

HI-STORE CIS in Southeastern New Mexico Edges Closer to Regulatory Approval

In a letter dated February 28, 2018, the USNRC notified Holtec International of its affirmative acceptance review of the license application for the proposed consolidated interim storage facility called HI-STORE CIS. The NRC provided a preliminary schedule that envisages the issuance of license by July 2020; however, the date will be sooner if Holtec's responses to the regulatory queries are timely and of high quality. HI-STORE CIS is a subterranean used nuclear fuel storage system (illustrated in the rendering below) with a maximum storage capacity of 10,000 canisters. The initial license application is for 500 storage cavities which will cumulatively hold 8,680 metric tons (nominal) of fissile material. The used fuel storage technology underpinning the HI-STORE CIS facility is known as HI-STORM UMAX, certified by the USNRC in Docket number 72-1040. Engineered over a decade ago and licensed by the NRC in 2015, HI-STORM UMAX is physically sized to store all of the used nuclear fuel produced in the U.S. and all canisters currently licensed in dry storage in the country making it a truly universal used fuel storage facility. Already deployed at multiple nuclear power plants around the U.S. (photo of a partially loaded HI-STORM UMAX storage system below), the HI-STORM UMAX stores the stainless steel canister containing the spent fuel or high-level waste entirely below-ground to serve as a "security-friendly" storage facility, providing a clear, unobstructed view of the entire CISF from any location. HI-STORE CIS is envisioned to unify the storage of all different storage canisters (both vertically and horizontally stored) in one standardized HI-STORM UMAX cavity system simplifying operations and aging management activities. Storing the Nation's used nuclear fuel in the HI-STORM UMAX system is a temporary measure, as the stainless-steel canisters are easily retrievable and ready for transport pending the determination of a safe permanent solution for managing used nuclear materials. The canisters are designed, qualified, and tested to survive and prevent the release of radioactive material under the most adverse accident scenarios postulated by NRC regulations for both storage and transportation.

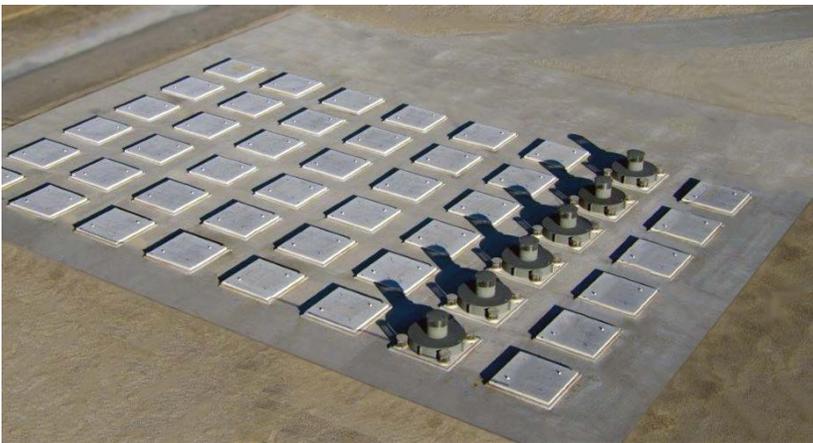


Artist's Rendering of the HI-STORE CIS Storage Facility

HI-STORE CIS is being licensed by Holtec's own funds with the enthusiastic support of nuclear-savvy communities in southeastern New Mexico incorporated as the Eddie Lea Energy Alliance (ELEA), LLC.

The NRC has projected the cost of regulatory review of Holtec's application at approximately \$7.5 million. At this writing, HI-STORE CIS is the only ongoing licensing effort in the country that seeks to fulfill DOE's declared aspiration for a consolidated interim storage facility.

After the initial application is approved, Holtec plans to make supplemental submittals to incorporate the many canister types being used in the industry. Our goal is to provide HI-STORE CIS as a certified storage destination for the spent nuclear fuel from every nuclear plant site in the United States.



Holtec's HI-STORM UMAX System Loaded at a U.S. Nuclear Power Plant

Another licensing submittal on HI-STORE CIS under consideration is an innovative means to reclaim the substantial thermal energy (as much as 200MWt when the facility is loaded to its maximum capacity) for beneficial industrial use. For New Mexico, it would be purifying process water containing organics and minerals from New Mexico's oil and gas fields to produce clean potable water. New Mexico, short of clean drinking water, has copious quantities of industrial non-potable water which can be distilled using the hot air emanating from the storage cavities. Holtec is

working on a practical technology based on the Company's patent # US901, 958B2 to carry out industrial scale water purification at HI-STORE CIS without violating any of the regulations in 10CFR72. The process, when developed, will be submitted to the NRC for certification. *Used fuel will be exploited to serve a worthy social purpose - a provocative idea indeed!*