



DIABLO CANYON'S RADIOACTIVE WASTE

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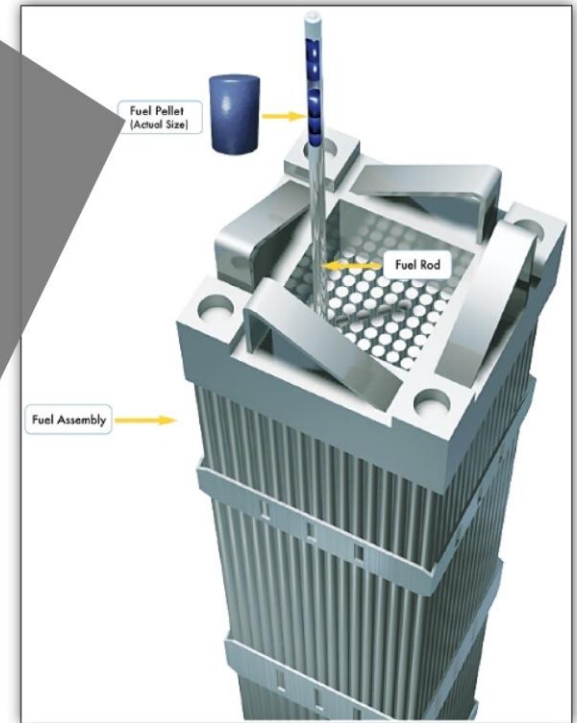
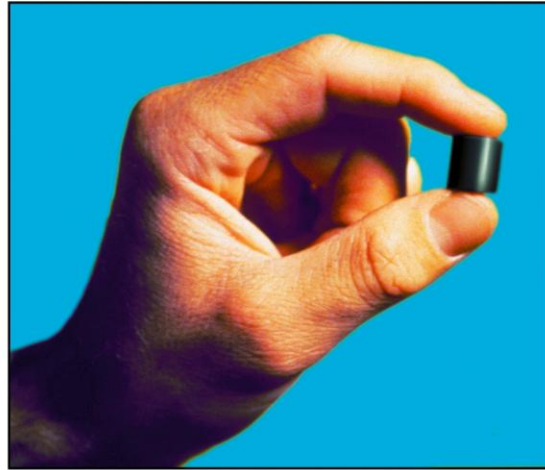
What is radioactive waste?



“Radioactive (or nuclear) waste is a byproduct from nuclear reactors, fuel processing plants, hospitals and research facilities. Radioactive waste is also generated while decommissioning and dismantling nuclear reactors and other nuclear facilities.” -- NRC

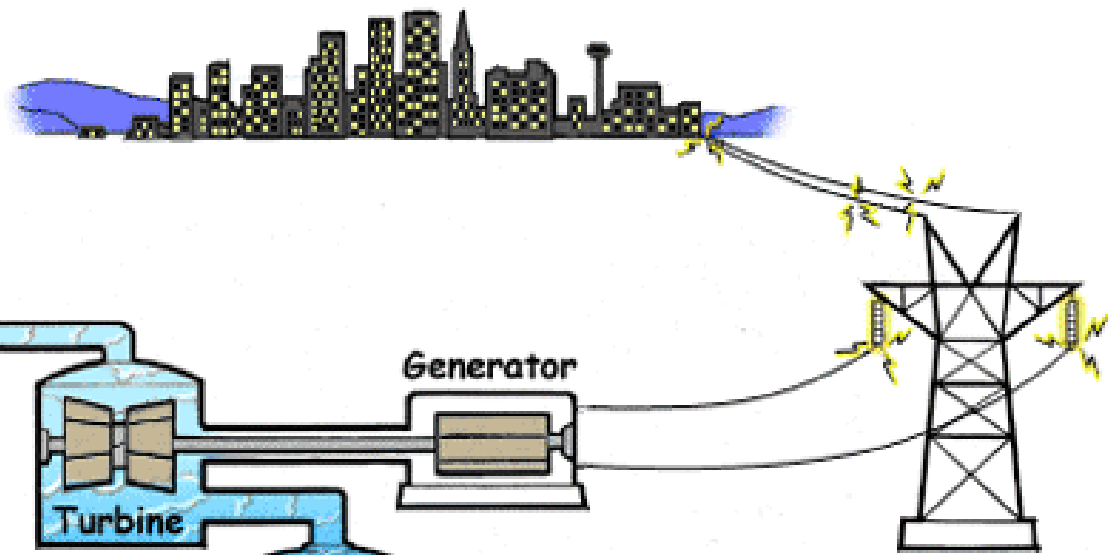
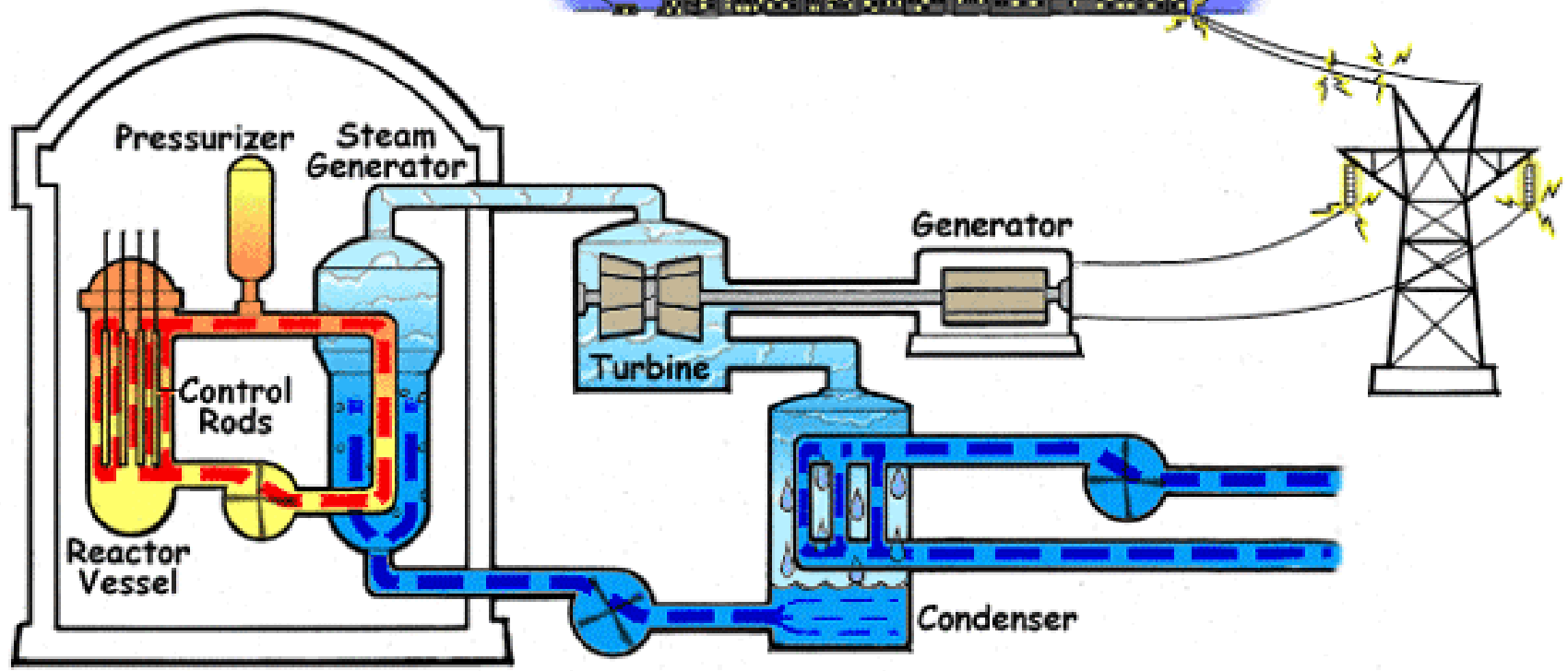
Nuclear Fuel Pellet and Fuel Rod Assembly

