

Transport of Nuclear Waste

Locating the geologically perfect resting place for nuclear waste has been a painstaking ordeal that was met with much opposition. Yucca Mountain, 80 miles northwest of Las Vegas, Nevada, has been studied and determined by the Department of Energy (DOE) to meet the geological requirements of a high-level waste repository. The twenty-four year Environmental Impact Statement assessed the health risk, volcanic and seismic activity, ground water level and flow, the impact on the Native American community and all applicable socioeconomic factors before the site was determined scientifically and technically suitable. Transporting the waste to the facility has invoked as much controversy as the project itself. The Secretary of Energy, stated "...Yucca Mountain site is fully suitable; that development of a repository serves the national interests in numerous and important ways" (NEI). The Yucca Mountain project was accepted by President Bush in 2002. Even though building and testing is still in progress, truck loads of nuclear waste has been safely transported to their final resting place in NW Nevada.

Trucks, trains and trailer loads containing everything from corrosive batteries to insect repellent; fireworks to cyanide pass unnoticed through our communities. These dangerous and deadly shipments are enroute to our stores, factories and ports. The Department of Transportation (DOT) and the Environmental Protection Agency (EPA) regulate the transport of these commodities. Transporters of hazardous materials must clearly display placards on their vehicles identifying the contents. These placards are uniform and follow the UN/NA (United Nations /North American) classification and

naming system of regulated materials. A hazardous shipment must be accompanied by a manifest which includes a 24 hour contact number such as Chemtrec; a hazmat answer and response team. Radioactive materials in transport follow additional guidelines set forth by the Nuclear Regulatory Commission. The NRC's guidelines require additional monitoring, more stringent and frequent inspections, a pre-determined route and an escort in some locations. The loads are protected, monitored and secured. Transport of nuclear waste is safe and necessary.

Fourteen days before Presidential approval, Senator Dianne Feinstein addressed the U.S. Senate. Feinstein's statement, "Opposition to the Resolution That Would Establish Yucca Mountain as the National Repository for Nuclear Waste," addresses her reluctance to approve the transport of nuclear waste to Yucca Mountain. Feinstein disapproves of this project. She states that nuclear waste should remain scattered throughout the United States instead of risking the transport of such a deadly substance. Feinstein believes that the population would be safer if the nuclear byproducts were scattered about the US and not centralized. In her opinion, lack of centralization and transport would deter terrorist attacks.

The senator's fears are unjustified. Transportation of nuclear waste is safe. Through media hype and general distortion (TV shows), the damaging effects of radiation has been contorted. The hazards and risks incurred in the transport of nuclear waste are less than that of the transport of every day chemicals. Fossil fuel carrying vessels kill over a thousand Americans each year (Benard). Coal waste transport is more dangerous than nuclear waste transport. Nuclear waste is contained inside the transport vessel whereas coal waste is transported in open top trailers allowing for distribution into

the atmosphere and contamination of our environment. Nuclear waste produces a minute fraction of the byproduct that coal generates. With fewer products to transport there is less transportation miles and fewer vehicles on the highway.

President Bush acknowledged the benefits of nuclear generated energy over fossil fuel. "...Yucca Mountain is important for our national security and our energy future. Nuclear energy ... must remain a major component of our national energy policy in the years to come. ... nuclear power has none of the emissions associated with coal and gas power plants" (NEI).

Custom designed, multi-million dollars vessels (Bernard) were created to transport this waste. The DOE, NRC, DOT and EPA have all approved these vessels due to their ability to contain radioactive waves, withstand extensive heat and accidents. These specialized vessels were crash tested against a speeding train and intense heat to ensure the integrity of their contents. In order to transport hazardous materials, CDL drivers must obtain a special endorsement which requires the passing of a series of tests. Under the new homeland security regulations, hazmat endorsement holders have to undergo fingerprinting and background checks.

As a former owner operator and hauler of hazmat, regulated and waste materials, I have witnessed first hand the regulations in place to safeguard our environment, citizens and ourselves. Nuclear waste has already been safely transported for over 25 years (Longley). During this time, only four incidents occurred that involved containment breaches. No incidents resulted in any deaths. Irregardless of this long standing record a great deal of public fear has been generated.

In 1999 at the FMC Corporation facility in Fairfield, Maryland, I witnessed birds falling from the sky. FMC was manufacturing cyanide. They were unaware of a leak. This gaseous substance was seeping into the air and the poor birds who flew through this invisible gas were literally falling out of the sky; dead. This is just one of the chemicals that are manufactured in your backyard. These same chemicals are then transported through your towns on your highways and railways.

Nuclear waste; radiation, is solid material. It is not like the normal chemical or agent that is liquid or gaseous. It can not leak out into the environment like the normal toxin. Professor Emeritus Bernard L. Cohen, PhD, University of Pittsburgh, reminds us in his book The Nuclear Energy Option, that, "...there is no simple mechanism for spreading it over a large area even if it did get out of the cask. ... hence the number of people exposed would be relatively small."

The Senator raises the issue of terrorist attacks on transport vessels. Her concern is the accessibility to terrorists during transport. The misunderstanding lies in the misconception that nuclear power equals nuclear bombs. There is a major difference between weapons grade plutonium and reactor grade plutonium. Should a terrorist desire to attack, there are much easier and cheaper methods. Anyone who thinks a terrorist is going to steal plutonium to make a bomb has watched *Back to the Future* too many times. The toxicity of plutonium has been greatly exaggerated as has the threat of such a theft. Anthrax, nerve gas and other biological toxins are much more easily dispersed into the environment with a more deadly and further reaching result. Conventional means such as household supplies, think Oklahoma, can cause far more harm than the byproducts from a nuclear power plant.

Senator Feinstein is misinformed at best. It is evident that she has failed to do her homework. Numerous scientific studies uphold the facts I have disclosed. Her willingness to listen to only one short sighted man has led her down the wrong path. Studies without proper statistical backing are worthless. The American Motor Truck Association (ATA) conducts annual studies in regards to accident rates and other occurrences. These are used by the leaders to guide our profession. Most studies are found to be bias against truckers. This is the case with the National Transportation Agency study that the senator referenced. It has been proven as such by the ATA and the Owner Operators and Independent Drivers Association (OOIDA).

Transport of nuclear waste is highly regulated, well contained, extensively planned and highly organized. Only highly trained safety professionals may haul the waste thereby making nuclear transport safer than that of general chemicals. Nuclear waste is transported safely around the globe. It is recycled and viewed as an environmentally friendly product due to its lack of byproducts and negative side effects.

Chernobyl and Three Mile Island were sad learning experiences. Nuclear energy has evolved greatly in the past 30 years. The nuclear energy industry is expanding in Europe, Australia and Asia (UIC). They are enjoying the benefits of clean, safe, modern nuclear technology. By joining our colleagues, North America can share in these same benefits. Through recycling, we have found an energy source that will virtually last forever unlike fossil fuel (coal) that will be gone in a few decades. Only media hype and hysteria is preventing the US from joining the rest of the world in a smooth progression to nuclear energy. The Yucca Mountain project is much needed. Despite the hysteria and

confusion, the project will move forward as shall the transport of our nuclear waste to Nevada. Through regulation and training these moves will continue to be a safe venture.

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