Waste Management

conditions to better understand the behavior of such fuel. The DOE's goal is to open the cask after 10 years of storage to examine and test the fuel and identify any changes in the properties of the fuel and its cladding during the dry storage period.

According to the DOE, the data gathered from this project will be shared with the Nuclear Regulatory Commission and nuclear plant operators to help inform regulatory decisions about extending dry storage licenses beyond the typical 40-year period. According to the DOE, data collected from the research cask so far shows that temperatures have remained well within safe limits, and the physical inspection of the fuel assemblies and the cask will be crucial in better understanding how high-burnup SNF behaves over time in a storage system.

The DOE added that the High Burnup Dry Storage Research Project will contribute to the establishment of a new international center for applied research, where scientists



The high-burnup research cask (center) stands with other spent nuclear fuel dry storage casks at the North Anna ISFSI in Virginia. (Photo: Dominion Energy)

from around the world will collaborate on the safe storage and transportation of SNF. As part of the project, a number of "sibling rods" taken from North Anna's fuel assemblies were shipped to Oak Ridge National Laboratory for testing in 2016.

