[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150-AJ42

[NRC-2014-0120]

List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM Underground Maximum Capacity Canister Storage System, Certificate of Compliance No. 1040

AGENCY: Nuclear Regulatory Commission.

ACTION: Direct final rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is amending its spent fuel storage regulations by adding the Holtec International HI-STORM Underground Maximum Capacity (UMAX) Canister Storage System, Certificate of Compliance (CoC) No. 1040, to the "List of approved spent fuel storage casks." Holtec International intends to provide an underground storage option compatible with the Holtec International HI-STORM FLOOD/WIND (FW) System (CoC No. 1032). The HI-STORM UMAX Canister Storage System stores a hermetically sealed canister containing spent nuclear fuel in an in-ground vertical ventilated module. The HI-STORM UMAX Canister Storage System is designed to provide long-term underground storage of loaded multi-purpose canisters previously certified for storage in CoC No. 1032.

DATES: The final rule is effective **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**, unless a significant adverse comment is received by **[INSERT DATE**

30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]. If the direct final rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*. Comments received after this date will be considered if it is practical to do so, but the NRC staff is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Please refer to Docket ID NRC-2014-0120 when contacting the NRC about the availability of information for this direct final rule. You may access publicly-available information related to this direct final rule by any of the following methods:

- **Federal Rulemaking Web site:** Go to http://www.regulations.gov and search for Docket ID NRC-2014-0120. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual 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 http://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.
- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Gregory R. Trussell, Office of Federal and State

Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-6445, e-mail: Gregory.Trussell@nrc.gov.

SUPPLEMENTARY INFORMATION:

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I. Procedural Background.

The NRC is using the “direct final rule procedure” to add CoC No. 1040 to the list of approved spent fuel storage casks because the Holtec International HI-STORM UMAX Canister Storage System is similar to other previously approved spent fuel storage cask systems and,

therefore, is expected to be noncontroversial. Adequate protection of public health and safety continues to be ensured. The amendment to the rule will become effective on **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**. However, if the NRC receives significant adverse comments on this direct final rule by **[INSERT DATE 30 DAYS AFTER 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 Rule section of this issue of the *Federal Register*. Absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

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

1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when:

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

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

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

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

3) The comment causes the NRC staff to make a change (other than editorial) to the

rule, CoC, or Technical Specifications (TSs).

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

II. Background.

Section 218(a) of the Nuclear Waste Policy Act (NWPA) of 1982, as amended, requires that "the Secretary [of the Department of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the [Nuclear Regulatory] Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission." Section 133 of the NWPA states, in part, that "[the Commission] shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 219(a) [sic: 218(a)] for use at the site of any civilian nuclear power reactor."

To implement this mandate, the Commission approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule which added a new subpart K in part 72 of Title 10 of the *Code of Federal Regulations* (10 CFR) entitled, "General License for Storage of Spent Fuel at Power Reactor Sites" (55 FR 29181; July 18, 1990). This rule also established a new subpart L in 10 CFR part 72 entitled, "Approval of Spent Fuel Storage Casks," which contains procedures and criteria for obtaining NRC approval of spent fuel storage cask designs.

