

U.S. NUCLEAR REGULATORY COMMISSION
DOCKET 72-1014
HOLTEC INTERNATIONAL
ISSUANCE OF ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT IMPACT
REGARDING THE REQUEST FOR EXEMPTION FROM
REQUIREMENTS OF 10 CFR PART 72

By letter dated November 15, 1999, Holtec International (Holtec or applicant) requested an exemption, pursuant to 10 CFR 72.7, from the requirements of 10 CFR 72.234(c). Holtec, located in Marlton, New Jersey, is seeking Nuclear Regulatory Commission (NRC or the Commission) approval to fabricate four HI-STORM 100 overpacks, and one HI-TRAC 100 transfer cask prior to receipt of the Certificate of Compliance (CoC) for the HI-STORM 100 cask system. The HI-STORM 100 overpack and the HI-TRAC 100 transfer cask are basic components of the HI-STORM 100 system, a cask system designed for the dry storage and transportation of spent nuclear fuel. The HI-STORM 100 cask system is intended for use under the general license provisions of Subpart K of 10 CFR Part 72 by Commonwealth Edison Company (ComEd) at the Dresden Nuclear Power Station, Unit 1 (Dresden), located in Morris, Illinois.

ENVIRONMENTAL ASSESSMENT (EA)

Identification of Proposed Action: By letter dated October 26, 1995, as supplemented, and pursuant to 10 CFR Part 72, Holtec submitted an application to the NRC for a CoC for the HI-STORM 100 cask system. This application is currently under consideration by the NRC staff. The applicant is seeking Commission approval to fabricate four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask prior to the Commission's issuance of a CoC for the HI-STORM 100 cask system. The HI-STORM 100 cask system is intended for use under the general license provisions of Subpart K of 10 CFR Part 72 by ComEd at Dresden in Morris, Illinois. The applicant requests an exemption from the requirements of 10 CFR 72.234(c), which state that "Fabrication of casks under the Certificate of Compliance must not start prior to receipt of the

Certificate of Compliance for the cask model." The proposed action before the Commission is whether to approve fabrication, including material procurement, and whether to grant this exemption pursuant to 10 CFR 72.7.

Need for the Proposed Action: Holtec requested the exemption to 10 CFR 72.234(c) to ensure the availability of overpacks so that ComEd can maintain full core off-load capability at Dresden. Dresden will lose full core off-load capability in the fall of 2001. Dresden requests the delivery of the four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask by November 20, 2001. Holtec states that to meet this schedule, fabrication must begin by February 15, 2000.

The HI-STORM 100 cask system application, dated October 26, 1995, is under consideration by the Commission. It is anticipated that, if approved, the HI-STORM-100 cask system CoC may be issued by July 2000. The proposed fabrication exemption will not authorize use of any Holtec overpack to store spent fuel. That will occur only when, and if, a CoC is issued. An NRC approval of the fabrication exemption request should not be construed as an NRC commitment to favorably consider any Holtec application for a CoC. Holtec will bear the risk of all activities conducted under the exemption, including the risk that the four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask that Holtec plans to construct may not be usable because they may not meet specifications or conditions placed in a CoC that the NRC may ultimately approve.

Environmental Impacts of the Proposed Action: Regarding the fabrication exemption, the Environmental Assessment for the final rule, "Storage of Spent Nuclear Fuel in NRC-Approved Storage Casks at Nuclear Power Reactor Sites" (55 FR 29181 (1990)), considered the potential environmental impacts of overpacks which are used to store spent nuclear fuel under a CoC and concluded that there would be no significant environmental impacts. The proposed action now under consideration would not permit use of the overpacks, but would only permit fabrication. There are no radiological environmental impacts from fabrication since overpack fabrication does not involve radioactive materials. The major non-radiological environmental impacts involve use of natural resources due to overpack fabrication. Each HI-STORM 100 overpack weighs approximately 100 tons and is constructed of metal and concrete. The HI-TRAC 100 transfer cask weighs approximately 125 tons and is

made of structural steel and lead. The amount of materials required to fabricate these components is expected to have very little impact on the associated industry. Fabrication of the metal components would be at a metal fabrication facility, while fabrication of the concrete overpacks would be partially fabricated at the same metal fabrication facility, with only the concrete pours being done at Dresden. The metal and concrete used in the fabrication of these components is insignificant compared to the amount of metal and concrete fabrication performed annually in the United States. If the components are not usable, the components could be disposed of or recycled. The amount of metal and concrete disposed of is insignificant compared to the amount of metal and concrete that is disposed of annually in the United States. Based upon this information, the fabrication of these components will have no significant impact on the environment since no radioactive materials are involved, and the amount of natural resources used is minimal.

