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MR. HALSTEAD: I'm Bob Halstead,

4 Transportation Advisor for the State of Nevada Agency for
5 Nuclear Projects. I'm going to request that my prepared
6 statement be entered in the record as if read in its
7 entirety. There are copies in the back of the room and
8 many of you may be interested in the detailed assessment
9 of how the shipments would go through Missouri according
10 to the DOE's calculations. We've finally been able to
11 interpret their codes. It's kind of like a wartime
12 code-breaking effort, but there actually is information
13 on their web site that tells you what routes they
14 evaluated and we put that shipment information in for
15 you.

16 The State of Nevada has been reviewing the
17 Draft Environmental Impact Statement for five months now.
18 Joe Strolyn had hoped to be here to talk about some of
19 the non-transportation issues. In the interest of time,
20 I'm not going to argue that I should have his five
21 minutes to do that analysis, but hopefully after everyone
22 else has had a chance to talk, we can talk about some
23 non-transportation issues.

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24 It's a cold day in St. Louis when anybody
25 from Nevada has anything good to say about DOE, but
1 before I get into critiquing what's wrong with the
2 transportation analysis, I think it's only fair to tell
3 you that in some areas they actually did a pretty good
4 job. One, prior to the release Draft EIS they actually
5 released detailed maps in Nevada of the highway and rail
6 routes that could be used and they had a transportation

7 modeling workshop for state and local government
8 officials and Indian tribe representatives.

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9 Secondly, the transportation methodology in
10 the Draft EIS, for those people who do transportation
11 analysis for a living, is technically very sophisticated,
12 in the best sense of the word sophisticated, and it's
13 generally accurate regarding the waste inventories, the
14 cask capacities and number of shipments that result from
15 various policy and program decisions. Now, you might not
16 like their choice of program or policy decisions, but
17 it's possible to take their analysis and reproduce it and
18 do different types of analyses with it, and that's
19 something you should be able to do with a good Draft EIS.

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20 Moreover, their risk assessment is more
21 honest than past DOE efforts. They acknowledge that
22 safety inspectors are going to get large routine doses
23 from checking these casks out. They acknowledge the
24 possibility of a severe accident that could release
25 radioactive materials, cause 31 latent cancer fatalities
1 and expose 12,000 people up to a five REM exposure which
2 is the maximum that a plant worker gets in a year, and
3 they're honest in acknowledging that a terrorism/sabotage
4 incident involving high-energy explosive devices could
5 breach a cask, release enough materials to give 6,000
6 people the five REM per year maximum dose and cause 15
7 latent cancer fatalities, and that's something you won't
8 see, unfortunately, in the old DOE documents, so there's
9 been some progress in their attempt to be more realistic

10 and more honest.

3 11 Third, they actually provided all the
12 references and worksheets. It takes 27, 50-pound boxes,
13 25 CD ROMs to see all the references, but you can go to
14 their web site at www.ymp.gov and I think you can
4 15 probably access anything you want of the Draft EIS. I
16 know it's disadvantageous for those folks who don't have
17 computer access, but if you do have computer access, if
18 not at home, at your library, you can get to their
19 materials.

5 20 And finally, the conduct of the hearings has
21 been very good. Unfortunately they've imposed this
22 five-minute restriction on us, but they have given the
23 data an opportunity to speak at all the hearings.
24 Facilitators have treated everyone fairly in every
25 situation I've seen, and I'll tell you the truth, the
1 staff doesn't always have the right answers, but they
2 have done a pretty good job getting back to us. In fact,
3 just recently someone from their staff got back to me
4 about a very esoteric question about what the average
5 speed assumed for the trains was, so in some areas
6 procedurally I give them really good marks, but
7 unfortunately, when we get down to the substance of the
8 Draft EIS, if we were giving them a report card, there
9 would be a lot of F's for failure in there.

