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U.S. ENVIRONMENTAL PROTECTION AGENCY'S
PUBLIC HEARING ON PROPOSED RADIATION STANDARDS
FOR YUCCA MOUNTAIN, NEVADA

Taken at Amargosa Valley Community Center
821 East Farm Road
Amargosa Valley, Nevada

On Tuesday, October 19, 1999
At 12:00, p.m.

Reported by: Karen L. Hendley

1 APPEARANCES:

2 For the EPA:

3 STEPHEN D. PAGE

4 FRANK MARCINOWSKI

5 MARY KRUGER

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7

8 ORAL STATEMENTS

9 NAME

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10 Sally Devlin

8, 58

11 Steve Frishman

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12 Judy Treichel

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13 Lavonne Selbach

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14 Ralph McCracken

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15 Engelbrecht von Tiesenhausen

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16 Bill Dewitt

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17 Mal Murphy

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18 Grant Hudow

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19 Geoff Jennings

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20 Ken Garey

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1 MR. PAGE: Good afternoon. My name is
2 Steve Page and I want to welcome all of you to the
3 public hearing on the proposed radiation protection
4 standards for Yucca Mountain.

5 All of us at the table up here are from
6 the EPA, and I'll be introducing folks in a minute.
7 And before I get into the introductions and just give
8 a brief summary of our proposal, I'm going to talk a
9 little bit about ground rules for today's hearing. I
10 wanted to say that we're very pleased to be here. We
11 at the EPA -- this is one of the most important parts
12 of the whole process of developing public policy,
13 public regulations.

14 After the scientists have done their work,
15 the economists, the geologists, and all others
16 involved in a project like this, we think it's
17 important to bring it to the community and find out
18 what folks in the community feel about that to try as
19 best we can to explain our proposal and mostly just
20 to listen to you today. We will be listening to
21 you. The design of this hearing is for us to hear
22 from you.

23 But before getting into that, let me first
24 introduce the panel. On your left, my right, is
25 Frank Marcinowski, the Acting Director of the

1 Radiation Protection Division. I'm the director
2 of that office. And, again, my name is
3 Steve Page.

4 On my left is Mary Kruger who works with
5 us. She's the director of the Federal Regulation
6 Center. And on my far left and your right is Geoff
7 Wilcox who is an attorney for EPA's General Counsel
8 Office. Attorneys are very involved in helping us
9 draft the regulations and making sure that we fulfill
10 our responsibilities under the law. So that's why
11 Geoff's here.

12 Let me give just a brief summary of what
13 we're here to listen to today. And it is, as I
14 said, our proposed standard. The genesis of that
15 standard is back in 1992. Congress gave EPA the task
16 of setting standards to protect public health and the
17 environment from harmful exposure to the radioactive
18 waste that may be disposed in the proposed
19 underground repository at Yucca Mountain, Nevada.
20 While we set the standards -- while EPA sets those
21 standards, the Nuclear Regulatory Commission actually
22 has the responsibility to ensure that the Department
23 of Energy can demonstrate that the repository meets the
24 standards.

25 Siting a repository at Yucca Mountain

1 raises many complex, technical, scientific, and
2 policy issues. And for more than five years EPA has
3 conducted extensive information-gathering activities
4 and analyses to understand these issues. And our
5 goal is to issue standards that are scientifically
6 sound, that can be reasonably implemented, but above
7 all, are protective of public health and the
8 environment. Our proposed standards address all
9 environmental pathways; air, water, and soil. We
10 designed the proposed standards to protect the
11 closest residents to the repository to a level of
12 risk within the range that's considered acceptable for
13 all other cancer-causing pollutants. The closest
14 residents to the repository are currently located in
15 Lathrop Wells. And this means that those farther
16 away will be even more protected.

17 In addition, we're proposing to protect
18 the ground water resources of Nevada. Because the
19 proposed repository sits above an important groundwater
20 aquifer, we are proposing that this valuable natural
21 resource be protected to the same limit to which
22 every other source of drinking water in this country
23 is protected. We want to provide this protection,
24 since the water is currently used for drinking,
25 irrigation, and dairy cattle. In the future, this

1 resource could also supply water to many people in
2 the surrounding areas.

3 This proposed regulation and these
4 hearings are important milestones, as I said, in a
5 series of steps to ensure the public is involved
6 throughout the decision-making process. We're here
7 today to listen to your views and concerns about our
8 proposal. We're also seeking written comments on our
9 proposed standard. And all written and oral comments
10 will be carefully considered before we develop the
11 final standards.

12 In terms of hearing procedures, we have
13 something written out in a statement that you may
14 have picked up from the back table, but what I
15 propose is that we try to be a little bit more
16 informal and operate in such a way that -- I don't
17 know that we need -- usually with hearings where we
18 have a lot of people come in, we'll have a light that
19 after five minutes of speaking, it comes on telling
20 you your time is up. What I would propose to do is
21 ask everybody -- there are a significant number of
22 folks here who want to say something. And out of
23 consideration for your neighbors and colleagues, that
24 we try to limit our comments to five to ten minutes.
25 And if it's going over five to ten minutes, I'll

1 signal and ask you to wrap up. And after everybody
2 has had a chance to speak, and then we can go back
3 and circle back to folks who would like to talk
4 longer. We're here until nine o'clock tonight, so
5 we're here to listen to your statements, and we want
6 to make sure we get the whole statement. But the
7 purpose of the ten-minute rule is just to allow --
8 make sure that everybody has a chance. And for the
9 people who have got to get back home and standing
10 appointments, is that we make sure we do that.

11 The other thing is in terms of where we
12 start today. We'll start with the speakers that
13 actually signed prior to the hearing in response to
14 the advertising we had in the papers and that kind of
15 thing. And then after that, I will be drawing from a
16 list that's from the back of the table where people
17 signed in. And we do have a few of those folks. So
18 right now I think we have about four or so people
19 signed up, four or five people signed up. And then
20 after that I'll just be asking for folks from the
21 audience.

22 So, without any further hesitation and
23 ceremony here, why don't we open the hearing. All of
24 your comments are going to be on the record. You'll
25 have a full transcript of the record after this is

1 over for people to examine. We'll have a full
2 transcript of all the hearings.

3 Tomorrow we're in Las Vegas from twelve
4 o'clock until, I guess, nine o'clock there. And then
5 on Thursday morning we're there from nine a.m. to
6 twelve o'clock. I'm interested in getting your
7 comments.

8 And let's start off now with Sally Devlin.

9 MS. DEVLIN: I'm here. Can you hear me?
10 I like Mary because she lifts the book that you sent
11 me. The assessment was fourteen pounds. The EIS was
12 eight, nine pounds, and this is five pounds. So, I'm
13 just saying, I read these things by the pound.

14 My first question is on monitoring. Now,
15 you were the first ones and the only ones after --
16 I'm going on my seventh year -- that talks about
17 Carbon-14 and how it affects area roads, children
18 with mental retardation, as well as human beings.

19 Now, of course, when you get into this
20 stuff, and I have further testimony on what strontium
21 does, what this one does, and so on, to the body
22 organs. And I got into this with studying
23 radiobiology. And the only thing that I have learned
24 on the affects of these radioisotopes are at the end
25 of every chapter they say, "We don't know."

1 Now, when I talk about comprehensive
2 measuring of these doses, and I should know, I
3 defended you at the NRC for the lower doses, I still
4 feel that this is absolutely incomprehensible to the
5 public and the relationship to the numbers that one
6 and all use. This includes you, NRC, and so on, the
7 DOE. And the problem is, it isn't just the dosage.
8 And I will use an analogy. I did report for our NCI
9 report on all the cancer found in each state. And
10 it's broken down in fourteen categories and so on.
11 Now, Nevada is in the top ten in women's breast
12 cancer and women's lung cancer period. Everything
13 that was bad in the entire history of the world was
14 in the District of Columbia. They were in the number
15 one or two in every other category. Now what does
16 that mean? It means, to me, nothing.

17 Number one, as I explained at the NRC
18 meeting is we don't have a coroner. Everybody in the
19 county has the sheriff as the coroner. So
20 everybody dies of coronary heart failure when the
21 deputies go to their home. So it's totally
22 inadequate reporting. They're not reported. So how
23 do we get current statistics? You don't. And this
24 must be corrected. Because we're talking about
25 transporting through forty-three states. And,

1 therefore, if there is no proper monitoring, then who
2 are the ten thousand that are going to die? And when
3 we come upon statistics to the children, which again,
4 I relate to the '97 report from NCI, National Cancer
5 Institute, I found that the numbers for the children
6 were staggering. You're only allowed 3.5 people to
7 die of cancer or cancer deaths out of a million. Now
8 it's down to a hundred thousand. And some think it's
9 down to ten thousand. But with the children, it was
10 twenty-two out of a thousand. And that was much too
11 high. These are children from newborns to eighteen
12 years old.

13 On the other side of the coin on cancer
14 there is -- my study is, and this goes back to
15 Hiroshima, and that is I'm dead and you're not and
16 they don't know why.

17 And there's a third thing that you don't
18 mention, and I think it's of major importance because
19 this has affected our country deeply, and that is
20 stress. I have friends in Three Mile Island, and
21 they are still experiencing stress. How do you
22 measure stress?

23 The other thing, of course, I have to
24 bring up from all your wonderful studies is the
25 concept of not only dosage, but what is in our actual

1 air. What is in the air here, 15 millirems. And
2 we've got Carbon-14. That's 1.5 millirems. How does
3 it get there? And the study said that you
4 transported it. How does it get out of the
5 canisters?

6 And, of course, I have to go to the
7 microbic invasion, which is leaking canisters. And I
8 want my feeling about all this categorically stated
9 and on the record that the DOE has been doing this
10 for years and has no repository design, no canister
11 design, and no transportation.

12 And I am really hysterical with DOT [sic]
13 because I confronted DOE with the delegation of
14 liability. And they have a pot with five hundred and
15 fifty million, which wouldn't build a casino in Las
16 Vegas. So, to me, the responsibility has been
17 delegated. Where it goes to, I don't know. But
18 you're talking about forty-three states. Who are the
19 people that are going to be affected by this
20 radiation poisoning and how long is it going to take
21 and so on.

22 And I am blessed in that I have a Canadian
23 satellite and I get reports from Canada. And they're
24 terrified of Chernobyl and what is going on there.
25 And at the last conference, of course, there are

1 hundreds of thousands that are literally dying of
2 stress, besides the kids from thyroid cancer and so
3 on.

4 So we have to get into far more of this.
5 And I delegated to you and -- where is he?

6 MR. PAGE: He's on his way.

7 MS. DEVLIN: Oh, I hope so, because he's
8 my buddy. And I've been yelling at him for years.
9 He gave me the information you saw. I'm the only one
10 who got the book.

11 But these are the basic concerns, is the
12 health. Forget about the safety, but the health.
13 And how do you safely (inaudible) affect everybody?
14 And you do not have that in your report. You mention
15 them all, but you don't say anything about how each
16 portion of the body is affected and so on. The only
17 one you mention, which is the first time I've seen
18 it, is the Carbon-14.

