Subject: NRC Issues Two Violations to Holtec for Dry Cask Shims Issue

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Charles,

We have issued our enforcement action for the Holtec dry cask shim issue (as you'll recall, Vermont Yankee did a standdown during cask loading operations to ensure its casks weren't adversely impacted). We conducted an inspection at the company's headquarters in Camden, N.J., earlier this year after the problem came to light and proposed two apparent violations. We held a Pre-decisional Enforcement Conference with Holtec on Jan. 9, 2019 at NRC Headquarters to allow the company an opportunity to provide any clarifying information it wished prior to us making an enforcement decision.

Those violations have now been finalized.

These violations are related to the failure of shim standoffs that were first identified at San Onofre nuclear power plant during the initial dry cask loading campaign there. The violations are:

- Failure to establish adequate design control measures for selection and suitability of materials, parts, equipment, and process that are essential to structures, systems and components important to safety. This did not result in an actual significant safety concern. But it is considered to be of moderate safety significance because Holtec did not evaluate for a credible accident and exposure scenario that, although did not occur, could have had a potential significant consequence. The violation has been categorized as a Severity Level III and a civil penalty is not warranted.

- Failure to perform a written evaluation to demonstrate a design change did not require a certificate of compliance (CoC) amendment. This violation and the

violation has been categorized as a Severity Level IV, with no civil penalty associated with it.

NRC staff will perform a follow-up inspection to verify the effective implementation of Holtec's corrective actions and methods to preclude repetition

Background:

Last year, a loose bolt was identified in a not-yet-loaded dry cask at the permanently shutdown San Onofre nuclear power plant in California. This story in the Orange County Register contains two photos of the type of shims involved: https://www.ocregister.com/2018/03/23/design-flaw-may-lurk-in-nuclear-waste-canisters-buried-at-san-onofre/ .

The condition with the broken shim standoff bolt was first identified at San Onofre on Feb. 20, 2018 during a mandatory pre-loading inspection of multi-purpose canisters – the stainless-steel casks that hold the spent fuel. The casks are checked to ensure there is no foreign material inside. The loose bolt -- approximately 4 inches long and 7/16th of an inch in diameter – was found in the bottom of one of the casks. It was shipped back to Holtec, which identified the piece of stainless steel as one of the "shim standoffs" that are attached to the bottom of the aluminum shims located around the periphery of the MPCs. Holtec inspected other canisters at its facility, and found another with a broken standoff bolt.

On March 6, 2018, Southern California Edison, which owns San Onofre, halted its dry cask loading activities. It subsequently resumed that work, using casks with a different approved shim design.

Besides San Onofre, the plants that have casks with the same design are: Vermont Yankee, Dresden, Grand Gulf, Hatch, Columbia, San Onofre, Watts Bar and Callaway.

Page 17 of the inspection report discusses how the issue was dispositioned at Vermont Yankee.

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