



U.S. DEPARTMENT  
of ENERGY

# Meet the High Burnup Research Cask!

Gathering Data to Support the Safe,  
Long-Term Storage of Used Nuclear Fuel



## WHAT IS IT?

This dry storage system, or “cask,” contains rods of solid used nuclear fuel (UNF) and is stored at the North Anna Power Station in Virginia. The cask is especially unique because it was modified and equipped with instruments to monitor internal temperatures over time at 63 different locations inside the cask.



## HOW WILL THE DATA BE USED?

The data gathered from this project will be shared with nuclear power plant operators and the U.S. Nuclear Regulatory Commission, the agency responsible for nuclear power plant and UNF storage licensing. The data will help inform regulatory decisions about extending dry storage licenses until federal disposal facilities are available.



## Did You Know?

The used nuclear fuel inside the cask generated enough fuel to power half a million homes each year!



## WHY?

The cask is part of a research project led by the U.S. Department of Energy (DOE) and the Electric Power Research Institute to help inform the continued safe storage of high burnup UNF. High burnup UNF is generated because it operates for longer stretches in a reactor to maximize energy output, but additional data is needed to support storage licenses of high burnup UNF beyond 20 years.



## WHAT'S NEXT?

After 10 years of gathering data in storage, DOE will ship the cask by rail to a proposed site at Idaho National Laboratory, where it will be opened and the UNF examined to continue to collect additional data.

# Learn More About the High Burnup Research Cask Project