19 Now, my question, again, goes back to
20 monitoring. And that is, God forbid that there
21 should be a Yucca Mountain, and God forbid DOT should
22 do the transport after their horrible record with the
23 chemical industry, two hundred and fifty thousand
24 plant accidents and two hundred and sixty thousand on
25 the roads from 1987 to 1996, and they are not

1 indemnified, not even for five hundred and fifty
2 million. So this is terrifying. If you're going to
3 kill us, pay us.

4 But the most important thing is what is
5 going to escape? Since they have no plan for the
6 canister, and this horrifying thing with Augusta and
7 other things that we're getting into on the
8 metallurgy, and, of course, you will hear from others
9 regarding the transportation here. We had a
10 conference with INEL, and I said, "What
11 transportation do you have?"

12 And they said, "Three major roads and
13 railroad." And, of course, they said, "What do you
14 got in the ground?"

15 And I said, "Nine hazard, which is the
16 highest, 95 and the second highest, which is 160 and
17 no railroad."

18 So what moved me -- they said, "Oh my
19 God." Nobody knows that we have nothing here.

20 I just sent to Senator Reid a proposition
21 for urgent emergency medicine for Nye County. And
22 also since Nevada Bell has overcharged us 5.4
23 million, they can pay for the study, in my opinion.
24 But it's up to Senator Reid. We have no help here
25 any which way, really, no facilities.

1 And now with this test site at Nellis,
2 Nellis Air Force Base and everything at Nellis, and I
3 checked this out before I came, is mothballs. Years
4 ago, thanks to Ken here, said two thousand people
5 were good to go in an hour. Now there's nobody. So
6 that's very scary, and especially without medical
7 facilities. You couldn't get these people.

8 And the next thing, I brought you an
9 article, and I've read all kinds of literature
10 regarding research and development and who's going to
11 do this stuff. I'm looking at you and you're young,
12 and this is going to take years of litigation, twenty
13 years, twenty-four years of transportation and what
14 have you. Who's going to be capable of doing the
15 scientific engineering and so on with our current
16 education? So it's very questionable.

17 But we'll get back to my original topic,
18 which was the monitoring. And that is -- I did a
19 fountain poll on the six thousand (inaudible) test
20 site and I'm two for the last low ground shot. How
21 did they get there? Now, is there monitoring? From
22 what I understand on the test site, there is none.
23 This is not only security, but I feel that since
24 you're talking picocuries, I'm going to talk
25 picocuries. And the latest, and I hope you'll

1 forgive me for bringing your town in (inaudible) and
2 that's two and a half picocuries per gram in the
3 air. And a place like Plutonium Hill, that's like
4 five hundred picocuries. So I'm hoping to explain my
5 terminology to the audience because it took me years
6 to learn it. But understand what I'm saying.
7 Because being an entire test site is a death trap
8 with over a thousand shocks. God knows what is out
9 there. And I can assure you that they don't know.

10 And having been on the water committee and
11 radiation committee, we saw something absolutely
12 devastating. And they couldn't tell us what was in
13 them, because if you knew, they couldn't build the
14 bomb. We keep fighting for it. But all this stuff,
15 we're talking classified. How can we design
16 anything, build anything, transport anything if it's
17 classified and the public doesn't know? So we're
18 getting back into the monitoring. The equipment is
19 available to clean up these things. This whole thing
20 can be stopped, and it can be reprocessed and
21 transmuted. You'll hear more about that.

22 But I think you have been remiss in the
23 methodology to the exposure, and I'm talking about
24 the machinery here. Because the test site is totally
25 out of date. They don't look at the monitors and so

1 on. We have one in Pahrump. We have one here. They
2 do not pick up these very small particulates of
3 anything. So according to those machines the air is
4 clear. That is not true at all.

5 And also I would like you to find out how
6 we can get NRC to do correct statistics on this. We
7 are completely locked out. We have no internet. We
8 have no e-mail. We have no Federal Register, as you
9 well know, and I've been telling you for years. We
10 are deprived, but we don't have to be deprived.

11 But remember monitoring is not being done
12 properly, and you are not getting the right numbers.
13 So thank you for coming. We'll talk more later.

14 MR. PAGE: Thank you.

15 The next person that is signed up is Steve
16 Frishman. And if you would make sure that you state
17 the spelling of your name for the court reporter and
18 the organization that you're representing, if you are
19 representing an organization, that would be helpful.

20 MR. FRISHMAN: My name is Steve Frishman.
21 I'm representing the Nevada Agency for Nuclear
22 Projects.

23 At tomorrow's hearing, Bob Loux, the
24 director of the agency will give a prepared
25 statement. But what I wanted to do today was just

1 make a few comments for the record and provide the
2 people here in Amargosa Valley the benefit of some of
3 our thoughts in terms that will maybe relate more to
4 them.

5 First of all, welcome to what the nuclear
6 industry is selling in full page ads in other parts
7 of the country as oppressively hot, bone dry, and
8 uninhabited.

9 And, next, if you look out the back door,
10 take a good look at Yucca Mountain. So this is the
11 neighborhood you live in. Today certainly is not
12 oppressively hot. You can look around. It's not
13 bone dry. And I think if you look even closer, it's
14 even not uninhabited.

15 This area was selected by an agency to
16 impose itself on the community. And for almost more
17 than twenty years, there's been studies going on for
18 a project that represents an extreme risk to this
19 valley. The people's expectations of safety of a
20 repository have been heard and, at times, and heard,
21 and for quite some time. What I mean by that is the
22 people here have been assured by DOE manager after
23 DOE manager and other representatives who are
24 interested in the project going forward. They've
25 been assured of the safety of the project. It came

1 in the meeting that was held here in Amargosa Valley
2 a number of years ago that was essentially scoping
3 for this rule or this proposed rule. It came as
4 something of a shock to a number of people here when
5 there was a discussion at the meeting of safety. And
6 more than that, it became apparent that the people in
7 the room suddenly realized that they were the
8 critical group. Now, that didn't line up with the
9 expectations of safety that they had been led to over
10 the years.

11 When you speak about geologic repository,
12 geologic isolation, isolation being the word that has
13 a very distinct meaning in the original goal, the
14 expectation is that when you deposit the waste in a
15 repository underground, it'll stay that way. The
16 people expected that that would be the case. And it
17 was a question of whether all the conditions
18 surrounding it were safe and whether it would stay
19 there for as long as it needed to stay there,
20 meaning, for its hazardous lifetime. What came as
21 something of a surprise for people to find out, that
22 when safety means regulatory terms relative to
23 underground repositories is that the releases,
24 therefore, the doses to individuals are no greater
25 than what someone other than them determined was

1 acceptable. The expectations was that it would not
2 leak.

3 If you look at the Yucca Mountain project
4 as it's described today in the Environmental Impact
5 Statement and other documents, it becomes clear in
6 the simplest terms it is designed to leak. The only
7 question is when will the leaks begin? Another
8 question is how fast will the leaks occur? Another
9 question is how fast or how soon will people in this
10 valley begin to become exposed? That's not the
11 people's conception of safety.

12 Now, you have a real responsibility with
13 this rule, first of all, to make a convincing case
14 that the rule is protective. Given the original
15 understanding that it was to be isolated, and now the
16 continuing understanding that the waste will not be
17 isolated, your charge becomes more difficult. And I
18 look at the proposed rule. I see that in the
19 proposed rule you have even stepped away from
20 isolation. The concept of isolation means it's
21 safely put. And in the previous rule, yes, there
22 were limits on releases and those limits were pretty
23 stringent. There are no longer limits in the
24 proposed rule. But what you have done is you've
25 compromised the concept of isolation. You've

1 compromised it in the sense that you say, "Isolation
2 means that the material will be contained as long as
3 is reasonably possible." That's new. And what that
4 brings into account is that what I see in your
5 proposed rule is a redefinition of the concept of
6 geologic disposal. And that redefinition shifts the
7 concept of geologic disposal from the idea that you
8 isolate it as well as you possibly can, meaning, the
9 ideal is nothing gets out. Then, if anything gets
10 out, it should be very little at a very, very low
11 rate. Now the concept, as I see before it in the
12 proposed rule, is one that says, "First of all we're
13 going to put a time limit on what we look at in a
14 regulatory sense." And that time limit is a very
15 short one relative to the hazardous lifetime of the
16 waste. But then on top of that, the regulation is
17 going to allow not for very, very stringent limits on
18 what could escape, but allow for mechanisms that say,
19 "You must delay the release of the waste," but then
20 you don't control the rate of the release. So it's
21 not a matter of if the people in this area can expect
22 to receive a dose, it's just a matter of when.

23 And this is stepping far, far away from
24 the concept of geologic disposal. The original
25 concept, as you well know, involved isolation. And

1 people's expectation of isolation was achievable. We
2 have a site here where isolation is clearly not
3 achievable in the geologic setting. We have a
4 proposed repository that plans for containment in
5 metal containers for as long as is reasonably
6 possible. And then the containers fail and you have
7 releases. And the ultimate in the regulation is, as
8 I said before, just make sure that people here don't
9 get a dose bigger than someone else says it's
10 acceptable for them. It's a pretty uncomfortable
11 situation.

12 And I think you need to be looking at some
13 of the key factors; one of them being, as you
14 mentioned, ground water. And I'm very pleased to see
15 that you are continuing to propose that ground water
16 standards be applied as part of this regulation.
17 Another is that the dose is acceptable -- the
18 acceptable doses should be as low as they can
19 possibly be set. There is no reason for the people
20 here to have to accept doses when they never invited
21 the project in the first place. The project has been
22 imposed on them. They have accepted it to the extent
23 which they have at this point because for a long time
24 they were misled by the safety, as I said. So the
25 agencies should be striving for the lowest possible

1 dose with the idea that there be none at all.

2 The period of regulation should be
3 reflective of the hazardous lifetime of the waste,
4 rather than the expected lifetime of the container
5 that it's in. They're total opposites, from my point
6 of view.

7 If you are truly trying to regulate
8 safety, what is the difference between regulating
9 safety now or regulating safety when the safety is
10 most needed, when you expect the peak doses.

11 Also, why would it be reasonable to say
12 that Yucca Mountain is about eighteen to twenty miles
13 that way, but we're not going to enforce the
14 regulation until we get right here? Why would it be
15 reasonable to set an eighteen mile buffer? Why
16 would it be reasonable to set as one of your other
17 alternatives a buffer zone of about twelve miles?
18 In an analogous situation with the waste project in
19 New Mexico you have a rule that, in essence or in
20 substance, used to apply here. In that area, the
21 distance from the waste to where the compliance must
22 be accounted is three miles. There's absolutely no
23 reason for any inconsistency. In an ideal situation,
24 you shouldn't have to have a buffer at all because
25 you would not expect the waste to leave where you put

1 it.