III. Discussion of Changes.

By letter dated June 29, 2012, and as supplemented on July 16, 2012; November 20 and January 30, 2013; April 2, April 19, June 21, August 28, December 6, December 31, January 13; and January 28, 2014, Holtec International submitted an application to add the HI-STORM UMAX Canister Storage System to the list of approved spent fuel storage casks in 10 CFR part 72. The HI-STORM UMAX Canister Storage System is a spent fuel storage system designed to be in full compliance with the requirements of 10 CFR part 72. Holtec International intends to provide an underground storage option compatible with the Holtec International HI-STORM FW System as described in the Final Safety Analysis Report (FSAR) for the HI-STORM FW System. The underground structure system is described in the FSAR for the HI-STORM UMAX Canister Storage System. The HI-STORM UMAX Canister Storage System stores a hermetically sealed canister containing spent nuclear fuel (SNF) in an in-ground vertical ventilated module (VVM). The HI-STORM UMAX Canister Storage System is designed to provide long-term underground storage of loaded multi-purpose canisters (MPC) previously certified for storage in CoC No. 1032. The HI-STORM UMAX VVM is the underground equivalent of the HI-STORM FW storage module. Although the storage cavity dimensions and the air ventilation system in the HI-STORM UMAX VVM have been selected to enable it to also store all MPCs certified for storage in the HI-STORM 100 storage module, CoC No. 1040 does not approve the storage of all MPCs certified for storage in the HI-STORM 100 storage module in the HI-STORM UMAX VVM at this time. The HI-STORM UMAX Canister Storage System can store either Pressurized Water Reactor or Boiling Water Reactor fuel assemblies in the MPC-37 or MPC-89 models, respectively. The number associated with the MPC is the maximum number of fuel assemblies the MPC can contain in the fuel basket. The external diameters of the MPC-37 and MPC-89 are identical to allow the use of a single storage module design, however the height of the MPC, as well as the storage module and transfer cask, are variable based on the SNF to be loaded.

As documented in the safety evaluation report (SER), the NRC staff performed a detailed safety evaluation of the proposed CoC request submitted by Holtec International.

The HI-STORM UMAX Canister Storage System, when used under the conditions specified in the CoC, the TSs, and the NRC's regulations, will meet the requirements of 10 CFR part 72; therefore, adequate protection of public health and safety will continue to be ensured. When this direct final rule becomes effective, persons who hold a general license under 10 CFR 72.210 may load spent nuclear fuel into HI-STORM UMAX Canister Storage Systems that meet the criteria of CoC No. 1040 under 10 CFR 72.212.

IV. 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 will add the Holtec International HI-STORM UMAX Canister Storage System design to the listing in 10 CFR 72.214. This action does not constitute the establishment of a standard that contains generally applicable requirements.

V. Agreement State Compatibility.

Under the "Policy Statement on Adequacy and Compatibility of Agreement State Programs" approved by the Commission on June 30, 1997, and published in the *Federal Register* on September 3, 1997 (62 FR 46517), this direct final rule is classified as Compatibility Category "NRC." Compatibility is not required for Category "NRC" regulations. The NRC program elements in this category are those that relate directly to areas of regulation reserved

to the NRC by the Atomic Energy Act of 1954, as amended, or the provisions of 10 CFR. Although an Agreement State may not adopt program elements reserved to the NRC, it may wish to inform its licensees of certain requirements via a mechanism that is consistent with the particular State's administrative procedure laws, but does not confer regulatory authority on the State.

VI. Plain Writing.

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

VII. Environmental Assessment and Finding of No Significant Environmental Impact.

A. The Action.

The action is to amend 10 CFR 72.214 to add the Holtec International HI-STORM UMAX Canister Storage System to the listing within the "List of approved spent fuel storage casks" as CoC No. 1040. Under 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," the NRC has determined that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. The NRC has made a finding of no significant impact on the basis of this environmental assessment.

B. The Need for the Action.

This direct final rule adds CoC No. 1040 for the Holtec International HI-STORM UMAX Canister Storage System design within the list of approved spent fuel storage casks that power reactor licensees can use to store spent fuel at reactor sites under a general license. Specifically, Holtec International intends to provide an underground storage option compatible with the Holtec International HI-STORM FW System.

C. Environmental Impacts of the Action.

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR part 72 to provide for the storage of spent fuel under a general license in cask designs approved by the NRC. The potential environmental impact of using NRC-approved storage casks was initially analyzed in the environmental assessment for the 1990 final rule. The environmental assessment for this CoC addition 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.

Holtec International HI-STORM UMAX Canister Storage Systems are designed to mitigate the effects of design basis accidents that could occur during storage. Design basis accidents account for human-induced events and the most severe natural phenomena reported for the site and surrounding area. Postulated accidents analyzed for an Independent Spent Fuel Storage Installation, the type of facility at which a holder of a power reactor operating license would store spent fuel in casks in accordance with 10 CFR part 72, include tornado winds and tornado-generated missiles, a design basis earthquake, a design basis flood, an accidental cask drop, lightning effects, fire, explosions, and other incidents.

