



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

March 8, 2024

MEMORANDUM TO: Cinthya Roman, Deputy Director
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

FROM: Kristina L. Banovac, Project Manager
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

A handwritten signature in black ink, appearing to read "K L Banovac".

Signed by Banovac, Kristina
on 03/08/24

SUBJECT: SUMMARY OF MARCH 6, 2024, PUBLIC MEETING WITH HOLTEC
INTERNATIONAL INC. AND THE HOLTEC USERS GROUP TO
DISCUSS THE PATH FORWARD FOR GENERAL LICENSEES
AFFECTED BY THE CONTINUOUS BASKET SHIMS BASKET DESIGN
CHANGE

Background

On March 6, 2024, a meeting was held between representatives of Holtec International, Inc. (Holtec), the Holtec Users Group (HUG), and the U.S. Nuclear Regulatory Commission (NRC) to discuss the NRC's plans on the path forward for general licensees affected by the continuous basket shims (CBS) basket design change.

The meeting was noticed on February 15, 2024, and was originally scheduled to be held on February 28, 2024. The meeting was rescheduled to March 6, 2024, and the revised meeting notice is at Agencywide Documents Access and Management System (ADAMS) Accession No. ML24064A088. The list of meeting attendees is provided in Enclosure 1. The presentation slides are at ML24065A118.

This meeting was a follow-up to a previous public meeting that was held on February 8, 2024, to discuss Enforcement Action (EA-23-044) issued to Holtec on January 30, 2024 (ML24016A190). The February 8, 2024, meeting presentation slides are at ML24036A281, and the meeting summary is at ML24066A159.

Discussion

The meeting discussion followed the meeting agenda, which is provided in Enclosure 2. The NRC staff noted that it considered information shared at the previous February 8, 2024, meeting and subsequent information provided from Holtec, the HUG, and stakeholders to develop the path forward for general licensees affected by the CBS basket design change. The NRC staff

CONTACT: Kristina Banovac, NMSS/DFM
301-415-7116

noted that the purpose of this meeting was to describe regulatory approaches for impacted general licensees, explain the exemption process, and discuss general licensees' plans and next steps.

The NRC staff's presentation provided background information, noting that there is no safety concern associated with the Holtec dry cask storage systems with the CBS basket variant that have been loaded. Based on the best information available, 21 general licensees have loaded systems containing CBS basket variants. In 2024, 10 general licensees plan to load systems using CBS basket variants, and several general licensees noted they expect to load in 2025.

The NRC staff discussed the regulatory approaches for impacted general licensees.

- For general licensees with *already loaded* systems using CBS variant baskets, the NRC will issue non-cited violations (NCVs) to licensees that have entered the issue into their corrective action programs, consistent with the NRC's Enforcement Policy. General licensees are expected to restore compliance by implementing future approved methods of evaluation, which will be part of any issuance of Certificate of Compliance (CoC) amendments that include this design change. Holtec recently submitted this design change in its request for Amendment No. 7 to CoC No. 1032 for the HI-STORM FW system, which is currently under NRC review. Holtec plans to submit this design change in a request for Amendment to CoC No. 1014 for the HI-STORM 100 system in the June 2024 timeframe. The NRC inspectors will perform future inspections to ensure compliance is restored.
- For general licensees with *upcoming loading campaigns* using CBS basket variant, the general licenses will need to request exemptions. The NRC staff will be able to expedite its exemption review process for upcoming urgent loading needs if licensees supply the necessary information.

The NRC staff noted that licensees seeking an exemption need to be clear and specific in their requests on how they meet the criteria for exemption in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 72.7, "Specific exemptions." The NRC staff presented examples of the information that should be included in the exemption requests, such as loading needs, loading dates, type of baskets, administrative controls to minimize the risk of a tip-over, and confirmation that the dose limits in 10 CFR 72.104, "Criteria for radioactive materials in effluents and direct radiation from an ISFSI [independent spent fuel storage installation] or MRS [monitored retrievable storage installation]," and 10 CFR 72.106, "Controlled area of an ISFSI or MRS," are met. Additionally, licensees need to explain why the exemption is otherwise in the public interest, including explaining why the exemption needs to be granted to support the planned loading date.

The NRC staff noted that licensees need to submit a specific high-quality request at least 60 days before the need date. As part of its exemption review process, the NRC will conduct an environmental review and associated State consultation. The NRC staff noted that if a licensee who already submitted an exemption request wishes to supplement its request based on the information discussed in this meeting, licensees should contact the NRC Project Manager or Yoira Diaz-Sanabria, Chief of the Storage and Transportation Licensing Branch, Division of Fuel Management at the NRC.