2 And I guess I only want to point out one
3 other thing, and that's that I know, and many people
4 know, that the reason you're here is because you were
5 here a long time ago, and at the time it was
6 considered to be reasonable. At the time it was
7 considered to be implementable. And, at the time the
8 Department of Energy said, "We can meet any standard
9 and that standard is not a problem." Well, since
10 that time, most people who examined Yucca Mountain
11 and its waste isolation capabilities discovered that
12 there was at least one aspect of that rule that could
13 not be met by Yucca Mountain. You're here now not
14 because Yucca Mountain was rejected, because it was
15 known it wouldn't meet the safety standard. You're
16 here now because Congress changed the rule, forced
17 you to write a new rule that is reasonable, site
18 specific, and the assumption being on their part, one
19 which Yucca Mountain can pass. I believe that you
20 have a responsibility to the people that is greater
21 than that responsibility to those members of Congress
22 who, in their wishful thinking, believed that the
23 Environmental Protection Agency would write a rule
24 that, ahead of the evaluation, would make Yucca
25 Mountain an acceptable repository. I used to think

1 that, and in our written comments you'll see a lot we
2 have to say about how to make it truly responsive to
3 objective regulation. I think that's enough for
4 now. And I appreciate your time. I'll have a lot
5 more comments tomorrow.

6 MR. PAGE: Thank you. Appreciate it.
7 Judy Treichel?

8 Again, just a reminder, please spell your
9 name, and if you're representing an organization,
10 please give that for the court reporter.

11 MS. TREICHEL: My name is Judy Treichel,
12 T-r-e-i-c-h-e-l. I'm the Director of Nevada Nuclear
13 Waste Task Force, and we're a nonprofit organization
14 that works here in Nevada and is involved with
15 nationwide public interest groups.

16 Yucca Mountain has always been sold to the
17 people of Nevada by the Department of Energy as a
18 place that would isolate and contain waste. People
19 were assured here that if there was any doubt after
20 studying the mountain that it could not achieve
21 isolation, would not be absolutely safe, then the
22 Department of Energy would walk away. And one of the
23 things that was talked about was ground water
24 travel, and that if it was ever found that water
25 could reach the boundary of the repository within a

1 thousand years, even if it's nine hundred and
2 ninety-nine years, "We'll just pack up and leave."
3 Well, since that time, and people here in Amargosa
4 Valley heard a lot of those presentations. There
5 used to be a lot of frequent update meetings that the
6 Department did, and they don't do that anymore. But
7 we all heard those statements. And since that time,
8 all the rules have changed, and you're part of one of
9 the changing rules. And this new rule is being
10 written because of the flurry of changes that started
11 when Yucca Mountain began to look worse. There
12 should be no releases. There should be a zero
13 release. There should be a zero release at the
14 door of the repository, and it should be for all of
15 the lifetime that the waste is dangerous.

16 The proposal here is that there will be a
17 15 millirem standard which would equate to a three in
18 ten thousand chance of a fatal cancer death. People
19 here and people everywhere in Nevada or anywhere else
20 should not be at risk for a fatal cancer death
21 because they are a host to a repository for the
22 benefit of the nuclear industry, and possibly the
23 nation. But I think it's primarily the nuclear
24 industry that benefits. There should be no
25 releases.

1 The people who are here are here because
2 they like clean air, clean water and a good place to
3 live. They grow crops. They grow animals. It's
4 quiet. It's beautiful. And they didn't start a
5 noxious business or a dirty business in which they
6 then decided they would throw garbage over there
7 across that road, and then the EPA came in to see if
8 the garbage was being handled correctly. That
9 garbage is coming from somewhere else. And it's
10 rather an insult when you're reading this new rule
11 and you see roads listed and landmarks that people
12 here are very familiar with listed as being
13 boundaries for a buffer zone for radioactive
14 releases. That doesn't happen in the places where
15 the waste comes from. And it's very disconcerting,
16 and I think it is an insult to the way of life here.

17 Last weekend, I'm not sure what happened
18 out here, but in Las Vegas we felt a very strong
19 earthquake. And this is a very seismically active
20 area, and that seismic activity does unusual things
21 over time. And ground water pathways can change.
22 There was over -- or up to fifteen feet of
23 displacements from that earthquake. That can make a
24 big difference. And so pathways for water from Yucca
25 Mountain coming down here could become much more

1 rapid. The DOE's estimate of dilution that they can
2 expect, and everything could go right out the window
3 because of this place.

4 And, finally, as I said, I believe that
5 this is a site that is going to be doing a terrific
6 favor for the nuclear industry. And it's already
7 been described to you how the nuclear industry
8 describes this area, but I know that they also
9 believe that if a good tough standard is applied to
10 Yucca Mountain, that, in their words, it could
11 eliminate a perfectly good repository. Well, as far
12 as I'm concerned, this would be like walking up to an
13 airplane where one of the wings had fallen off, and
14 outside of that wing on the ground, it's a perfectly
15 good airplane. There is not a perfectly good
16 repository at Yucca Mountain if, in fact, it has to
17 depend upon dilution, if, in fact, there has to be a
18 boundary that is set beyond the footprint, or, I
19 suppose, at the very maximum, five kilometers. And
20 there should be no releases. So I would urge you,
21 certainly not to loosen up on the standard that you
22 have proposed, and hopefully that you would make it
23 even more strict. Thank you.

24 MR. PAGE: Thank you.

25 Bill Dewitt?

1 MR. DEWITT: I'll hold off and speak a
2 little later on.

3 MR. PAGE: Okay. Next on the list is
4 Lavonne Selbach. Excuse me if I'm not pronouncing
5 correctly.

6 MS. SELBACH: No problem.

7 My name is Lavonne Selbach. I'm with the
8 conservation district, although I'm not necessarily
9 representing them. But I am chairman of the Nye
10 County Conservation District.

11 And basically what I'm here to tell you is
12 a little bit of history of our valley. And one thing
13 I wanted to call attention to when we started this is
14 that I noticed in this EPA fact sheet that it says,
15 "How will ground water be protected?" And then
16 towards the bottom -- I know everybody can read the
17 statement, but it says that this aquifer is currently
18 providing water for drinking and irrigation, dairy
19 cattle and, in the future, could supply water to many
20 of the fast growing Las Vegas area. I just want to
21 clarify to you that this water that is here will stay
22 here. We have a lot of land here that needs to be
23 developed, and it will be developed. And we will
24 keep our water here. It is supposedly an
25 over-allocated water district right now, and we are

1 not looking to have it transferred anywhere else. We
2 have been fighting this for quite a long time. So
3 far we've succeeded.

4 In regards to our history, since the 1870s
5 there's been farming in Amargosa Valley; alfalfa,
6 being a profitable crop, was grown, as well as corn,
7 beans, cabbage, potatoes and other vegetables.
8 Melons do very well in our valley. Fruit trees;
9 peaches, pears, almonds, pistachios, walnuts were
10 also raised for a while.

11 The railroad in 1907 had passenger service
12 that replenished the kitchens with fresh fruits and
13 vegetables at the ranches. But then the Act of 1919
14 enabled homesteads to be developed. The roads were
15 widened, provided water to grow the crops, even the
16 dairy which supplied Furnace Creek and the Amargosa
17 Motel and Death Valley with milk and vegetables.

18 This act enabled people to claim three
19 hundred and twenty acres. We had to drill the wells
20 to see that there was enough water for three hundred
21 and twenty acres. So at this point they basically
22 gave it to us with our hard work. The hardships of
23 developing the land in our community has all been for
24 Amargosa resources. And they decided to take away
25 our air, water rights, our way of life by

1 appropriating our water. And we started to fight.
2 At the time we developed the property, there were no
3 roads. We had to clear the lands and the way to get
4 to our property. Electricity was not available. The
5 roads were dug by diesel, and they had to be hauled.
6 The living was true pioneer; no electricity to run
7 the refrigerators, coolers, lights, radios, TV. Food
8 was kept cool in a barrel covered by a wet sack.
9 Luckily we had plenty of good water.

10 The children went to school, and when the
11 school bus did start, they had to be up at five a.m.
12 in the morning to catch that bus. Many times before
13 the children went to school they had to help. It was
14 the first thing they had to do when they got home
15 from school. The generators ran a few hours a day so
16 the washing, some cooking and the news could be
17 listened to. A trip to Las Vegas was an event, miles
18 of dirt roads and hours in hot cars, shopping and
19 trying to get the food home before it spoiled. They
20 had lights for the crops and would get hot and
21 removed at nighttime because you couldn't touch
22 them. And this is the late fifties and early
23 sixties. The community worked together. We had
24 impromptu dinners, ball games, just a community
25 talking about what we wanted our future to be and

1 what we were working toward. They were true
2 pioneers.

3 In 1963 electricity came to the valley,
4 and did we celebrate. The roads paved, the schools,
5 the community buildings, the library, the sheriff's
6 office, the parks were eventually built. We had
7 worked hard for our way of life. Our futures for our
8 family and the next generation will be gone if the
9 Yucca Mountain project is approved to be safe. How
10 can they take away our futures in one big scoop? Our
11 future is in the land here. We've withstood many
12 problems and have solved them. If Yucca Mountain
13 isn't safe, this is one problem we can't correct. If
14 our water is polluted, we can't grow our crops and we
15 can't raise our children and we don't have a future.
16 And all of us here have worked hard for that future,
17 and we want to make sure that everything is done
18 properly and it's done safely.

19 And if there are minor problems which, in
20 the future, might cause problems to our generations
21 down the line, however minor they may be, I don't
22 want to see the Yucca Mountain come in. But if they
23 can prove that this isn't going to happen -- and I
24 really haven't seen that done. I attended a lot of
25 meetings, a lot of water meetings, a lot of hearings,

1 and I don't definitely see that that isn't going to
2 happen.

3 Earthquakes, like happened the other
4 night, somebody else made a remark, that was felt in
5 Las Vegas, shook me out of my bed. It lasted for a
6 long time. It rolled right up through this valley.
7 I thought when I got on the news station that we
8 weren't going to be hearing it. The last time it
9 took a few minutes for them to come back on the air.
10 I was really surprised it didn't do as much damage
11 there.

12 And I thank you very much.

13 MR. PAGE: Thank you.

14 Mr. Ralph McCracken?

15 MR. McCracken: Yes, I'm here.

16 I look out my bedroom window and I see
17 Yucca Mountain. I'm that close to it. I'm probably,
18 the way the crow flies, the most closely and directly
19 affected farm in the valley. I want to compliment
20 you folks for making your standard as stringent as it
21 was.

22 We have a certain amount of background
23 exposure. It's higher than many parts of the
24 country. And my initial question is, "Why make it
25 worse? Why allow it to be worse?" If you've got a

1 certain amount coming at you and you get more, it's
2 going to be worse for you. Some people think because
3 you have a certain amount of background, "Fine, we'll
4 give them some more." It may not be statistically
5 significant, but it's significant to us to create a
6 certain amount of additional concern.

