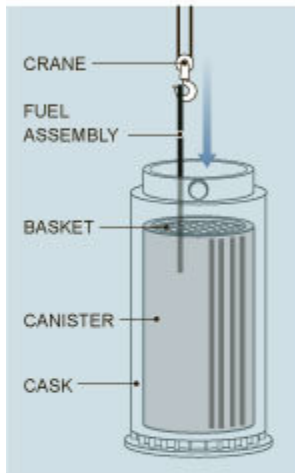
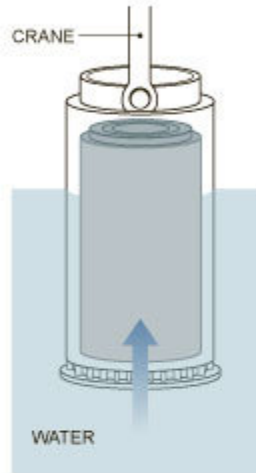


Thinning Crowded Fuel Pools

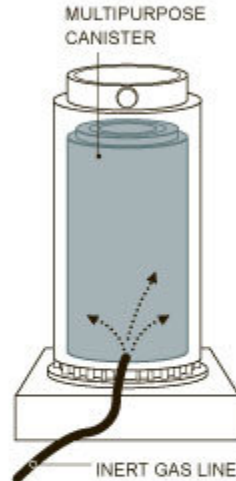
To alleviate crowding, some nuclear power plants are removing radioactive spent fuel from deep storage pools and moving it into what are known as dry casks. To assure safety, a series of casks is used, one fitting inside the next. The innermost cask, called the multipurpose canister, has a metal grid known as a basket that holds the spent-fuel assemblies in place.



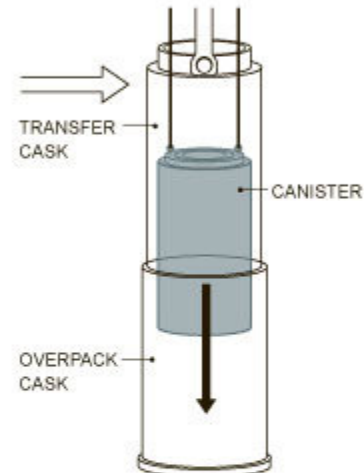
1. After the multipurpose canister has been loaded into a transfer cask and lowered into the water, a crane plucks fuel assemblies from the bottom of the pool and lowers them into the basket.



2. When the basket is full, a crane puts a cap on the canister. Then it pulls the transfer cask, with the canister and basket still inside, out of the water and sets it on a stand.



3. A robot welds the top of the multipurpose canister shut. Through a small opening, water is drained out and inert gas is pumped in to prevent corrosion.



4. A crane lifts the transfer cask directly over the overpack cask. A trap door opens in the bottom of the transfer cask, and the canister inside is lowered into the overpack. A lid is bolted on the overpack which is then hauled outside for storage.

Source: Exelon Corp.; Holtec International

FRANK O'CONNELL/THE NEW YORK TIMES