[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

[NRC-2022-0109]

RIN 3150-AK86

List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM 100 Cask System, Certificate of Compliance No. 1014, Renewal of Initial Certificate and Amendment Nos. 1 Through 15

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 renew, for 40 years, the initial certificate and Amendment Nos. 1 through 15 of Certificate of Compliance No. 1014. The renewal of the initial certificate and Amendment Nos. 1 through 15 revises the certificate of compliance's conditions and technical specifications to address aging management activities related to the structures, systems, and components important to safety of the dry storage system to ensure that these will maintain their intended functions during the period of extended storage operations.

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 If this direct final rule is withdrawn as a result of such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-2022-0109, 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.

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: Kristina Banovac, Office of Nuclear Material Safety and Safeguards; telephone: 301-415-7116, email: Kristina.Banovac@nrc.gov and James Firth, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-6628, email: James.Firth@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

TABLE OF CONTENTS:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2022-0109 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-2022-0109. Address questions about NRC dockets to Dawn Forder, telephone: 301-415-3407, email: Dawn.Forder@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:** You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. 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 8:00 a.m. and 4:00 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

B. Submitting Comments

Please include Docket ID NRC-2022-0109 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 involves the renewal of Certificate of Compliance No. 1014, which includes the initial certificate and Amendment Nos. 1 through 15. As described in the Statement of Considerations to the final rule “License and Certificate of Compliance Terms” (76 FR 8872; February 16, 2011), a renewal reaffirms the original design basis,

perhaps with some modifications, but does not involve reevaluating the original design basis in accordance with current review standards, which may be different from the standards in place when the cask design was initially certified. The NRC is using the "direct final rule procedure" to issue this renewal 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, states 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 and for the renewal of the cask design approval. 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. On August 28, 2007 (72 FR 49561), the NRC amended the scope of the general licenses issued under 10 CFR 72.210 to include the storage of spent fuel in an independent spent fuel storage installation (ISFSI) at power reactor sites to persons authorized to possess or operate nuclear power reactors under 10 CFR part 52. On February 16, 2011 (76 FR 8872), the NRC amended subparts K and L in 10 CFR part 72, to extend and clarify the term limits for certificates of compliance and revised the conditions for spent fuel storage casks renewals, including adding requirements for the safety analysis report to include time-limited aging analyses and a description of aging management programs. The NRC also clarified the terminology used in the regulations to use "renewal" rather than "reapproval" to better reflect that extending the term of a currently approved cask design is based on the cask design standards in effect at the time the certificate of compliance was approved rather than current standards.

IV. Discussion of Changes

The term certified by the initial Certificate of Compliance No. 1014 was 20 years. The period of extended operation for each cask begins 20 years after the cask is first used by the general licensee to store spent fuel. On January 31, 2020, as supplemented on October 16, 2020, October 29, 2020, April 19, 2021, and April 23, 2021, Holtec International submitted a request to renew Certificate of Compliance No. 1014 for the HI-STORM 100 Cask System design for an additional 40 years beyond the initial certificate term (ADAMS Accession Nos. ML20049A081, ML20290A819, ML20303A254, ML21109A367, and ML21113A201).

The HI-STORM 100 Cask System design consists of (1) interchangeable multi-purpose canisters (MPCs), which contain the fuel, (2) a storage overpack (HI-STORM), which contains the MPC during storage, and (3) a transfer cask (HI-TRAC), which

contains the MPC during loading, unloading, and transfer operations. The MPC is a welded, cylindrical canister with a fuel basket, a baseplate, a lid, a closure ring, and the canister shell. This cask system design has twelve types of MPCs.

The HI-STORM 100 dry storage system includes an aboveground system and an underground system. For the aboveground systems, the HI-STORM 100 or HI-STORM 100S storage overpack provides shielding and structural protection of the MPC during storage. The HI-STORM 100S is a variation of the HI-STORM 100 overpack design that includes a modified lid that incorporates the air outlet ducts, allowing the overpack body to be shortened. The HI-STORM 100A and HI-STORM 100SA are variants of the HI-STORM 100 overpack and are outfitted with an extended baseplate and gussets to enable the overpack to be anchored to the concrete storage pad in high seismic applications. The HI-STORM 100U system is an underground storage system within the HI-STORM 100 Cask System. The HI-STORM 100U storage vertical ventilated module uses an air-cooled vault or caisson storage design.