7 When your containers are transported, your
8 truck drivers have a little badge that says they're
9 only allowed to be exposed to the load for a certain
10 amount of time. That tells me you're transporting
11 leaky containers. Because if the containers
12 completely contained it, you would not need your
13 drivers to have a badge and have a limited amount of
14 time to be exposed in that close proximity to the
15 load. All right. So we got leaky containers. We've
16 got leaky containers going to a leaky hill. This
17 hill was not supposed to have water in it. It was
18 one of the original criteria. Well, the guys who are
19 working on the site characterization project found
20 water in the hill. They found water percolating in
21 the hill. When it rains, they get water in their
22 tunnel. That's not dry.

23 Faults, yeah. This was supposed to be a
24 nice solid hill, no faults. They found faults.
25 There seems to be a continual changing of the

1 requirements of successful characterization to fit
2 the hill. That doesn't sit well. And this area is
3 characterized as rarely having earthquakes. Well, we
4 had a good one the other day. I hope you guys are
5 aware of it. I hope the people that are doing the
6 characterization are very painfully aware of it and
7 they dig deeper into their research as to seeing if
8 this thing is actually going to hang together.

9 So what you're basically offering is no
10 matter how well you attempt to oversee and regulate,
11 there's leaky containers and a leaky hill, and expect
12 us to survive this somehow. I read about the first
13 half of the summary, your two books and so on. I
14 hope that the intention with the summary was not to
15 call it a draft summary in an effort to have a lot of
16 people read it and then in the future when the final
17 summary comes out say, "Oh, yeah, I read it. I know
18 what's in there. They'll correct some typos and
19 that'll be it." I hope that when the summary comes
20 out and with all of its corrections that need to be
21 made, that there is a piece on the cover that says
22 there have been major changes or significant changes
23 or something to generate enough interest that people
24 who have read it once to read it again.

25 One glaring case in point, there is a map

1 on -- I think it's page S-28. Please don't hold me
2 to the particular page. There's a nice little
3 transport route from Jean to up this direction. And
4 it looks like a great route if you don't know the
5 area. If you do know the area, you know that Pahrump
6 is significantly missing from that map, and the route
7 goes right through Pahrump. This valley was
8 characterized as being -- how did the sentence go --
9 the farming area was south of Amargosa Valley. Well,
10 sorry, this town contains four hundred square miles,
11 and the farming area is right in the middle of it.
12 And this town is not the intersection of highway 95
13 and 373. This town goes all the way from north of
14 Highway 95 down to the California state line, from
15 the other side of 373, again, to the California state
16 line, California being on the border.

17 I haven't finished reading. I haven't
18 finished making my notes. I will be submitting
19 written comments. And if the rest of it reads like
20 I've read it so far, it needs to be rewritten.

21 Thank you.

22 MR. PAGE: Thank you.

23 E. von Tiesenhausen?

24 MR. TIESENHAUSEN: My name is Engelbrecht
25 von Tiesenhausen. I'll get with you later.

1 I'm with Clark County, Nevada. We are one
2 of the agencies of the government with the
3 responsibility to look over the shoulders, so to
4 speak, of the Yucca Mountain program. I have a short
5 prepared statement that I'd like to read, and there
6 will be handwritten statements, before the time limit
7 expires.

8 The issue of the standards is important to
9 all Nevadians, particularly those in Amargosa
10 adjacent to the proposed Yucca Mountain repository.
11 Water is a scarce resource and our needs are growing
12 rapidly, and we need to be protective of water
13 sources. The Amargosa Valley is totally dependent on
14 the clean and potable water supply. We support the
15 EPA's goals as the agency that regulates standards
16 for water quality. Although there have been some
17 debate of utilizing the Nuclear Regulatory Commission
18 to set protection standards, we maintain that this
19 will compromise the integrity of the process. This
20 is EPA's responsibility, and they should continue to
21 serve this function. The 15 millirem standard is
22 appropriate as it is consistent with other standards
23 that have been established for other facilities.

24 Since the problem is supposed to include
25 the consideration of the critical group who will

1 utilize ground water [inaudible] aquifer that could be
2 impacted by Yucca Mountain, it is also appropriate to
3 incorporate the ground water standard that is
4 consistent with the use of the water for domestic
5 purposes.

6 Communities throughout the country that
7 rely on ground water supplies and similarly protect
8 it, we should protect no less for future
9 generations. Although much of Nevada has low
10 population, you should remember the phenomenal growth
11 that has occurred in Southern Nevada over the past three
12 or four decades. This growth will probably continue
13 for a considerable time period. We should,
14 therefore, not forget that the area adjacent to Yucca
15 Mountain may include a greater population density in
16 the future.

17 The EPA also needs to recall the synergies
18 that occur from the products sold in this area, the
19 Los Angeles market for milk includes Amargosa
20 Valley. This further reinforces the interdependence of
21 Southern Nevada with other regions.

22 We would also like to go on record
23 expressing concern for other more short-term risks in
24 the program. The risk from the transport of waste
25 for the immediate future offers a greater potential

1 risk for Nevada citizens. We would like to further
2 emphasize that the federal government should
3 (inaudible) in considering risks from the Yucca
4 Mountain program. Thank you.

5 MR. PAGE: Mr. Dewitt, are you ready now?

6 MR. DEWITT: Thank you very much for the
7 opportunity to speak. My name is Bill Dewitt.

8 We are directly in what I would consider a
9 portion of a range of Forty-mile Wash. Forty-mile
10 Wash, as I'm sure you're probably aware of, goes
11 right next to the repository site up there. When it
12 floods up there, we get a call from the sheriff maybe
13 a half-hour later. The water comes across our
14 property as it does every four or five or six years.
15 And so we are greatly concerned. And our concern is
16 in regards to the quality of the water and being able
17 to maintain that quality because it goes into the
18 food chain which, I think, all of us eat. It goes to
19 cows. And when we look at our alfalfa, it really is
20 just an ice cream bar in process. Because it got
21 from the cow and gets into dairy, and we all consume
22 dairy products, at least most of us do. And so it's
23 very important to maintain the safety of our food
24 supply in this country, particularly out here in the
25 west. And, as we mentioned in our previous statement

1 about the California market, and so it travels all
2 along.

3 I just received this at the front table
4 today. I note the date of publication is just last,
5 I guess, August 27th of this year, just a little
6 while ago. But I do, in just reading it over right
7 now, I notice several things, and on the reference
8 page of the MCL, your limits, and they were all as
9 existed in 1975. Well, a lot has happened
10 scientifically since 1975. And it gets more critical
11 in looking at things and in evaluating risks. And, I
12 think, from what I understand, your only function
13 here, EPA's function, is to set a standard that would
14 be acceptable for radioactive discharges from the
15 facility, either in the water or the air.

16 Is that correct?

17 MR. PAGE: (Nods head affirmatively.)

18 MR. DEWITT: And so you can see why I'm
19 here today. I'm concerned about anything that gets
20 in the water. And I don't expect you to answer the
21 question. I would pose the question that if
22 radioactive materials were to be found in some of our
23 wells out here above the ambient level or whatever
24 the -- I guess you call it background levels -- what
25 sort of action would the EPA take with the DOE as far

1 as either restricting their activity or holding back
2 this project? Or once the project gets started, if
3 there were found to be leaks that impacted this area,
4 then, aside from having state limits, what would
5 happen? What would be the bottom line? Are we
6 going to be bought out and shipped somewhere else or
7 what's the bottom line? That's really what I'm
8 looking at.

9 So I will try to address some different
10 questions. I assume we have a little more time.
11 Like I say, I just received this today.

12 And thank you very much for coming to
13 Amargosa Valley.

14 MR. PAGE: Thank you.

15 Not just for Mr. Dewitt's purpose, but
16 also for everyone else, we will be accepting written
17 comments up through -- the period runs through -- I
18 think it's November 26th. So we'll be accepting
19 written comments up through that period.

20 Those are all the speakers that we have
21 that have signed up to speak. Let's turn now to the
22 speakers from the audience who would like to -- those
23 folks who haven't spoken yet who would like to make a
24 comment.

25 Again, for those who came in a little

1 late, out of consideration to everybody here, we're
2 trying to limit comments to five to ten minutes. And
3 then since we're going to be here all afternoon and
4 all evening, we're interested in everything that you
5 have to say. But in your first round, if you could
6 do five to ten minutes, and then if you didn't get to
7 say all you wanted to, then you can come back and
8 finish up.

9 Sir, we'll ask you to give the court
10 reporter your name.

11 MR. MURPHY: My name is Mal Murphy, and
12 I'm with the Regulatory and Licensing Department for
13 the Nye County Nuclear Waste Repository Project
14 office.

15 Les Bradshaw, the manager of our office --
16 I have his statement and I'm prepared to give it, but
17 I'll hold off until this evening to do so.

18 As some of you, I think, are aware, the
19 Nye County board meeting is in Pahrump today, and so
20 obviously none of them or their seniors or department
21 heads can be here this afternoon. But some of them
22 would like to get here this evening. I just want
23 to sort of put everybody on notice that we
24 don't know at this point in time if that is even
25 going to be possible.

1 Mr. Bradshaw may have to accompany the
2 chairman to Las Vegas this evening. But this is
3 important to them. They know it's very important.
4 Not all of them, but some of them will try to make it
5 here this evening. If not, we're still going to be
6 prepared to deliver Nye County's points to you this
7 evening.

8 I did want to make one point, though, and
9 that is, I guess, I don't know whether I have to say
10 I'm saddened or a little disappointed, perhaps, that
11 the notice of the extension of this session into this
12 evening was, perhaps, not as widely disseminated as
13 was possible. Ralph McCracken just remarked to me
14 that he left some very important work he was doing to
15 get here to deliver his remarks because this is
16 extremely important to him, not knowing that he would
17 have the opportunity to do so again this evening. He
18 was not aware of that. So, I guess, my only point is
19 that the next time we run into this kind of
20 situation, we'd like to make sure that the people in
21 Nye County in Amargosa Valley get notified of evening
22 sessions just like the people in Clark County in Las
23 Vegas being notified of evening sessions.

24 But with that caveat, I'm going to hold
25 off. Hopefully Mr. Bradshaw will be here this

1 evening. If not, I'll be prepared to deliver the
2 remarks.

3 MR. PAGE: Thank you.

4 Next speaker.

5 MR. HUDOW: Hi. I'm Grant Hudow,
6 H-u-d-o-w. And I'm with the ENRAP group founded by
7 DOE and through UNLV over in Las Vegas. I'm a
8 chemical engineer and I have nuclear engineering
9 training and experience. One of the comments I have
10 to make -- and I want to make sure that you
11 understand that I'm not being critical of DOE or the
12 contractors. As an engineer, I know that we have to
13 have the basic fundamental problems out on the table
14 before we bring the resources together to solve
15 them. There are several things out, and I'll give
16 you some examples, where the DOE does not have on
17 staff the technical people that are handling the jobs
18 that need to be done. And that's not that big of a
19 problem, because they rely on contractors to provide
20 that. But in talking to the contractors,
21 specifically people with TRW, when I asked them why
22 they are missing some of these technical fine points
23 that I think are crucial to a successful operation,
24 their answer is, "Well, there isn't anybody at DOE
25 that understands that, so we can't talk about it

1 because they can't -- there's nobody that can relate
2 to it. And, anyway, that's their problem." We have
3 a buck passing situation there that NRC is looking
4 into getting the information, and I hope that you
5 will, too.

