

Used Nuclear Fuel

- Used nuclear fuel is a solid material safely stored at nuclear plant sites. This storage is only temporary – one component of an integrated used fuel management system that addresses all facets of storing, recycling and disposal.
- Currently, used nuclear fuel is stored at the nation's nuclear power plants in steel-lined, concrete vaults filled with water or in massive, airtight stainless steel canisters enclosed in concrete-and-steel casks.
- In these used-fuel pools, the water acts as a natural barrier for radiation from the fuel assemblies. The water also keeps the fuel cool while the fuel decays and becomes less radioactive. The water itself never leaves the inside of the plant's concrete building. All U. S. nuclear energy plants, including Southern Company Plants Hatch, Vogtle and Farley, have spent-fuel pools.
- The federal government made a statutory and contractual commitment to the nations' electricity consumers in 1982 to remove used nuclear fuel from nuclear plant sites. The U.S. Department of Energy plans to transport used nuclear fuel to a central repository by rail and road, inside massive, sealed containers that have undergone extensive safety and durability testing.
- Without a central repository, starting in 1986, more than two dozen U.S. plants began to supplement their storage capacity with aboveground, dry storage facilities. Plants Hatch and Farley have dry storage facilities. Dry storage is planned for Plant Vogtle in the 2014 timeframe.
- In 2002, Congress approved Yucca Mountain, Nevada, a remote desert location, as the site for a centralized deep geologic repository for used nuclear fuel and other high-level radioactive material.
- In June of 2008, the U.S. Department of Energy filed a license application with the U. S. Nuclear Regulatory Commission (NRC) to build a federal repository at Yucca Mountain.
- In early 2009, the Obama Administration announced its intention to cut funding for Yucca Mountain, essentially putting further development on hold. Saying that it wants to look at alternatives to the site, the Administration also says it favors recycling and has indicated that it will develop a new strategy for the long-term storage and disposal of used fuel.
- Blocking funding for Yucca Mountain does not relieve the federal government of its contractual obligation and responsibility for disposal of used fuel and high-level radioactive material and will not affect licensing or deployment of new nuclear units, including planned Vogtle Units 3 and 4.
- The nuclear industry continues to work with the Obama administration on the issue of used fuel.
- Low-level radioactive material is a byproduct of the beneficial uses of a wide range of radioactive materials. These include electricity generation, medical diagnosis and treatment, and various other medical processes.