The Nuclear Energy Institute's (NEI) document NEI 14-03, Revision 2, "Format, Content and Implementation Guidance for Dry Cask Storage Operations-Based Aging Management," (2016) (ADAMS Accession No. ML16356A210) provides an operations-based, learning approach to aging management for the storage of spent fuel, which builds on the lessons learned from industry's experience with aging management for reactors. The NRC endorsed NEI 14-03, Revision 2, with clarifications, in Regulatory Guide 3.76, Revision 0, "Implementation of Aging Management Requirements for Spent Fuel Storage Renewals," issued July 2021 (ADAMS Accession No. ML21098A022). Specifically, NEI 14-03 provides a framework for sharing operating experience through an industry-developed database called the ISFSI Aging Management Institute of Nuclear Power Operations Database. NEI 14-03 also includes a framework for learning aging management programs using aging management "tollgates," which offer a structured approach for periodically assessing operating experience and data from applicable research and industry initiatives at specific times during the period of extended operation

and performing a safety assessment that confirms the safe storage of the spent nuclear fuel by ensuring the aging management programs continue to effectively manage the identified aging effects. The ISFSI Aging Management Institute of Nuclear Power Operations Database provides operating experience information and a basis to support licensees' future changes to the aging management programs. The ISFSI Aging Management Institute of Nuclear Power Operations Database and the aging management tollgates are considered key elements in ensuring the effectiveness of aging management activities and the continued safe storage of spent fuel during the period of extended operation.

Holtec International incorporated periodic tollgate assessments as requirements in the renewed certificate of compliance, as recommended in NEI 14-03, Revision 2. The implementation of tollgate assessments provides reasonable assurance that the aging management programs for the MPC, overpack, transfer cask, high burnup fuel assembly components (if applicable), and the 100U concrete (if applicable) will continue to effectively manage aging effects during the period of extended operation.

The renewal of the initial certificate and Amendment Nos. 1 through 15 was conducted in accordance with the renewal provisions in § 72.240. The NRC's regulations require the safety analysis report for the renewal to include time-limited aging analyses that demonstrate that structures, systems, and components important to safety will continue to perform their intended function for the requested period of extended operation and a description of the aging management programs for the management of issues associated with aging that could adversely affect structures, systems, and components important to safety. This section of the NRC spent fuel storage regulations authorizes the NRC to revise the certificate of compliance to include any additional terms, conditions, and specifications it deems necessary to ensure the safe operation of the cask during the certificate of compliance's renewal term. Here, the NRC is adding three new conditions to the renewal of the certificate of compliance, which will ensure the safe operation of the cask during the certificate of compliance's renewal term and will

allow the use of the HI-STORM 100 during the approved period of extended operation. The NRC is amending the condition that describes the authorization for use of the Holtec International HI-STORM 100 Cask System design under the general license.

The three new conditions added to the renewal of the initial certificate of compliance and Amendment Nos. 1 through 15 are:

- A condition requiring the certificate of compliance holder to submit an updated final safety analysis report within 90 days after the effective date of the renewal. The updated final safety analysis report must reflect the changes resulting from the review and approval of the renewal of the certificate of compliance, including the HI-STORM 100 final safety analysis report supplement, as documented in Appendix D of the HI-STORM 100 certificate of compliance renewal application, Revision 1, dated April 23, 2021 (ADAMS Accession No. ML21113A203). This condition ensures that final safety analysis report changes are made in a timely fashion to enable general licensees using the storage system during the period of extended operation to develop and implement necessary procedures related to renewal and aging management activities. The certificate of compliance holder is required to continue to update the final safety analysis report pursuant to the requirements of § 72.248.
- A condition requiring each general licensee using the HI-STORM 100 Cask System design to include, in the evaluations required by § 72.212(b)(5), evaluations related to the terms, conditions, and specifications of this certificate of compliance amendment as modified (i.e., changed or added) as a result of the renewal of the certificate of compliance and include, in the document review required by § 72.212(b)(6), a review of the final safety analysis report changes resulting from the renewal of the certificate of compliance and the NRC Safety Evaluation Report for the renewal of the certificate of compliance. The general licensee would also be required to

ensure that the evaluations required by § 72.212(b)(7) in response to these changes are conducted and the determination required by § 72.212(b)(8) is made. This condition also makes it clear that to meet the requirements in § 72.212(b)(11), general licensees that currently use a HI-STORM 100 Cask System will need to update their § 72.212 reports, even if they do not put additional Holtec International HI-STORM 100 Cask Systems into service after the renewal's effective date. These evaluations, reviews, and determinations are to be completed before the dry storage system enters the period of extended operation (which begins 20 years after the first use of the Holtec International HI-STORM 100 Cask System) or no later than 365 days after the effective date of this rule, whichever is later. This will provide general licensees a minimum of 365 days to comply with the new terms, conditions, specifications, and other changes to the certificate of compliance and to make the necessary determinations required by § 72.212(b)(8) as to whether activities related to the storage of spent nuclear fuel using the renewed certificate of compliance involve a change in the facility Technical Specifications or requires a license amendment for the facility.

