AG31-1 PDR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

AUG 18 1999

MEMORANDUM TO: Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Material Safety and Safeguards

FROM: Valeria H. Wilson, Director
Division of Administrative Services
Office of Administration

SUBJECT: OFFICE CONCURRENCE ON PROPOSED RULE PACKAGE ENTITLED, "LIST OF APPROVED SPENT FUEL STORAGE CASKS: HOLTEC HI-STORM 100 ADDITION"

The Office of Administration concurs on the proposed rule that would amend Part 72. We have attached a copy of the package that presents our comments.

When this document is forwarded for publication, please include a 3.5 inch diskette that contains a copy of the document in WordPerfect as part of the transmittal package. The diskette will be forwarded to the OFR and the Government Printing Office for their use in typesetting the document.

In order to assist you in preparing the list of documents centrally relevant to this proposed rule that is required by NRC's regulatory history procedures, you should place the designator "AG31-1" in the upper right-hand corner of each document concerning the proposed rule that you forward to the Nuclear Documents System.

If you have any questions, please contact David Meyer, 415-7162 (DLM1), or Michael Harrison, 415-6865 (PMH), of the Office of Administration.

Attachment: As stated

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

MEMORANDUM TO: William D. Travers
Executive Director for Operations

FROM: Carl J. Paperiello, Director
Office of Nuclear Material Safety
and Safeguards

SUBJECT: PROPOSED RULE TO AMEND AND REVISE 10 CFR 72.214, "LIST OF APPROVED SPENT FUEL STORAGE CASKS: HOLTEC HI-STORM 100 ADDITION"

Attached for your signature is a proposed rule (Attachment 1) amending Nuclear Regulatory Commission (NRC) regulations to add the Holtec HI-STORM 100 cask system to the "List of approved spent fuel storage casks." This amendment would allow the holders of power reactor operating licenses to store spent fuel in these approved casks under a general license.

Background: NRC is proposing to approve the Holtec HI-STORM 100 cask system for storage of spent fuel under the conditions specified in the proposed Certificate of Compliance (CoC). The cask, 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 would be ensured. The cask design is being proposed for listing under 10 CFR 72.214.

The CoC would terminate 20 years after the effective date of the final rule listing the cask in Section 72.214, unless the cask's CoC is renewed. The certificate contains conditions for use specific for this cask, addressing issues such as operating procedures, training, and spent fuel specification.

The Commission has approved the simplification of the rulemaking process for CoC rules by agreeing that future CoC rules will not need a rulemaking plan. This is another in a series of similar and repetitive rules using the same language (templates) to simplify the CoC rulemaking process. It is expected that by using these templates, the rulemaking process will be shortened considerably.

CONTACTS: Merri Horn, NMSS/IMNS
301- 415-8126

Phil Brochman, NMSS/SFPO
301-415-8592

Notices: The appropriate Congressional committees will be notified (Attachment 2). A notice to the Commission that the Executive Director for Operations has signed the attached Federal Register notice is attached for inclusion in the "Weekly Report to the Commission" (Attachment 3). The "Approved for Publication" is also attached (Attachment 4). The draft Environmental Assessment is (Attachment 5), and the draft Press Release is (Attachment 6).

Resources: No additional resources will be needed to implement this rule.

Coordination: The Offices of Administration, Enforcement, and Nuclear Reactor Regulation concur with these amendments. The Office of the General Counsel has no legal objection. The Office of the Chief Financial Officer has reviewed the proposed rule for resource implications and has no objection. The Office of the Chief Information Officer has reviewed the proposed rule for information technology and information management implications and concurs in it.

Attachments:
1. FRN of Proposed Rulemaking
2. Congressional Letters
3. "Weekly Report to the Commission"
4. "Approved for Publication"
5. Draft Environmental Assessment
6. Draft Press Release

[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150-AG31

List of Approved Spent Fuel Storage Casks: Holtec HI-STORM 100 Addition

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to add the Holtec International HI-STORM 100 cask system to the list of approved spent fuel storage casks. This amendment will allow the holders of power reactor operating licenses to store spent fuel in the Holtec HI-STORM 100 cask system under a general license.