Considering the specific design requirements for each accident condition, the design of

the HI-STORM UMAX Canister Storage System would prevent loss of containment, shielding, and criticality control. If there is no loss of containment, shielding, or criticality control, the environmental impacts would be insignificant. In addition, any resulting occupational exposure or offsite dose rates from the use of the HI-STORM UMAX Canister Storage System would remain well within the 10 CFR part 20 limits. Therefore, the proposed addition of CoC No. 1040 will not result in 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 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 staff documented its safety findings in the SER for this addition.

D. Alternative to the Action.

The alternative to this action is to withhold approval of this new design and issue a site-specific license to each utility that proposes to use the casks. This alternative would cost both the NRC and utilities more time and money for each site-specific license. Conducting site-specific reviews would ignore the procedures and criteria currently in place for the addition of new cask designs that can be used under a general license, and would be in conflict with NWPA direction to the Commission to approve technologies for the use of spent fuel storage at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site reviews. This alternative also would tend to exclude new vendors from the business market without cause and would arbitrarily limit the choice of cask designs available to power reactor licensees. This final rule will eliminate the above problems and is consistent with previous Commission actions. Further, the rule will have no adverse effect on public health and safety. Therefore, the environmental impacts would be the same or less than the action.

E. Alternative Use of Resources.

Approval of the addition of CoC No. 1040 would result in no irreversible commitments of resources.

F. Agencies and Persons Contacted.

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

G. Finding of No Significant Impact.

The environmental impacts of the action have been reviewed under the requirements in 10 CFR part 51. Based on the foregoing environmental assessment, the NRC concludes that this direct final rule entitled, "List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM UMAX Canister Storage System, Certificate of Compliance No. 1040," 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.

VIII. Paperwork Reduction Act Statement.

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

Public Protection Notification.

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

IX. 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 (10 CFR 2.810).

X. Regulatory Analysis.

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR part 72 to provide for the storage of spent nuclear fuel under a general license in cask designs approved by the NRC. Any nuclear power reactor licensee can use NRC-approved cask designs to store spent nuclear fuel if it notifies the NRC in advance, the spent fuel is stored under the conditions specified in the cask's CoC, and the conditions of the general license are met. A list of NRC-approved cask designs is contained in 10 CFR 72.214.

On June 29, 2012, and as supplemented on July 16, 2012; November 20 and January 30, 2013; April 2, April 19, June 21, August 28, December 6, December 31, January 13; and January 28, 2014, Holtec International submitted an application to add the HI-STORM UMAX Canister Storage System.

The alternative to this action is to withhold approval of this new design and issue a site-specific license to each utility that proposes to use the casks. This alternative would cost both the NRC and utilities more time and money for each site-specific license. Conducting site-specific reviews would ignore the procedures and criteria currently in place for the addition of new cask designs that can be used under a general license, and would be in conflict with NWPA direction to the Commission to approve technologies for the use of spent fuel storage at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site reviews. This alternative also would tend to exclude new vendors from the business market without cause and would arbitrarily limit the choice of cask designs available to power reactor licensees. This final rule will eliminate the above problems and is consistent with previous Commission actions. Further, the rule will have no adverse effect on public health and safety.

Approval of this direct final rule is consistent with previous NRC actions. Further, as documented in the SER and the environmental assessment, the direct final rule will have no adverse effect on public health and safety or the environment. This direct final rule has no significant identifiable impact or benefit on other Government agencies. Based on this regulatory analysis, the NRC concludes that the requirements of the direct final rule are commensurate with the NRC's responsibilities for public health and safety and the common defense and security. No other available alternative is believed to be as satisfactory, and therefore, this action is recommended.

XI. Backfitting and Issue Finality.

The NRC has determined that the backfit rule (10 CFR 72.62) does not apply to this direct final rule. Therefore, a backfit analysis is not required. This direct final rule adds CoC No.