- A condition requiring all future amendments and revisions to the certificate of compliance (i.e., the initial certificate 1014 and Amendment Nos. 1 through 15) include evaluations of the impacts to aging management activities (i.e., time-limited aging analyses and aging management programs) to ensure they remain adequate for any changes to structures, systems, and components important to safety within the scope of renewal. This condition ensures that future amendments to the certificate of compliance address the renewed design bases for the certificate of compliance, including aging management impacts that may arise from the changes to the system in proposed future amendments.

Additionally, the condition for the initial certificate and Amendment Nos. 1 through 15 would be amended to reflect changes to the scope of the general license granted by § 72.210 that were made after the approval of the initial certificate. The authorization is amended to allow persons authorized to possess or operate a nuclear power reactor under 10 CFR part 52 to use the HI-STORM 100 Cask Design under the general license issued under § 72.210.

The NRC made one corresponding change from the technical specifications for the initial certificate of compliance and Amendment Nos. 1 through 15 by adding a section addressing the aging management program. General licensees using the HI-STORM Cask System design during the period of extended operation will need to establish, implement, and maintain written procedures for each applicable aging management program in the final safety analysis report to use the HI-STORM 100 Cask System design during the approved period of extended operation. The procedures will need to include provisions for changing aging management program elements, as necessary, and within the limitations of the approved design bases to address new information on aging effects based on inspection findings and/or industry operating experience. General licensees will also be required to perform tollgate assessments as described in Chapter 9 of the final safety analysis report.

General licensees will need to establish and implement these written procedures prior to entering the period of extended operation (which begins 20 years after the first use of the cask system) or no later than 365 days after the effective date of this rule, whichever is later. The general licensee is required to maintain these written procedures for as long as the general licensee continues to operate HI-STORM 100 Cask Systems in service for longer than 20 years.

Under § 72.240(d), the design of a spent fuel storage cask will be renewed if (1) the quality assurance requirements in 10 CFR part 72, Subpart G, “Quality Assurance,” are met, (2) the requirements of 10 CFR 72.236(a) through (i) are met, and (3) the application includes a demonstration that the storage of spent fuel has not, in a

significant manner, adversely affected the structures, systems, and components important to safety. Additionally, § 72.240(c) requires that the safety analysis report accompanying the application contain time-limited aging analyses that demonstrate that the structures, systems, and components important to safety will continue to perform their intended function for the requested period of extended operation and a description of the aging management program for management of aging issues that could adversely affect structures, systems, and components important to safety.

As documented in the preliminary safety evaluation report, the NRC reviewed the application for the renewal of the certificate of compliance and the conditions in the certificate of compliance and determined that the conditions in subpart G, § 72.236(a) through (i), and § 72.238 have been met and the application includes a demonstration that the storage of spent nuclear fuel has not, in a significant manner, adversely affected structures, systems, and components important to safety. The NRC's safety review determined that the HI-STORM 100, with the added terms, conditions, and specifications in the certificate of compliance and the technical specifications, will continue to meet the requirements of 10 CFR part 72 for an additional 40 years beyond the initial certificate term. Consistent with § 72.240, the NRC is renewing the Holtec International HI-STORM 100 initial certificate 1014 and Amendment Nos. 1 through 15.

Extending the expiration date of the approval for the initial certificate and Amendment Nos. 1 through 15 for 40 years and requiring the implementation of aging management activities during the period of extended operation does not impose any modification or addition to the design of a cask system's structures, systems, and components important to safety, or to the procedures or organization required to operate the system during the initial 20-year storage term certified by the cask's initial certificate of compliance. General licensees who have loaded these casks, or who load these casks in the future under the specifications of the applicable renewed certificate of compliance, may store spent fuel in these cask system designs for 20 years without implementing the aging management program. For any casks that have been in use for

more than 20 years, the general licensee will have 365 days to complete the analyses required to use the cask system design pursuant to the terms and conditions in the renewed certificate of compliance. As explained in the 2011 final rule that amended 10 CFR part 72 (76 FR 8872), the general licensee's authority to use a particular storage cask design under an approved certificate of compliance will be for at least the term certified by the cask's certificate of compliance. For casks placed into service before the expiration date of the initial certificate, the general licensee's authority to use the cask would be extended for an additional 40 years from the date the initial certificate expired. For casks placed into service after the expiration date of the initial certificate and before the effective date of this rule, the general licensee's authority to use the cask would last the length of the term certified by the cask's certificate of compliance (i.e., 40 years after the cask is placed into service). For casks placed into service after this rule becomes effective, the general licensee's authority to use the cask would expire 40 years after the cask is first placed into service.