Alternative to the Proposed Action: Since there is no significant environmental impact associated with the proposed actions, any alternatives with equal or greater environmental impact are not evaluated. The alternative to the proposed actions would be to deny approval of the exemption and, therefore, not allow fabrication until a CoC is issued. This alternative would have the same environmental impact.

Given that there are no significant differences in environmental impact between the proposed action and the alternative considered and that the applicant has a legitimate need to fabricate the components prior to certification and is willing to assume the risk that any fabricated components may not be approved or may require modification, the Commission concludes that the preferred alternative is to grant the exemption from the prohibition on fabrication prior to receipt of a CoC.

Agencies and Persons Consulted: Mr. F. Niziolek, Reactor Safety Section Head, Illinois Department of Nuclear Safety, was contacted about the Environmental Assessment for the proposed action and had no comments.

FINDING OF NO SIGNIFICANT IMPACT

The environmental impacts of the proposed action have been reviewed in accordance with the requirements set forth in 10 CFR Part 51. Based upon the foregoing Environmental Assessment, the Commission finds that the proposed action of granting an exemption from 10 CFR 72.234(c) so that Holtec may fabricate four HI-STORM 100 overpacks and one HI-TRAC-100 transfer cask prior to issuance of a CoC will not significantly impact the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed exemption.

The request for the exemption from 10 CFR 72.234(c) was filed on November 15, 1999. For further details with respect to this action, see the application for CoC for the HI-STORM 100 cask system, dated October 26, 1995. On July 30, 1999, a preliminary Safety Evaluation Report and a proposed CoC for the HI-STORM 100 cask system were issued by the NRC staff to initiate the rulemaking process. The exemption request and CoC application are docketed under 10 CFR Part 72, Docket 72-1014. These documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW, Washington, DC 20555.

Dated at Rockville, Maryland, this 10th day of January 2000.

FOR THE NUCLEAR REGULATORY COMMISSION

(Original Signed by:)

E. William Brach, Director
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards



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

February 1, 2000

Mr. Brian Gutherman
Licensing Manager
Holtec International
Holtec Center
555 Lincoln Drive West
Marlton, NJ 08053

Corrected Copy

SUBJECT: EXEMPTION FROM 10 CFR 72.234(c) FOR THE HI-STORM 100 CASK SYSTEM,
DOCKET 72-1014 (TAC NO. L23007)

Dear Mr. Gutherman:

By letter dated November 15, 1999, and pursuant to the provisions of 10 CFR Part 72.7, Holtec International (Holtec) requested an exemption from 10 CFR 72.234(c). Holtec requested permission to begin fabrication activities for four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask prior to receipt of the Certificate of Compliance (CoC). The HI-STORM 100 overpack and the HI-TRAC 100 transfer cask are basic components of the HI-STORM 100 cask system. Holtec submitted an application for a HI-STORM 100 cask system CoC to the U.S. Nuclear Regulatory Commission (NRC) on October 23, 1995, as supplemented.

Holtec is a subcontractor to Commonwealth Edison Company (ComEd) for supplying four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask for the Dresden Nuclear Power Station (Dresden), Unit 1, located in Morris, Illinois. Dresden plans to perform refueling in the fall of 2001. To maintain full core offload capability in its spent fuel pool during refueling, Dresden must remove fuel from its spent fuel pool and store the spent fuel in the HI-STORM 100 overpacks at its Independent Spent Fuel Storage Installation. To have the HI-STORM 100 cask system components available before the refueling activities at Dresden in the fall of 2001, Holtec stated that it must begin fabrication activities by February 15, 2000. However, the final Safety Evaluation Report and CoC package is scheduled to be issued by NRC in July 2000. Consequently, Holtec requested a fabrication exemption for four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask.