6 For example, the DOE for two years has
7 been trying to find the Nelson limits. The Nelson
8 limits predict catastrophic failure if the metallurgy
9 isn't right on the canisters, for example, for Yucca
10 Mountain. And in two years, the DOE couldn't find
11 those at all, even though I knew there were DOE
12 projects in about 1980 in Albuquerque. That project
13 was shut down. There's no reference to it anyplace.
14 And that, on the outside, looks like a cover-up that
15 they made a mistake and they're hiding it. Actually,
16 had they reported that, they could have done two
17 things. They could have had the Nelson limits in the
18 database so that they would know when they had future
19 projects, they'd have some technical knowledge to
20 work on. The other thing is that that was a missed
21 opportunity to credit the public with giving them
22 valuable input. If you want public involvement,
23 that's the way to do it, is that, first of all, you
24 have some help. Second of all, you listen. And,
25 third of all, you repeat back to them that, "Hey, you

1 guys did a wonderful job. We changed this or we
2 fixed that," or so forth. And so, again, I'm not
3 being critical. I'm just saying, "Hey, we have a
4 very serious problem." And it comes down to the
5 DOE. Their predecessors did a brilliant good job of
6 ending World War II, otherwise we'd probably all
7 be speaking German. And they also did a brilliant
8 job of ending the Cold War, or otherwise we might be
9 speaking Russian or not speaking at all. And so
10 those are some people that have some big wins in
11 their background, and that's the kind of effort that
12 we expect from them.

13 As far as other examples of this same
14 Nelson limit problem, we just had the dry cask that
15 split open up in Wisconsin. The Nelson limits
16 predicted they would have split open in two to six
17 months. Actually, they got caught because it split
18 open after five years because somebody tried to weld
19 them back together and the hydrogen that was released
20 in there exploded. And so we don't know how long it
21 was before they actually split open. That kind of
22 thing happens in industry, too. I've seen people
23 weld things back together a thousand times before
24 somebody finally says, "Hey, wait a minute. Let's
25 work with the metallurgy so we don't have to put up

1 with this anymore." And in Yucca Mountain where you
2 have waste that has a nine hundred million year half-
3 life and we're looking at several billion years
4 before that thing is safe to dig into or walk around
5 and so forth, I think that having something that will
6 split up in two to six months is probably not what we
7 want.

8 You mentioned that you'd like to protect
9 ground water. The State of Nevada has a rule that I
10 think should be adopted. No one in the State of
11 Nevada is allowed to put any kind of radioactivity in
12 the water period. And so the DOE has stated that
13 they have a leaky mountain and that this
14 radioactivity going in there is illegal in the State
15 of Nevada. I think the EPA should adopt that same
16 program.

17 We have another situation in this area
18 that EPA needs to be made aware of. It doesn't have
19 to do directly with Yucca Mountain yet. But it has
20 to do with the procedures for monitoring the
21 radiation in the area. We have in Pahrump a monitor
22 that's right next to the community center. I was
23 talking to the guy that runs it, and he laughed and
24 said, "It's a waste of time. Never found any
25 radioactivity ever." So, as Sally mentioned, that

1 all of our dirt around here has at least a half a
2 picocurie of plutonium per gram in it. And while
3 that may not be a problem, the instrument not being
4 able to detect it is a problem. We have on the test
5 site, the plutonium value, as Sally mentioned, has a
6 five hundred picocuries of plutonium per gram. And
7 so whenever the wind blows this way, we're breathing
8 that. We're even breathing billions of particles of
9 that material. And yet this guy with an instrument
10 down there with a little probe has never detected
11 that.

12 But I talked to Tony Hechanova who
13 is the Ph.D. nuclear engineer from MIT, and he's a
14 professor there at UNLV. He mentioned that you
15 cannot detect plutonium unless you're looking for
16 it. So, in other words, we need to have the samples
17 of dust collected in those instruments and sent to a
18 lab so that we can detect how much plutonium is in
19 there. EPA regulations, as I understand them,
20 require that any concentration of two and a half
21 picocuries per gram of plutonium must be remediated
22 immediately. And yet we have several square miles of
23 the test site out there where those are in
24 violation.

25 When we first started studying that area,

1 the DOE came up with a way of looking at it. They
2 said, "Well, the plutonium is vanishing far quicker
3 than you would expect from it being reduced by the
4 half life." And that's it. Maybe we'll never have
5 to deal with it. If you consider that being blown
6 all over the area, that's not good and probably why
7 the EPA has rules as to when they have two and a half
8 picocuries per gram that it must be remediated
9 immediately.

10 As I understand it, Congress, a few years
11 ago passed a law saying that the government
12 facilities also had to follow that rule. So what I
13 ask you is when is the EPA going to clean that mess
14 up? And if the DOE is not responsible for handling
15 that and the EPA doesn't step into it, how much trust
16 do you think you're getting from the public that you
17 can handle this Yucca Mountain problem, I think, is
18 my point.

19 The other thing that the EPA, I think,
20 needs to get into is this so-called waste is a really
21 valuable resource if properly handled by standard
22 technology. It'll generate seventy-two billion
23 dollars worth of power at a very nominal cost. And
24 the EPA has a rule that they use in the other areas
25 called best available technology. And I would like

1 to see that applied in this case. That's the end of
2 Yucca Mountain and we use the waste to make power.
3 And the people that own the power companies can make
4 a few billion dollars. Congress won't like it
5 because they've already stole the fifty-five million
6 the power companies gave them for this project. And
7 I guess they'll probably steal some more before it's
8 all over. And my point there is these are very
9 powerful people. The people that own the power
10 companies probably make in the neighborhood of a
11 trillion dollars a year. They can buy any
12 government. They can push anybody around they feel
13 like pushing around. And so it's not a matter of you
14 can get in their face and straighten them out. It is
15 a matter, though, that if you approach them with a
16 reasonable proposition, that they can make this
17 seventy-two billion dollars and stop Congress from
18 stealing the another fifty-five million or whatever,
19 that they're reasonable people and I think they'll
20 listen to it.

21 I have a few more things that I'd like to
22 say, but I'd like to say them at a later time.

23 MR. PAGE: Okay.

24 Is there anybody else in the audience
25 that's arrived that would like to speak?

1 MR. JENNINGS: My name is Geoff Jennings.
2 I represent Columbia University. And in
3 seventy-three days, eight hours, thirty-four minutes
4 and sixteen seconds I will achieve the status of
5 being a ten-decade man in having been alive in part
6 or all of ten decades.

7 So I was with Doctor John R. Dunning when
8 all this was started. So I was a brat among a
9 handful of students when Doctor Dunning said that
10 there were scientists all over the country who would
11 give their eye teeth to be in our shoes. I certainly
12 am pleased to be here in this crowd of authority, but
13 I would like to defer my remarks until I get brought
14 up to date. Whereas I have been in the amen corner
15 for Sally Devlin and Grant Hudow at the test site and
16 Yucca Mountain, I would like to hear what Mary
17 Manning has been saying in testimony she's given.
18 Might I ask her to bring me up to date so that my
19 remarks can be appropriately targeted, please?

20 MS. MANNING: First of all, I'm Mary
21 Manning, and I'm a reporter for the Las Vegas Sun
22 Newspaper. And I'm here to observe the meeting. And
23 I would be happy to bring Mr. Jennings up to date
24 between public comment periods.

25 MR. PAGE: Great. Thank you.

1 MR. JENNINGS: She got out of that spot
2 beautifully.

3 I would like to at the end of the period
4 go over some of the materials to touch upon some
5 various points. But I would like to say that the
6 biggest problem seems to be that we are thinking in
7 terms of ten thousand years. I think Ms. Manning is
8 aware that it's cut it down by some proposal plan to
9 some five hundred years. But if we can recognize the
10 significance of the problem in two directions; one,
11 that it's a matter of control, not, as Mr. Hudow
12 said, by some big local conservative barons, but it's
13 a manner of civilian control of the military and
14 civilian control of building it themselves.

15 We have bureaucrats here from Washington,
16 D.C., and I would like to give them an approach that
17 is a matter of recognizing the boss of the situation
18 in the terms of jurors, litigants, the facilitators
19 that also ran for election for public office, and
20 customers and labor force and finally the kids
21 themselves. We are looking to the future, and they
22 are a real concern and should be the inlet
23 connection.

24 I am not only representing Columbia
25 University officially but as an individual member of

1 the Pahrump Town Board Advisory Committee of Parks
2 and actually relaxation and Recreation. We have come
3 upon the interest of the kids. I have picked up some
4 twenty in my area which is closest to the test site
5 as a buffer. They not only fly their airplanes low
6 to the ground, but they have a ping pong ball or a
7 golf ball or a football and a baseball, a softball,
8 and up to twenty -- and I have a bag there and I
9 could spread them here in front of the map of the
10 United States of America.

11 Sally was saying that I would introduce
12 something a little unusual as far as ethics. I could
13 spread out by the map of the country these twenty
14 play instruments, and we have one of them, and all
15 over the country there are all of these nuclear waste
16 situations waiting for something to be done, if it
17 can be done. And our motto in the State of Nevada is
18 all for our country. Now, we have among us, saying
19 some twenty, we have one ping pong ball or a tennis
20 ball representing our community. And we are being
21 asked to help out and share this pressing burden
22 which is all over the place. And I am very happy to
23 have this group protective of the public and
24 environmental sense, sort of act as a salutary force
25 on what some gung ho scientists may be projecting,

1 including some of the professors who have advanced in
2 academia to a point where they're out of touch,
3 actually, with their students. And so I think that
4 the young people, we can shred our degrees, and my
5 two from Columbia included, and enlist them in a
6 discussion of truth.

7 I made one statement at our luncheon at
8 Friends University in Wichita Kansas that actually I
9 graduated college at the Brooklyn Friends School.
10 And that's a matter in viewing that we're so glad
11 that this cross-section of opinion is being offered
12 here and the people representing me like Janet Toy,
13 not only the artistry of the painting, but also the
14 performing arts. I first met her at when we were
15 visiting the test site at the nuclear repository.

16 And I would like to salute the
17 presentation made by Mr. Page on behalf of the four
18 at the head table, so to speak. It sounded good to
19 my ears. And I will say, "Go to it. Go get 'em.
20 And do the best you can for us."

21 So until I review some of my press stuff
22 at a later time here, I would like to conclude to you
23 all at this time. Thank you.

24 MR. PAGE: Thank you very much.

25 Is there anybody else in the audience that

1 would like to address the panel right now?

2 We need a break. Why don't we adjourn for
3 about a ten-minute break and we'll be back. Thank
4 you.

5 (Short recess.)

