

**PRESENTATION
TO THE
NUCLEAR WASTE TECHNICAL REVIEW BOARD
TRANSPORTATION & SYSTEMS PANEL**

November 19, 1990

Good morning. My name is Brad Mettam, representing Esmeralda County. Esmeralda County may be the least populous county in Nevada, but is also very close to the proposed nuclear waste repository. Although we have only 1350 people, scattered on 3,587 square miles, our concern for our residents is just as great as that of the most heavily populated city or county in the country.

To tell you a little bit about myself, I have been a volunteer fire fighter for approximately twelve years, the last seven as chief of one of the three local fire departments in Esmeralda County. I'm a Nevada EMT, and serve on the local ambulance service. I've also been employed by the county for the last six years as head of the capital projects department, handling construction, repair, and maintenance of county facilities. As Esmeralda County is, understandably, rather light on staff; I am also the county safety officer, and fill in on request as the planning department. When the Board of County Commissioners became concerned about the Yucca Mountain Repository Program and wanted someone to represent the county, I was volunteered.

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Esmeralda County has not been designated "affected" by DOE, for reasons which are unclear. We have challenged this in court, and are currently awaiting a ruling from the Ninth Circuit Court of Appeals. We have been unable to postulate any criteria which

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applied fairly, would include Clark and Lincoln counties yet exclude Esmeralda County; so we are anticipating a favorable ruling from the court. Until that happens our participation has been limited to some oversight and review, funded through the State of Nevada's Nuclear Waste Project Office.

Our program has focused on the issues that this panel is reviewing: those directly related to transportation to the proposed repository. We feel it is extremely likely that whatever materials are shipped by truck for storage at the repository will travel south on US 95, passing through the center of the town of Goldfield, the County seat. The Nevada Department of Transportation is in the process of finalizing state selected routes for the transport of route controlled quantities of radioactive materials. They have proposed two possible routes from the east coast that will ultimately provide access to the proposed Yucca Mountain site. One of these passes through Clark County, the center of the state's tourism economy, where two thirds of the State's population resides. The other is the one which passes through Goldfield. Even though the only critical curve designated on any of the routes examined is in the center of Goldfield, we expect that the route through Esmeralda County will be selected when the final decision is rendered in early 1991.

The factors that were used to select alternate routes included as a primary goal the avoidance of population, which I think everyone agrees is a worthwhile objective. It must be clearly understood, however, that while the avoidance of populated areas reduces the public's exposure, it also means avoiding the areas that have the capabilities to respond to

an incident. For example, the town of Goldfield is protected by a ten man volunteer fire department, which is not trained or equipped to respond to an incident involving radioactive materials. In addition, the Fire Department does not respond outside the town limits, leaving any emergency response to the sheriff's department and the ambulance service, which are not trained, equipped, or staffed to respond to a radiological incident. Another factor that must be considered is that an incident on US 95 may effectively separate the responders from emergency facilities such as hospitals, as in most areas that highway is the only means of north-south travel.

Finally, it must be recognized that there is a difference between transporting through a rural area and through an urban area, both in the degree of exposure and in the perception of risk by the community. A shipment through an urban area will generally travel on the highway, separated from the homes and everyday lives of most of the population. When that same shipment travels through a rural area, it may still stay on the highway, but now that highway is also the main street of the town. Students will cross that street on the way to school. Many of the homes and business front onto that street. That same highway may be (and in the case of Goldfield is) the only way in or out of the community.

For all of these reasons it would seem logical to look at rail as a transport option. Rail access to the proposed repository could greatly reduce (though not eliminate) highway shipments. This would not get Esmeralda County off the hook, though, as two of the three routes proposed by DOE for further study pass through Esmeralda County. In my own

opinion, while rail is the preferred transport option, it is becoming less and less likely, for several reasons. First, rail routes would be most effective when combined with an MRS, a concept that is still uncertain of success. Secondly, DOE is not planning to finalize the decision on rail transport until the Environmental Impact Statement is issued on the repository. This does not seem to allow sufficient lead time for planning and constructing an extensive rail spur. We understand that DOE is not planning on producing a separate EIS on the rail spur construction, which we would consider necessary for such a major federal action. This, too, would increase the lead time needed. Thirdly, land use options will become more restricted the longer DOE takes to review their options. We understand that DOE may have already lost the "Mina" option, because of right of way restrictions across an indian reservation that excludes the transport of nuclear waste. And finally, DOE's experience at WIPP, where the rail option was abandoned in favor of road transport, leads us to suspect that they are not really serious about rail transport at Yucca Mountain.

We have several concerns regarding DOE's program-wide approach, one of which the Nuclear Waste Technical Review Board has already noted: DOE's failure to plan for human factor effects. The lack of human factor consideration in DOE's work leads me to distrust the risk assessments and worst case scenarios done by DOE. Assumption of perfect cask performance and dismissal of catastrophic accidents as "not credible" raises doubts of the real world accuracy of the DOE predictions. I am certainly not qualified to discuss the technical issues involved, but as an emergency responder, I would consider any plans that

do not take into account human errors and human actions as less than credible. A majority of our response calls are to incidents caused by well meaning people doing things that, in retrospect, seem rather improbable: the woman who drives off the highway because she doesn't want to spill her coffee; or the man who falls to account for the wind when burning weeds. These are everyday occurrences in the real world, and anyone who thinks that Quality Assurance/Quality Control "paper trails" and administrative controls are the solution is just not planning for the real world.

There seems to be a pervasive institutional attitude that the transportation of radioactive materials will be safe, and much of DOE's efforts appear to be aimed at easing the fears of the unenlightened, without really addressing the issues. To illustrate the point, I would like to tell you of a conversation I had with one of the DOE subcontractor employees, at a DOE repository update meeting. We were discussing vehicle escorts, and he was telling me about the concept of in-vehicle escorts. The theory is that one man is driving and the other is the "escort". When I asked him about layover locations, he told me that they would not be needed, as one would relieve the other at driving. He honestly did not understand my dismay at discovering that the "escort" would be spending his time in the sleeper, escorting unconsciously. In DOE's terms, it is acceptable to redefine the term "escort" to mean "relief driver", if that makes the process more palatable. I am reminded of the quote from Will Rogers: "It ain't what you don't know that will hurt you, its what you do know that ain't so."

We in Esmeralda County are concerned that the impacts of siting a repository will fall more heavily on rural areas, where a small effect can have a relatively large impact. We feel that routing choices should consider not only the size of populations at risk, but also the extent of exposure of those populations. Rural populations are more at risk, because they have less protection in the form of well engineered highways and well prepared emergency responders.

We welcome the Nuclear Waste Technical Review Board's interest in this area, and hope you will consider the transportation impacts on rural communities. I appreciate the opportunity to address this panel, and will be happy to answer any questions you may have.