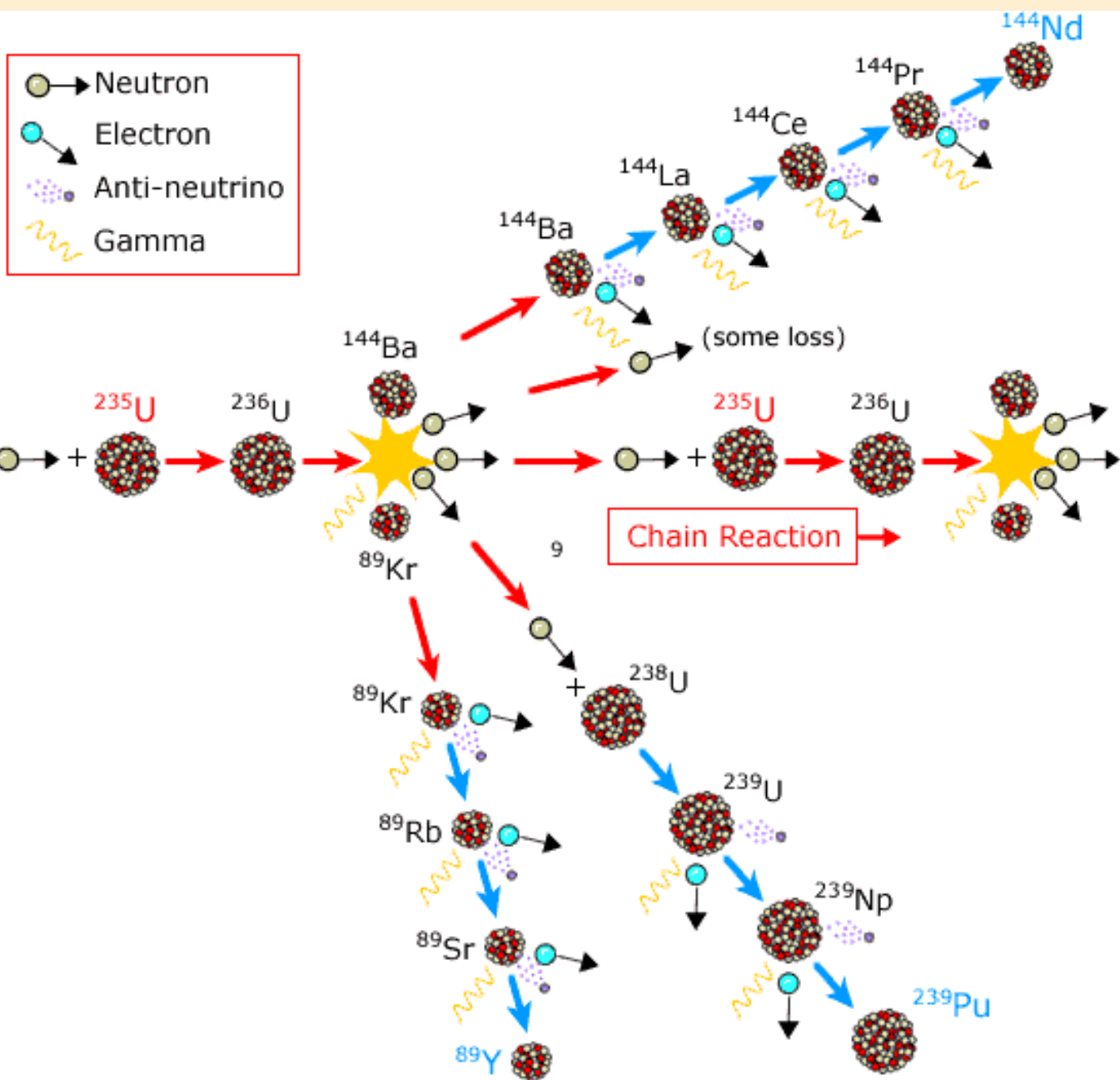
Commercial Nuclear Power Reactor



Source: Nuclear Energy Institute. | GAO-15-141

Containment Structure





IODINE-131

1/2 life: 8 days

TRITIUM

1/2 life: 23 years

STRONTIUM-90