This direct final rule revises the HI-STORM 100 Cask System design listing in § 72.214 by renewing, for 40 more years, the initial certificate and Amendment Nos. 1 through 15 of Certificate of Compliance No. 1014. The renewed certificate of compliance includes the changes to the certificate of compliance and technical specifications previously described. The renewed certificate of compliance includes the terms, conditions, and specifications that will ensure the safe operation of the cask during the renewal term and the added conditions that will require the implementation of an aging management program. The preliminary safety evaluation report describes the new and revised conditions in the certificate of compliance, the changes to the technical specifications, and the NRC staff evaluation.

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 Final 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 based on this environmental assessment.

A. The Action

The proposed 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 renew, for an additional 40 years, the initial certificate and Amendment Nos. 1 through 15 of Certificate of Compliance No. 1014.

B. The Need for the Action

This direct final rule renews 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 the general license provisions in 10 CFR part 72. Specifically, this rule extends the expiration date for the Holtec International HI-STORM 100 Cask System certificate of compliance for an additional 40 years, allowing a power reactor licensee to continue using the cask design during a period of extended operation for a term certified by the cask's renewed certificate of compliance.

This direct final rule would add conditions to the certificate of compliance and technical specifications necessary to have confidence that the structures, systems, and components important to safety will continue to perform their intended functions during the requested period of extended operation and that the design of the cask would continue to maintain confinement, shielding, and criticality control in the event of an accident during the period of extended operation. These conditions are needed to

provide reasonable assurance that adequate protection of public health and safety will continue during the period of extended operation.

The three new conditions added to the renewal of the initial certificate of compliance and Amendment Nos. 1 through 15 are:

- A condition requiring the certificate of compliance holder to submit an updated final safety analysis report within 90 days after the effective date of the renewal and to make continued updates to the final safety analysis report pursuant to the requirements of § 72.248.
- A condition requiring each general licensee using the HI-STORM 100 Cask System design to include, in the evaluations required by § 72.212(b)(5), evaluations related to the terms, conditions, and specifications of this certificate of compliance amendment as modified (i.e., changed or added) as a result of the renewal of the certificate of compliance and include, in the document review required by § 72.212(b)(6), a review of the final safety analysis report changes resulting from the renewal of the certificate of compliance and the NRC Safety Evaluation Report for the renewal of the certificate of compliance. The general licensee would also be required to ensure that the evaluations required by § 72.212(b)(7) in response to these changes are conducted and the determination required by § 72.212(b)(8) is made.
- A condition requiring all future amendments and revisions to the certificate of compliance to include evaluations of the impacts to aging management activities (i.e., time-limited aging analyses and aging management programs) to ensure they remain adequate for any changes to structures, systems, and components important to safety within the scope of renewal.

The authority statement for the initial certificate and Amendments Nos. 1 through 15 would be revised to be consistent with the scope of the general license issued by § 72.210.

This renewal requires general licensees to conduct evaluations to implement aging management programs to manage issues associated with aging that could

adversely affect structures, systems, and components important to safety to continue using the Holtec International HI-STORM 100 Cask System design during the period of extended operation for a term certified by the cask's renewed certificate of compliance.

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 impacts of using NRC-approved storage casks were analyzed in the environmental assessment for the 1990 final rule and are described in "Environmental Assessment for Proposed Rule Entitled, 'Storage of Spent Nuclear Fuel in NRC-Approved Storage Casks at Nuclear Power Reactor Sites.'" The potential environmental impacts related to the underground configuration for the Holtec HI-STORM 100U system were analyzed in the 2009 environmental assessment, "Environmental Assessment for the Holtec International HI-STORM 100U Underground Cask System." The potential environmental impacts for the longer-term use of dry cask designs and the renewal of certificates of compliance were analyzed in the environmental assessment for the 2011 final rule establishing the regulatory requirements for renewing certificates of compliance and are described in "Environmental Assessment and Finding of No Significant Impact for the Final Rule Amending 10 CFR Part 72 License and Certificate of Compliance Terms" (ML100710441). The environmental impacts from continued storage were also considered in NUREG-2157, "Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel." The environmental assessment for this renewal of the initial certificate and Amendment Nos. 1 through 15 tiers off of the environmental assessment for the February 16, 2011, final rule and NUREG-2157. Tiering from past environmental assessments is a standard process under the National Environmental Policy Act of 1969, as amended.

