Yankee Rowe (YR) operated a 185 megawatt nuclear power plant located in Rowe, MA that produced 44 billion kilowatt-hours of electricity from 1961-1992 when it was permanently shut-down for economic reasons. The plant was successfully decommissioned between 1992-2007 with structures removed and the site restored to stringent federal and state remediation standards.

In August 2007 the U.S. Nuclear Regulatory Commission (NRC) provided notification that the former plant site had been fully decommissioned in accordance with NRC procedures and regulations.

Remaining at the YR site is the Independent Spent Fuel Storage Installation (ISFSI) consisting of 15 dry storage casks containing 533 spent nuclear fuel (SNF) assemblies used during the years of plant operation and 1 cask containing sections of the reactor vessel internals classified as Greater than Class C waste (GTCC waste). YR uses the NAC-MPC dual-purpose dry cask/canister system which is licensed by the NRC for both storage and transport. The ISFSI is located on approximately 2 acres of the 1800 acre YR site.
The transfer of the SNF assemblies and GTCC waste from the plant’s spent fuel pool to the stainless steel canisters and then placement of the canisters into the concrete and steel casks began in June 2002 and was completed in June 2003.

The 16 dry storage casks stand on a three-foot-thick concrete pad approximately the size of a hockey rink. Each concrete cask is comprised of a three and a half-inch steel liner surrounded by 21 inches of reinforced concrete. Each cask weighs about 126 tons and contains a sealed stainless steel canister. The cask/canister system is completely passive with vents at the base and top of each cask circulating the air that removes heat from the canisters.

As currently planned, when the time comes to remove the SNF and GTCC waste, the dual-purpose canister will be removed from each cask, placed in an NRC licensed shipping cask, and likely transported from the site by heavy haul truck. A heavy haul truck was used during decommissioning for the transport of large components from the site.

The annual cost to operate the Yankee Rowe ISFSI is on the order of $10 million per year. For more information about the storage of spent nuclear fuel and decommissioning at Yankee Rowe, as well as litigation with the DOE seeking to recover the cost of storing this material resulting from the Federal Government’s failure to fulfill its obligations to remove it, go to 3yankees.com.