6 MR. PAGE: If we could, I guess, check --
7 are there any new folks that have signed up?

8 So nobody new has come in since we took
9 the break.

10 As I promised earlier, what I would like
11 to do is give folks that would like to elaborate more
12 than they were able to cover, we'll allow them to do
13 that at this point. And with the few number of folks
14 that are here, we can go back over and call out all
15 the names. If you would just indicate that you would
16 like to speak again by raising your hand, and then
17 please reintroduce yourself so the court reporter
18 knows again who you are and what organization you are
19 from, that would be helpful. Who would like to give
20 another say here?

21 MR. HUDOW: I'm Grant Hudow, H-u-d-o-w.
22 And I'm with ENRAP from UNLV and the DOE.

23 What I want to expand on a little bit is
24 the Nelson limits. I mentioned that the DOE did not
25 find them at all. The NRC found some reference to

1 the Nelson limits, and they only found application
2 for them, which probably doesn't apply to the
3 canister problem for Yucca Mountain. The Nelson
4 limits are a broad set of information that covers
5 such things as stress cracking, all kinds of
6 reactions that cause the stainless steel and other
7 metals to turn into a sponge, all of these kind of
8 things. They're lots of them. I know a few off the
9 top of my head. But for that specific canister,
10 somebody needs to dig into it and learn about it and
11 research it. And I would guess that you might want
12 to have somebody that has industrial experience
13 actually do that work for you.

14 One of the problems in this country is
15 that two-thirds of the scientists and engineers in
16 the country work for the government or for government
17 contracts. And that includes professors. So they're
18 not exposed on a regular, routine basis to the can
19 do, got a lot of money involved, gotta get this done
20 in the industry. And the professors sometimes do
21 some consulting. So every once in a while you run
22 into a professor that knows about some of the
23 different knowledge. And occasionally you find one
24 that is actually very good in one area because he's
25 done a project on them. But most of the people that

1 we rely on in industry are turn-around specialists.
2 Lee Iacocca comes to mind. That caliber of a person --
3 this is a world-class project, and we need our very
4 best people to be involved in it.

5 The other thing I wanted to ask about, as
6 I understand it, the fifteen -- or in the case of
7 ENRAP, the 15 millirem limit, we went through the
8 detail of that, and the basic fundamental idea behind
9 it was that if radiation is going to go by you and
10 you're going to get exposed, that the twenty-five
11 millirems will only cause one cancer latent cancer
12 death per million people. And that, at best, it's an
13 extrapolation. You can't measure the effect of
14 twenty-five millirems on the aggregate to the
15 background count of three hundred, four hundred,
16 whatever it is in the area. But there's no way you
17 can measure that directly. So they've used a system
18 that the pharmaceutical uses, that if you have a
19 death caused at this value and somebody gets really
20 sick at this value, you can draw it back down to
21 where you know the mechanism and it's going to cause
22 some problems back down here. You can only guess at
23 that. So there's a lot of scientific controversy
24 over the whole thing. In other words, the one latent
25 cancer death per million is not set in concrete.

1 It's a wild guess. And probably the only thing we
2 know for sure about it is that it's wrong. But even
3 so, that's what we're using and pretty well
4 worldwide, I think. Within this one latent cancer
5 death per million, the teenagers from twelve to
6 fifteen, seventeen, someplace along in there,
7 actually have four to five latent cancer deaths per
8 million if they're exposed to twenty-five millirems.
9 And older people, seventy years old, they have no
10 latent cancer deaths. They don't live long enough to
11 have a latent cancer death.

12 Now, what I wanted to know is are the
13 ingested radioactive standards based on the same one
14 latent cancer death per million population? And I
15 noticed that drinking water standards are much lower
16 than just the exposure standards. So I don't know
17 about the air standards. If you ingest that into
18 your lungs, typically it would not stay there. The
19 cilia would remove it. So you'd have exposure for a
20 while, and then it would be removed. Where if you
21 drink it, it's probably going to stay in your
22 system. And if it is one latent cancer death per
23 million people, if that's the standard that all this
24 is based on, why is the DOE, then, proposing that
25 Yucca Mountain, that they cause one in ten thousand

1 latent cancer deaths? Why are they saying that's
2 acceptable? And I think that's in writing and in
3 their various paperwork. And I'd like to know if the
4 EPA backs them on that or if the one latent cancer
5 death, is that a law or is that something that
6 somebody just made up and discarded it whenever you
7 feel like it? I'd like to know what the story is
8 there.

9 MR. PAGE: Thank you.

10 MS. DEVLIN: I'm referring, again, to the
11 five-pound book. This was the only book I have ever
12 seen of its size talking about storage in foreign
13 countries on their handling of the waste. And I'm
14 going to go down the list because it's eleven
15 countries. This is the first time I have seen this.

16 And I'm sorry. I'm Sally Devlin from
17 Pahrump.

18 And this is doing underground research,
19 the burial of high-level waste. And number one is
20 Sweden. And prefacing this article on the eleven
21 countries is there are no international standards.
22 Numero uno, and remember that, no international
23 standard. The second is Belgium, and they have
24 around twenty-five hundred metric tons. Canada has
25 nothing. They have thirty-four thousand metric

1 tons. Sweden phases out high-level waste, nuclear
2 power plants. By 2010 will have eight thousand
3 metric tons. Now, France, and I was using fancy
4 French and I said (Speaking in French), which means
5 people that fool around but know everything. And
6 that's my opinion of the French. They do know
7 everything. They won't allow in their dictionaries
8 anything that is anglicized. So they are quite
9 unique. And they certainly don't have anything and
10 nothing is available. What they're doing with their
11 storage is very nebulous. They won't mention a
12 thing. Germany has nine thousand, and they are going
13 to do some things. But mostly they have
14 containerization for low-level waste. Sweden does
15 too. Japan has no standards, and they are looking
16 for funds and so forth for waste disposal. And they
17 have about twenty thousand metric tons by the year
18 2000. These are projected figures. Spain has dry
19 casks, as do most of the these countries, as do we,
20 and vaults and liquid storage, which we have,
21 too. Switzerland, we don't -- I think their entire
22 country is hollow and God knows what they have in
23 there, eighteen hundred metric tons. UK, and they
24 have thirty thousand metric tons. And from their
25 magnox reactors and they have been reprocessing. So

1 they have it down to four thousand cubic liters -- I
2 have to use the different terms -- of high-level
3 waste for storage. And they expect to have sixty
4 thousand metric tons of septic nuclear fuel which,
5 again, they want to park in the North Sea and dump
6 it, from a home into the North Sea. And I must tell
7 you, I was at this meeting. Also China was there.
8 And no Russians. But China and I got along
9 beautifully, and he invited me to go to the desert
10 where they had the earthquake, which is where they
11 are burying their high-level waste.

12 So what we're saying, "Thank you." And I
13 sincerely thank you again, because this is the first
14 time I have ever in all these years seen anything
15 about foreign countries and what they're not doing.
16 So, again, this makes the United States of America
17 the pioneer in this. And since you're dealing with
18 foreign countries, you do not have the values that
19 the United States of America has, as to human
20 values. Some of them are dictators, what have you.
21 Some of them -- for example, Belgium and the
22 Netherlands are going to use wind power. Belgium and
23 Denmark are going to have fifty percent wind power --
24 fifty percent. So they're going to alternative
25 fuel, as we can do. But I thought this was important

1 to bring to the public, since you're the only ones
2 that were smart were enough to bring it up.

3 We are not going to have one repository,
4 but two that costs fifty billion dollars. The
5 canister is ten, eleven to twenty to twenty-two.
6 Canisters will be a hundred and twenty billion
7 dollars. Because these things cost three hundred and
8 fifty to five hundred thousand apiece. Can you
9 afford it?

10 Now, what are we looking at in the --
11 we're finding what would have to go into the
12 repository; U-235, 238, 239, actinides, and so on.
13 And the public don't have vaguest notion about what I
14 just said. And these will be coming from all over
15 the country. So we're talking about all this waste
16 coming here. Our nonexistent highways and railroad
17 trains would be a hundred feet long by ten by
18 twelve. It is absurd. The trucks -- eighty-two
19 thousand pounds is allowed in Nevada. And these
20 trucks are a hundred and twenty tons. The canister,
21 from what I have seen, is a hundred and twenty-five
22 thousand pounds. So they way exceed anything that
23 you could possibly have. And, as I said at the DOE
24 conference, I think it would be wonderful if they'd
25 spend a hundred billion dollars upgrading our roads

1 and our railroads.

2 But the one other thing I looked into, and
3 I am no expert on this, but I'm trying to learn, is
4 about computer modeling. And I understand that our
5 railroads run on computers and so do our trucking
6 companies. And if you have an accident here and you
7 push the button, it goes to the State of origin.
8 Now, how can you possibly have trucks going on any
9 highways, fifteen thousand to thirty miles an hour or
10 trains doing the same thing without an accident?
11 And this is not talked about either. I think it's of
12 major importance.

13 But I think -- let me get back to the
14 international subject, and that is that we would be
15 the pioneers. And I think everybody is looking
16 around seeing what kind of mess we get into, and if
17 we blow ourselves up, of course, I think they would
18 be very happy if we did.

19 The other word, again, is acceptable
20 uncertainty, and that's from yours. And, of course,
21 that's assumed uncertainty. You cannot use that
22 terminology with me.

23 One of the most important things is the
24 water in Death Valley and Furnace Creek Ranch, in
25 particular. That's mentioned that the water will go

1 down there. You cannot kill our produce. And you
2 cannot kill Death Valley. That's absolutely
3 forbidden.

4 And the other thing is the major
5 distribution to dissolve the material and the ion
6 exchange is very accommodated and the precipitants
7 that will come out of that needs to be clarified. I
8 just said something I'm sure most of the people don't
9 understand, but this is in your report. I understand
10 it because I went to school to learn about all that
11 stuff. This must be made in English. And you're
12 acronyms are well glossaried. But, again, it's got
13 to be repetitive so that when we use these acronyms,
14 people do understand them. And the DOE report, there
15 are twenty-three pages of them. Your Federal
16 Register was just wonderful. That does help the
17 public.

18 So, anyway, remember my thoughts and
19 remember we are pioneers on this. And the world is
20 looking at us. And we can be reprehensible and just
21 go ahead and do it and dump stuff in the desert like
22 they might be doing elsewhere in other deserts. But,
23 again, what are we doing for future generations? And
24 I'm talking about cancers. And that doesn't show up
25 right away, but it will in future generations. So

1 thank you, again.

2 MR. PAGE: Thank you.

3 Mr. Jennings?

4 MR. JENNINGS: Doctor John R. Dunning at
5 the start of the atomic age, which was obtained from
6 the place in West Point and which used the movement
7 of the particles and it explains, for example, going
8 to the Brooklyn Museum of Arts and Sciences. He
9 would take with him a scope which showed a waving
10 line, and that seemed to be significant to what he
11 had to say to -- that the waving could transmit all
12 the contents of the New York's Public Library over to
13 Paris just on the impulses in the line.

14 In the emphasis of youth, I've been a
15 member of the National Press Association which was
16 founded some hundred and forty years ago. And I was
17 a toastmaster in 1977 in Kansas City in connection
18 with the effort to allow personally (inaudible) to
19 inject itself in the public scene.

