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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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PUBLIC INFORMATION MEETING

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YUCCA MOUNTAIN REVIEW PLAN

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WEDNESDAY

MAY 22, 2002

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LAS VEGAS, NEVADA

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The Public Meeting was called to order at the Conference Room of the Clark County Building Department, 4701 West Russell Road, Las Vegas, Nevada, at 2:03 p.m., by F.X. "Chip" Cameron, Facilitator, presiding.

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P-R-O-C-E-E-D-I-N-G-S

(2:03 p.m.)

1
2
3 MR. CAMERON: All right. If we could get started. Good
4 afternoon. My name is Chip Cameron, and I will be the Facilitator for today's public
5 meeting, and I would like to welcome you to the NRC's public meeting on the draft
6 Yucca Mountain Review Plan.

7 And it is my pleasure to serve here this afternoon as your Facilitator
8 for today's meeting, and in that role I am going to help you to have a productive
9 meeting today.

10 And I am going to go over three items before we get into the
11 substantive discussion today. And the first thing that I would like to talk about are the
12 objectives for the meeting.

13 And secondly to tell you what the format and the ground rules are
14 going to be for the meeting, and last I just wanted to go over the agenda for you so that
15 you know what to expect this afternoon.

16 In terms of objectives, the NRC wants to make sure that you have
17 a clear idea of what the NRC's responsibilities are for licensing any potential repository
18 at Yucca Mountain, and specifically, to talk about the draft Yucca Mountain Review
19 Plan, and now that fits into the NRC's licensing responsibilities. I want to make sure
20 that you have that information, and that we clearly express and communicate that to
21 you.

22 A second objective, and the most important one, is to hear your
23 comments and concerns about the draft Yucca Mountain Review Plan, as well as our
24 licensing responsibilities in general.

25 The ultimate goal of the NRC is to take the comments that we hear
26 today, and to use those comments to help us to finalize this Yucca Mountain Review
27 Plan.

28 We are asking people for written comments also on the Yucca
29 Mountain Review Plan, and we wanted to be here this afternoon to talk to you in
30 person about the Yucca Mountain Review Plan, and you may hear information today
31 from the NRC staff, or from other people in the audience that helps to prompt you to
32 submit a written comment, or helps you to prepare a written comment.

33 But I wanted to emphasize that anything that you say today will
34 carry the same weight as any other comment that you send in to us in writing. And I
35 think the staff is going to go into some of the more -- into more of the details on how
36 you can give us those written comments.

37 In terms of format and ground rules, we will have a series of NRC
38 presentations that we are going to try to keep brief for you, and then we are going to
39 go after each of those presentations to talk with you, and to answer your questions,
40 and to hear your comments about that particular presentation, and we are trying to
41 balance the need to give you information about the NRC and this review plan with
42 being able to talk to you about it.

43 And we don't want to just spend our time talking at you. We want
44 to try to talk with you. So we will try to keep that balance. I don't know that we will be
45 able to, but I would just ask the NRC staff to try to be as concise as possible with their
46 presentation.

47 In terms of ground rules, they are fairly simple. If you have a
48 question or comment after each presentation, just signal me, and I will either bring you
49 this talking stick, or there are some mikes in the aisles, and please feel free to use

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1 those.

2 But if you could then give us your name, and affiliation, if
3 appropriate. We are taking a transcript tonight, and our stenographer, Paul, is back
4 there, and it doesn't look like he is doing much, but he is getting it all down because
5 he is a master at this.

6 But we will have a transcript, and it will be available on the NRC
7 website, and we will be able to send you a hard copy of that transcript if you so desire.

8
9 But that will be our record of today's proceeding. The second
10 ground rule is, please, only one person at a time speaking. Not only so we can get a
11 clean transcript and so that Paul will recognize who is talking, but more importantly so
12 that we can give our full attention to whomever has the floor at the time.

13 And I want to make sure that we give everybody a chance to talk
14 tonight, and in keeping with that, I would just ask you to try to be as brief and concise
15 as possible in your comments.

16 And I recognize that this is a complicated issue, and it is a
17 controversial issue, and it is tough to keep things really brief sometimes. But if you
18 could try to do that, then we will at least have a possibility of getting to everybody who
19 wants to talk.

20 And in terms of agenda, I think you all have the blue agenda in your
21 packet, and I am going to get to that in a minute. But first of all, I wanted to just
22 mention that there may be a comment that comes up, or a question that you have, and
23 it does not fit squarely under the agenda item that we are talking about.

24 We will defer discussion of that issue until we get to that part of the
25 program. I will put it up here in the parking lot so that we don't forget it, and come back
26 and discuss it.

27 And another point is that we know that there are a lot of concerns
28 and there is a lot of issues in regard to Yucca Mountain, and the NRC is always
29 interested in hearing from people on those issues, and in providing information to you
30 on those if we can.

31 But our main focus tonight is going to be -- or today, is going to be
32 on the review plan. So if we can get to that information and hear your comments as
33 to that.