1/2 life: 29 years

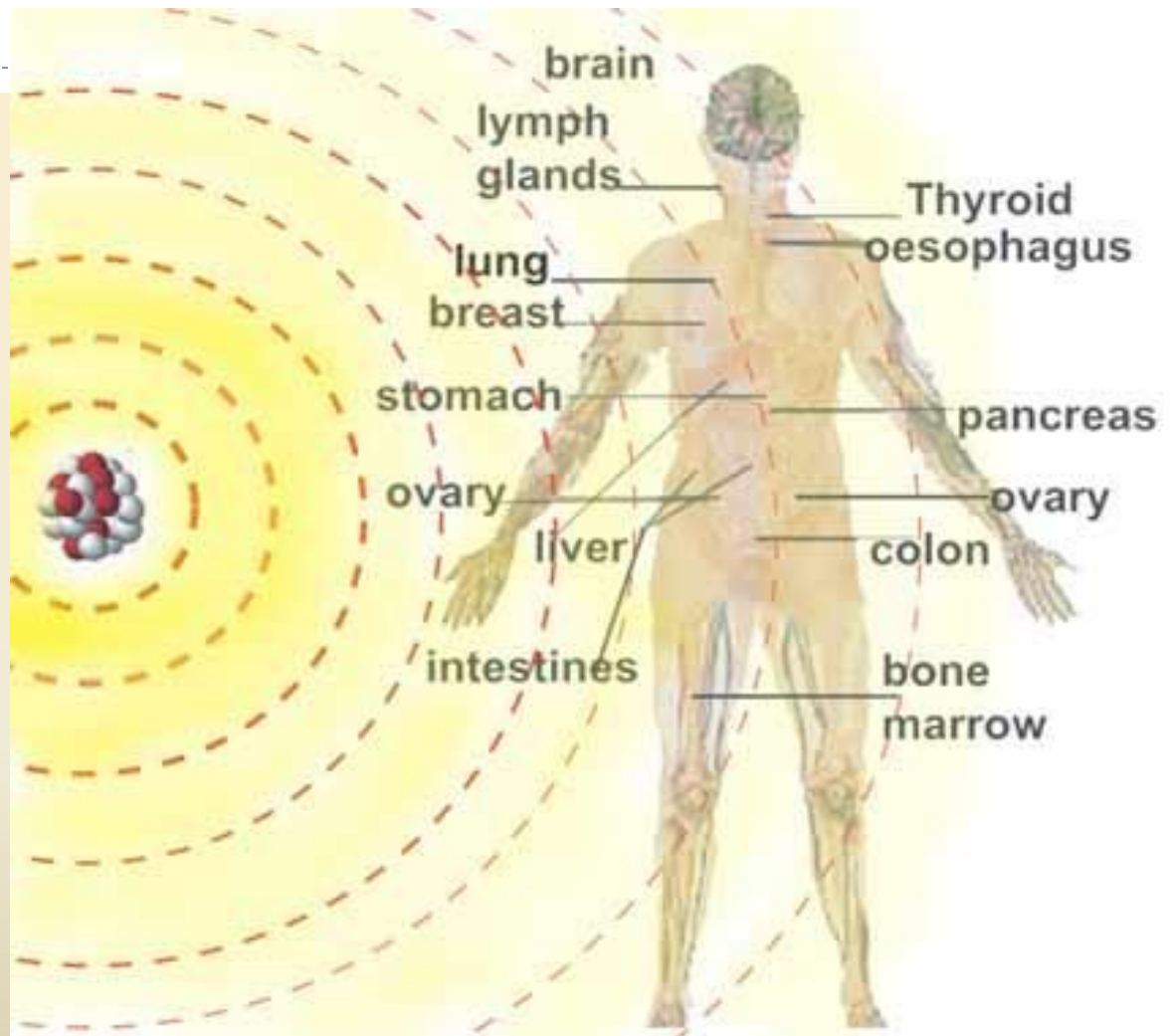
CESIUM-137

1/2 life: 30 years

PLUTONIUM-239

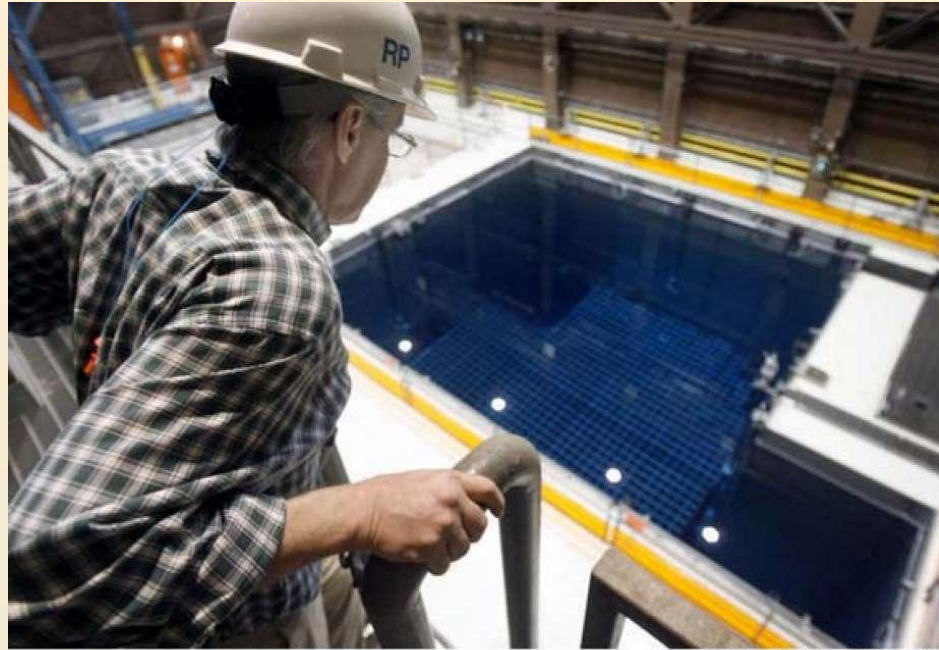
1/2 life: 24,000 years

What makes this waste so dangerous?