The Holtec International HI-STORM 100 Cask System design 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.

A renewal reaffirms the original design basis, perhaps with some modifications. The renewal allows the cask to be used during a period of extended operation that corresponds to the term certified by the cask's certificate of compliance in the renewal. As a condition of the renewal, the NRC requires an aging management program that will ensure that structures, systems, and components important to safety will perform as designers intended during the renewal period. The renewal does not reflect a change in design or fabrication of the cask system. Because the aging management program will ensure the structures, systems, and components important to safety for the cask will perform as designed for the renewal period, any resulting occupational exposure or offsite dose rates from the renewal of the initial certificate and Amendment Nos. 1 through 15 would remain well within the 10 CFR part 20 limits. The NRC has also determined that the design of the cask system would continue to maintain confinement, shielding, and criticality control in the event of an accident. The NRC determined that the structures, systems, and components important to safety will continue to perform their intended functions during the requested period of extended operation. The NRC determined that the renewed Holtec International HI-STORM 100 Cask System design, when used under the conditions specified in the renewed 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. 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 renewing the Holtec International HI-STORM 100 Cask System design and to not issue the direct final rule. Consequently, any 10 CFR part 72 general licensee that seeks to load spent nuclear fuel into the Holtec International HI-STORM 100 Cask System design after the expiration date of the certificate of compliance or that seeks to continue storing spent nuclear fuel in the Holtec International HI-STORM 100 Cask System design for longer than the term certified by the cask's certificate of compliance for the initial certificate (i.e., more than 20 years) would have to request an exemption from the requirements of §§ 72.212 and 72.214 or would have to load the spent nuclear fuel into a different approved cask design. Under this alternative, those licensees interested in continuing to use the HI-STORM 100 Cask System design 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. If the general licensee is granted an exemption, the environmental impacts would be the same as the proposed action. If the general licensee is not granted an exemption, the general licensee would need to unload the Holtec International HI-STORM 100 cask system and load the fuel into another cask system design, which would result in environmental impacts that are greater than for the proposed action because activities associated with cask loading and decontamination may result in some small liquid and gaseous effluent.

E. Alternative Use of Resources

Renewal of the initial certificate and Amendment Nos. 1 through 15 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. Final Finding of No Significant Impact

The proposed 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 renew, for an additional 40 years, the initial certificate and Amendment Nos. 1 through 15 of Certificate of Compliance No. 1014. 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," and are described in the preceding environmental assessment in Section VIII of this notice.

The renewal does not reflect a change in design or fabrication of the cask system as approved for the initial certificate or Amendment Nos. 1 through 15. The NRC determined that the renewed Holtec International HI-STORM 100 Cask System design, when used under the conditions specified in the renewed 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.

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, Renewal of the initial certificate and Amendment Nos. 1 through 15," will not have a significant effect on the quality of the human environment. Therefore, the NRC has determined that an environmental impact statement is not necessary for this direct final rule and the Commission has determined not to prepare an environmental impact statement for the proposed action.

The final finding of no significant impact and the other related environmental documents, including NUREG-2157, the “Environmental Assessment and Finding of No Significant Impact for the Final Rule Amending 10 CFR Part 72 License and Certificate of Compliance Terms” (2010), and the “Environmental Assessment for the Holtec International HI-STORM 100U Underground Cask System” (2009) are available for public inspection through the NRC public website using ADAMS as described in Section I, “Obtaining Information and Submitting Comments.”

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. Holtec International is a diversified energy

technology company that engages in manufacturing, has more than 500 employees, and does not qualify as a small entity based on the Regulatory Flexibility Act or the NRC size standards at 10 C.F.R. § 2.810. Similarly, none of the existing nuclear power plants storing spent nuclear fuel qualify as small entities under the Regulatory Flexibility Act or NRC size standards. Therefore, neither the current licensees affected by this rule, nor Holtec International, 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. Thus, pursuant to its delegated authority, the Executive Director for Operations certifies under section 605 of the Regulatory Flexibility Act "that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."

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 under a general license 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 1, 2000 (65 FR 25241), the NRC issued an amendment to 10 CFR part 72 that approved the Holtec International HI-STORM 100 Cask System design by adding it to the list of NRC-approved cask designs in § 72.214.

