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MR. HALSTEAD: For the record, my name is Bob Halstead. I am transportation advisor for the State of Nevada Agency for Nuclear Projects.

I have a prepared statement which I'm asking the court reporter to enter into the record as if it had been read in its entirety. I also have copies of my statement which has extensive attachments of tables and maps showing the routes of shipments through California and specifically through San Bernardino County.

I want to start by just showing you where these routes are. Now, the Department of Energy finally got around to posting maps on their website last month, and if you go to their website -- the address is in my statement -- this is what their map of California looks like (indicating).

You'll notice it doesn't have Los Angeles or San Bernardino on it. But it's a pretty accurate map from the calculations that we have done over the years. And, in fact, that's the first point I want to make about routing. There's no mystery about the routes that are under consideration.

1 Now, it's true that there are some specific routes that might be used for actual deliveries to Yucca Mountain, where the State of Nevada and the State of California have differences of opinion.

For example, we would like to use 127, 373, from Baker through Death Valley Junction. We think that's the least-risk route if there are going to be large numbers of truck shipments.

California, of course, sees it differently. Other routes that have been talked about are State Route 160 in order to avoid shipments through downtown Las Vegas. So I don't mean to say that there aren't still some controversies to be resolved over routing, but on the big routes, the routes that are going to be the cross-country feeders from the east to the west, we have known all along that the choices are I-70, I-80, and I-40, as DOE does. It's a rail shipment. They are the Union Pacific lines through Nebraska and Wyoming, or the Burlington Northern Santa Fe lines that come into California from Arizona.

Now, one other thing that's worth noting are the way that these truck routes come through San Bernardino. I was thinking about this as I came in my taxi from the airport late last night. Sometimes real life looks just like computer model print-outs. The big convergence of these routes is near I-10, right near the Ontario airport. So it's worth going to the DOE website and looking at their maps and their print-outs.

2... Let me quickly overview the risk issues that the State of Nevada will be filing detailed written comments on next Monday. Let me start by saying there's a valid -- there are many valid technical disagreements over the risk of spent nuclear fuel transportation.

The State of Nevada believes there are five major problems. First, it understates potential health effects of routine operations, particularly in areas like Nye and Esmerelda County where we have got people whose doorways are within 25 feet of the road shoulder, or we have got a major medical, regional medical facility in Tonopah that is 250 feet from the road shoulder. Models like RADTRAN and RISKIND are not designed to deal with the kind of unique local conditions. We have got conditions on route segments where we think people -- particularly if those routes are used by slow-moving, large heavy-haul trucks where they have to carry a rail cask on a big truck, where people could get 100 millirem exposure from routine shipments. That's about a third of the average annual background.

We also feel that while DOE has done a better job of looking at worker exposures in this document than in the past, they have also tended to understate particular sensitive use work of workers like transportation

2 cont. inspectors, who might receive the same types of doses, up to 5,000 millirem per year, that would be allowed, the maximum allowable for people working in nuclear plants.

3 Second, the EIS understates the potential health consequences of a very severe rail accident. We ran these same models, using different but credible inputs. They say 31 latent cancer fatalities, and we say the same accident could generate up to 1,380 latent cancer fatalities. A range of outputs results from a range of inputs; that's a bounding scenario that DOE uses, or they would like to in the document.

But in other areas they give you this sense of specificity; and they can tell you exactly what the impact would be. You have to define it broadly, and it could be significantly larger.

4 Regarding the health consequences of the terrorist attack on the truck cask, what their study from Sandia says is if the weapon only penetrates the cask 90 percent, the release causes 15 latent cancer fatalities. They go on to say if the weapon fully penetrates the cask, it goes up by factor of ten. Now, we think the consequence would be even greater.

Just looking at the Sandia study, they should have said bounding scenario analysis, 15 to 150 latent cancer fatalities.

5 Fourth, DOE does not at all address the economic consequences of cleaning up a radioactive release. This is a big problem for us. Past studies that DOE commissioned in the '80's said the number could be as high as 600 million dollars in 1980 dollars in a rural area, and they said 200 billion dollars, more or less -- I am sorry, 600 million dollars in a rural area; two billion dollars in an urban area.