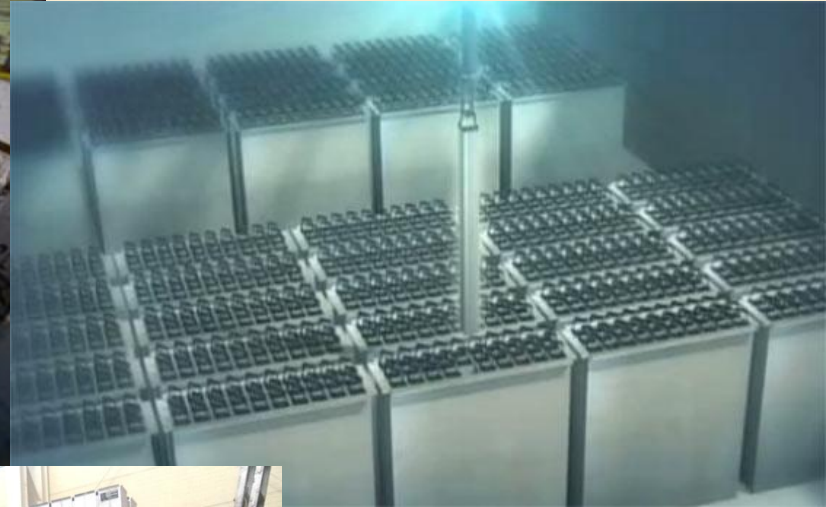
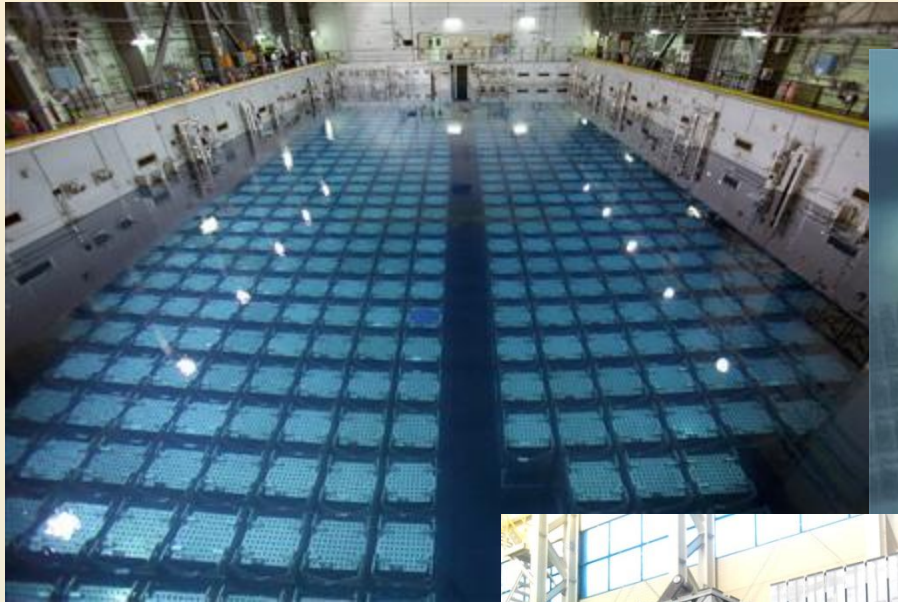
“Spent” fuel pool at Diablo Canyon