On January 31, 2020, as supplemented on October 16, 2020, October 29, 2020, April 19, 2021, and April 23, 2021, Holtec International submitted a request to renew Certificate of Compliance No. 1014 for the HI-STORM 100 Cask System design for an additional 40 years beyond the initial certificate term (ADAMS Accession Nos. ML20049A081, ML20290A819, ML20303A254, ML21109A367, and ML21113A201) as

described in Section IV, “Discussion of Changes,” of this document.

The alternative to this action is to withhold approval of the renewal of the initial certificate and Amendments Nos. 1 through 15 and to require any 10 CFR part 72 general licensee seeking to continue the storage of spent nuclear fuel in the Holtec International HI-STORM 100 Cask System design using the initial certificate (Amendment No. 0) or Amendments No. 1 through 15 beyond the initial 20-year storage term certified by the cask’s initial certificate of compliance to request an exemption from the requirements of §§ 72.212 and 72.214. The term for general licenses would not be extended from 20 years to 40 years. 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 actions in this direct final rule do not require a backfit analysis because they do not fall within the definition of backfitting under § 72.62 or § 50.109(a)(1), they do not impact the issue finality provisions applicable to combined licenses under 10 CFR Part 52, and they do not impact general licensees that are using

these systems for the duration of their current general licenses.

Certificate of Compliance No. 1014 for the Holtec International HI-STORM 100 Cask System design, as currently listed in § 72.214, ‘‘List of Approved Spent Fuel Storage Casks,” was initially approved for a 20-year term. This direct final rule would renew the initial certificate and Amendment Nos. 1 through 15, extending their approval period by 40 years. The term certified by the cask’s certificate of compliance for a renewed certificate of compliance is the period of time commencing with the most recent certificate of compliance renewal date and ending with the certificate of compliance expiration date. With this renewal, the term certified by the cask’s certificate of compliance would change from 20 years to 40 years, with the period of extended operation beginning 20 years after the cask is placed into service. The revision to the certificate of compliance through the renewal consists of the changes in the renewed initial certificate (Amendment No. 0) and renewed Amendment Nos. 1 through 15 as previously described, and as set forth in the renewed certificates of compliance and technical specifications. These changes would not affect the use of the Holtec International HI-STORM 100 Cask System design for the initial 20-year term for previously loaded casks. The renewed certificates would require implementation of aging management programs during the period of extended operation, which begins after the storage cask system’s initial 20-year service period.

Because the term for the renewal would be longer than the initial term certified by the cask’s certificate of compliance, the general licensee’s authority to use the cask would be extended and would be no less than 40 years. This change would not add, eliminate, or modify 1) structures, systems, or components of an independent spent fuel storage installation or a monitored retrievable storage installation or 2) the procedures or organization required to operate an independent spent fuel storage installation or a monitored retrievable storage installation.

Renewing these certificates does not fall within the definition of backfit under § 72.62 or § 50.109, or otherwise represent an inconsistency with the issue finality

provisions applicable to combined licenses in 10 CFR part 52. General licensees who have loaded these casks, or who load these casks in the future under the specifications of the applicable certificate, may continue to store spent fuel in these systems for the initial 20-year storage period authorized by the original certificate. Extending the certificates' expiration dates for 40 more years and requiring the implementation of aging management programs does not impose any modification or addition to the design of the structures, systems, and components important to safety of a cask system, or to the procedures or organization required to operate the system during this initial 20-year term certified by the cask's certificate of compliance. The aging management programs required to be implemented by this renewal are only required to be implemented after the storage cask system's initial 20-year service period ends.

Because this rulemaking renews the certificates, and because renewal is a separate NRC licensing action voluntarily implemented by vendors or licensees, the renewal of these certificates is not an imposition of new or changed requirements from which these certificate of compliance holders or licensees would otherwise be protected by the backfitting provisions in § 72.62 or § 50.109. Even if renewal of this certificate of compliance cask system design could be considered a backfit, Holtec International, as the certificate of compliance holder and vendor of the casks, is not protected by the backfitting provisions in § 72.62 in this capacity.