34 If you look at your agenda, we are going to start off with a broad
35 overview presentation on the NRC's role for judging the safety of a proposed
36 repository. We are going to go to Janet Schlueter from the NRC staff.

37 Janet is the new Chief of the High-Level Waste Branch at the NRC
38 and is in our Office of Nuclear Materials Safety and Safeguards. And she is going to
39 give us that overview presentation.

40 Next, we are going to get a little bit more specific and we are going
41 to get an overview of the draft Yucca Mountain Review Plan, and how it is organized,
42 and what the objective of that plan is. And we have the senior project manager, Jeff
43 Ciocco right. He is on Janet's staff, and he is going to give us that presentation. By
44 way of background, he is a geologist, and an environmental engineer, and he is
45 shepherding this project through at the Nuclear Regulatory Commission.

46 And again after each of these, we will go out for public questions
47 and comment. The next presentation is a description of safety in operations, and we
48 have Pat Mackin right here from the Commission's Center for Nuclear Waste
49 Regulatory Analyses, and that is a very special group.

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1 They are our prime research contractor. They were created solely
2 to give advice basically to the NRC on this project so there would no be any hint of any
3 conflict of interest, in terms of their working for the license applicant here.

4 But Pat is a systems engineer and he is going to talk about that part
5 of the review plan that deals with how the NRC would ensure safety in terms of
6 construction of a repository, and bringing the fuel on-site, and let me just make a big
7 caveat here.

8 We don't know that there will be any application for this repository,
9 and if there is, it has to meet the NRC regulations. So there is no guarantee that that
10 will happen. That will have to be done after an NRC evaluation.

11 So I don't want to give the impression that because we are talking
12 about what the NRC will be doing to ensure safety during construction and bringing
13 fuel on, that that is any predisposition or whatever about the licensing of a repository.

14 The next presentation is going to be on long term safety, and this
15 is basically -- this is another part of this review plan, and basically this is how we will
16 judge if the NRC regulations are being met after repository closure, and we have Tim
17 McCartin right here with us.

18 Tim is a physicist by training, but I think not only for the NRC, but
19 in terms of what is called performance assessment -- and he will be talking more about
20 that, but in terms of performance assessment on geological repositories, he is not only
21 the NRC's long time expert, but I think probably one of the world's experts in
22 performance assessment.

23 We are then going to go back to Jeff Ciocco to talk about how is
24 security factored in. In other words, sabotage of materials of the repository, and
25 diversion of those materials, and how does the NRC handle those issues. Again, that
26 is another part of this Yucca Mountain Review Plan.

27 And finally we will go back to Pat Mackin from the Center to talk
28 about monitoring and performance confirmation, and how will the NRC keep checking
29 to see if things are going right at the repository.

30 So as you can see, that is what I call a lot of moving parts, but if we
31 will try to not keep you too much longer past the time for the meeting to adjourn here.

32 But I would like to thank all of you on behalf of the NRC for taking
33 the time to be with us this afternoon. The NRC has some important decisions that it
34 has to make, not only on repository generally, but also just in terms of finalizing this
35 review plan, and we thank you for your assistance on that.

36 And this is one meeting, and we are having a series of meetings
37 here this week. And just one point on the time spectrum. Please get to know the NRC
38 staff.

39 They are very willing to be contacted by e-mail or phone, and so
40 maintain some continuity with them. If you have questions or if you have concerns,
41 please contact them. And just a couple of administrative items.

42 There is a sign-up sheet, and if you haven't signed up, please do
43 that. It is right over here, and there is also something called -- or what I call an
44 evaluation form, and this helps us to improve public meetings, in terms of notice, which
45 we need to do a better job on all the time, and we always remember that.

46 But this helps us to improve on that, and so please one out if you
47 get an opportunity to do that. And Janet, are you ready to start us off?

48 MS. SCHLUETER: Sure.

49 MR. HERESZ: Could I ask a question?

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1 MR. CAMERON: Yes, sir. What is your name, please?

2 MR. HERESZ: My name is Andy Heresz, and I am a resident of
3 the State of Nevada, and I live in Clark County, the City of Las Vegas, and a taxpayer,
4 and I am a registered voter, and I am a very angry U.S. citizen about Yucca Mountain.

5 And I am wondering, and maybe I missed it, but is there a
6 representative here from the Nuclear Waste Technical Review Board?

7 MR. CAMERON: The short answer is that I do not think there is a
8 representative from the Nuclear Waste Technical Review Board.

9 MR. HERESZ: I think you are lacking by not having a
10 representative from that part of the process.

11 MR. CAMERON: Okay. So we can put this issue to rest, we will
12 go to Judy, and then we will go to Dennis. Judy.

13 MS. TREICHEL: Judy Treichel, and I think that one of the things
14 that you should be aware of is that there was one notice that went out to the Nuclear
15 Waste Technical Review Board on this meeting and what was going on.

16 There was absolutely no notice to any of the public interest groups,
17 although 81 people are on the distribution list, and 19 from the Department of Energy's
18 project office, and none of the public interest groups who have been with this thing
19 from the beginning.

