



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

December 26, 2019

Ms. Kim Manzione, Licensing Manager
Holtec International
Holtec Technology Campus
One Holtec Boulevard
Camden, NJ 08104

SUBJECT: HOLTEC INTERNATIONAL'S APPLICATION FOR SPECIFIC INDEPENDENT SPENT FUEL STORAGE INSTALLATION LICENSE FOR THE HI-STORE CONSOLIDATED INTERIM STORAGE FACILITY FOR SPENT NUCLEAR FUEL – REQUEST FOR CLARIFICATION OF RESPONSES RELATED TO EMERGENCY RESPONSE PLAN

Dear Ms. Manzione:

By letter dated March 30, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17115A431), as supplemented on April 13, October 6, December 21 and 22, 2017; and February 23, 2018 (ADAMS Accession Nos. ML17109A386, ML17310A218, ML17362A097, ML18011A158, and ML18058A617, respectively), Holtec International submitted to the U.S. Nuclear Regulatory Commission (NRC) an application for a specific independent spent fuel storage installation license to construct and operate the HI-STORE Consolidated Interim Storage Facility (CISF), in Lea County, New Mexico, in accordance with the requirements of Part 72 of Title 10 of the *Code of Federal Regulations*, "*Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste and Reactor-Related Greater than Class C Waste.*" The license application seeks NRC approval to store up to 8,680 metric tons of commercial spent nuclear fuel in the HI-STORM UMAX Canister Storage System for a 40-year license term.

By letter dated September 13, 2018, the staff issued requests for additional information (RAIs) (First Request for Additional Information, Part 2; ADAMS Accession No. ML18257A240) in connection with its review of the Emergency Response Plan for the HI-STORE CISF. By letter dated January 31, 2019 (ADAMS Accession No. ML19037A280), Holtec provided responses to the staff's request. The staff has reviewed your responses to staff's RAIs and determined that it needs additional clarification and/or supplementation of your responses to complete its review. The information needed by the staff is discussed in the enclosure. We request that you provide responses within 60 days from the date of this letter. If you are unable to meet these deadlines, please notify NRC staff in writing, within two weeks of receipt of this letter, of your new submittal date and the reasons for the delay.

K. Manzione

2

Please reference Docket No. 72-1051 and CAC/EPID No. 001028/L-2018-NEW-0001 in future correspondence related to the technical review for this licensing action. If you have any questions, please contact me at (301) 415-0606.

Sincerely,

/RA/

Jose R. Cuadrado, Project Manager
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No.: 72-1051
CAC/EPID Nos.: 001028/L-2018-NEW-0001

Enclosure:
Request for Clarification of Holtec's
Responses to First Request for
Additional Information, Part 2

SUBJECT: HOLTEC INTERNATIONAL'S APPLICATION FOR SPECIFIC INDEPENDENT SPENT FUEL STORAGE INSTALLATION LICENSE FOR THE HI-STORE CONSOLIDATED INTERIM STORAGE FACILITY FOR SPENT NUCLEAR FUEL – REQUEST FOR CLARIFICATION OF RESPONSES RELATED TO EMERGENCY RESPONSE PLAN

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NAME	JCuadrado		WWheatley		JArce		MNorris	
DATE	12/17/19		12/18/19		12/18/19		12/18/19	
OFFICE	NSIR		DFM					
NAME	JAnderson		DDoyle					
DATE	12/18/19		12/19/19					

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**Request for Clarification of Holtec's Responses to
First Request for Additional Information, Part 2**

Docket No. 72-1051

Application for Specific Independent Spent Fuel Storage Installation License for the HI-STORE Consolidated Interim Storage Facility in Lea County, New Mexico

By letter dated March 30, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17115A431), as supplemented on April 13, October 6, December 21 and 22, 2017; and February 23, 2018 (ADAMS Accession Nos. ML17109A386, ML17310A218, ML17362A097, ML18011A158, and ML18058A617, respectively), Holtec International (Holtec) submitted to the U.S. Nuclear Regulatory Commission (NRC) an application for a specific independent spent fuel storage installation (ISFSI) license to construct and operate the HI-STORE Consolidated Interim Storage (CIS) Facility, in Lea County, New Mexico, in accordance with the requirements of Part 72 of Title 10 of the *Code of Federal Regulations* (10 CFR Part 72), "*Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste and Reactor-Related Greater than Class C Waste.*" The license application seeks NRC approval to store up to 8,680 metric tons of commercial spent nuclear fuel in the HI-STORM UMAX Canister Storage System for a 40-year license term.

By letter dated September 13, 2018, the staff issued requests for additional information (RAIs) (First Request for Additional Information, Part 2; ADAMS Accession No. ML18257A240) in connection with its review of the Emergency Response Plan for the HI-STORE CISF. By letter dated January 31, 2019 (ADAMS Accession No. ML19037A280), Holtec provided responses to the staff's request. The staff has reviewed Holtec's responses to staff's RAIs and determined that it needs additional clarification and/or supplementation of Holtec's responses to complete its review. The information required by staff is discussed below:

Emergency Response Plan (ERP) (Report No. HI-2177535, Revision 3)

RAI EP-3-S: Justify the inclusion of additional Emergency Action Levels (EALs) into the ISFSI EAL scheme for the HI-STORE CISF Emergency Response Plan (ERP)

In its response to RAI EP-3, the applicant revised Table 3.1.B of the ERP, "CIS Facility Malfunction Initiating Condition Matrix," to accommodate the conditions/requirements listed in the Nuclear Energy Institute (NEI) document, NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," dated November 21, 2013 (ADAMS Accession No. ML13091A209).

