



000122 (10)

## 1 [ Industry Messages on Yucca Mountain Repository and Transportation NEPA Documents

### Draft Supplemental Environmental Impact Statement for a Geologic Repository at Yucca Mountain

- Yucca Mountain is vitally important to the national interest and is a key element of an integrated approach to the safe management of used nuclear fuel (consisting of safe at-reactor storage, centralized interim storage, development of recycling technologies, and ultimate disposal of waste byproducts). Yucca Mountain supports the nation's best large scale option to meet growing energy demand without releasing harmful pollutants or contributing to climate change.
- The design changes and updated analytical methods reflected in the Yucca Mountain Supplemental Environmental Impact Statement (SEIS) represent substantial improvements – enhancing what was an already strong safety case to provide even greater confidence in the safety of Yucca Mountain.
  - Surface facilities have been greatly simplified, reducing the amount of used fuel that has to be handled at the repository.
    - Industry has actively participated in the development of the multi-purpose Transportation, Aging, and Disposal Canisters that make this simplification possible and supports their use.
  - Additional scientific advances have been applied to the evaluation of the ability of the repository to protect public health and safety for up to a million years.
    - This SEIS shows that annual radiation exposures to future populations will always be extremely small – comparable to what an individual receives in a single cross country plane flight today.
    - Industry believes, based on independent analysis by the EPRI institute, that there still exists substantial conservatism in DOE's analysis – in other words, the repository may perform even better than even these latest results indicate.  
  
DOE should continue to refine its analysis as future scientific advances are made (for example, recycled waste forms available in the future may be able to further improve safety). Yucca Mountain is an extremely long term project, and we should always apply the best our technology has to offer to assure its safety.
- The information in this SEIS appears to provide a strong indication that DOE has completed sufficient design and analytical work to enable the completion of a thorough and high quality application to the Nuclear Regulatory Commission for licenses to build and operate the repository.
  - Industry intends to offer specific comments on the details of this information in writing prior to the January 10, 2008 deadline, however, our review to date finds this EIS to be, overall, a well prepared document.
- The NRC licensing process will significantly test DOE's work and the public will have ample opportunity to challenge its every conclusion. It is time to get on with the licensing process – and let an objective review of the science for once and for all decide the fate of Yucca Mountain.

**DRAFT**

Draft Supplemental Environmental Impact Statement for a Nevada Transportation Corridor and Draft Environmental Impact Statement for a Rail Alignment for Construction and Operation of a Railroad to Yucca Mountain

There is considerable experience with the transportation of used nuclear fuel – over the past four decades – that demonstrates its safety.

- Over 3,000 shipments in the U.S.
  - 78% by truck and 22% by rail.
  - Transported over 1.7 million miles.
- Over 24,000 shipments internationally.
  - More than 73,000 metric tons of used nuclear fuel safely transported.
- The robust design of shipping containers for used nuclear fuel assures that this record will always be maintained.
  - Used nuclear fuel is transported in vault like highly engineered containers.
    - Multiple barriers (e.g. steel, lead, depleted uranium) provide defense-in-depth protection.
    - Rail containers weigh between 75 and 125 tons (to protect less than 20 tons of used nuclear fuel).
    - Containers are required to withstand a 30 foot fall onto an unyielding surface (the equivalent of a 120 mph train wreck), a 40 foot fall onto a 6 inch spike, 30 minutes in a fully engulfing fire at 1,475 F, and submergence under 50 feet of water.
      - Extensive engineering analysis and full scale testing confirm the capability of these robust container designs to withstand these extreme events.
      - These containers have also been placed on trains and trucks tied to rocket sleds and crashed at high speeds – maintaining their integrity and demonstrating their capability to withstand even the most severe accidents.
  - All containers must be certified by the Nuclear Regulatory Commission.
    - Certification requires that exacting engineering and safety criteria be met.
- The fact that these Environmental Impact Statements show the impacts of Nevada transportation to be small is consistent with industry experience. ]
- 2 [ Industry believes that the use of rail, with dedicated trains, is the best and most efficient method to ship used nuclear fuel to Yucca Mountain and, therefore, we support the construction of this railroad.
  - Building a railroad to Yucca Mountain also provides economic opportunity for communities in rural Nevada – we applaud DOE’s decision to open up the railroad for shared use.
- DOE should begin construction of this railroad as soon as possible to facilitate the timely opening of the Yucca Mountain repository. ]