)
Holtec International, HI-STORM 100 Amendment 16 Responses to Requests for Additional Information (Batch 5), dated January 13, 2023	ML23013A337 (package)
HI-STORM 100 Amendment 16 RAI 3-3 Clarification, dated March 17, 2023	ML23076A271 (package)
HI-STORM 100 Amendment 16 Responses to Second Round Requests for Additional Information, dated September 20, 2023	ML23263B122 (package)
Holtec International – HI-STORM 100 Multipurpose Canister Storage System Amendment 19, dated February 17, 2022	ML22048C222
Technical Specifications	
Proposed Certificate of Compliance No. 1014, Amendment 16	ML23123A104
Proposed Technical Specifications, Appendix A, Certificate of Compliance No. 1014, Amendment 16	ML23123A105
Proposed Technical Specifications, Appendix B, Certificate of Compliance No. 1014, Amendment 16	ML23123A106
Proposed Technical Specifications, Appendix C, Certificate of Compliance No. 1014, Amendment 16	ML23123A107
Proposed Technical Specifications, Appendix D, Certificate of Compliance No. 1014, Amendment 16	ML23123A108
Proposed Technical Specifications, Appendix A-100U, Certificate of Compliance No. 1014, Amendment 16	ML23123A109
Proposed Technical Specifications, Appendix B-100U, Certificate of Compliance No. 1014, Amendment 16	ML23123A110
Preliminary Safety Evaluation Report	
Preliminary Certificate of Compliance 1014 Amendment 16 Safety Evaluation Report	ML23123A112
Additional Documents	
Final Rule, “Storage of Spent Fuel in NRC-Approved Storage Casks at Power Reactor Sites,” published July 18, 1990	55 FR 29181
Final Rule, “List of Approved Spent Fuel Storage Casks: Holtec HI-STORM 100 Addition,” published May 1, 2000	65 FR 25241
Revision to Policy Statement, “Agreement State Program Policy Statement; Correction,” published October 18, 2017	82 FR 48535

Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998	63 FR 31885
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The NRC may post materials related to this document, including public comments, on the Federal rulemaking website at <https://www.regulations.gov> under Docket ID NRC-2024-0041. In addition, the Federal rulemaking website allows members of the public to receive alerts when changes or additions occur in a docket folder. To subscribe: 1) navigate to the docket folder (NRC-2024-0041); 2) click the "Subscribe" link; and 3) enter an email address and click on the "Subscribe" link.

List of Subjects in 10 CFR Part 72

Administrative practice and procedure, Hazardous waste, Indians, Intergovernmental relations, Nuclear energy, 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 No. 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, superseded by Renewed Initial Certificate

Effective Date: August 2, 2023.

Amendment Number 1 Effective Date: July 15, 2002, superseded by Renewed

Amendment Number 1 Effective Date: August 2, 2023.

Amendment Number 2 Effective Date: June 7, 2005, superseded by Renewed

Amendment Number 2 Effective Date: August 2, 2023.

Amendment Number 3 Effective Date: May 29, 2007, superseded by Renewed

Amendment Number 3 Effective Date: August 2, 2023.

Amendment Number 4 Effective Date: January 8, 2008, superseded by Renewed

Amendment Number 4 Effective Date: August 2, 2023.

Amendment Number 5 Effective Date: July 14, 2008, superseded by Renewed

Amendment Number 5 Effective Date: August 2, 2023.

Amendment Number 6 Effective Date: August 17, 2009, superseded by Renewed

Amendment Number 6 Effective Date: August 2, 2023.

Amendment Number 7 Effective Date: December 28, 2009, superseded by Renewed

Amendment Number 7 Effective Date: August 2, 2023.

Amendment Number 8 Effective Date: May 2, 2012, as corrected on November 16, 2012

(ADAMS Accession No. ML12213A170); superseded by Amendment Number 8,

Revision 1, *Effective Date:* February 16, 2016; superseded by Renewed Amendment

Number 8, Revision 1 *Effective Date:* August 2, 2023.

Amendment Number 9 Effective Date: March 11, 2014, superseded by Amendment

Number 9, Revision 1, *Effective Date:* March 21, 2016, as corrected on August 25, 2017

(ADAMS Accession No. ML17236A451); superseded by Renewed Amendment Number

9, Revision 1 *Effective Date:* August 2, 2023.

Amendment Number 10 Effective Date: May 31, 2016, as corrected on August 25, 2017

(ADAMS Accession No. ML17236A452); superseded by Renewed Amendment Number 10 Effective Date: August 2, 2023.

Amendment Number 11 Effective Date: February 25, 2019, as corrected (ADAMS Accession No. ML19343B024); superseded by Renewed Amendment Number 11 Effective Date: August 2, 2023.

Amendment Number 12 Effective Date: February 25, 2019, as corrected on May 30, 2019 (ADAMS Accession No. ML19109A111); further corrected December 23, 2019 (ADAMS Accession No. ML19343A908); superseded by Renewed Amendment Number 12 Effective Date: August 2, 2023.

Amendment Number 13 Effective Date: May 13, 2019, as corrected on May 30, 2019 (ADAMS Accession No. ML19109A122); further corrected December 23, 2019 (ADAMS Accession No. ML19343B156); superseded by Renewed Amendment Number 13 Effective Date: August 2, 2023.

Amendment Number 14 Effective Date: December 17, 2019, as corrected (ADAMS Accession No. ML19343B287); superseded by Renewed Amendment Number 14 Effective Date: August 2, 2023.

Amendment Number 15 Effective Date: June 14, 2021, superseded by Renewed Amendment Number 15 Effective Date: August 2, 2023.

Renewed Amendment Number 16 Effective Date: **[INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

Renewed Amendment Number 17 Effective Date: January 16, 2024.

Safety Analysis Report (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.

Renewed Certificate Expiration Date: May 31, 2060.

Model Number: HI-STORM 100.

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Dated: June 7, 2024.

For the Nuclear Regulatory Commission.

Raymond Furstenau,
Acting Executive Director for Operations.

[FR Doc. 2024-13984 Filed: 6/24/2024 8:45 am; Publication Date: 6/25/2024]