DATES: The comment period expires (insert 75 days from date of publication). Comments received after this date will be considered if it is practical to do so, but the NRC is able to assure consideration only for comments received on or before this date.

ADDRESSES: Comments may be sent to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attn: Rulemakings and Adjudications Staff. Hand deliver comments to 11555 Rockville Pike, Rockville, MD, 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 availability to upload comments as files (any format) if your web browser supports that function. For information about the interactive rulemaking site, contact Ms. Carol Gallagher (301) 415-5905; e-mail CAG@nrc.gov.

Certain documents related to this rulemaking, including comments received by the NRC, may be examined at the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. These documents also may be viewed and downloaded electronically via the interactive rulemaking website established by NRC for this rulemaking.

FOR FURTHER INFORMATION CONTACT: Merri Horn, telephone (301) 415-8126, e-mail, mlh1@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, "for the dry storage of spent nuclear fuel at civilian 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, "[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 Commission approved dry storage of spent nuclear fuel in NRC-approved casks under a general license, publishing on July 18, 1990, a final rule in 10 CFR Part 72 entitled, "General License for Storage of Spent Fuel at Power Reactor Sites" (55 FR 29181). 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.

Discussion

This proposed rule would add the Holtec HI-STORM 100 cask system to the list of NRC-approved casks for spent fuel storage in 10 CFR 72.214. Following the procedures specified in 10 CFR 72.230 of Subpart L, Holtec submitted an application for NRC approval with the Safety Analysis Report (SAR): "Final Safety Analysis Report for the HI-STORM 100 Storage Cask System." The NRC evaluated the Holtec submittal and issued a preliminary Safety Evaluation Report (SER) on the Holtec SAR and proposed Certificate of Compliance (CoC) for the Holtec HI-STORM 100 cask system on **[date Federal Register notice approved by EDO].**

The NRC is proposing to approve the Holtec HI-STORM 100 cask system for storage of spent fuel under the conditions specified in the proposed CoC. This 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 the public health and safety would be ensured. This cask system is being proposed for listing under 10 CFR 72.214, "List of approved spent fuel storage casks," to allow holders of power reactor operating licenses to

store spent fuel in this cask system under a general license. The CoC would terminate 20 years after the effective date of the final rule listing this cask in 10 CFR 72.214, unless the cask system's CoC is renewed. The certificate contains conditions for use ~~which are~~ specific for this cask system and addresses issues such as operating procedures, training, and spent fuel specification.

The proposed CoC for the Holtec HI-STORM 100 cask system and the underlying preliminary SER, dated **[date Federal Register notice signed by EDO]**, are available for inspection and comment at the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC. Single copies of the proposed CoC and preliminary SER may be obtained from Merri Horn, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 415-8126, email mlh1@nrc.gov.

Discussion of Proposed Amendments by Section

§ 72.214 List of approved spent fuel storage casks.

Certificate Number 1014 would be added indicating that:

(1) The title of the SAR submitted by Holtec International is "Final Safety Analysis Report for the HI-STORM 100 Storage Cask System";

(2) The Docket Number is 72-1014;

(3) The certificate expiration date would be 20 years after final rule effective date; and

(4) The model number affected is HI-STORM 100.

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 is mainly administrative in nature. It would not have significant environmental impacts. The proposed rule would add the Holtec HI-STORM 100 cask system to the list of approved spent fuel storage casks that power reactor licensees can use to store spent fuel at reactor sites without additional site-specific approvals by the NRC. 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, 2120 L Street NW. (Lower Level), Washington, DC. Single copies of the environmental assessment and finding of no significant impact are available from Merri Horn, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Telephone (301) 415-8126, email mlh1@nrc.gov.

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 the 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.

Paperwork Reduction Act Statement

This proposed 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 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.

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 proposed rule, the NRC would add the Holtec HI-STORM 100 cask system to 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.

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 proposed 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.