Regarding the timing of exemption reviews, the NRC staff noted that a typical exemption review takes 2 to 6 months. However, the NRC recognizes that licensees plan cask loading campaigns

years in advance to safely support spent fuel loading operations, and that the licensees have immediate operational needs for upcoming loadings. The NRC is therefore enhancing its exemption review timeline to support immediate loading campaigns occurring in spring and summer of 2024, to ensure safe management of spent fuel. The NRC will prioritize future exemption requests based on safety, operational needs, and resource availability.

The following items were discussed between Holtec, the HUG, and NRC representatives during the meeting:

- A HUG representative asked if the NRC has begun reviewing the already submitted exemptions and if the NRC can share its review experience. The NRC staff reiterated that general licensees should consider the information in the presentation on what information the NRC needs to review the exemptions. The NRC staff also noted that it received 3 exemption requests so far, and the NRC has prioritized the reviews based on licensee loading dates (with the first loading planned for April 2024).
- A few HUG representatives inquired about NCVs for already loaded systems and asked if exemptions would also need to be issued for those systems. The NRC staff clarified that exemptions are not needed for loaded systems. The NRC staff reiterated that the NCV process is the process that the NRC will use for already loaded systems, and this is consistent with the NRC's Enforcement Policy. Restoration of compliance would be expected to occur once a method of evaluation was approved by the NRC in any future amendments to the CoCs for the HI-STORM FW and HI-STORM 100 systems that include this design change. The NRC staff clarified that licensees need to revise their 10 CFR 72.212, "Conditions of general license issued under § 72.210," evaluations as part of their implementation of any future approved CoC amendments that include this design change. A HUG representative inquired why the NRC is not planning to issue minor violations instead of NCVs. The NRC staff replied that this non-compliance for spent fuel storage falls under traditional enforcement (not the reactor oversight process), so an NCV is the appropriate option.
- A few HUG representatives asked for clarification on the information that should be included in the exemption requests regarding confirmation that Part 72 dose limits are met. The representatives asked if it was sufficient for a licensee to include in its exemption request, the information in its 10 CFR 72.212 evaluation report describing how the licensee complies with the Part 72 dose limits, including any site-specific calculations and taking dose measurements after loading to confirm that the systems meet the dose limits in the CoC's technical specifications. The NRC staff noted that any information that can confirm that general licensees can meet the Part 72 dose limits may be acceptable, including information in the CoC final safety analysis report and any site-specific analysis or calculations for a general licensee's loaded systems. Another HUG representative asked if it was sufficient for a general licensee to confirm that the use of the CBS basket variant does not impact its site-specific dose analysis, and the NRC staff noted that may also be acceptable.
- A HUG representative asked for clarification on the information that should be included in the exemption requests regarding administrative controls and whether it was sufficient to note the administrative controls that the licensee already has in place and has used for previous loadings. The NRC staff replied that it may be acceptable for the licensee to discuss any administrative controls that it already has in place.

After Holtec, the HUG, and NRC representatives completed their discussion, the meeting was opened to public comments or questions.

- A few public members expressed disagreement with exemptions and noted the NRC should make the new baskets compliant, rather than issuing exemptions or facilitating general licensees' ability to get exemptions. The NRC staff clarified that the purpose of the meeting was to discuss with licensees the NRC's decision on how to address already loaded systems and future loadings, and what information the NRC needs for its review of licensees' exemption requests.
- A couple public members asked if this CBS basket variant includes the same bolts and fasteners that were used in the systems at the San Onofre Nuclear Generating Station (SONGS) and if this was a similar issue to the basket shim issue at SONGS. The NRC staff noted that the CBS basket variant is different than the basket shim design at SONGS. The NRC staff noted that there is a figure in the February 8, 2024, meeting slides (at ML24036A281) that shows the CBS basket variant.
- A few public members expressed dissatisfaction with Holtec, commenting that Holtec was duplicitous in making this design change without filing an amendment request for NRC approval and without properly notifying general licensees. A public member asked if Holtec was penalized for the design change, and another public member noted that Holtec should be penalized. The NRC staff noted that the CBS basket variant was first identified in a December 2022 NRC inspection, after which the NRC conducted technical analysis to determine the safety significance of the design change. The NRC pursued enforcement action, resulting in a notice of violation (NOV) to Holtec that included three Severity Level IV violations. Holtec responded to the NOV in writing and is required to take corrective actions to restore compliance. Holtec has since submitted a request for Amendment No. 7 to CoC No. 1032 for the HI-STORM FW system that includes the CBS basket design change (which is currently under NRC review), and Holtec plans to submit a future amendment request for the HI-STORM 100 system that includes this design change. The NRC is also currently reviewing Holtec's response to the NOV.
- A public member asked how many loaded systems have the CBS basket variant, and the NRC staff noted there are approximately 200 loaded systems with the CBS basket variant at 21 sites. The public member noted that Holtec should not continue to manufacture systems with the CBS basket variant. Another public member commented that the NRC should notify the public about issues as soon as the NRC becomes aware of the issue. A public member expressed concern about the number of systems that had already been loaded with the CBS basket variant before the NRC became aware of it and also expressed concern about a hypothetical design change that could have involved a safety issue. The NRC staff noted that it shares the same concern about safety, and therefore took the time needed to fully assess the safety significance of the CBS basket design change. The NRC noted that it ultimately determined that the CBS basket design change was of very low safety significance.