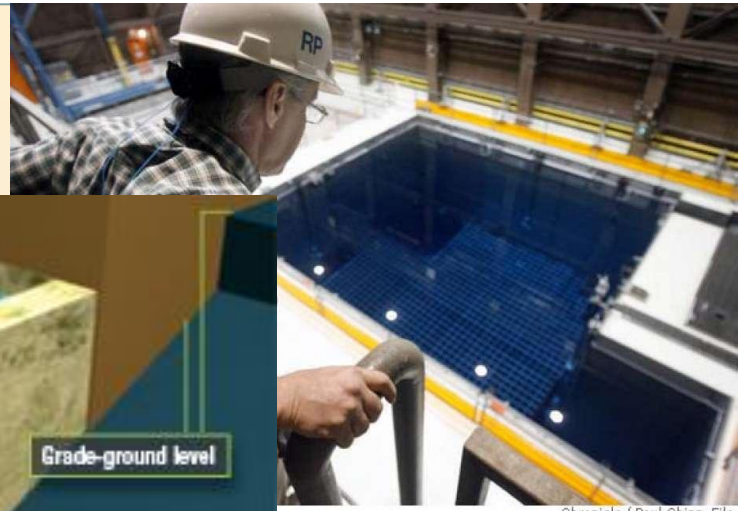


Chronicle / Paul Chinn, File

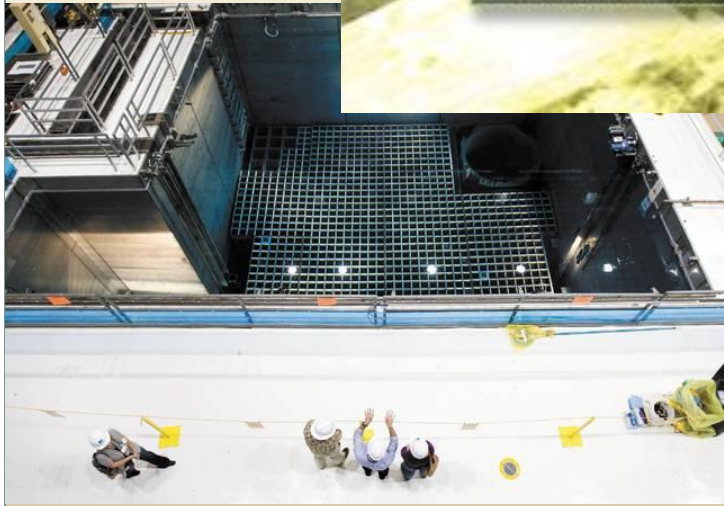
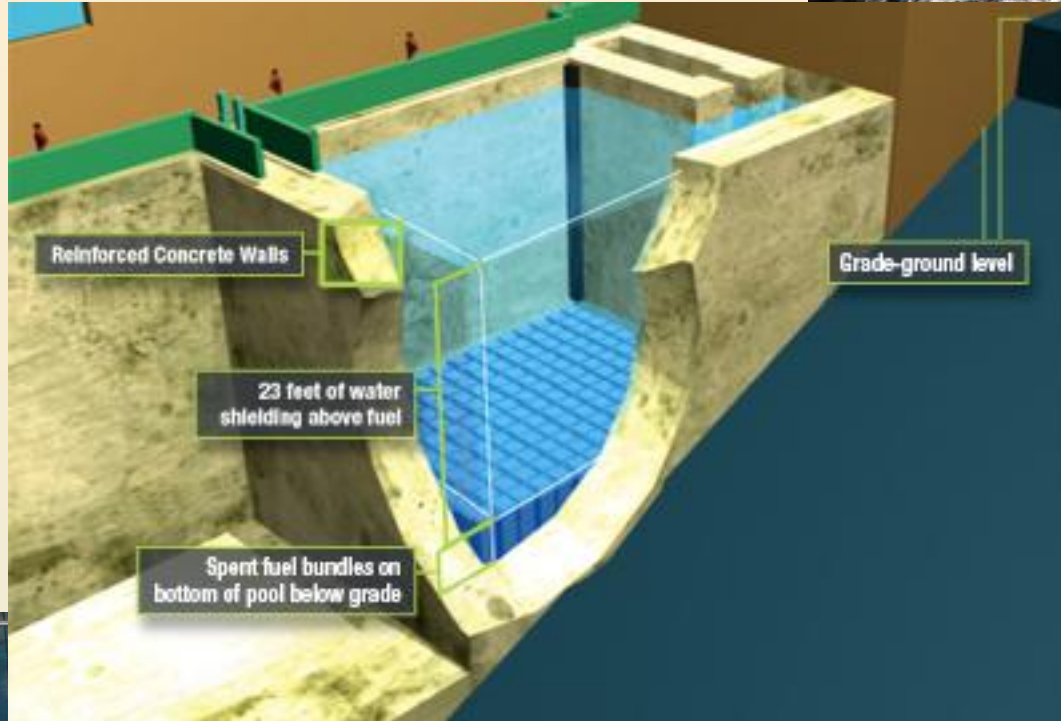