We ran the latest available version of the RADTRAN Code with updated dollar inflaters bringing the numbers up to the year 2000, and we are not admitting that we think RADTRAN adequately models the worst-case accident. We think there's some ways it can be worse.

But even if you just take those models and you run them, you can see a range of 2.5 billion dollars to 9.4 billion dollars in an urban area to clean up. And let us understand we are talking about a very small probability of occurrence.

Wendy and the DEIS say that that rail accident occurrence is about 1.4 in ten million per year. But here is where they should have done another bounding scenario -- and I will tell you, it is the one place that you say something positive on their behalf.

When you look at the quantitative uncertainties involved in calculating a number like that, the number could be as high as one in a million; it also could be possibly as low as one in 100 million. Saying that you know it's 1.4 in ten million again gives a false sense of specificity. You need to look at the range of these impacts.

6... The important point is if there were such an accident, cleaning up would be very expensive. Finally, fifth point, they don't make any effort to look at the socioeconomic impacts of the public's perception of risk.

Now, I will grant you, working with the public in many states, I believe that often the public has an unrealistically high perception of the risks of nuclear waste transportation; but because of the data that I have also given you, I think there's a valid reason for a public perception of risk -- whether it's valid or invalid -- it has real adverse impacts on people in things like property values and business location decisions.

6 cont. Now, the DOE says -- and I think they are probably right under a narrow legalistic interpretation -- that they are not required to address that issue in this EIS. But certainly they have some ethical responsibility to address issues that would have an impact on people, even if there's not a narrow legal requirement.

7... Let me conclude by talking about the transportation scenarios. One big problem that we have with the Draft EIS is this: Looking at the mostly truck scenario, a hundred percent truck; and mostly rail, 95 percent truck. Neither of those is realistic.

What's realistic -- and if you look at realistic, I'm relating it not just to this document, but to the way the Department of Energy has planned to privatize the transportation system. Private sector corporations have to be able to make money moving this stuff.

When you look at all of those considerations, it's most likely that about 60 percent of the waste can be moved by rail, and 40 percent will move by truck. We have got a scenario where we have modeled this -- we call it the current capabilities scenario. We are going to release the details of it on Monday.

Secondly --

FACILITATOR HOLMES: Bob, if you can wrap it up.

MR. HALSTEAD: I am sorry. You didn't give me that four-minute notice.

FACILITATOR HOLMES: You usually are right on schedule.

7 cont. MR. HALSTEAD: I only need one more minute. Secondly, the Draft EIS fails to bound the full impacts of transportation. Now, this may sound strange until you actually model it, but a combination of 60 percent rail and 40 percent truck actually has more impact than 100 percent either way, and that's because you have more routes in more states, more Indian tribes and more counties affected; and at the very least, the amount of expenditures and concerns we have for emergency response training goes up.

8 Finally, the Draft EIS really should have honestly and accurately laid out the routes that were used in the analysis and the routes that are likely to be used. We have been talking about these routes for ten years.

DOE has been modeling these routes for ten years. When you combine the most likely choice of mode and the most likely routes, it's like this -- and we are certainly not happy about these impacts falling in California, because they have a big impact on the western part of Clark County and Nye County -- but it looks to us that this most likely scenario is that the shipments would use I-40 into Barstow, and the BNSF line into Daggett, through San Bernardino. And the most likely scenario is 26,000 truck shipments, and 9,800 rail shipments over 39 years -- an average of about 2-1/2 shipments per day, everyday, for four decades.

9 We are not saying it can't be done safely -- Although we believe there is always a residual risk that you will have to deal with -- we are saying we are not satisfied with either the attention to detail or the plans about safety that we find in the Draft EIS.

Thank you very much for the opportunity to make this statement. I will take a few other seconds to say that the DOE staff has done a terrific job in the way they conducted these hearings across the country.

I don't always agree with the way they have made decisions, but this has been a very important and valuable opportunity for the people to give their input; and it's certainly nice to see so many people from the San Bernardino area today exercising their rights. Thank you.

[APPLAUSE.]

MS. SWEENEY: Thank you, sir.

FACILITATOR HOLMES: Thank you very much. Corbin Harney, to be followed by Marjorie Mikels.