Waste Management

SPENT FUEL

Holtec submits license application for interim storage facility

Holtec International continues to pursue consolidated interim storage of spent nuclear fuel in New Mexico. oltec International on March 31 submitted a license application to the Nuclear Regulatory Commission for a consolidated interim storage (CIS) facility for spent nuclear fuel at a site in southeastern New Mexico. Holtec is seeking the license under 10 CFR Part 72.

Holtec first announced its intention to develop a storage facility in April 2015, when it signed a memorandum of agreement with New Mexico's Eddy-Lea Energy Alliance (ELEA) to license, construct, and operate the facility (*NN*, June 2015, p. 60). A consortium of Eddy and Lea Counties and the cities of Carlsbad and Hobbs, ELEA would host the storage facility, which Holtec calls the HI-STORE CIS, at a 1,000-acre site the alliance owns midway between Carlsbad and Hobbs. The site is about 12 miles from the Department of Energy's Waste Isolation Pilot Plant.



The HI-STORE CIS would store spent fuel from commercial nuclear power plants using Holtec's HI-STORM UMAX underground storage system, a vertical module dry storage system engineered to be compatible with NRC-certified multipurpose canisters. The system was first used at Ameren's Callaway nuclear power plant in Missouri. According to Holtec, HI-STORM UMAX provides an unprecedented level of safety, security, and environmental protection to the user, with virtually no dose emitted from the storage installation.

Holtec has said that the license application filed with the NRC comprises a complete set of documents, including the safety analysis report and the environmental report on the HI-STORE CIS. During an April 5 press conference in Washington, D.C., Kris Singh, president and chief executive officer of Holtec, said that the 3,000-page application makes a strong safety case.

Singh also noted that the NRC conducted a pre-submittal technical audit of the license application at Holtec's Camden, N.J., facility in late February to ensure the completeness and adequacy of the application. "We have great confidence that this application will get expeditious review and approval," he said.

According to Holtec, the HI-STORE licensing package has also been informed by the company's involvement in the Private Fuel Storage licensing initiative. PFS received an NRC license in 2006 for an interim storage facility in Utah but abandoned the project in 2013 because of federal obstruction. "The exceedingly stringent criteria that emerged from the PFS's licensing process and Atomic Safety and Licensing Board hearings... have been proactively incorporated in the HI-STORE design criteria," Holtec said.

The initial license will allow for the storage of 500 spent fuel canisters holding about 5,000 metric tons of uranium (tU). Holtec will seek future amendments to the license to allow for the storage of up to 10,000 canisters, with a total capacity of 100,000 tU. Holtec expects that the construction of the initial phase will take less than two years, and that the facility could be operational by 2022.

The CIS application will use Holtec's general license for the HI-STORM UMAX system to allow the use of the company's NRC-approved canisters. Holtec subsequently will obtain amendments to the license to include additional canisters fabricated by Holtec as well as other suppliers. According to Holtec, this will create a universal system whereby the CIS will be able to accept every canister currently loaded at every nuclear power plant in the United States, whether or not it uses a Holtec storage system.