FUEL POOLS AND STORAGE RACKS



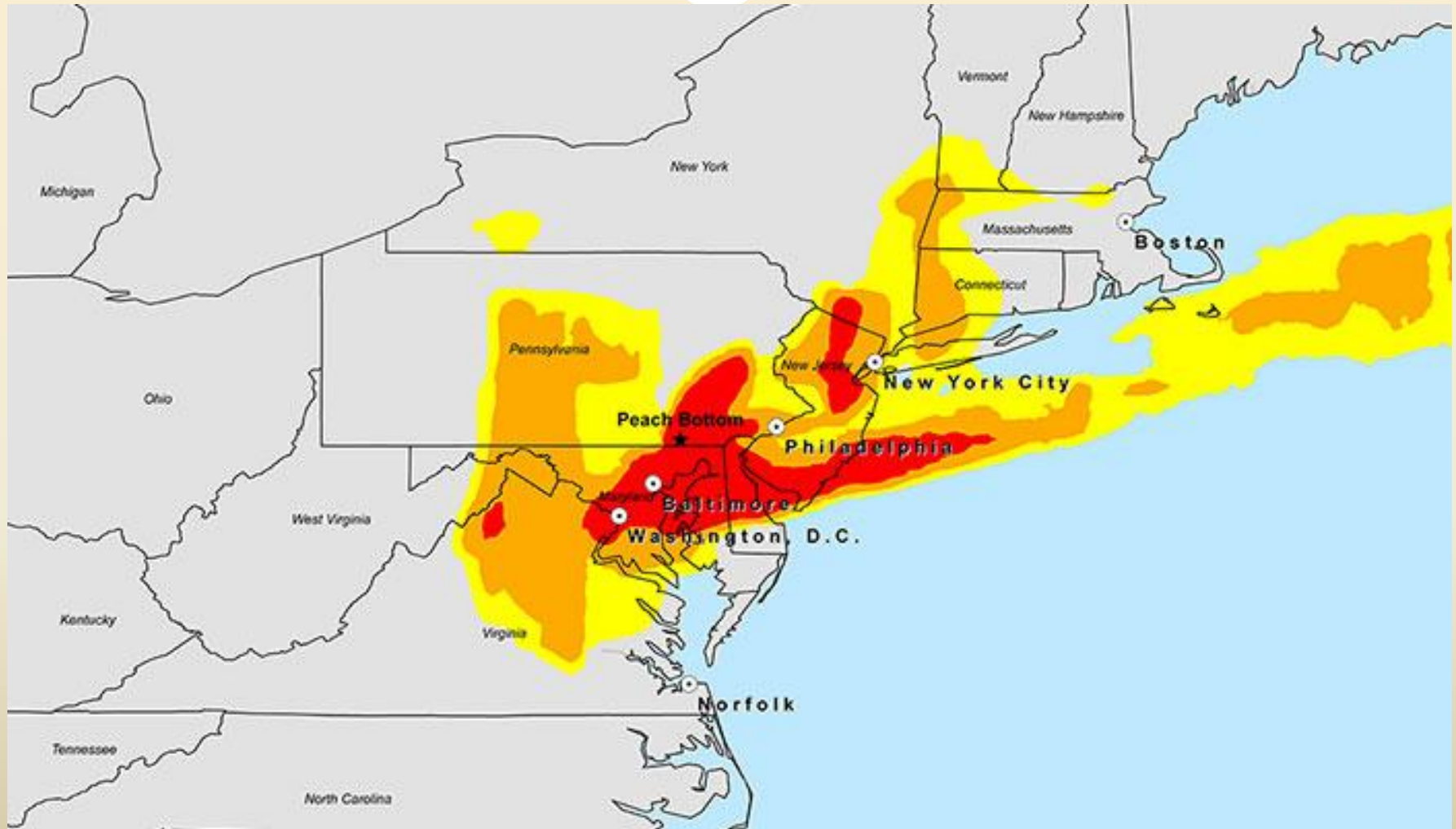


Chronicle / Paul Chinn, File

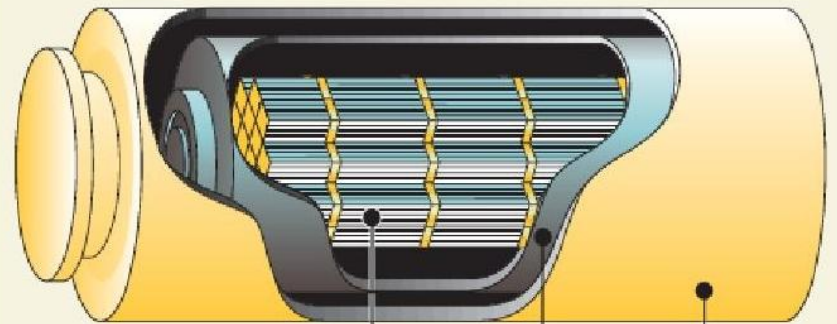


“SPENT” FUEL POOL AT DIABLO CANYON

SPREAD OF RADIOACTIVITY FROM A HYPOTHETICAL FIRE



Current practice is to move fuel to dry storage when reactor storage pools become filled.



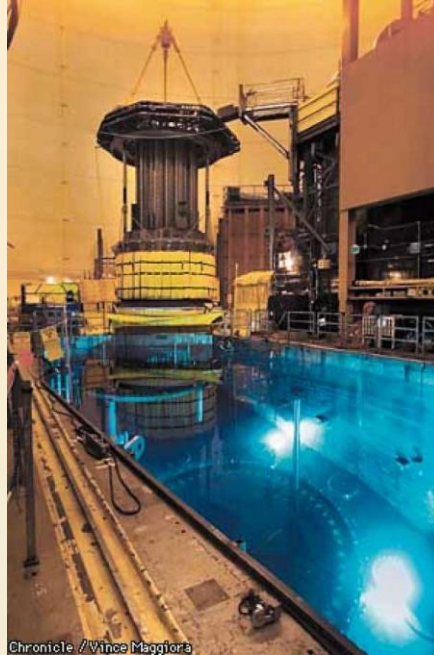
Bundle of
Used Fuel
Assemblies

Canister

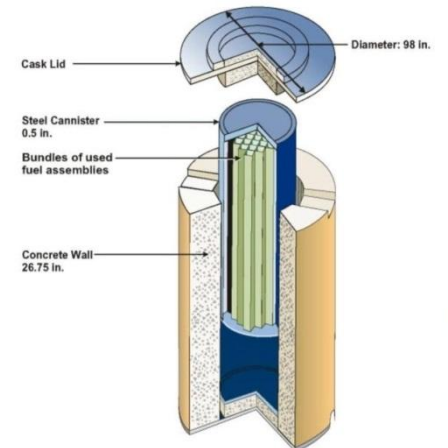
Storage
Cask

Source: DOE and the Nuclear
Energy Institute

TRANSFER OF SPENT FUEL FROM POOL TO DRY CASK STORAGE



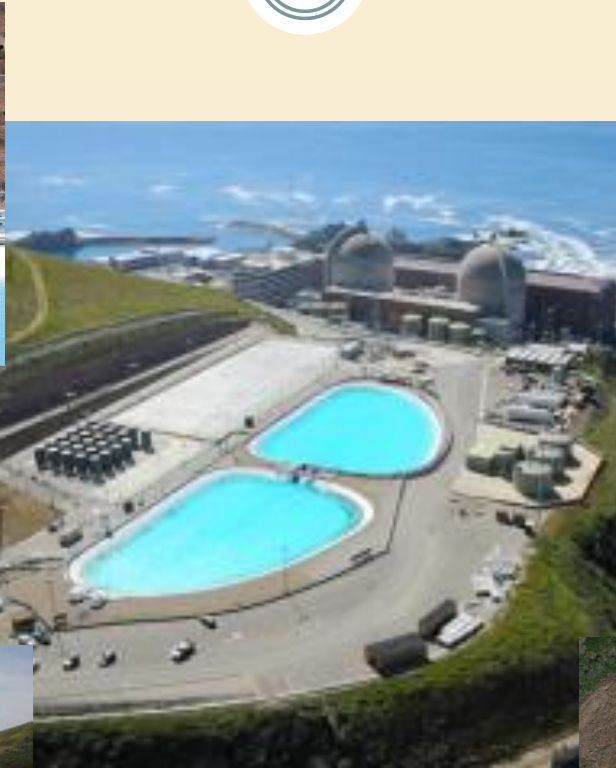
Dual Purpose Storage Cask*



(Holtec International
HI-STORM 100)
Overall Length: 197 to 225 in.
Loaded Weight: 360,000 lbs.
Typical Payload: 24 PWR Bundles