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. 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. In that rule, four spent fuel storage casks were approved for use at reactor sites and were listed in 10 CFR 72.214. That rule envisioned that storage casks certified in the future could be added to the listing in 10 CFR 72.214 through rulemaking procedures. Procedures and criteria for obtaining NRC approval of new spent fuel storage cask designs were provided in 10 CFR Part 72, Subpart L. Subsequently, additional casks have been added to the listing in 10 CFR 72.214.

The alternative to this proposed action is not to certify these new designs and give a site-specific license to each utility that proposes to use the casks. This 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. Using site-specific licenses would ignore the procedures and criteria currently in place for the addition of new cask designs and would be in conflict with the 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 extent practicable, the need for additional site reviews. Also, this alternative is anticompetitive because it would exclude new vendors without cause and would arbitrarily limit the choice of cask designs available to power reactor licensees.

Approval of the proposed rule would eliminate the above problems and is consistent with previous Commission actions. Further, the proposed rule will have no adverse effect on public health and safety.

The benefit of this proposed rule to nuclear power reactor licensees is to make available a greater choice of spent fuel storage cask designs that can be used under a general license. However, the newer cask design may have a market advantage over the existing designs because power reactor licensees may prefer to use the newer casks with improved features. The new cask vendors with casks to be listed in 10 CFR 72.214 benefit by having to obtain

NRC certificates only once for a design that can then be used by more than one power reactor licensee. The NRC also benefits because it will need to certify a cask design only once for use by multiple licensees. Casks approved through rulemaking are to be suitable for use under a range of environmental conditions sufficiently broad to encompass multiple nuclear power plant sites in the United States without the need for further site-specific approval by NRC. Vendors with cask designs already listed may be adversely impacted because power reactor licensees may choose a newly listed design over an existing one. However, the NRC is required by its regulations and the NWPA direction to certify and list approved casks. This proposed rule would have 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 proposed 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.

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 proposed rule affects only the licensing and operation of nuclear power plants, independent spent fuel storage facilities, and cask vendors. 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 proposed rule because this amendment does not involve any provisions that would impose backfits as defined in the backfit rule. 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 proposing to adopt 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. In Section 72.214, Certificate of Compliance 1014 is added to read as follows:

§ 72.214 List of approved spent fuel storage casks.

* * * * *

Certificate Number: 1014

SAR Submitted by: Holtec International

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

Docket Number: 72-1014

Certification Expiration Date: [insert 20 years after the effective date of the final rule]

Model Number: HI-STORM 100

* * * * *

Dated at Rockville, Maryland, this _____ day of_____,1999.

For the Nuclear Regulatory Commission.

_____

William D. Travers,
Executive Director for Operations.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

The Honorable Joe L. Barton, Chairman
Subcommittee on Energy and Power
Committee on Commerce
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission (NRC) intends to publish a proposed rule in the Federal Register that would amend the "List of approved spent fuel storage casks" (10 CFR 72.214). NRC is proposing to approve the Holtec HI-STORM 100 cask system for storage of spent fuel under the conditions specified in the proposed Certificate of Compliance (CoC). The cask, 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 would be ensured. The cask is being proposed for listing and revision under 10 CFR 72.214, "List of approved spent fuel storage casks," to allow holders of power reactor operating licenses to store spent fuel in the cask system under a general license. The Holtec HI-STORM 100 CoC would terminate 20 years after the effective date of the final rule listing the cask in 10 CFR 72.214, unless the cask CoC is renewed. The certificate contains conditions for use that are specific for this cask, addressing issues such as operating procedures, training, and spent fuel specification.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure:
Federal Register notice

