

Update on the Subterranean Used Fuel Storage System, HI-STORM UMAX and the Universal Transport Package, HI-STAR 190

We are pleased to report that the HI-STORM UMAX independent spent fuel storage installation (ISFSI) is built and ready to receive multi-purpose canisters at the SONGS site (please see an aerial view below; printed with permission from UxC, Volume 23, No. 1177, September 15, 2017).



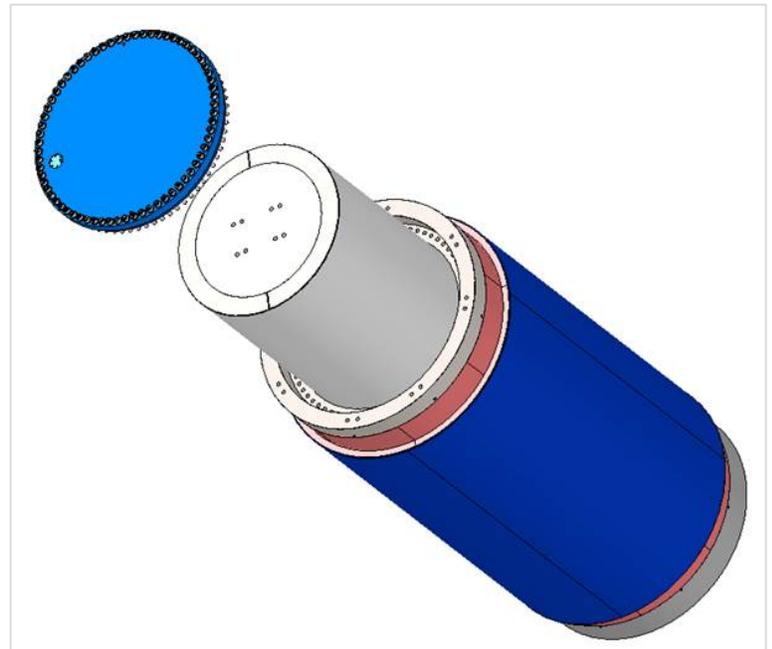
The SONGS ISFSI is unique in that it takes full advantage of the extreme seismic resistance of the in-the-ground HI-STORM UMAX storage modules: The postulated earthquake magnitude, expressed in zero period accelerations, is hair raising 1.5 g in each of the three orthogonal directions.

Another recent noteworthy development is the pioneering effort by the Southern California Edison Company and Holtec to further fortify the SONGS' multi-purpose canisters against attack from marine air by a *laser peening* process guided by the established science on corrosion protection of stainless steel. A robust aging management program is being developed by Holtec in collaboration with Edison that will deploy our arsenal of corrosion prevention technologies to make a leakage event under a prolonged in-situ storage scenario essentially non-credible. Our goal is to maintain the Canisters in such a pristine state that they can be readily hauled off to New Mexico, as soon as the Federal Government is able to so order, in full compliance with NRC's conditions for Canister transport set down in the license certificate for HI- STAR 190.

The HI-STAR 190 cask, licensed by both the USNRC and the Ukrainian regulator, is the universal transport package designated to haul the canisters stored at SONGS (and other sites owned by owners motivated to ship them off site). The first HI-STAR 190 cask is in fabrication (jointly by the Pittsburgh and Camden operating centers) of the Holtec manufacturing Division (photo below).



HI-STAR 190 Transportation Overpack for Ukraine's Central Storage Facility under fabrication at Holtec



NRC Licensed HI-STAR 190 Universal Transportation slated for hauling SONGS' used fuel off site.

Thanks to the unimpeachable safety and security credentials of HI-STORM UMAX and HI-STAR 190, some notable NGOs, such as the Sierra Club and the Union of Concerned Scientists (USC) have come out strongly in support of placing SONGS' used nuclear fuel in dry storage in Holtec's HI-STORM UMAX subterranean storage system for subsequent off-site shipment in HI-STAR 190 casks. Writing in San Onofre's host community newspaper, Laguna Beach Indy, Marni Magda, *Chair of the Angeles Chapter Sierra Club San Onofre Task Force* observes, "the Angeles Chapter agrees with Edison that the Holtec system is the best system the industry can provide." In a similar vein, Dave Lochbaum, Union of Concerned Scientists' top expert on used nuclear fuel storage, endorsed HI-STORM UMAX in October 2015 noting that Holtec system is flush to the ground, and therefore, less of a target for terrorists."

SCE's Chief Nuclear Officer, Mr. Thomas Palmisano, reiterated SCE's commitment to safe and secure storage of used nuclear fuel until its shipment off site.

At Holtec, we believe that HI-STORM UMAX's merit will resonate increasingly amongst the governments and NGOs in those countries that are considering building their own Consolidated Interim Storage Facilities at earthquake or terrorism vulnerable locales. As for the United States, our HI-STORE CIS facility (which utilizes HI-STORM UMAX) is making steady progress through the USNRC's regulatory review process.