* Storage and Transportation

DRY CASK STORAGE AT DIABLO CANYON



Chronicle / Paul Chinn, File

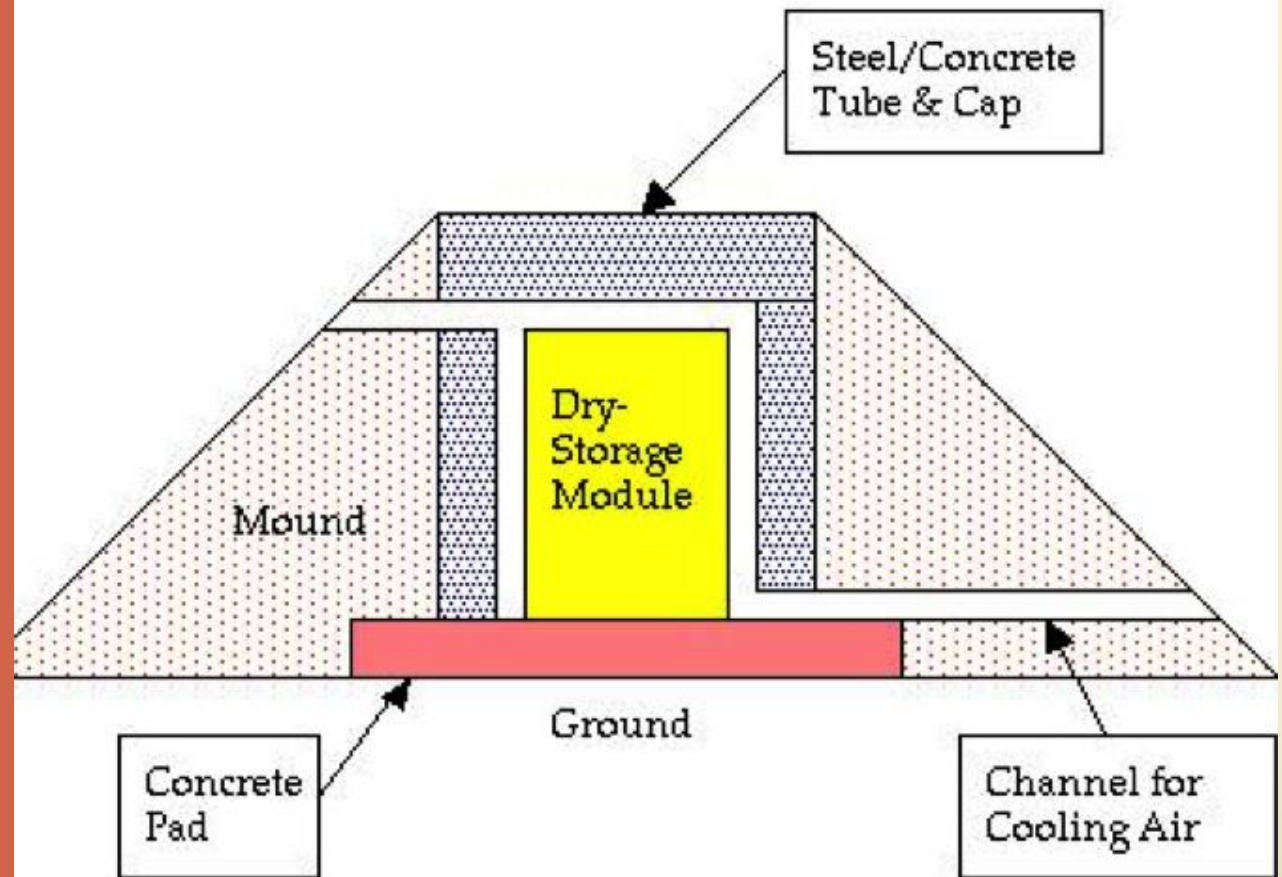


DRY CASK STORAGE AT SAN ONOFRE



**Nuclear waste storage site under construction,
inches above watertable, 100 feet from the ocean!**

HOSS – HARDENED ON-SITE STORAGE





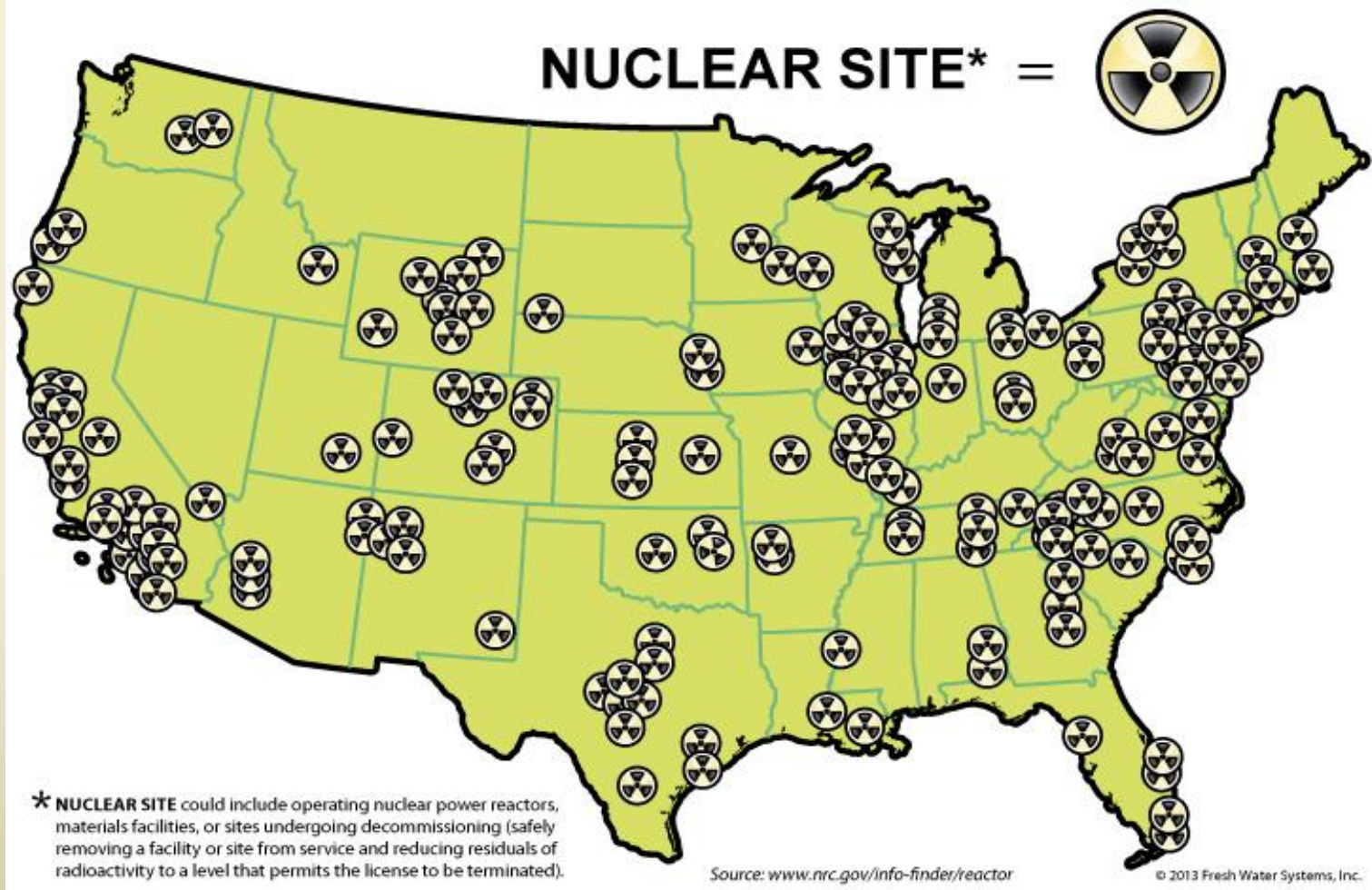