20 Now, one of the California universities
21 has reported that they have five hundred thousand
22 periodicals, and they made a big economy move and
23 they dropped off two hundred thousand of them. But
24 one of the major things has been the use of personal
25 letters and diaries and personal contacts with

1 people. And one of the aspects of journalism is the
2 use of personal names as vitalizing the paper and the
3 contents is pushed greatly. And it is reflected in
4 what I'm now about to say with regard to the six
5 colors.

6 The Dewey decimal classification, library
7 classification of all knowledge and goes to the
8 integer zero, one, two, three, four, five, six,
9 seven, eight, nine, ten. Now, that can be reduced to
10 six, and it can be made functionally relevant and
11 color coded to reading; the eye; and hearing, the
12 ear; and speaking, the mouth; and holding, displacing
13 my torso, the body part, and then using the feet and
14 the hands in their proper connections. Thus, we have
15 on red, we have reading and family and art; and then
16 the sepia, and call it the education; and then the
17 gold, for writing.

18 So the Pittsburgh Pirates is gold and
19 black lines as in their baseball cap. And then we go
20 to green for entertainment and blue for health and
21 building, and then finally purple for finance and for
22 traveling.

23 Now, how this comes out, there is a game.
24 We can have a couple. And couples are good on the
25 games. And there can be three tiers. There can be

1 youngsters. And when we actually do pay a lot of
2 attention to, and we should do even more insofar as
3 our projections of the future of such important
4 decisions as this -- but, of course, of managers,
5 there should be a corporate recognition submitted so
6 that CEOs should be as they do in talk shows, have
7 the feminine where they're getting more and more on
8 the board of directors. But the companies should be
9 recognized as having perhaps a male and a female
10 headship or whatever else they happen to be.

11 What I'm eluding to is these metals
12 here, the spectrum is of importance, even in the
13 consideration of what we have here, the technical and
14 mechanical aspects of life.

15 And I have, over the years, which would
16 parallel the Readers Digest and my personal journal
17 with my wife and myself, Pat and Geoff, the voice of
18 American youth --

19 MR. PAGE: Excuse me. Mr. Jennings,
20 please, you're covering a lot of subjects there. And
21 we're trying to relate what you're saying to the
22 Yucca Mountain experience. So if you could please
23 try to simply do that, that would be appreciated.

24 MR. JENNINGS: Let me talk about it in
25 this way. Pat and I have nineteen children and

1 decendents, and we're very much interested in the
2 future and what happens. And they're also decendents
3 of Thomas Jefferson's mother. And so what I say is
4 that science is the matter of electricity which is
5 represented by this Manhattan Project II. And if we
6 are aware of the greater possibilities, some of the
7 troubles that percolate up are dissipated.

8 And so on the cue from Sally, I think that
9 I will flip over some of my pages that have
10 accumulated which have so much significance for me,
11 and I will stand on my remarks. And I will ask for a
12 little bit of thinking about what I've said. And
13 I'll leave it up to you to relating, as I think it
14 does have a relation, to the subject in hand. Thank
15 you very much.

16 MR. PAGE: Thank you very much.

17 Is there anybody else that would like to
18 make a statement or elaborate on an earlier
19 statement?

20 MS. DEVLIN: Well, I'd like you to do more
21 talking and tell us more about EPA and your role in
22 this. And I think it's terribly confusing. And we
23 want to hear from you and your associates because
24 you're all different. I'd like to hear from each one
25 of you.

1 MR. PAGE: Let me say that, again, just to
2 remind folks that we're here to hear from you. The
3 questions that you raised have been some good
4 questions. We will respond in writing as part of the
5 record. I think that what we can do now is just go
6 off the record and answer questions about the
7 process, what's coming up.

8 I think we're comfortable if there are no
9 questions or comments, going into an informal
10 session.

11 We can go off the record now.

12 (Informal discussion held off the record.)

13 MS. SELBACH: What I wanted to make a
14 comment is that we have heard from people of Yucca
15 Mountain and this development for many years. You
16 probably have better figures than I have memory. And
17 so some of the things that came in when they began to
18 talk about it and try to talk to us and find out how
19 we feel was what they were going to do to help our
20 communities. And we find -- I find that really,
21 basically, there has been nothing, nothing done to
22 help within our communities. You look at our roads,
23 we need some money for our roads very badly. You've
24 probably noticed a couple of chuckholes along the way
25 and noticed they pick up a lot of dust and a few

1 things like this. And they was supposed to help with
2 our tax base at one time. And all these things that
3 they promised in the beginning has not resulted. And
4 we would like -- I would like to know, and I'm sure
5 other people of the valley would too, if this goes
6 through, and I might not be aware of all the meetings
7 you have, and especially when you have them in the
8 east coast and different places that don't really
9 relate to what we have here, we would like to know
10 what kind of help you're going to give our
11 communities to develop things. We have to lose a lot
12 of things. And some of the things I'm referring to
13 losing is maybe property values, maybe some
14 development because there will be people who will
15 say, "I don't want to live there. You're too close
16 to Yucca Mountain. I don't want to develop out
17 there. You can't tell what the government's going to
18 do to the area. They might come in and all move us
19 out and take us over."

20 We had an incident in Nevada up in the
21 Northern area called Dixie Valley. They used it used
22 as a bombing range not far from the valley. The
23 valley was very well kept. It was a farming
24 community and a very nice place to live. And the
25 other side of that, they came in and took over all

1 the ranches, forcing all of them to sell out. So we
2 look back and we see that, and we wonder if this
3 could happen again. And so when these things happen,
4 you look at your property values drop and people
5 trying to get out from underneath it because
6 something drastic comes along. And so I would hope
7 that Yucca Mountain, if this goes in, that we would
8 be able to have some kind of a protection and
9 something to help build our communities and help our
10 property values so that we don't lose because we're
11 really into the shadow of Yucca Mountain.

12 And as Ralph McCracken said and maybe
13 someone else maybe, you could probably come in here
14 and pay off everybody and buy the land, clear us all
15 out, and you'd be better off financially than what
16 would be, in some cases, fighting and trying to work
17 and get this through as far our valley goes and other
18 areas as well. And those things were also promised
19 to those communities probably up in the further north
20 of the test site in that area. So this is what I'm
21 addressing. We definitely need some assistance out
22 here. We need roads. We need park systems. All
23 these things, I know you guys can help develop these
24 things. So, anyway, that's what I would like to
25 address. Thank you very much.

1 (Discussion held off the record.)

2 MR. PAGE: Why don't we adjourn now. We
3 will be here this evening taking comments.

4 (Short recess.)

5 MR. PAGE: We want to reopen the hearing.
6 I recognize a lot of faces. There's somebody in here
7 that signed up to testify, so we want to go ahead and
8 officially open the hearing.

9 What we'll do is just ask the speakers at
10 this point to see if you can state your remarks in
11 about ten minutes or so, give or take some. And then
12 if there are other speakers in the room that do want
13 to talk, we'll let them do that. If after we go
14 through a round and we find that there are folks that
15 want to come up and address the panel again, we'll
16 allow for that.

17 We're missing one panel member who's on a
18 phone call. She'll be up here momentarily. Why
19 don't we just go ahead and start. People have
20 evening commitments, family, that kind of thing, so
21 we'll go ahead and get started.

22 Ken Garey is signed up to testify this
23 evening. So why don't we go ahead and start with Mr.
24 Garey.

25 And if you'll spell your name, please, for

1 the court reporter?

2 MR. GAREY: I'll give her a written
3 statement.

4 MR. PAGE: Very good. Thank you.

5 MR. GAREY: Good evening. My name is Ken
6 Garey, Post Office Box 1, Amargosa Valley. Good
7 evening. There have been four generations of
8 Gareys. We've lived here since 1963. During much of
9 that time much of the underground nuclear testing was
10 accomplished at the Nevada Test Site as well as
11 testing associated with the Nuclear Rocket
12 Demonstration Program at the nearby Nuclear Rocket
13 Demonstration Site.

14 My first memory of atomic subjects, as it
15 was called then, was a report on radium in 1938
16 concerning Mdm. Curie for which I received an A for
17 from the science teacher who admitted she didn't
18 fully understand the molecular theory. That's how I
19 got the A. The next program was the Army's nuclear
20 warfare training program and an assignment at the
21 Trinity Site for post-shot characterization program.
22 Since then I have worked at nuclear power plants.
23 The previously mentioned nuclear rocket program and
24 spent fuel demonstration program which involved
25 actual power plant fuel assemblies -- this doesn't

1 make sense -- that will compose the majority of the
2 waste at the proposed repository at Yucca Mountain.

3 During the years of working in the nuclear
4 industry for numerous contractors and agencies, my
5 nuclear body burden or the amount of radiation that my
6 body has been exposed to has been monitored to keep the
7 exposure within limits as prescribed by the EPA and
8 other agencies. Similarly, the EPA has been the
9 agency to monitor public and document data pertaining
10 to nuclear testing and research programs. Some
11 people remember the film badges that volunteers and
12 others that were posted at public buildings and fence
13 posts in this area. So some thirteen community
14 monitoring stations were located in populated areas
15 adjacent to the Nevada Test Site. Numerous families
16 participated in the whole body count monitoring to
17 document the human body uptake of radioisotopes for
18 background data analysis and comparison to other
19 areas.

20 It's my opinion that the EPA is the
21 natural agency to establish exposure standards for
22 the public, and that agency, through its vast
23 experience and real time data is the best
24 organization to establish this important standard for
25 this program. The vast data bank is far superior to

1 modeling or other programs.

2 My only other concern is that average
3 exposure rates may permit persons living in this
4 area, which has a very low natural background, to
5 receive a larger dose and still remain within the
6 exposure limit.

7 Thank you.

8 MR. PAGE: Thank you.

9 Is there anybody else that wants to make a
10 statement at this time?

11 MR. MURPHY: Good evening. My name is Mal
12 Murphy, and I am appearing tonight on behalf of Les
13 Bradshaw who is the manager of Nye County Department
14 of Natural Resources and Federal Facilities and is
15 also the manager of our Nye County project office.
16 Unfortunately, Mr. Bradshaw was kept away on other
17 business tonight, the follow-up resulting from the
18 commissioners' meeting in Pahrump tonight, so he
19 can't be with us. And the remarks I'll deliver
20 tonight are basically Mr. Bradshaw's remarks. And
21 they will, of course, be amplified quite extensively,
22 I think, when we file our formal written comments for
23 the record prior to the November 26 deadline.

24 Nye County, as you are probably aware, is
25 neutral with respect to Yucca Mountain. We neither

1 support nor oppose the repository, and never have.
2 But the county exercises its oversight
3 responsibilities in order to help ensure that the
4 final decision on licensing Yucca Mountain or its
5 ability before that is based on thorough and complete
6 site characterization and conservative principles of
7 science so that the interests of residents of the
8 entire county, but particularly the people here
9 tonight and the residents of Amargosa Valley who are
10 most directly affected and will be most directly
11 affected, are taken into account and fully
12 protected.

