

UNITED STATES  
NUCLEAR WASTE TECHNICAL REVIEW BOARD  
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TRANSPORTATION OF NUCLEAR SPENT FUEL  
A RAIL PERSPECTIVE

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**TRANSPORTATION OF NUCLEAR SPENT FUEL**

**A RAIL PERSPECTIVE**

I am grateful to the Nuclear Waste Technical Review Board for asking me to present the railroad industry's views on the movement of Spent Nuclear Fuel and high level nuclear waste over the rights of way of the nation's railroads. I am currently the Chairman of the Association of American Railroads Committee on the Transportation of Nuclear Materials by rail. The objectives of the Committee are:

- to make recommendations to the railroad industry regarding nuclear waste transportation.
- to assist the Department of Energy in developing their transportation plan.

In presenting this perspective from the railroads, I am continuing a dialogue which railroad industry representatives have participated in at many open forums on Nuclear Waste in the last few years. I believe that these discussions are vital to insure that the public perceives rail movements of Spent Nuclear Fuel as the safest and most efficient method of transportation from utilities to the repository.

While the railroads have agreed to move Spent Nuclear Fuel they are fearful that the Price Anderson Act may not cover many of the

potential claims arising from transportation incidents of Spent Nuclear Fuel. Specifically, rail incidents involving Spent Nuclear Fuel without a breach of a cask do not appear to be covered under the Price Anderson Act.

You may be thinking that if there is no release of radioactive material there should not be large economic consequences to the railroad companies.

On the contrary, the railroads believe that no mechanism yet exists to properly coordinate emergency response after an initial evacuation around any derailment involving Spent Nuclear Fuel. After it has been determined that there has been no leakage of radioactive materials, we wonder who will give authority to the railroads so that they can begin clearing the derailment. During these traffic disruptions all rail traffic may be delayed for days or weeks while the railroad line is shut down. Therefore, when we say that we are "betting our railroads" every time we move Spent Nuclear Fuel we do not consider this to be an exaggeration.

The railroad industry continues to address other issues which need to be resolved.

We object to DOE and the utility industry's perceived need for extra heavy casks and rail cars. In our view the extra heavy cask has two

obvious drawbacks. These are reduced flexibility in routing and a higher exposure to rail incidents. The lack of flexibility is due to the fact that not all rail lines can accommodate extra heavy cars. If the unforeseen happens on the primary or secondary rail route, the shipment may have to sit and wait for additional clearance on another alternate route and then possibly be moved at extremely slow speeds to permit safe transit over a rail line not maintained for these extra heavy loads. When rail lines of lesser maintenance standards are used, the potential for derailments and/or long delays increase. The extra heavy cask and car are also restricted from many auxiliary tracks and will therefore have fewer possible points that may be used as a "safe harbor." If the railroads involved must "store" this car on the main line it will delay other revenue movements of the railroad. Extra heavy cars also have the potential of more mechanical difficulties because of more moving parts, higher center of gravity, potential unequal distribution of load and less favorable cornering and stability characteristics. Therefore we have strongly recommended that the DOE standardise on a normal size cask/car combination.

For many years the AAR has recommended standards for the safest possible movement of Spent Nuclear Fuel. These standards include:

- Planning, in advance, the route of movement and using the safest routes and tracks.
- Scheduling of the train (both as to day of week and time of day).

- Surveillance of the train en route monitoring the performance of both the car and its contents as well as locomotive, idlers and rider cars.
- Controlling the speed of the train (not exceeding 35 MPH maximum with further restrictions where appropriate).
- Controlling movement of other trains being met or passed en route, where appropriate.
- Providing for emergency response, in the event of unusual occurrence en route.
- Providing for escorts (to include operating supervisor, Police and DOE experts).
- Instilling maximum public confidence in the safety of nuclear movements through sensitive areas.

We believe the rail industry can best perform its mission of handling Nuclear Spent Fuel safely by utilizing dedicated trains. We look forward to working with the DOE and the utility industry to insure that Spent Nuclear Fuel continues to be moved in the safest and most efficient manner.

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EDUCATION

St. Lawrence University, B.A. in Economics, June 1965  
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WORK EXPERIENCE

1969 Research Economist  
General Motors Research Laboratories, Warren, MI

1970-1976 Various Transportation Field Supervisory Positions  
Penn Central Transportation Company

1977-1978 Division Superintendent  
Consolidated Rail Corporation

1979-1983 Regional Superintendent at Pittsburgh and Indianapolis  
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Nov. 1983- Director of Operating Rules - System Office  
to Present Consolidated Rail Corporation

MILITARY EXPERIENCE

January 1966 - December 1967: U.S. Army Transportation Corps Officer  
Received Bronze Star for meritorious  
service in Vietnam.

MEMBERSHIPS

Senior Member, Institute of Industrial Engineers, Board of Directors,  
Philadelphia Boys Choir & Chorale, International Association of  
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