cc: Representative Ralph M. Hall

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

The Honorable James N. Inhofe, Chairman
Subcommittee on Clean Air, Wetlands, Private
Property and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission (NRC) intends to publish a proposed rule in the Federal Register that would amend the "List of approved spent fuel storage casks" (10 CFR 72.214). NRC is proposing to approve the Holtec HI-STORM 100 cask system for storage of spent fuel under the conditions specified in the proposed Certificate of Compliance (CoC). The cask, 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 would be ensured. The cask is being proposed for listing and revision under 10 CFR 72.214, "List of approved spent fuel storage casks," to allow holders of power reactor operating licenses to store spent fuel in the cask system under a general license. The Holtec HI-STORM 100 CoC would terminate 20 years after the effective date of the final rule listing the cask in 10 CFR 72.214, unless the cask CoC is renewed. The certificate contains conditions for use that are specific for this cask, addressing issues such as operating procedures, training, and spent fuel specification.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure:
Federal Register notice

cc: Senator Bob Graham

WEEKLY REPORT TO THE COMMISSION

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

Proposed Rule Signed by EDO

On _____, the Executive Director for Operations approved a proposed rule which amends 10 CFR Part 72.214, "List of approved spent fuel storage casks," by adding the Holtec HI-STORM 100 cask system to the list of approved spent fuel storage casks. This amendment would allow the holders of power reactor operating licenses to store spent fuel in the approved casks under a general license.

This notice informs the Commission that, in accordance with the rulemaking authority delegated to the EDO, the EDO has signed this proposed rule and proposes to forward it on _____ to the Office of the Federal Register for publication, unless otherwise directed by the Commission.

Approved For Publication

The Commission delegated to the EDO (10 CFR 1.31(c)) the authority to develop and promulgate rules as defined in the APA (5 U.S.C. 551 (4)) subject to the limitations in NRC Management Directive 9.17, Organization and Functions, Office of the Executive Director for Operations, paragraphs 0213, 038, 039, and 0310.

The enclosed proposed rule, entitled "List of Approved Spent Fuel Storage Casks: Holtec HI-STORM 100 Addition," proposes to amend 10 CFR Part 72 to add the Holtec HI-STORM 100 cask system to the list of approved spent fuel storage casks. This amendment will allow the holders of power reactor operating licenses to store spent fuel in the approved cask under a general license.

This proposed rule does not constitute a significant question of policy, nor does it amend regulations contained in 10 CFR Parts 7, 8, or 9 Subpart C concerning matters of policy. I, therefore, find that this rule is within the scope of my rulemaking authority and am proceeding to issue it.

_____
Date

_____
William D. Travers,
Executive Director for Operations

DRAFT ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT ON PROPOSED AMENDMENT TO 10 CFR PART 72 "LIST OF APPROVED SPENT FUEL STORAGE CASKS: HOLTEC HI-STORM 100 ADDITION"

Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
August 1999

I. THE PROPOSED ACTION

The proposed action is to amend 10 CFR Part 72 to add a cask system to the list of NRC-approved cask systems. The proposed action would provide a greater selection of NRC-approved cask systems for the storage of spent nuclear fuel at commercial nuclear power reactor sites under a general license without the need for additional site-specific approvals. The cask can be relied on to provide safe confinement of spent fuel at any reactor site when used in accordance with the certificates of compliance. In order to use an NRC-approved cask system, the reactor licensee must ensure that the reactor site parameters and potential site-boundary doses are within the scope of the cask system safety analysis report and reactor license.

II. THE NEED FOR THE PROPOSED ACTION

This rulemaking is needed to add a cask system to the "List of approved spent fuel storage casks" in 10 CFR 72.214. Holtec International has requested a certificate of compliance for the HI-STORM 100 cask system in accordance with the procedures in 10 CFR Part 72, Subpart L, for obtaining NRC approval of new spent fuel storage cask system designs. The NRC has completed a preliminary safety evaluation report for the cask system and, based

upon that evaluation, has determined that commercial nuclear power reactors will be able to use the cask system under a general license after the cask system is listed in 10 CFR 72.214.

