Note: This is an excerpt from the Dry Cask Storage: Defense-In-Depth presentation provided during the SONGS Community Engagement Panel meeting on August 17, 2023. The full presentation and video are available here.

SCE Addresses Questions Regarding Recommendations by Lucius Pitkin, Inc. for SONGS Holtec Storage System

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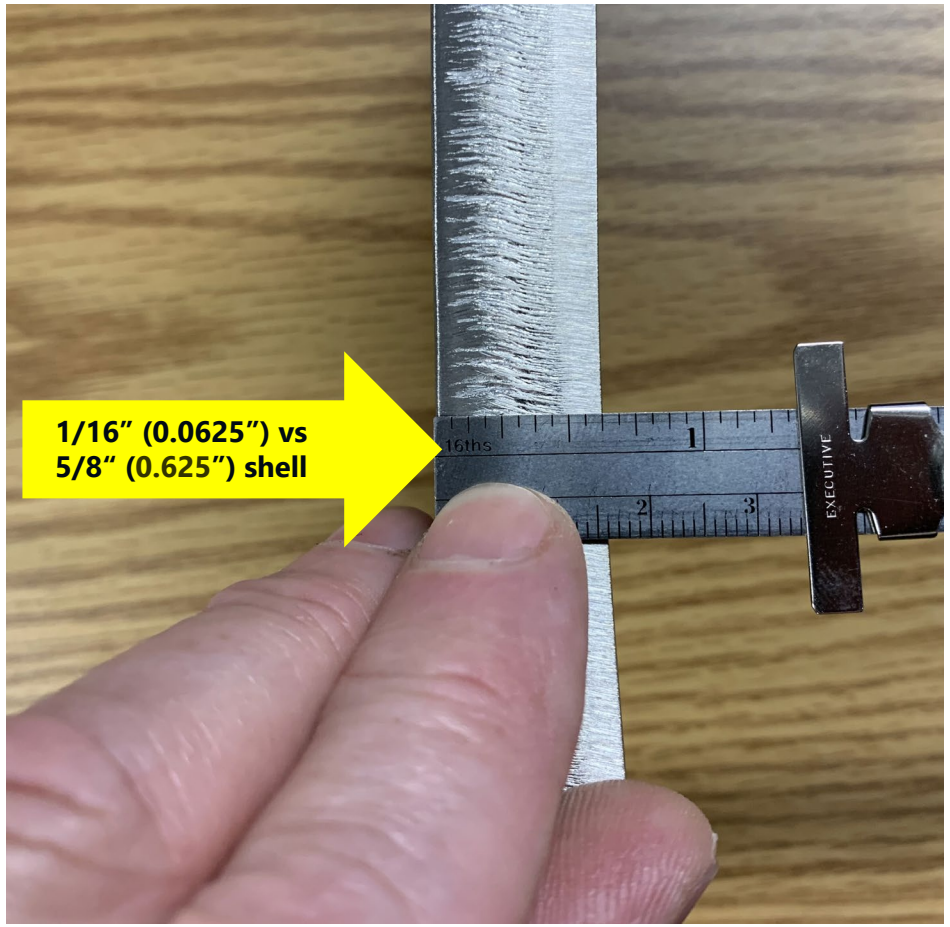
Addressing a question: SCE's Inspection and Maintenance Program (IMP) for Holtec system

- Intended to ensure Holtec multi-purpose canisters (MPCs) stored in the ISFSI will remain in a physical condition sufficient for onsite transfer and offsite transportation
- Submitted by SCE to California Coastal Commission (CCC) on 3/31/2020
- Reviewed by California Commission staff:
  - Independently reviewed by engineering consulting firm Lucius Pitkin Inc.
  - Lucius Pitkin provided 4 recommendations
- California Coastal Commission staff recommended approval of the IMP (with Lucius Pitkin recommendations incorporated) on 6/12/2020
- California Coastal Commission approved the IMP on 7/16/2020
- Assertion made during recent CEP meetings that SCE is not implementing all recommendations from Lucius Pitkin

All 4 Recommendations by the Independent Engineering Firm were Accepted by SCE

1. *The IMP should include a flaw depth of 0.0625" (1/16") as the threshold for fuel canister repairs such that flaws deeper than 0.0625" would be repaired:*
   - 90% of the shell wall remains at a 0.0625" (1/16") threshold; 0.0625" represents 10% of the 0.625" (5/8") thick shell
   - Nominal shell thickness is 0.5" (1/2"); therefore, ASME[1] code allowance would be 0.45" (10% reduction in wall thickness)
   - SCE specified an additional 1/8" shell thickness to the nominal design for a total of 5/8"; therefore, SCE's position is up to 0.175" is allowable (0.625"-0.450" = 0.175")



[1] American Society of Mechanical Engineers

Lucius Pitkin Recommendations (4) Accepted by SCE

1. *(continued) The IMP should include a flaw depth of 0.0625 as the threshold for fuel canister repairs. Flaws deeper than 0.0625 inches would be repaired:*

   - Lucius Pitkin notes limiting flaw depth to 0.0625" ensures a flaw will not penetrate the 0.080" (minimum) deep compressive residual stress provided by laser peening of the weld areas

   - Chloride induced stress corrosion cracking (CISCC) cannot occur if tensile stress is not present—i.e., cannot occur within the 0.080" (minimum) deep compressive residual stress region

   - Therefore, SCE agreed with Lucius Pitkin's recommended 0.0625" threshold for canister repair

Lucius Pitkin Recommendations (4) Accepted by SCE

2. *SCE should employ a more appropriate statistical method to model the maximum depth of canister scratches that may occur during insertion and extraction of the canisters into the ISFSI vertical storage modules and update the statistical analysis in the future to incorporate data from additional canister inspections:*
   - Lucius Pitkin recommended use of an "extreme value" statistical analysis, rather than "normal distribution"
   - SCE contends "normal distribution" is more appropriate but agreed to this recommendation
   - SCE plans on using both methods to evaluate future canister inspection results

3. *Assess how future canister unloading operations (i.e., when canisters are moved to a different location) can be optimized to minimize canister wear depths:*
   - SCE agreed to this recommendation and has partially addressed the recommendation by improving alignment during the download process
   - SCE has no foreseeable plans to perform unloading operations (e.g., no facility to ship fuel to)

4. *Correct a typographical or miscalculation error in a supporting document related to the potential scratch depths on fuel storage canisters:*
   - Lucius Pitkin noted a minor error in the statistical analysis related to potential scratch depths, which was corrected