MRS – MONITORED RETRIEVABLE STORAGE



Transport and storage
casks in the interim
storage facility of
Gorleben

Photo: GNS

RADIOACTIVE WASTE ACROSS AMERICA

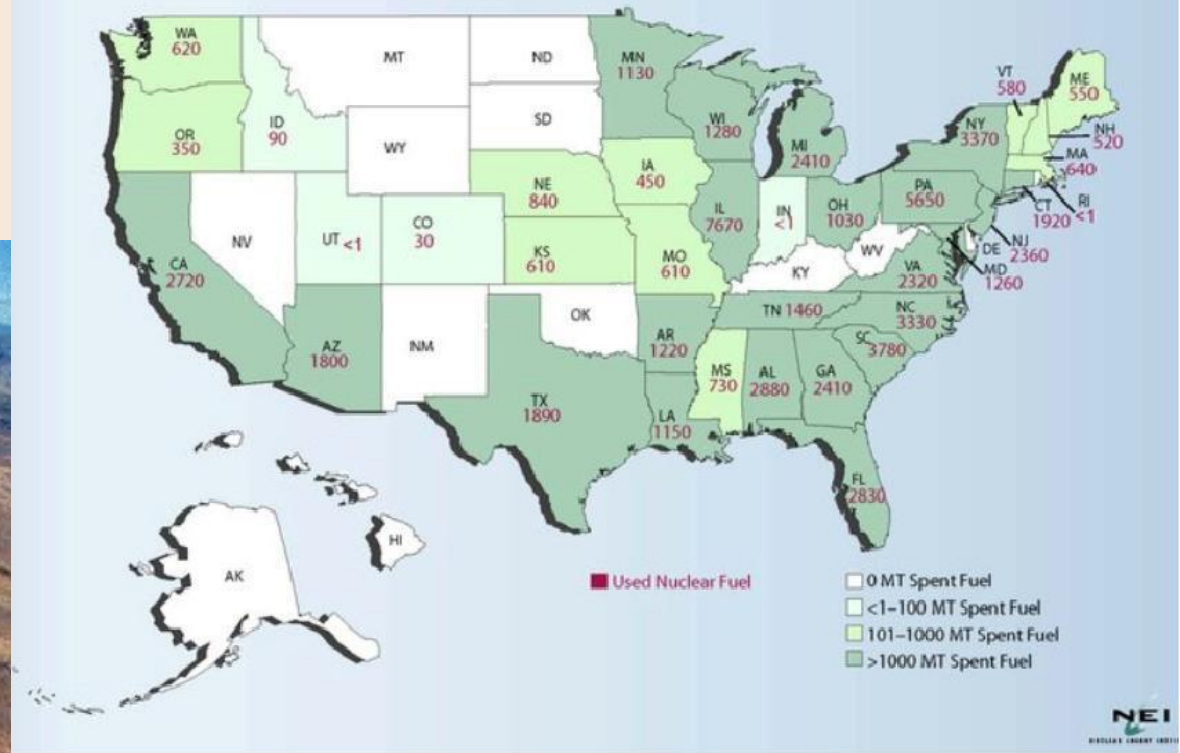


WHERE WILL THE WASTE GO?



Yucca Mountain,
Nevada

Used Nuclear Fuel in Storage (Metric Tons, End of 2009)



IS THERE A FINAL ANSWER?

