

Another Historic Milestone Achieved at Chornobyl

Two Holtec Double-Walled Canisters Loaded and Placed into Concrete Storage Modules at Chornobyl Nuclear Power Plant

A historic milestone was reached on December 14, 2020 at the Chornobyl Nuclear Power Plant (ChNPP) in Ukraine, when Holtec-trained technicians loaded the second double-walled canister (DWC) [a Holtec patented design] with RBMK reactor spent nuclear fuel into the site's Interim Storage Facility (ISF-2). This important event was attended by Mr. Roman Abramovsky, Minister, Ministry of Environmental Protection and Natural Resources of Ukraine; Mr. Grigoriy Plachkov, Chairman, State Nuclear Regulatory Inspectorate of Ukraine (SNRIU); Mr. Serhiy Kalashnyk, Head, State Agency of Ukraine for Exclusion Zone Management; Mr. Volodymyr Peskov, ChNPP Acting General Director; Mr. Sergiy Tarakanov, General Director, Holtec Ukraine; and officials from other Ukraine entities. The first fully loaded DWC had been placed in storage on November 18, 2020.



Second Canister Loaded at ChNPP's Chornobyl ISF-2

We are proud of the ruggedness of the Holtec-designed pool-to-pad system exhibited by the ongoing and successfully demonstrated seamless operations. The two loaded DWCs, containing a total of 93 used fuel assemblies (in each DWC), from Chornobyl's aging storage facility, marks the culmination of over two decades of effort. The Chornobyl ISF-2 is the world's most complex dry storage project with numerous unique aspects that were developed by Holtec to overcome the challenges that had stymied the project for over a decade before Holtec took over the stricken project and completed it successfully handing over the complex to the Owner in December 2019.

Among the many innovative technologies are the use of DWCs to render any risk of leakage orders of magnitude more non-credible than required by regulations in the US and most regulatory regimes, and the deployment of a Forced Gas Dehydrator to extract the last trace of entrained moisture from the fuel for guaranteed storage safety. Each assembly is separated into three parts (two fuel bundles and an activated connecting rod) in a purpose-built hot cell (the world's largest) before it is packaged in the double-walled transportable canisters (that are in use in the United Kingdom and Ukraine).

“Successful loading of the two Canisters at the Chernobyl Interim Spent Fuel Storage demonstrates an important and long-awaited event. This event has now paved the way for the Licensee to make preparations for obtaining full operating license. The transfer of ChNPP Spent Nuclear Fuel to a long-term safe dry storage at ISF-2 over the next 10 years is one of key milestones in the transformation of the Chernobyl NPP into an ecologically safe system,” stated State Nuclear Regulatory Inspectorate of Ukraine (SNRIU) Chairman Mr. Grigoriy Plachkov.



*Grigoriy Plachkov,
SNRIU Chairman*

“This major milestone accomplishment for successfully loading the Two Canisters in the ISF-2 has been achieved by the hard work and diligent joint efforts of ChNPP, Holtec and its contractors. This historic accomplishment clearly demonstrates that the deployed technology and the processes for spent nuclear fuel management at the ISF-2 meet the strictest modern requirements of the IAEA and guarantee the environmental safety of the territories in which these take place. Special thanks to the Donors and the EBRD for the support provided to this project along a difficult path,” said Mr. Volodymyr Peskov, ChNPP Acting General Director.



*Volodymyr Peskov, ChNPP
Acting General Director*

According to Holtec’s executive in charge of Ukraine Operations, Vice President Riaz Awan, this successful milestone is a result of strong teamwork, innovation, and dedication. “This major achievement entailed extensive processes, and collectively we worked together with technology and innovation to make this project an ongoing success,” Awan said. “I would like to extend my sincere gratitude to our associates at the Holtec Ukraine Operations Center and especially our on-site staff who worked around the clock to accomplish this milestone.”

The loading by ChNPP was monitored by the International Atomic Energy Agency and the State Nuclear Regulatory Inspectorate of Ukraine. After the pioneering dry storage operations, it is expected that an unrestricted operating license to move forward with the campaign shall be granted by the Authorities enabling the Owner to empty the site’s aging pools on an accelerated schedule and decommission them.



*Riaz Awan, Holtec
Vice President for
Ukraine Operations*