Holtec International is also a general licensee using the HI-STORM 100 Cask System design under a general license. General licensees, including Holtec International, using the existing systems subject to these renewals would be protected by the backfitting provisions in § 72.62 and § 50.109 if the renewals constituted new or changed requirements. But as previously explained, renewal of the certificates for these systems does not impose such requirements. The general licensees using these certificates of compliance may continue storing material in the Holtec International HI-STORM 100 Cask System design for the initial 20-year storage period identified in the applicable certificate or amendment with no changes. If general licensees choose to

continue to store spent fuel in the Holtec International HI-STORM 100 Cask System design after the initial 20-year period, these general licensees will be required to implement the applicable aging management programs for any cask systems subject to a renewed certificate of compliance, but such continued use is voluntary.

Additionally, the actions in this direct final rule do not impact issue finality provisions applicable to combined licenses under 10 CFR part 52. Currently, there are no Holtec International HI-STORM 100 casks used at an independent fuel storage installation associated with a nuclear power reactor licensed pursuant to 10 CFR part 52 under the general license granted by § 72.210.

For these reasons, renewing the initial certificate and Amendment Nos. 1 through 15 of 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. / *FEDERAL REGISTER* CITATION
Proposed Certificates of Compliance and Proposed Technical Specifications	
Proposed Renewed Certificate of Compliance No. 1014 (Amendment No. 0)	ML22098A235

Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 0	ML22098A236
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 0	ML22098A237
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 1	ML22098A238
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 1	ML22098A239
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 1	ML22098A240
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 2	ML22098A241
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 2	ML22098A242
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 2	ML22098A243
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 3	ML22098A244
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 3	ML22098A245
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 3	ML22098A246
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 4	ML22098A247
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 4	ML22098A248
Proposed Renewed Certificate of Compliance No. 1014 Appendix B:	ML22098A249

Technical Specifications for the HI-STORM 100 Cask System Amendment No. 4	
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 5	ML22098A250
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 5	ML22098A251
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 5	ML22098A252
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 6	ML22098A253
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 6	ML22098A254
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 6	ML22098A255
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 7	ML22098A256
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 7	ML22098A257
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 7	ML22098A258
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 7	ML22098A259
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 7	ML22098A260
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 8, Revision 1	ML22098A261
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-	ML22098A262

STORM 100 Cask System Amendment No. 8, Revision 1	
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 8, Revision 1	ML22098A263
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 8, Revision 1	ML22098A264
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 8, Revision 1	ML22098A265
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 9, Revision 1	ML22098A266
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 9, Revision 1	ML22098A267
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 9, Revision 1	ML22098A268
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 9, Revision 1	ML22098A269
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 9, Revision 1	ML22098A270
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 10	ML22098A271
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 10	ML22098A272
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 10	ML22098A273

Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 10	ML22098A274
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 10	ML22098A275
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 11	ML22098A276
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 11	ML22098A277
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 11	ML22098A278
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 11	ML22098A279
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 11	ML22098A280
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 12	ML22098A281
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 12	ML22098A282
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 12	ML22098A283
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 12	ML22098A284
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment	ML22098A285

No. 12	
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 13	ML22098A286
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 13	ML22098A287
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 13	ML22098A288
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 13	ML22098A289
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 13	ML22098A290
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 14	ML22098A291
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 14	ML22098A292
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 14	ML22098A293
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 14	ML22098A294
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 14	ML22098A295
Proposed Renewed Certificate of Compliance No. 1014, Amendment No. 15	ML22098A296
Proposed Renewed Certificate of Compliance No. 1014 Appendix A: Technical Specifications for the HI-STORM 100 Cask System Amendment	ML22098A297

No. 15	
Proposed Renewed Certificate of Compliance No. 1014 Appendix B: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 15	ML22098A298
Proposed Renewed Certificate of Compliance No. 1014 Appendix A-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 15	ML22098A299
Proposed Renewed Certificate of Compliance No. 1014 Appendix B-100U: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 15	ML22098A300
Proposed Renewed Certificate of Compliance No. 1014 Appendix C: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 15	ML22098A301
Proposed Renewed Certificate of Compliance No. 1014 Appendix D: Technical Specifications for the HI-STORM 100 Cask System Amendment No. 15	ML22098A302
Preliminary Safety Evaluation Report	
Preliminary Safety Evaluation Report for the HI-STORM 100 Cask System: Certificate of Compliance No. 1014 Renewal Docket No. 72-1014	ML22098A303
Environmental Documents	
Environmental Assessment for Proposed Rule Entitled, "Storage of Spent Nuclear Fuel in NRC-Approved Storage Casks at Nuclear Power Reactor Sites." (1989)	ML051230231
“Environmental Assessment for the Holtec International HI-STORM 100U Underground Cask System” (2009)	ML091060766
“Environmental Assessment and Finding of No Significant Impact for the Final Rule Amending 10 CFR Part 72 License and Certificate of Compliance Terms” (2010)	ML100710441
Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel: Final Report (NUREG-2157, Volumes 1 and 2) (2014)	ML14198A440 (package)
“Storage of Spent Fuel In NRC-Approved Storage Casks at Power Reactor Sites” Final Rule (July 18, 1990)	55 FR 29181
“List of Approved Spent Fuel Storage Casks: HI–STORM 100 Revision 7”	74 FR 52387