III. ENVIRONMENTAL IMPACTS OF PROPOSED ACTION

There are over 30 years of experience with dry storage of spent fuel in the United States and other countries. The environmental impacts associated with storage of light water reactor (LWR) spent fuel (including dry storage) have been previously considered in other Commission rules and licensing actions on which this assessment is tiered. In a proceeding entitled "Review and Final Revision of Waste Confidence Decision," published in the Federal Register on September 18, 1990 (55 FR 38474), the Commission found "reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or reviewed license) of that reactor at its spent fuel storage basin, or at either onsite or offsite independent spent fuel storage installations." The "Environmental Assessment for 10 CFR Part 72 'Licensing Requirements for the Independent Storage of Spent Fuel and High-Level Radioactive Waste,'" NUREG-1092[1] (August 1984), and the Supplementary Information of a proposed rule published in the Federal Register on May 27, 1986 (51 FR 19106), contain specific analyses showing that the potential environmental impacts from dry storage of spent fuel in cask systems are small. The "Environmental Assessment for Proposed Rule Entitled 'Storage of Spent Nuclear Fuel in NRC-Approved

[1]Copies of NUREG-1092 may be purchased from the Superintendent of Documents, U.S. Government Printing Office, P. O. Box 37082, Washington, DC 20013-7082. Copies are also available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. A copy is also available for inspection and/or copying at the NRC Local Public Document Room, 2120 L Street, NW (Lower Level), Washington, DC.

Storage Casks at Nuclear Power Reactor Sites'" for the proposed rule published in the Federal Register on May 5, 1989 (54 FR 19379), discussed the environmental impact of dry cask system storage and the finding of no significant impact.

The major nonradiation environmental impacts for dry cask system storage of spent fuel would be those related to fabrication of the casks. The steel required for these casks is expected to have very little impact on the steel industry. The amounts of lead and iron needed would not have significant incremental impacts on the mining and use of these metals. For concrete cask systems, the amount of concrete required would be small compared to industrial and construction uses. The amount of plastic, most commonly polyethylene used as a neutron shield, would not be more than about a ton per cask and would be insignificant compared to the millions of tons produced annually.

Incremental impacts caused by the operation of dry cask system storage of spent fuel under a general license are not considered significant. No effluents are expected from the sealed, dry-storage cask systems. However, activities associated with cask loading and decontamination may result in some small incremental liquid and gaseous effluent. These operations will be conducted under 10 CFR Part 50 reactor operating licenses, and effluents will be controlled to be within existing reactor technical specifications. Because of the relatively large reactor sites, any incremental doses offsite due to direct radiation exposure from the spent fuel storage casks are expected to be small and, when combined with the contribution from reactor operations, will be well within the annual dose equivalent of 0.25 mSv (25 mrem) limit to the whole body specified in 10 CFR 72.104. Incremental impacts in collective occupational exposure due to dry cask storage of spent fuel under a general license are expected to be only a small fraction of that occurring from operation of the nuclear power station.

During the promulgation of the amendments adding the new Subpart K to 10 CFR Part 72 (55 FR 29181; July 18, 1990), the NRC staff assessed the public health consequences of dry cask system storage accidents. The NRC staff has also determined that the release from dry cask system storage is of a comparable magnitude to that from a spent fuel storage basin. The staff also assessed public health consequences from acts of radiological sabotage and concluded that, to be successful, it would have to be carried out with the aid of explosives. The public health consequences from an explosive sabotage event would stem almost exclusively from the release of respirable particles. In an NRC study, an experiment was carried out to evaluate the effects of a severe, perfectly executed sabotage scenario against a simulated storage cask system containing spent fuel assemblies. The whole-body dose to an offsite individual was calculated based on the release data and found to be about 10 mSv (1 rem). The experiment and calculations led to the conclusion of low public health consequences. As a result of these evaluations, the staff determined that, because of the physical characteristics of the storage cask systems and the conditions of storage that include specific security provisions, the potential risk to the public health and safety due to accidents or sabotage is extremely small.

Decommissioning dry cask spent fuel storage under a general license would be carried out as part of the power reactor site decommissioning plan. It would consist of removing the spent fuel from the site and decontaminating cask surfaces. The casks would then be released for reuse or disposal. No residual contamination is expected to be left behind on supporting structures. The incremental cost associated with decommissioning is expected to represent a small fraction of the cost of decommissioning an entire nuclear power station.

