



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

January 27, 2021

MEMORANDUM TO: June Cai, Chief
Materials Rulemaking
and Project Management Branch
Division of Rulemaking, Environmental, and Financial Support
Office of Nuclear Material Safety
and Safeguards

FROM: John McKirgan, Chief
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

SUBJECT: USER NEED FOR RULEMAKING FOR THE HOLTEC HI-STORM
100 CASK SYSTEM, AMENDMENT NO. 15

The purpose of this communication is to request support for rulemaking activities in the Division of Fuel Management (DFM) for the following Title 10 of the *Code of Federal Regulations* (10 CFR) Part 72 licensing action:

1. Changes to 10 CFR 72.214 rule text (changes appear in bold):

Certificate Number: 1014.

Initial Certificate Effective Date: May 31, 2000.

* * *

Amendment Number 15 Effective Date: [insert 75 days from date of *Federal Register* publication].

Safety Analysis Report (SAR) Submitted by: Holtec International.

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

Docket Number: 72-1014.

Certificate Expiration Date: May 31, 2020.

Model Number: HI-STORM 100.

2. On March 20, 2019, and supplemented on September 16, 2019, April 28, 2020, May 15, 2020, June 12, 2020, June 22, 2020, July 30, 2020, August 14, 2020, September 1, 2020, and September 25, 2020, Holtec International (Holtec) submitted a amendment request to the U.S. Nuclear Regulatory Commission for the HI-STORM 100 Certificate of Compliance (CoC) No. 1014. The proposed changes include the following:
 - 1) Add a new version of a transfer cask, HI-TRAC MS.

CONTACT: Yen-Ju Chen, NMSS/DSFM
(301) 415-1018

- 2) Include MPC-32M for storage in HI-STORM 100 System.
 - 3) Include MPC-32 Version 1 and MPC-68 Version 1 for storage in HI-STORM 100 System.
 - 4) Add the new overpack HI-STORM 100S Version E, and the proposed MPCs to be stored in Version E.
 - 5) Add three additional BWR fuel types to the approved content for MPC-68M: 10x10I, 10x10J, and 11x11A.
 - 6) Lower the allowed ambient temperature to 70°F for HI-STORM 100S Version E.
 - 7) Add HI-DRIP and dry ice jacket ancillary system as additional cooling.
 - 8) Allow for partial gadolinium credit for BWR fuel assemblies types 10x10 and 11x11 assembly classes in MPC-68M.
 - 9) Remove dose rate and consequence analysis from Accident Analysis for non-mechanistic tipover in Final Safety Analysis Report (FSAR) Section, which Holtec did not pursue and the staff did not review.
 - 10) Include allowance for canisters currently loaded under earlier amendments which had different helium leak test requirements.
 - 11) Update Drawing No. 7195 for the MPC-68M by removing dimensions which are not used in the safety analysis.
 - 12) Include dry ice jacket as optional alternate cooling method for short-term operation of the loaded HI-TRAC.
3. The proposed CoC and technical specifications, and preliminary safety evaluation report (SER) have been placed in ADAMS (see references below) and are available for your use in the rulemaking package. DFM will designate these documents as Official Agency Records after the Executive Director for Operations has approved the package (ADAMS Package No. ML20295A412).

The Office of the General Counsel has reviewed this memorandum with its referenced documents and has no legal objection to its contents.

Docket No.: 72-1014

CAC No.: 001208

EPID: L-2019-LLA-0059

ADAMS References:

1. Proposed CoC 1014 Amendment No. 15 CoC (ML20295A415)
2. Proposed CoC 1014 Amendment No. 15 Appendix A (ML20295A416)
3. Proposed CoC 1014 Amendment No. 15 Appendix B (ML20295A417)
4. Proposed CoC 1014 Amendment No. 15 Appendix C (ML20295A418)
5. Proposed CoC 1014 Amendment No. 15 Appendix D (ML20295A419)
6. Proposed CoC 1014 Amendment No. 15 Appendix A-100U (ML20295A420)
7. Proposed CoC 1014 Amendment No. 15 Appendix B-100U (ML20295A421)
8. Preliminary CoC 1014 Amendment No. 15 SER (ML20295A422)

SUBJECT: USER NEED FOR RULEMAKING FOR THE HOLTEC HI-STORM 100 CASK SYSTEM, AMENDMENT NO. 15

DOCUMENT DATE: January 27, 2021

DISTRIBUTION:

DFM r/f

ADAMS Accession Nos.: ML20295A412 (Pkg) ML20295A413 (Memo)

ML20295A415 – ML20295A422 (Encls) * concur via email

OFFICE	DSFM	DSFM*	OGC/NLO*	DSFM*
NAME	YChen	WWheatley	NMertz	JMcKirgan
DATE	11/12/2020	11/10/2020	1/25/2021	1/27/2021

OFFICIAL RECORD COPY