

DRAFT
Potential Initial “What If” Scenarios

- First shipments by truck from Western sites (reactors and DOE sites)
 - Under this scenario, utilities would agree to trade their existing pick-up rights to allow all of the early shipments to be made from Western sites via truck.
- Development of rail access to Yucca Mountain is delayed beyond 2010.
 - Under this mostly truck scenario, there would be a slow initial ramp-up in shipments beginning in 2010 rising to 1500-2000 truck shipments per year by 2015. Two off-shoot options might be (1) to ship legal weight trucks on rail cars to Caliente, Nevada, and then truck the casks to Yucca Mountain, or (2) use rail casks to Caliente and then heavy haul trucks to move the casks to Yucca Mountain.
- Sabotage concerns become overwhelming and there is a militarization of shipments
 - Under this scenario, shipments to Yucca Mountain would follow the same secrecy procedures as DOE weapons shipments. This might involve truck convoys or dedicated trains with decoy casks. There would be little if any notification of states/local governments.
- Emergency federal storage
 - Under this scenario, the repository is delayed 10-15 years, PFS in Utah doesn't open and there are no new commercial sites. An emergency at a reactor(s) requires almost immediate shipment of spent fuel to a federally-owned emergency storage facility.
- PFS opens and becomes an integral part of the NWPAs system
 - Under this scenario, PFS starts operating in Utah in 3-4 years. The transportation procedures for moving spent fuel to the PFS facility (e.g., specially designed dedicated trains operating at 50 mph) sets a precedent for Yucca shipments. The PFS facility is integrated into DOE's NWPAs program.
- Alternative mode and routing scenarios
 - Under this scenario, due to policy or program decisions, the mix of modes and routes is significantly different than a maximum rail scenario that minimizes transit distances and maximizes use of Class 1 rail lines. For example, there might be a policy decision to limit the use of feeder routes from reactors to concentrate shipments on a few routes. Or there might be a decision that equity requires the spreading of shipments along multiple routes. Or there might be a decision to use southern routes in the winter and northern routes in the summer. Or there might be a decision to minimize routes through populated areas.
- Delayed DOE assistance to states to prepare
 - Under this scenario, DOE fails to provide assistance to states along shipping routes four years prior to shipment.