Although Table 3.1B, and Appendix C, "Facility Emergency Action Levels," have been revised to incorporate the guidance of NEI 99-01, Revision 6, some of the emergency action levels (EALs) added to the table are more applicable to a non-passive light water reactor and are not consistent with the guidance for an ISFSI.

The guidance in Section 8 of NEI 99-01-, Revision 6, states, in part:

"E-HU1, "Damage to a loaded cask CONFINEMENT BOUNDARY," covers the spectrum of credible natural and man-made events included within the scope of an ISFSI design."

Enclosure

Table 3.1B of the ERP includes a proposed E-HU1 EAL, similar to that provided in Section 8 of NEI 99-01, Rev. 6. In addition, the Basis discussion for E-HU1 in Section 8 of NEI 99-01 provides for the inclusion of security-related events for ISFSIs, which the applicant included in Table 3.1B of the ERP as proposed H-HU1 and H-HA1. However, the following EALs proposed in Table 3.1B are not described in Section 8 of NEI 99-01, Revision 6:

- H-HU2 – Seismic event greater than OBE [operating basis earthquake],
- H-HU3 – Hazardous event,
- H-HU4 – Fire potentially degrading the level of safety of the facility, and
- H-HA6 – Primary Alarm Station evacuation resulting in transfer of plant control to alternate locations.

This information is necessary to determine compliance with 10 CFR 72.32(a)(3).

RAI EP-5-S: Provide justification why the duties of the Site Emergency Director (SED), identified in Section 4.3.3 of the ERP, do not include the notification to the offsite response organizations and the NRC for the declaration of an Unusual Event classification.

In its response to RAI EP-5, the applicant updated Section 4.2.1 of the ERP to remove the list of duties, and to include a statement referencing Section 4.3.3 [Site Emergency Director (SED)] for the list of duties for the Site Emergency Director. This list of duties was revised to include “decision to declare an Unusual Event” and “decision to escalate to an Alert.” Specifically, Section 4.3.3 states, in part:

“These duties include:

- *Decision to declare an Unusual Event*
- *Decision to escalate to an Alert.*
- *Activation of onsite emergency response organization.*
- *Prompt notification of offsite response authorities to inform them that an **Alert** has been declared (normally within 15 minutes of declaring an **Alert**).*
- *Notification to the NRC Operations Center at 301-816-5100 immediately after notification of offsite authorities, and in any case within 1 hour of the declaration of an **Alert**.”*

Although the regulations only require the Alert classification, the proposed ERP proposes a classification for an Unusual Event. However, the SED duties do not include a notification to the offsite response organizations and the NRC for the declaration of an Unusual Event classification.

This information is necessary to determine compliance with 10 CFR 72.32(a)(3).

RAI EP-24-S: Supplement the Appendix D of the proposed ERP to address the following observations:

1. There are no agreements in Appendix D, or a commitment to establish such agreements, for the Maljamar, New Mexico; Monument, New Mexico, and Eunice City Fire Departments.
2. While there is an agreement with the Eddy County Fire Service, this agency is not identified as a responder in the ERP.

3. While there is an agreement in Appendix D for Lea Regional Medical Center, there are no agreements, or a commitment to establish such agreements, for the Carlsbad Medical Center or Permian Regional Medical Center.
4. There is no agreement in Appendix D, or a commitment to establish such agreement, for the City of Hobbs Ambulance Service.
5. There are no agreements, or a commitment to establish such agreements, in Appendix D for the Eddy County Sheriff's Department, nor the New Mexico State Police.

In its response to RAI EP-24, the applicant included appropriate MOUs [memoranda of understanding] as an appendix to the Emergency Response Plan. However, in several sections of the proposed ERP, the applicant identifies several additional organizations with emergency response responsibilities for which an MOU, or a commitment to establish such agreement, has not been provided. The specific organizations and ERP sections referenced are discussed below:

Section 4.3.11, "Local Off-site Assistance," states the following:

"The Maljamar Fire Department in Maljamar, New Mexico is located approximately 28 miles from the site. The Monument, New Mexico and the Eunice, New Mexico Fire Departments are located 36 miles and 38 miles respectively from the CIS Facility. Each of these departments are equipped to respond to structural fires, oil well fires, and chemical tank explosions."

Section 5.3.1 "Mitigation of Fires," states,

"The Eunice Fire Department may also respond and is also known for fighting large fires and has worked with other firefighting teams in the field. Radiological response training will be offered to the Maljamar, New Mexico, Monument, New Mexico, and Eunice City Fire Department as a precaution."

Section 4.3.11 further provides the following:

"Carlsbad Medical Center, located in Carlsbad, New Mexico is the first choice for incidents involving radiologically contaminated individuals; unless life threatening injuries are present. Life threatening injuries would be treated at Lea Regional Medical Center or Permian Regional Medical Center."

Section 4.3.11 further provides the following:

"The City of Hobbs, New Mexico has ambulance service available for the CIS Facility. Ambulance services are capable of handling incidents involving radiologically contaminated individuals."

Section 5.3.1, further states in part,

"[...]the Lea and Eddy County Sheriff's Departments and/or the New Mexico State Police are responsible for directing traffic and limiting access of the general public to the affected area."

This information is necessary to determine compliance with 10 CFR 72.32(a)(15).