6 10 Let me start by saying that it's sad that
11 they don't know their document well enough to have
12 answered Kay Drey's question about the curies in a cask.
13 This is on page J-36, Table J-14 of Appendix J. You'll

14 find that a rail cask loaded with typical commercial fuel
15 has a total of 2,000,000 curies, 800,000 of which are
16 Casium 137. Actually, that's an optimistic assessment
17 because that assumes the fuel has been cooled for 26
18 years. We believe a lot of this fuel will only have been
19 cooled five to ten years, and one ten-year cooled
20 assembly from a pressurized water reactor -- remember,
21 they're going to ship several hundred thousand of
22 these -- just one of those assemblies has enough
23 Strontium-90 to contaminate all the water in Lake Meade,
24 which is 23 trillion gallons in a good year, to twice the
25 EPA-allowable drinking water standards, so we're talking
1 about very hazardous radiological materials here,
2 materials that if I had been here standing next to an
3 assembly for, what, three minutes now, I'd already have a
4 lethal dose of radiation, so this is even after the
5 materials have been cooled down from the reactor for 10
6 years, or even 26 years as the DOE assumes, very
7 dangerous.

8 Let me quickly tell you where those F's come.
7 9 They get an F -- and I appreciate Gordon Appel's comment
10 on this -- for failing to evaluate the most likely modal
11 scenarios. We know who can ship by truck and who can
12 ship by rail. We have developed an alternative current
13 capability scenario that shows 50 to 65 percent of the
14 shipments by rail and 35 to 50 percent by truck. We
15 think it's more accurate than the ones that are chosen in
16 the EIS. And secondly, the ones -- the scenarios that

17 we've developed, coupled with specific routes, give you
18 the heaviest impacts.

8

19 Third point, the Department of Energy
20 actually evaluates specific routes; in this case 250
21 miles of I-70 across Missouri and between 700 and 1,000
22 miles of rail lines, principally the Union Pacific and
23 the Norfolk Southern, but they didn't disclose that to
24 anyone and they failed to identify the amount of
25 shipments that would go on those routes when they did
1 their public notices. I think it's important for people
2 in this area to know that regardless of what shipping
3 scenario follows, about a minimum of 30 percent up to a
4 maximum of 40 percent of all the high-level waste and
5 spent fuel going to Yucca Mountain comes through Missouri
6 and most of it comes through St. Louis or Kansas City
7 whether it goes by truck or by rail.

8 MR. BROWN: Sir, if you could just cover your
9 remaining points.

10 MR. HALSTEAD: Yes. My points five, six and
9 11 seven are that there's a failure to adequately assess
12 impacts beyond radiation impacts in Nevada, and I don't
13 have time to tell you about the potential impacts of
14 building a rail spur to Yucca Mountain on big horn sheep
15 migration routes, but it's important to remember we have
16 a sensitive and fragile desert ecology, and radiation is
17 not the only issue with this facility. Beyond that, my
10 18 points eight and nine have to do with the failure to
19 accurately give the radiological characteristics of the
20 fuel that's being shipped or to talk about the radiation

21 hazards that routinely will occur. We have some routes
22 in Nevada where people's front doors are within six
23 meters of the side of a cask. They are going to be
24 exposed to rolling x-ray machines that can't be turned
25 off.

11 | 1 And finally, regarding the radiological
2 concerns most people have about accidents and sabotage
3 events, let me just tell you that on the accident side,
4 the U.S. Nuclear Regulatory Commission is reassessing the
5 modal study, which is the key document DOE relies on.
6 You can give them your comments up to January 31st and
7 you can reach them very simply at www.nrc.gov, and
8 similarly, the NRC is reassessing terrorism hazards in
9 response to a petition for the State of Nevada. The
10 deadline for your comments there is next Friday, January
11 28th. Again, you can access them at www.nrc.gov.

12 And finally, three points on socioeconomic
12 13 impacts; the DEIS doesn't make any effort to assess the
14 socioeconomic impacts of transportation other than the
15 number of people that have to work on the trucks. There
13 16 are three sub-issues. One is what does it cost to clean
17 up after an accident due to the contamination and so
18 forth. Earlier DOE studies say \$600 million to more than
14 19 \$2 billion in 1985 dollars. Sub-point two, there's no
20 effort here to assess the impacts of the public
21 perception of risks on sensitive industries like tourism
22 and sensitive aspects of your own life like property
23 values of people that live along the shipping routes.

15 24 And finally, there is a very poor job done with dealing
25 with the impacts on Indian tribes and Native American
1 lands and cultural resources, another major issue not
2 only in Nevada, but throughout the trans-Mississippi
3 west.

4 Again, thank you very much for the
5 opportunity to be here. I have detailed the shipping
6 routes that go through Missouri and the number of
7 shipments that go on each one for different scenarios in
8 my statement. And again, thank you all for turning out
9 for this meeting.