1040 for the Holtec International HI-STORM UMAX Canister Storage System to the “List of approved spent fuel storage casks.”

The addition of CoC No. 1040 for the Holtec International HI-STORM UMAX Canister Storage System was initiated by Holtec International and was not submitted in response to new NRC requirements, or an NRC request for amendment. The addition of CoC No. 1040 does not constitute backfitting under 10 CFR 72.62, 10 CFR 50.109(a)(1), or otherwise represent an inconsistency with the issue finality provisions applicable to combined licenses in 10 CFR part 52. Accordingly, no backfit analysis or additional documentation addressing the issue finality criteria in 10 CFR part 52 has been prepared by the staff.

XII. Congressional Review Act.

This action is not a major rule as defined in the Congressional Review Act (5 U.S.C. 801-808).

XIII. Availability of Documents.

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

DOCUMENT	ADAMS ACCESSION NO.
CoC No. 1040	ML14122A443
Safety Evaluation Report	ML14122A441
Technical Specifications, Appendix A	ML14122A444
Technical Specifications, Appendix B	ML14122A442
Application	ML12363A282

Application supplemental July 16, 2012	ML12205A134
Application supplemental November 20, 2012	ML12348A483
Application supplemental January 30, 2013	ML13032A008
Application supplemental April 2, 2013	ML13107B249
Application supplemental April 19, 2013	ML13114A191
Application supplemental June 21, 2013	ML13175A363
Application supplemental August 28, 2013	ML13261A062
Application Supplemental December 6, 2013	ML13343A169
Application supplemental December 31, 2013	ML14002A402
Application supplemental January 13, 2014	ML14015A145
Application supplemental January 28, 2014	ML14030A055

The NRC may post materials related to this document, including public comments, on the Federal rulemaking Web site at http://www.regulations.gov under Docket ID NRC-2014-0120. The Federal rulemaking Web site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: 1) Navigate to the docket folder (NRC-2014-0120); 2) click the “Sign up for E-mail Alerts” link; and 3) enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly).

List of Subjects in 10 CFR Part 72

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

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; 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 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, 2232, 2233, 2234, 2236, 2237, 2238, 2273, 2282, 2021); Energy Reorganization Act secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); National Environmental Protection Act sec. 102 (42 U.S.C. 4332); Nuclear Waste Policy Act secs. 131, 132, 133, 135, 137, 141, 148 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note); Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 549 (2005).

Section 72.44(g) also issued under Nuclear Waste Policy Act secs. 142(b) and 148(c)-(d) (42 U.S.C. 10162(b), 10168(c)-(d)).

Section 72.46 also issued under Atomic Energy Act sec. 189 (42 U.S.C. 2239); Nuclear Waste Policy Act sec. 134 (42 U.S.C. 10154).

Section 72.96(d) also issued under Nuclear Waste Policy Act sec. 145(g) (42 U.S.C. 10165(g)).

Subpart J also issued under Nuclear Waste Policy Act secs. 117(a), 141(h) (42 U.S.C. 10137(a), 10161(h)).

Subpart K also issued under Nuclear Waste Policy Act sec. 218(a) (42 U.S.C. 10198).

2. In § 72.214, Certificate of Compliance No. 1040 is added to read as follows:

§ 72.214 List of approved spent fuel storage casks.

* * * * *

Certificate Number: 1040.

Initial Certificate Effective Date: **[INSERT DATE 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

SAR Submitted by: Holtec International, Inc.

SAR Title: Final Safety Analysis Report for the Holtec International HI-STORM UMAX Canister Storage System.

Docket Number: 72-1040.

Certificate Expiration Date: September 9, 2034.

Model Number: MPC-37, MPC-89.

Dated at Rockville, Maryland, this 22nd day of August, 2014.

For the Nuclear Regulatory Commission.

Darren B. Ash
Acting Executive Director for Operations

[FR Doc. 2014-21418 Filed 09/08/2014 at 8:45 am; Publication Date: 09/09/2014]