Because this amendment to 10 CFR Part 72 will not change the existing safety and environmental requirements for the storage of spent nuclear fuel and dry cask system spent fuel storage under a general license will still have to meet these requirements, no change in

environmental impact is anticipated. In previous rulemaking proceedings, the Commission determined that compliance with the requirements of 10 CFR Part 72 would ensure adequate protection of the public health and safety. The NRC, through a safety evaluation report for the cask system in this rulemaking, has determined that if the conditions specified in the certificate of compliance are met, adequate protection of the public health and safety will be maintained. Based on the above assessment, the Commission finds that adding the Holtec HI-STORM 100 dry spent fuel storage cask system to the list of approved storage cask systems will not have a significant environmental impact.

IV. ALTERNATIVES TO THE PROPOSED ACTION

The alternative to this proposed action is to withhold generic approval of this new design and require a site-specific licensing proceeding for each utility proposing to use this cask system. Although this would involve a different process for approving the cask design, the environmental impacts of approving this cask design would be the same. In light of this consideration, and given the insignificance of the environmental impacts, implementation of the proposed action is reasonable.

The National Waste Policy Act (NWPA) directed that the Commission approve one or more technologies, that have been developed and demonstrated by DOE, 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 Commission. The NWPA also directed that the Commission, by rulemaking, set forth procedures for licensing the technology. Regulations for accomplishing this are in place. Therefore, the no action alternative is unacceptable.

V. ALTERNATIVE USE OF RESOURCES

The only irreversible commitments of resources determined in this assessment were those materials needed for the cask systems.

VI. AGENCIES AND PERSONS CONTACTED

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

VII. FINDING OF NO SIGNIFICANT IMPACT

Based on the foregoing environmental assessment, the NRC concludes that this rulemaking, entitled "List of Approved Spent Fuel Storage Casks: Holtec HI-STORM 100 Addition," will not have a significant incremental effect on the quality of the human environment. Therefore. the NRC has determined that an environmental impact statement is not necessary for this rulemaking.

Certain documents related to this rulemaking, including comments received by the NRC, may be examined at the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. These same documents also may be viewed and downloaded electronically via the interactive rulemaking website established by NRC for this rulemaking (http:\\ruleforum.llnl.gov).

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July 29, 1999 (1:40)

OPA

D R A F T

(Source:Draft memo to EDO and draft FR notice)

NRC PROPOSES TO AMEND REGULATIONS TO ADD

HOLTEC HI-STORM 100 FUEL STORAGE CASK DESIGN TO APPROVED LIST

The Nuclear Regulatory Commission is proposing to amend its regulations to add the Holtec HI-STORM 100 cask system to the list of approved cask designs that utilities may use -- under a general license and without site-specific approval -- to store spent fuel at their nuclear power plants.

Under the terms of an NRC general license, any nuclear power reactor licensee can use a pre-approved cask if the company notifies the NRC in advance, meets the conditions of the cask's NRC certificate of compliance, and complies with NRC's regulations. These regulations include a requirement to ensure that the reactor site characteristics and potential site-boundary radiation doses are within the scope of the cask's safety analysis report and the reactor license.

The HI-STORM 100 certificate would contain conditions for use that are similar to others for NRC-approved casks. However, the certificate also contains specific conditions for this cask, addressing issues such as operating procedures, training and spent fuel specifications.

The NRC staff has issued a preliminary safety evaluation report that finds that, if the conditions specified in the certificate of compliance are met, adequate protection of public health and safety will be maintained. The staff's environmental assessment determined that use of the HI-STORM 100 cask design on reactor sites would have no significant incremental impacts on the environment.

Interested persons are invited to submit written comments on the proposed amendments to the regulations within 75 days after publication of a Federal Register notice on the subject, expected shortly. The comments should be addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff. Comments may also be submitted via the NRC's interactive rulemaking web site at http://ruleforum.llnl.gov.

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