[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150-AG67

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

AGENCY: Nuclear Regulatory Commission.

ACTION: Direct final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations by revising the Holtec International HI-STAR 100 cask system listing within the "List of approved spent fuel storage casks" to include Amendment No. 2 to the Certificate of Compliance (CoC). Amendment No. 2 revises the HI-STAR 100 cask system Appendix B of the Technical Specifications (TS), Item 1.4.6, "Specific Parameters and Analysis for the Storage Pad and Foundation" to simplify the language of this specification. The current 60-g limit for cask drop and tipover events in TS Item 1.4.6 would remain unchanged. This amendment will allow the holders of power reactor operating licenses to store spent fuel in the HI-STAR 100 cask system, as amended, under a general license.

DATES: The final rule is effective **(75 days after publication in the Federal Register)**, unless significant adverse comments are received by **(30 days after publication in the Federal Register)**. If this rule is withdrawn, timely notice will be published in the **Federal Register.**

ADDRESSES: Submit comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Attention: Rulemakings and Adjudications Staff.

Deliver comments to 11555 Rockville Pike, Rockville, Maryland, between 7:30 a.m. and 4:15 p.m. on Federal workdays.

You may also provide comments via the NRC's interactive rulemaking website (http://ruleforum.llnl.gov). This site provides the capability to upload comments as files (any format), if your web browser supports that function. For information about the interactive rulemaking website, contact Ms. Carol Gallagher, (301) 415-5905 (e-mail: cag@nrc.gov).

Certain documents related to this rule, including comments received by the NRC, may be examined at the NRC Public Document Room located at 11555 Rockville Pike, Rockville, MD. These documents also may be viewed and downloaded electronically via the rulemaking website.

Documents created or received at the NRC after November 1, 1999, are also available electronically at the NRC's Public Electronic Reading Room on the Internet at http://www.nrc.gov/NRC/ADAMS/index.html. From this site, the public can gain entry into the NRC's Agencywide Documents Access and Management System (ADAMS), which provides text and image files of the NRC's public documents. An electronic copy of the proposed CoC and preliminary Safety Evaluation Report (SER) can be found in ADAMS under Accession No. ML003770774. For more information, contact the NRC Public Document Room (PDR) reference staff at 1-800-397-4209, 202-634-3273 or by email to pdr@nrc.gov.

FOR FURTHER INFORMATION CONTACT: Stan Turel, telephone (301) 415-6234, e-mail, spt@nrc.gov of the Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

Background

Section 218(a) of the Nuclear Waste Policy Act of 1982, as amended (NWPA), requires that “[t]he Secretary [of the Department of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies the [Nuclear Regulatory] Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission.'' Section 133 of the NWPA states, in part, that “[t]he Commission shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 218(a) for use at the site of any civilian nuclear power reactor.''

To implement this mandate, the NRC approved dry storage of spent nuclear fuel in NRC-approved casks under a general license, publishing a final rule, in 10 CFR Part 72 entitled “General License for Storage of Spent Fuel at Power Reactor Sites'' (55 FR 29181, July 18, 1990). This rule also established a new Subpart L within 10 CFR Part 72 entitled “Approval of Spent Fuel Storage Casks,'' containing procedures and criteria for obtaining NRC approval of dry storage cask designs.

The NRC subsequently issued a final rule on September 3, 1999 (64 FR 48274), that approved the HI-STAR 100 cask design, added it to the list of NRC-approved cask designs in § 72.214, and issued Certificate of Compliance Number (CoC No.) 1008.

Discussion

On August 4, 2000, Holtec International (the certificate holder), submitted an application to the NRC to amend CoC No. 1008. Amendment No. 2 revises the HI-STAR 100 cask system Appendix B of the Technical Specifications, Item 1.4.6, "Specific Parameters and Analysis for the Storage Pad and Foundation" to simplify the language of this specification. The current 1.4.6 states:

"In addition to the requirements of 10CFR72.212(b)(2)(ii), the cask storage pads and foundation shall include the following characteristics as applicable to the drop and tipover analyses:

a. Concrete Thickness: < 36 inches

b. Concrete Compressive Strength: < 4,200 psi at 28 days

c. Reinforcement top and bottom (both directions):

Reinforcement area and spacing determined by analysis

Reinforcement shall be 60 ksi yield strength ASTM material

d. Soil Effective Modulus of Elasticity: < 28,000 psi

(measured prior to installation of ISFSI)

An acceptable method of defining the soil effective modulus of elasticity applicable to the drop and tipover analyses is provided in Table 13 of NUREG/CR-6608 with soil classification in accordance with ASTM D2487-93, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System, USCS), and density determination in accordance with ASTM D1586-84, Standard Test Method for Penetration Test and Split/Barrel Sampling of Soils."