Docket Nos. 72-1014, 72-1032

Enclosures:

1. Meeting Attendees
2. Meeting Agenda

SUBJECT: SUMMARY OF MARCH 6, 2024, PUBLIC MEETING WITH HOLTEC INTERNATIONAL INC. AND THE HOLTEC USERS GROUP TO DISCUSS THE PATH FORWARD FOR GENERAL LICENSEES AFFECTED BY THE CONTINUOUS BASKET SHIMS BASKET DESIGN CHANGE

DOCUMENT DATE: March 8, 2024

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**ADAMS Accession Nos.: Package ML24067A301, Memo ML24067A302
Presentation slides ML24065A118**

OFFICE	NMSS/DFM	NMSS/DFM	NMSS/DFM	NMSS/DFM
NAME	KBanovac	JGoodridge	YDiaz-Sanabria	KBanovac
DATE	3/8/2024	3/8/2024	3/8/2024	3/8/2024

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MEETING ATTENDEES

Meeting Between the U.S. Nuclear Regulatory Commission (NRC), Holtec International
(Holtec), and the Holtec Users Group

March 6, 2024, 1:30 p.m. – 2:30 p.m. (Eastern Standard Time)

Christian Jacobs	NRC
Yen-Ju Chen	NRC
Sarah Lopas	NRC
Norma Garcia Santos	NRC
Marilyn Diaz Maldonado	NRC
Kristina Banovac	NRC
Angela Coggins	NRC
Yoira Diaz-Sanabria	NRC
Doug Tift	NRC
Linda Howell	NRC
Sara Kirkwood	NRC
David Pelton	NRC
Robert Sun	NRC
Michele Burgess	NRC
Jimmy Chang	NRC
Tom Boyce	NRC
Dante Johnson	NRC
David Brown	NRC
Christine Pineda	NRC
Loren Howe	NRC
Shana Helton	NRC
John-Chau Nguyen	NRC
Brian Bowker	NRC
Chris Bajwa	NRC
Robert Kuntz	NRC
Kevin Roach	NRC
Yong Kim	NRC
Surinder Arora	NRC
Katerina Georgiev	NRC
Suzanne Dennis	NRC
Joseph Azeizat	NRC
Jill Caverly	NRC
Matthew Learn	NRC
Daniel Forsyth	NRC
Damaris Marcano	NRC
Dave McIntyre	NRC
Patrick Koch	NRC
Michael Marshall	NRC
Ann Dumas	NRC
Michael Magyar	NRC
Kellee Jamerson	NRC
Lisa Dimmick	NRC
Charles Stanko	NRC