13 In that respect, we also think that all
14 federal decision makers, the EPA, the Department of
15 Energy, the NRC, and everyone else needs to be
16 cognizant of and fully appreciate in their decision
17 making the accumulative impact of the residents of
18 this area have received in the past or are receiving
19 now and will receive in the future because of the
20 activities of the test site. Our public has already
21 been put at some risk because of the activities
22 undertaken by the federal government.

23 Recent observations, for example, showed
24 that there will be some -- has been some
25 contamination from those activities migrating or will

1 migrate off the site in the ground water, thus,
2 potentially, at least, exposing some of our residents
3 to radioactivity above the natural background. Now
4 the federal government is proposing to transfer the
5 risk from commercial spent fuel management from other
6 locations in the country to Nye County. And we
7 emphasize that that is not a solution to the spent
8 fuel problem. It is a transfer of the risk to this
9 county and not a -- it's a solution for some people,
10 but not a solution for the people here in Nye
11 County. This is not a risk that Nye County residents
12 voluntarily undertake, rather, is one that will if
13 Yucca Mountain is declared suitable to be licensed to
14 be involuntarily imposed upon the residents of this
15 county. And under those circumstances, it is the
16 county commissioner's policy that the residents of
17 this county be exposed to no additional radiologic
18 burden of Yucca Mountain.

19 Now, no additional radiologic burden with
20 respect to the protection standard, of course, means
21 essentially zero dose. And that is our county's
22 policy, even though that is not what the EPA proposes
23 in Part 197. We urge you to go back and reexamine
24 the proposal in light of that stated policy.

25 However, we recognize that we have in

1 front of us two essentially competing proposals. You
2 have the 25 millirem limitation proposed by the NRC
3 in its Part 63, and fifteen millirems limitation dose
4 for which you are folks are proposing in Part 197.
5 Of those two, and, again, the qualification that no
6 additional radiological burden from the policy, of
7 those two we, of course, strongly prefer 15 millirem,
8 obviously, because 15 is closer to zero than 25.

9 We also, with respect to the regulatory
10 period, our own work in our own independent
11 scientific investigation program leads us to
12 appreciate the uncertainties or impossibility of
13 accurately predicting doses beyond ten thousand
14 years. So, for that reason, we support the ten thousand
15 year regulatory period. However, we strongly support
16 the requirement that DOE predicts those up to the
17 peak dose period and out to, if you will, the period
18 of geological stability and put that prediction in
19 its Environmental Impact Statement so that the public
20 can and all federal decision makers are fully
21 informed as to the ultimate level and very, very long
22 range as well. I think to expect the Department of
23 Energy proposing to do that, in any case, as far as I
24 know, they've always planned on at least calculating
25 and predicting the peak dose in their performance

1 assessment and in their Environmental Impact
2 Statements.

3 We also support strongly, as you might
4 imagine, the application of the standard to a
5 hypothetical Reasonably Maximally Exposed
6 Individual. We have traditionally in this respect
7 supported the critical group approach, but our
8 reading of the supplemental information which
9 accompanies proposed Part 197, it doesn't conclude
10 that the RMEI located at the point north of Lathrop
11 Wells is probably a more conservative approach in
12 that protecting that individual provides a little
13 additional protection to the critical group who are
14 obviously the folks, many of whom are in this room
15 and were here this afternoon, from the Amargosa
16 Valley. So we support that approach.

17 With respect to the human intrusion
18 standard, it's always been Nye County's position that
19 arguing, if you will, the probabilities of any
20 intrusion into the repository was essentially futile;
21 and, therefore it has always been our position that
22 the Department of Energy should assume at least one
23 intrusion, presume a successful intrusion into the
24 repository and simply analyze the consequences of
25 that intrusion. And as a result of that -- and that

1 incidentally, as you know, is essentially the
2 position adopted by the National Academy of Science.
3 For that reason, of course, we support your approach
4 to the human intrusion standard as well. In addition, it
5 seems to us that the assumptions the DOE and NRC are
6 to make in analyzing the potential human intrusion
7 are reasonable.

8 Perhaps that portion or that aspect of 197
9 which gives Nye County the greatest comfort is your
10 insistence on adhering to additional ground water
11 protection standards. As we have always said in the
12 past, regardless of whatever scientific merits there
13 are, we simply can see no reasonable or credible
14 public policy defense to providing people of this
15 valley and the Nye County residents any less
16 protection of their ground water than provided by the
17 country to the residents in Southern New Mexico, for
18 example, or anywhere else in the country. So we
19 understand the science behind it and we appreciate
20 that. But as long as additional ground water
21 protection is required in other projects and provided
22 to other residents in other locations in the country
23 to us there is absolutely no justification whatsoever
24 to not providing the same kind of protection to the
25 people here in Amargosa Valley. And for that reason,

1 we commend you for including additional ground water
2 protection standards in your proposal. And we agree
3 in that regard. We agree with the use of the
4 standard and compliance with the maximum contaminant
5 level. We support or agree with the proposed
6 representative volume of ground water that's to be used
7 to measure compliance with the MCL. We think that's
8 reasonable.

9 There are, I'm sure, some arguments that
10 can be made for at least two of the alternative
11 representative volumes of for ground water proposals.
12 But we think the preferred alternative or the one proposed
13 is reasonable. We don't think -- we see no sound
14 reason for the third alternative. With respect to
15 the four alternative points of compliance with the
16 MCL, it should come as no surprise we prefer five
17 kilometers. That is obviously the most conservative
18 approach, is the one that gets us closest to zero, if
19 you will. And with that qualification, the five
20 kilometer boundary as our preference, our sequential
21 preference is obvious also. So the eighteen to the
22 five kilometers plus the NTS boundary would be our
23 second choice; the intersection, third choice.

24 As you probably know, we have our own
25 drilling program in Nye County which we call the

1 Early Warning Drilling Program. One of the reasons for
2 that drilling program is to provide the ability in
3 the future to give the residents of the Amargosa
4 Valley some early warning in the case of any
5 conceivable escape of contaminants. And we're in
6 the process -- we will be getting in the next two
7 weeks phase two of that program. Those wells are all
8 located along in sort of an arc north of U.S. 95.
9 Those wells theoretically are going to be able to
10 give folks some warning in the future. Making the
11 point of compliance in southern Amargosa Valley where
12 the population is, where farming activity takes
13 place, provides no early warning whatsoever, and we,
14 therefore, can see no reason for that and we strongly
15 oppose that as a point of compliance.

16 We do have some concerns about some
17 aspects of Part 197, which we see as primarily
18 implementation, rather than standard setting. And I
19 don't want to take your time up with that tonight,
20 with one exception. Dave will talk about that in our
21 follow-up comments.

22 But there's one that gives us particular
23 cause of concern because that is within the proposed
24 definition of the term "disposal" in 197.12. The
25 second sentence reads as follows, "Disposal of

1 radioactive material in Yucca Mountain disposal
2 system begins when all of the ramps and other
3 openings into the Yucca Mountain repository are
4 backfilled and sealed." That sentence, in our view,
5 is totally unnecessary for the definition of the term
6 "disposal," and would actually impede or may
7 actually impede, rather than enhance the safe
8 isolation of nuclear waste.

9 We've got, in Nye County, our independent
10 investigation which has been widely reported to the
11 NRC, the Department of Energy, et cetera, indicates
12 that the longer you allow the repository to remain
13 unsealed, I don't want to use -- I hate to use the
14 word "open," but unsealed and unfilled, the longer
15 you maintain natural ventilation in the repository,
16 the better the performance that you're going to get
17 for that repository in the short and long term,
18 simply because you're going to maintain it in a
19 cooler and dryer state for a longer period of time.
20 And, obviously, the dryer you maintain it, the less
21 chance there is of water coming into contact with the
22 waste package, which is the process that starts the
23 ultimate breakdown of that disposal, that container,
24 and ultimate escape of some contamination. So the
25 longer you delay the first contact with water, the

1 first contact with the waste package, in our view at
2 least, the greater performance you're likely to get
3 out of the repository. And we simply urge you to
4 delete the second sentence in the definition of the
5 word "disposal" to allow DOE to maintain that kind of
6 flexibility to keep the repository ventilated for as
7 long as possible and still call it disposal, if you
8 will. Whether it's a hundred years, three hundred
9 years, or some period longer than three hundred
10 years, it seems to us make no sense to say that you
11 have disposed of it, since you haven't backfilled the
12 repository, if, in fact, and the evidence is not
13 fully in on that yet on our own preliminaries, but
14 if, in fact, it's demonstrated that if ventilated
15 long term, to be ventilated in the repository is
16 safest way to dispose of waste, then it seems to us
17 to make no sense, as a matter of national policy, to
18 preclude the Department of Energy in the standards
19 from following that path.

20 And, again, based on our stated policy of
21 zero doses, anything, even though we remain strongly
22 neutral on whether or not Yucca Mountain should
23 ultimately be selected as a repository, if it is, it
24 should be designed and operated in absolutely the
25 safest and most scientific way possible. So we urge

1 simply that you at least drop that second sentence in
2 the definition of the term "disposal" for that
3 reason.

4 And, again, we will, as I said, file
5 written comments. We appreciate you coming out here
6 to Amargosa Valley and visiting with the residents
7 out here this afternoon and this evening. I
8 apologize again that our government leaders were
9 unable to be with you, but you just happened to
10 select the day when we had the county commissioners'
11 meeting. We certainly appreciate your time and thank
12 you.

13 MR. PAGE: Mr. Murphy, you indicated you
14 might know at this time whether the commissioners
15 will make it tonight or not?

16 MR. MURPHY: It doesn't appear they are
17 going to be able to get here. That's the last report
18 I got.

19 MR. PAGE: Thank you.

20 Anybody else -- anybody else have a
21 statement or would like to make comments to the panel
22 at this time? Is there anybody who spoke earlier in
23 the day who would like to elaborate on their
24 statements and needs extra time?

25 All right. We'll go into another

1 temporary recess. And what we'll do is just wait
2 until somebody comes in who is ready to speak and
3 we'll just gather again. Thank you.

4 (Short recess.)

5 MR. PAGE: We're back in order. I want to
6 make sure that there's nobody in the room that has
7 another statement to make. It's been over an hour
8 since the last speaker appeared, so I guess this will
9 be the last call for the this evening. No speakers.

10 Thank you very much. We will be in Las
11 Vegas tomorrow. We appreciate people coming in today
12 from the community. And the hearing will adjourn at
13 this time. Thank you.

14 (Hearing adjourned at 7:55, p.m.)

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1 State of Michigan)

2 County of Wayne)

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4 CERTIFICATE OF NOTARY PUBLIC

5

6 I certify that this transcript is a complete,
7 true and correct record of the testimony given by the
8 Witnesses in the above-entitled matter.

9 I also certify that I am not a relative or
10 employee of or an attorney for a party; or a relative
11 or employee of an attorney for a party; or
12 financially interested in the action.

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22 Karen L. Hendley, CER-5683

23 Notary Public, Wayne County, Michigan

24 My commission expires: November 3, 2003

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