The proposed revision will state:

"The cask storage pads shall be verified by analysis to limit cask deceleration during both the

design basis drop and the non-mechanistic tipover event to ≤ 60 g's at the top of the MPC fuel basket. Analyses shall be performed using methodologies consistent with those described in the HI-STAR FSAR."

The current 60 g limit for cask drop and tipover events in Item 1.4.6 would remain unchanged. This amendment will allow the holders of power reactor operating licenses to store spent fuel in the HI-STAR 100 cask system, as amended, under a general license. The NRC staff performed a safety evaluation of the amendment request and found that the changes provide reasonable assurance that the spent fuel can be stored safely and in compliance with 10 CFR Part 72. This direct final rule will revise the HI-STAR 100 cask system listing within the list of NRC-approved casks for spent fuel storage in § 72.214 by adding Amendment No. 2 to CoC No. 1008. The amended HI-STAR 100 cask system, when used in accordance with the conditions specified in the CoC and NRC regulations, will meet the requirements of 10 CFR Part 72; thus, adequate protection of public health and safety will continue to be ensured. Amendment No. 2 applies to any HI-STAR 100 cask loaded after [**insert effective date of the final rule**].

Amendment No. 2 to CoC No. 1008 and the underlying SER, and the Environmental Assessment and Finding of No Significant Impact are available for inspection and comment at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD. Single copies of the CoC and SER may be obtained from Stan Turel, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 415-6234, email spt@nrc.gov. An electronic copy of the proposed CoC and preliminary SER can be found in the NRC's Electronic Reading Room in ADAMS under Accession No. ML003770774.

Discussion of Amendments by Section

§ 72.214 List of approved spent fuel storage casks.

Certificate No. 1008 will be revised indicating the addition of Amendment No. 2 and its effective date.

Procedural Background

This rule is limited to the changes contained in Amendment No. 2 to CoC 1008 and does not include other aspects of the HI-STAR 100 cask system design. Because NRC considers this amendment to its rules to be noncontroversial and routine, the NRC is using the direct final rule procedure for this rule. The amendment to the rules will become effective on (**75 days after publication in the Federal Register**). However, if the NRC receives significant adverse comments by (**30 days after publication in the Federal Register**), then the NRC will publish a document that withdraws this action and will address the comments received in response to the proposed amendments published elsewhere in this issue of the Federal Register. These comments will be addressed in a subsequent final rule. Absent significant modification to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

Agreement State Compatibility

Under the "Policy Statement on Adequacy and Compatibility of Agreement State Programs" approved by the Commission on June 30, 1997, and published in the Federal

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

Plain Language

The Presidential Memorandum dated June 1, 1998, entitled "Plain Language in Government Writing," directed that the Government's writing be in plain language. The NRC requests comments on this direct final rule specifically with respect to the clarity and effectiveness of the language used. Comments should be sent to the address listed under the heading "ADDRESSES" above.

Voluntary Consensus Standards

The National Technology Transfer 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 revise the Holtec International HI-STAR 100 cask system listing within the list of NRC approved casks for spent fuel storage in

10 CFR 72.214. This action does not constitute the establishment of a standard that establishes generally-applicable requirements.

Finding of No Significant Environmental Impact: Availability

Under the National Environmental Policy Act of 1969, as amended, and the NRC regulations in Subpart A of 10 CFR Part 51, the NRC has determined that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. The rule will add Amendment No. 2 to the HI-STAR 100 cask system to the list of approved spent fuel storage casks that power reactor licensees can use to store spent fuel under a general license at reactor sites without additional site-specific approvals by the NRC. Amendment No. 2 will revise Appendix B of the Technical Specifications, Item 1.4.6, "Specific Parameters and Analysis for the Storage Pad and Foundation" to simplify the language of this specification. The current 60-g limit for cask drop and tipover events in Item 1.4.6 would remain unchanged. The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD. Single copies of the environmental assessment and finding of no significant impact are available from Stan Turel, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Telephone (301) 415- 6234, email spt@nrc.gov.

Paperwork Reduction Act Statement

This direct final rule does not contain a new or amended information collection

requirement subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, Approval Number 3150-0132.

Public Protection Notification

If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

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 system designs approved by the NRC. Any nuclear power reactor licensee can use NRC-certified casks to store spent nuclear fuel if it notifies the NRC in advance, spent fuel is stored under the conditions specified in the cask's CoC, and the conditions of the general license are met.