(October 13, 2009)	
“License and Certificate of Compliance Terms” (February 16, 2011)	76 FR 8876
Holtec International, HI-STORM 100 Renewal Application Documents	
“Holtec International HI-STORM 100 Storage Certificate of Compliance Renewal Application.” Holtec Letter 5014890.	ML20049A081 (package)
“Holtec International, Submittal of RAI Responses on HI-STORM 100 License Renewal.” Holtec Letter 5014911.	ML20290A819 (package)
“Holtec International, Submittal of RAI Responses on HI-STORM 100 License Renewal [submittal of report HI-2002396, Revision 5].” Holtec Letter 5014912.	ML20303A254 (package)
“Holtec International, Submittal of RAI Clarification Responses on HI-STORM 100 License Renewal.” Holtec Letter 5014922.	ML21109A367 (package)
“Holtec International, Submittal of RAI Clarification Responses on HI-STORM 100 License Renewal—Updated Attachment.” Holtec Letter 5014923.	ML21113A201 (package)
Certificate of Compliance Renewal Application for the HI-STORM 100 Dry Storage System: Certificate of Compliance No. 1014, Docket Number 72-1014	ML21113A203
Holtec International, HI-STORM 100 Final Safety Analysis Reports	
“Final Safety Analysis Report for the HI-STORM 100 Cask System.” HI-2002444, Revision 18. (non-proprietary) (May 2019)	ML19150A405
“Final Safety Analysis Report for the HI-STORM 100 Cask System.” HI-2002444, Revision 19. (non-proprietary) (April 2020)	ML20121A317
“Final Safety Analysis Report for the HI-STORM 100 Cask System.” HI-2002444, Revision 20. (non-proprietary) (June 2020)	ML20167A018
Other Documents	
“Standard Review Plan for Renewal of Specific Licenses and Certificates of Compliance for Dry Storage of Spent Nuclear Fuel.” NUREG-1927, Revision 1. Washington, DC. June 2016.	ML16179A148
“Managing Aging Processes in Storage (MAPS) Report.” Final Report. NUREG-2214. Washington, DC. July 2019.	ML19214A111

“General License for Storage of Spent Fuel at Power Reactor Sites” (July 18, 1990)	55 FR 29181
“List of Approved Spent Fuel Storage Casks: Holtec HI-STORM 100 Addition” (May 1, 2000)	65 FR 25241
“License and Certificate of Compliance Terms” (February 16, 2011)	76 FR 8872
“Agreement State Program Policy Statement; Correction” (October 18, 2017)	82 FR 48535
Nuclear Energy Institute NEI 14-03, Revision 2, “Format, Content and Implementation Guidance for Dry Cask Storage Operations-Based Aging Management,” (2016)	ML16356A210
Regulatory Guide 3.76, Revision 0, “Implementation of Aging Management Requirements for Spent Fuel Storage Renewals.” July 2021.	ML21098A022

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-2022-0109.

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, revise Certificate of Compliance No. 1014 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: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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

Amendment Number 1 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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

Amendment Number 2 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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

Amendment Number 3 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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

Amendment Number 4 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 5 Effective Date: July 14, 2008, superseded by Renewed Amendment Number 5 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 6 Effective Date: August 17, 2009, superseded by Renewed Amendment Number 6 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 7 Effective Date: December 28, 2009, superseded by Renewed Amendment Number 7 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 11 Effective Date: February 25, 2019, as corrected (ADAMS Accession No. ML19343B024); superseded by Renewed Amendment Number 11 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL***

***REGISTER*]**.

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: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 14 Effective Date: December 17, 2019, as corrected (ADAMS Accession No. ML19343B287); superseded by Renewed Amendment Number 14 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 15 Effective Date: June 14, 2021, superseded by Renewed Amendment Number 15 Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

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.

* * * * *

Dated: January 31, 2023.

For the Nuclear Regulatory Commission.

Catherine Haney,
Acting Executive Director for Operations.

[FR Doc. 2023-03002 Filed: 2/10/2023 8:45 am; Publication Date: 2/13/2023]