

Rail Transport: State Of Readiness for Spent Nuclear Fuel

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Rail Transport State of Readiness

- Is it safe to transport spent nuclear fuel to Yucca by rail?
- Is the equipment available to transport spent nuclear fuel by rail to Yucca?
- If necessary, could spent nuclear fuel be transported by rail to Yucca today?
- Are we ready to ship spent nuclear fuel to Yucca by Rail?



Is it safe to transport spent nuclear fuel Yucca by rail?

-YES-

- The recent study by Battelle Pacific Northwest National Laboratory concluded a SNF cask could withstand an accident similar to the tunnel fire in Baltimore, MD.
- The Volpe Study (USDOT Volpe National Transportation Systems Center) clearly concluded transporting spent nuclear fuel in dedicated rail service “... will further reduce an already-low risk that a serious event will occur.”
- The Study also stated, over the past 45 years, approximately 600 train movements of these materials have occurred by rail without incidents occurring that have affected the integrity of the shipping package.



Is the rail equipment available to transport spent nuclear fuel by rail to Yucca?

-YES-

- Typically, there is a commercial inventory of heavy haul railcars in the industry available to transport a SFN cask.
- If DOE accepts and implements the full requirements of AAR specification S-0243 then the SNF needs to be transported by a railcar conforming to these requirements. Commercially manufactured heavy haul railcars can be manufactured meeting this specification in 12-18 months.



If necessary, could spent nuclear fuel be transported to Yucca today?

-YES-

- The “Naval Reactors Program has shipped over 750 containers (SNF casks) without incident”, as stated by Jim Carey – Spokesman for DOE’s Pittsburgh Naval Reactors Office.
- The USDOT, USNRC, and the USDOE have programs in place to transport SNF by rail and the Class 1 railroads have the security and emergency response capabilities.
- Did we mention, over the past 45 years, approximately 600 train movements of these materials have occurred by rail without incidents occurring that have affected the integrity of the shipping package.



Are we ready to ship spent nuclear fuel to Yucca by Rail?

-NO-

- Need a railroad spur to go to Yucca Mountain.

Although...

- The industry is ready to transload and transport SNF to Yucca by rail through the use of a suitable transload facility.
- The US Government transports and transloads SNF for other DOE and US Government programs, what makes it different for Yucca?



Are we ready to ship spent nuclear fuel to Yucca by Rail?

-YES-

Do not confuse the licensing and operation of Yucca Mountain with the transportation of the spent nuclear fuel.

One is in process, the other is being performed.

MHF-LS has transported spent nuclear fuel by rail using commercial railcars in dedicated rail service.