A list of NRC-approved cask system designs is contained in § 72.214. On September 3, 1999 (64 FR 48274), the NRC issued an amendment to Part 72 that approved the HI-STAR 100 cask design, added it to the list of NRC-approved cask designs in § 72.214, and issued CoC No. 1008. On August 4, 2000, Holtec International (the certificate holder), submitted an application to the NRC to amend CoC No. 1008. Amendment No. 2 revises the HI-STAR 100 cask system Appendix B of the Technical Specifications, Item 1.4.6, “Specific Parameters and Analysis for the Storage Pad and Foundation” to simplify the language of this specification. The current 60-g limit for cask drop and tipover events in Item 1.4.6 would remain unchanged. This

amendment will allow the holders of power reactor operating licenses to store spent fuel in the HI-STAR 100 cask system under a general license.

This rule will permit manufacture of casks under the revisions in Amendment 2. The alternative to this action is to withhold approval of this amended cask system design and give a site-specific license to each utility that proposes to use the casks. This alternative would cost both the NRC and the utilities more time and money in that each utility would have to pursue a new site-specific license. Conducting site-specific reviews would be in conflict with NWPA direction to the NRC 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-specific approvals by the NRC. This alternative does not foster competition because it would tend to favor new vendors without cause and would arbitrarily limit the choice of cask system designs available to power reactor licensees.

Approval of the direct final rule would eliminate the above problems and is consistent with previous NRC actions. Further, the direct final rule will have no adverse effect on public health and safety. This direct final rule has no significant identifiable impact or benefit on other Government agencies. Based on the above discussion of the benefits and impacts of the alternatives, 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 thus, this action is recommended.

Small Business Regulatory Enforcement Fairness Act

In accordance with the Small Business Regulatory Enforcement Fairness Act of 1996, the NRC has determined that this action is not a major rule and has verified this determination

with the Office of Information and Regulatory Affairs, Office of Management and Budget.

Regulatory Flexibility Certification

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

Backfit Analysis

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

List of Subjects In 10 CFR Part 72

Criminal penalties, Manpower training programs, Nuclear materials, Occupational safety and health, Reporting and recordkeeping requirements, Security measures, Spent fuel.

For the reasons set out in the preamble and under the authority of the Atomic Energy

Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 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 AND HIGH-LEVEL RADIOACTIVE WASTE

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

AUTHORITY: Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); Pub. L. 95-601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 10d - 48b, sec. 7902, 10b Stat. 31b3 (42 U.S.C. 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241, sec. 148, Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330-232, 1330-236 (42 U.S.C. 10162(b), 10168(c),(d)). Section 72.46 also issued under sec. 189, 68 Stat. 955 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C. 10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10165(g)). Subpart J also issued under secs. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2244, (42 U.S.C. 10101, 10137(a), 10161(h)). Subparts K and L are also issued under sec. 133, 98 Stat. 2230 (42 U.S.C. 10153) and

sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

2. Section 72.214, Certificate of Compliance (CoC) 1008 is revised to read as follows:

§ 72.214 List of approved spent fuel storage casks.

* * * * *

Certificate Number: 1008.

Initial Certificate Effective Date: October 4, 1999.

Amendment Number 1 Effective Date: December 26, 2000

Amendment Number 2 Effective Date: **[Insert effective date of the final rule]**

SAR Submitted by: Holtec International.

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

Docket Number: 72-1008.

Certificate Expiration Date: October 4, 2019.

Model Number: HI-STAR 100.

* * * * *

Dated at Rockville, Maryland, this 1st day of March ,2001.

For the Nuclear Regulatory Commission.

/RA/

William D. Travers,
Executive Director for Operations.

2. Section 72.214, Certificate of Compliance (CoC) 1008 is revised to read as follows:

§ 72.214 List of approved spent fuel storage casks.

* * * * *

Certificate Number: 1008.
Initial Certificate Effective Date: October 4, 1999.
Amendment Number 1 Effective Date: December 26, 2000
Amendment Number 2 Effective Date: **[Insert effective date of the final rule]**
SAR Submitted by: Holtec International.
SAR Title: Final Safety Analysis Report for the HI-STAR 100 Cask System.
Docket Number: 72-1008.
Certificate Expiration Date: October 4, 2019.
Model Number: HI-STAR 100.

* * * * *

Dated at Rockville, Maryland, this 1st day of March ,2001.

For the Nuclear Regulatory Commission.

/RA/

William D. Travers,
Executive Director for Operations.

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