Holtec has established a Quality Assurance (QA) Program that includes specific QA requirements for procurement and fabrication of items and activities important to safety. The HI-STORM overpacks fabricated for use at Dresden will not be used for storage of spent fuel until the CoC is issued. Moreover, Dresden under its QA program must also assure that the four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask are fabricated in conformance with the CoC as issued.

The NRC staff evaluated the public health and safety and environmental impacts of the proposed exemption and determined that granting the exemption would not result in any significant impacts. For this action, an Environmental Assessment and Finding of No Significant Impact have been prepared and published in the Federal Register (65 FR 2995, January 19, 2000). An advance copy of the Federal Register Notice was provided to you by letter dated January 10, 2000.

The NRC approval of the exemption request shall not be construed as an NRC commitment to favorably consider Holtec's application for a CoC. Holtec shall bear the risk of all activities conducted under this exemption.

Based on the foregoing considerations, the staff determined that granting the proposed exemption from the requirements of 10 CFR 72.234(c) to permit fabrication of four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Holtec is hereby granted an exemption, subject to the following conditions:

- 1) Holtec shall apply its QA Program for fabrication of the four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask addressed by this exemption in compliance with the requirements of 10 CFR Part 72, Subpart G.
- 2) Holtec shall make provisions for NRC to inspect the premises and facilities at which the HI-STORM 100 cask system components will be fabricated and tested in accordance with 10 CFR Part 72. This condition shall be completed before any fabrication activities under this exemption.
- 3) Holtec shall notify NRC at least 45 days before fabrication of the first HI-STORM 100 overpack and the HI-TRAC-100 transfer cask.
- 4) Holtec shall make provisions for NRC to perform any tests that it deems necessary or appropriate for assessing compliance with the requirements of 10 CFR Part 72.
- 5) Holtec shall bear the risk of any activities conducted under this exemption, including the risk that the HI-STORM 100 overpacks and the HI-TRAC 100 transfer cask may require modification or that the components may not be useable as a result of not meeting specifications or conditions delineated in a HI-STORM 100 cask system CoC that NRC may ultimately issue.

Please refer to Docket 72-1014 and TAC No. L23007 in future correspondence related to this action.

Sincerely,

(Original Signed by:)

E. William Brach, Director
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Docket 72-1014, 72-37

cc: Service list

The NRC approval of the exemption request shall not be construed as an NRC commitment to favorably consider Holtec's application for a CoC. Holtec shall bear the risk of all activities conducted under this exemption.

Based on the foregoing considerations, the staff determined that granting the proposed exemption from the requirements of 10 CFR 72.234(c) to permit fabrication of four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Holtec is hereby granted an exemption, subject to the following conditions:

- 1) Holtec shall apply its QA Program for fabrication of the four HI-STORM 100 overpacks and one HI-TRAC 100 transfer cask addressed by this exemption in compliance with the requirements of 10 CFR Part 72, Subpart G.
- 2) Holtec shall make provisions for NRC to inspect the premises and facilities at which the HI-STORM 100 cask system components will be fabricated and tested in accordance with 10 CFR Part 72. This condition shall be completed before any fabrication activities under this exemption.
- 3) Holtec shall notify NRC at least 45 days before fabrication of the first HI-STORM 100 overpack and the HI-TRAC-100 transfer cask.
- 4) Holtec shall make provisions for NRC to perform any tests that it deems necessary or appropriate for assessing compliance with the requirements of 10 CFR Part 72.
- 5) Holtec shall bear the risk of any activities conducted under this exemption, including the risk that the HI-STORM 100 overpacks and the HI-TRAC 100 transfer cask may require modification or that the components may not be useable as a result of not meeting specifications or conditions delineated in a HI-STORM 100 cask system CoC that NRC may ultimately issue.

Please refer to Docket 72-1014 and TAC No. L23007 in future correspondence related to this action.

Sincerely,

(Original Signed by:)

E. William Brach, Director
 Spent Fuel Project Office
 Office of Nuclear Material Safety
 and Safeguards

Docket 72-1014, 72-37

cc: Service list

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