LOW-LEVEL RADIOACTIVE WASTE FORUM, INC.

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Holtec International

NRC Finalizes Enforcement Action Against Cask Manufacturer

In late April 2019, the U.S. Nuclear Regulatory Commission (NRC) finalized its enforcement action against Holtec International in connection with loose parts found in manufactured fuel-storage casks at Vermont Yankee and other sites.

Overview

NRC determined that Holtec International violated safety regulations and did not follow proper procedures in modifying the design of its casks, which are used to store radioactive material at nuclear plants around the country. The violations included:

- failure to establish design control measures for Holtec's casks; and,
- failure to perform certain evaluations before implementing changes.

However, the defect was not found at Vermont Yankee. In addition, according to a Holtec executive, the defects were not found to have hindered the casks' function. "The loaded canisters do not and have never posed any risk to public health and safety," said Joy Russell, Senior Vice-President of Business Development and Communications at Holtec, in a statement issued on April 26, 2019.

The design control measure violation was deemed "potentially safety significant" because Holtec "did not adequately assess a potentially credible accident and exposure scenario that had the potential for a significant consequence." According to documents, a subsequent analysis by Holtec demonstrated that the casks would still perform in an acceptable manner even assuming the failure of multiple pins. NRC staff reached the same conclusion, determining that the casks "would continue to be in a safe condition during the entire licensed period of storage."

The NRC considered a \$36,250 fine for one of the violations. However, the agency ultimately decided it was not warranted in part due to "Holtec's prompt and comprehensive correction of the violation."

NRC will do a follow-up inspection "to verify the effective implementation of Holtec's corrective actions and methods to preclude repetition" of the cask issue.

Background

Vermont Yankee stopped power production at the end of 2014, but all of the plant's spent nuclear fuel remains at the Vernon site. In 2018, then-owner Entergy completed a \$143 million project to transfer Vermont Yankee's spent fuel from a cooling pad to sealed casks that were produced by Holtec, which also administered the fuel move.

However, the project was halted for nearly two months after a loose part identified as a shim standoff pin was found in a Holtec cask at the closed San Onofre nuclear power plant in California. According to an NRC spokesperson, another broken pin was subsequently found at Holtec's facility in Camden, New Jersey.

In May 2018, the Vermont Yankee fuel move was restarted following detailed inspections and engineering analyses by Entergy and Holtec. The NRC subsequently inspected Holtec's headquarters and found two apparent violations, which were finalized in late April 2019 after consultation with Holtec.

On January 11, 2019, Entergy Corporation completed the sale of Entergy Nuclear Vermont Yankee to subsidiaries of NorthStar Group Services, which will decommission the Vermont Yankee Nuclear Power Station site. (See *LLW Notes*, January/February 2019, pp. 20-22.) The sale is a first-of-its-kind in the nuclear power industry – a permanent ownership and license transfer to a company that is slated to perform timely and efficient decommissioning and site restoration.

The NorthStar decommissioning team includes Orano USA (reactor vessel segmentation and used fuel management support); Waste Control Specialists (waste management, packaging, transport and disposal); and, Burns & McDonnell (engineering and regulatory support).

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