Paula Cooper	NRC
Jo Jacobs	NRC
Mark Henrion	NRC
Diane Screnci	NRC
Gregory S Kremer	AMEREN
Steve Baker	Baker Consulting Services LLC
Fred Madden	Certrec
Rachel A Luebbe	CONSTELLATION
Jack M Desando	CONSTELLATION
Brian A Seawright	CONSTELLATION
Kenn A Hunter	CONSTELLATION
Kimberly A Hobbs	CONSTELLATION
Joseph J Dougherty	CONSTELLATION
Christian D Williams	CONSTELLATION
Michael J Cazzolli	CONSTELLATION
Hayden D Crymes	CONSTELLATION
Eric Jordan J Stein	CONSTELLATION
Daniel J Murphy	CONSTELLATION
Tara Noah	CONSTELLATION
Scott Brendler	CONSTELLATION
Jason C Zorn	CONSTELLATION
Deann Raleigh	CURTISSWRIGHT
Meghan Hahn	DOMINIONENERGY
David D Tomlinson	DOMINIONENERGY
Harry B Giles	DTEENERGY
Matthew Johnson	DUKE-ENERGY
Jeffrey D. Waddell	ENERGY-NORTHWEST
Francisco Javier Fernández López	ENRESA
Suzanne L Leblang	ENERGY
Thomas A Pasko	ENERGY
Brian Gutherman	Gutherman Technical Services, LLC
Joseph Tufano	HOLTEC
Bill Noval	HOLTEC
Kimberly Manzione	HOLTEC
Matthew Johnson	HOLTEC
Laurie Murray	HOLTEC
Timothy Salentino	HOLTEC
Sam Gordon	HOLTEC
Robert Tindal	HOLTEC
Michael Beal	HOLTEC
Prithvish Gowda	HOLTEC
Matthew Olsack	HOLTEC
Colin Brown	HOLTEC
Ishraqul Wara	HOLTEC
Walter Wittich	HOLTEC
Collin Mitchell	HOLTEC
Alexandra Zumpetta	HOLTEC
Matthew Block	HOLTEC
Dustin Zuzulock	HOLTEC

Sydney Sheilds	HOLTEC
Kyle Trotter	HOLTEC
Jose Guerrero	HOLTEC
Garrett Young	HOLTEC
Olivia Reilly	HOLTEC
Brad Zembruski	HOLTEC
Steve Soler	HOLTEC
Justin Sledzinski	HOLTEC
Stefan Anton	HOLTEC
Christopher Gibson	LUMINANT
Heath Baldner	NACINTL
Rodney McCullum	NEI
Jerry Bonanno	NEI
Andrew Mauer	NEI
Mark Richter	NEI
Diane D'Arrigo	NIRS
Veena Gubbi	NJ DEP
Jerry Humphreys	NJ DEP
Jonathan Zeitz	NJ DEP
Glenn Mathues	ORANO
Tammy Morin	PSEG
Donna Gilmore	SanOnofreSafety.org
Leon S Rafner	SCE
Ernest F. Bates	SOUTHERNCO
Andrew Black	SOUTHERNCO
Clay Channell	SOUTHERNCO
Kari Osborne	SOUTHERNCO
William L. Phillips	SOUTHERNCO
Jeffry Sharkey	SOUTHERNCO
Nicklaus A. Kean	SOUTHERNCO
Clay L. Branum	SOUTHERNCO
Tiffany Eikan Yip	SOUTHERNCO
Gabriel Grant	SOUTHERNCO
Mark Oswald	STPEGS
Derrick Johnson	STPEGS
Christopher Warren	STPEGS
Scotty Harris	STPEGS
Dong Zhilin	STPEGS
Katie Brown	TALENERGY
Anthony W Nestico	TALENERGY
Matthew Shields	TALENERGY
Jerry Bingaman	TN
William J McCoy	TVA
Brian Lee McCoy	TVA
Brian D Cupp	TVA
Stafford L Turner	TVA
Zachary T Kitts	TVA
William Andrew Whitener	TVA
Russell R Thompson	TVA

J Beau Eckermann	TVA
Carlyn Greene	UxC, LLC
Kim Medved	
Glenn Schwartz	
Steve Mroz	
Bill Partridge	
Brian Thomas	
Ashley Sullivan	
Phil Couture	
Phil Lashley	
Connie Kline	
Michael Keegan	
Steve Osting	
Deann E. Raleigh	
Paul Wilson	
Jeff Schlittenhart	
Mark Bensi	
Jeremy Schudel	
Kalene Walker	
Jacquelyn Drechsler	
Ashley Sullivan	
Ronny Perkins	
Chuck Klingshirn	
Jaclyn Hulst	

MEETING AGENDA

Meeting Between the
U.S. Nuclear Regulatory Commission (NRC),
Holtec International (Holtec), and the Holtec Users Group (HUG)
March 6, 2024
1:30 p.m. – 2:30 p.m. (Eastern Standard Time)
Virtual Meeting

Purpose: NRC to discuss its plans on the path forward for General Licensees (GLs) affected by the Continuous Basket Shims basket design change

1:30 p.m. – 1:40 p.m.	Introductions/Opening Remarks	NRC
1:40 p.m. – 1:55 p.m.	NRC discusses its plan on path forward for GLs	NRC
1:55 p.m. – 2:20 p.m.	Discussion: NRC/Holtec/HUG Clarifications/Questions	NRC/Holtec/HUG
2:20 p.m. – 2:30 p.m.	Public Comments/Questions	Public
2:30 p.m.	Meeting Adjourn	