20 So I don't know why I would have to fill out one of those forms in
21 order to get the document that came out or a notification from the NRC, and that this
22 is more than an oversight.

23 MR. CAMERON: Well, that point is well taken, but I do want to say
24 if you are saying by using the word oversight and that the indication is that it was an
25 intentional, you know, Judy, that is not true. Dennis.

26 MR. BECHTEL: Dennis Bechtel, a citizen. I guess I wanted to
27 submit this for the record, I guess, and it doesn't really fit into your format, I guess. So
28 could I do that?

29 MR. CAMERON: Yes.

30 MR. BECHTEL: The other thing is that if you have process
31 questions, how do you want to go with that?

32 MR. CAMERON: Well, we are going to go to Janet now, and she
33 is going to talk about overview issues, and you may see an opportunity -- your
34 questions may relate to that. So we will see if they do.

35 And if they come up later on, we will answer them then, okay?

36 MR. BECHTEL: All right.

37 MR. CAMERON: Okay. Janet.

38 MS. SCHLUETER: Okay. Thanks, Chip. As Chip mentioned, my
39 name is Janet Schlueter, and I am the Branch Chief for the High Level Waste Branch
40 of the NRC.

41 We are the focal point for the High Level Waste Program at the
42 NRC. I will try to be brief. We have some presenters who will be talking about the
43 substantive items.

44 But we thought it would be helpful if we provided you with some
45 context with regard to the NRC's overall goals in the current process and potentially
46 with respect to Yucca Mountain.

47 Who is the NRC? We are an independent agency, and we are
48 independent of the present administration and the other branches of the Federal
49 Government, the judicial and legislative branches.

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1 We are not part of the Agency Department. Our role is to ensure
2 that as an independent regulator we make an independent safety decision with respect
3 to any potential repository.

4 We are also an experienced regulator, and we have about 25 years
5 of hearing and licensing a wide variety of facilities, that range from medical, to
6 industrial, commercial fuel facilities, as well as commercial nuclear power reactors.

7 Our sole mission is the protection of public health and safety and
8 the environment, as well as for the protection of personnel working there.

9 The NRC has also been charged by the Congress with regulating
10 any potential repository that the Energy Department might apply for.

11 What exactly is our role at Yucca Mountain? Well, by law, we have
12 been required to set rules that would apply to Yucca Mountain that would protect public
13 and worker safety; and the environment, and we have done that.

14 And we have also set rules that are consistent with those that have
15 been issued by the Environmental Protection Agency. We also continue to conduct
16 pre-licensing interaction with the Energy Department in order to exchange information
17 about the site, and will conduct and make an independent decision with regard to
18 whether or not there should be construction of the repository and then eventual
19 operation of the repository.

20 As an independent regulator, just like the name of our facility, we
21 are responsible for ensuring that the applicant or the licensee obeys regulations, and
22 that is done through licensing, inspection, and an enforcement program.

23 How will we carry out our role? Well, as an independent safety
24 regulator, we will review all the information that we receive objectively, and thoroughly
25 assess safety expectations at the site.

26 We will also make a decision in an open and transparent way, and
27 maintain a public process in doing so. As part of this public licensing process and our
28 internal safety evaluations, the Yucca Mountain Review Plan represents a significant
29 milestone, and that's why we have here today to solicit your comments on the
30 document.

31 How will we carry out our role? We will make our licensing
32 decisions one step at a time based on the information that we have before us at that
33 time.

34 That includes the initial decision with regard to construction, which
35 would only occur if the Energy Department submits a license application to us, and a
36 subsequent decision at the appropriate time with regard to whether a license should
37 be granted and then to operate, and then also for the potential closure of the
38 repository.

39 Our job is to decide whether or not the Energy Department should
40 be allowed to construct a potential repository, and if the Energy Department does
41 submit a license to us, we are required by law to conduct our licensing review within
42 3 years of having received the application.

43 Congress also requires that the NRC provide a full and fair public
44 hearing as part of that process, but before any of this could occur there are several
45 steps which need to be taken, some of which have already occurred.

46 And as you can see by this diagram and the preceding one, there
47 was the environmental impact statement, and the recommendation by the Energy
48 Department, the recommendation by the President, who made his recommendations
49 to the Congress, and the Congress decision that is now occurring on time.

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1 Congress will announce within 90 consecutive days in session
2 whether or not the site recommendation should take effect. At that point, it is up to the
3 Energy Department to decide when and if to submit a license application to us.

4 And if that were to occur, the next thing would be that the NRC
5 would make a decision as to whether or not the license application is what we refer to
6 as docketable.

7 Which is whether there is enough information in the application for
8 the NRC to begin its review. That review has to be made within 90 days of having the
9 applicant fill out its application.

10 If we decide that the license application is docketable, we would
11 then begin our safety review, and we would complete the safety review within the 3
12 years of having received the license application.

13 Besides the licensing process as I mentioned, there is a hearing
14 aspect, and the burden of proof is of course upon the applicant, and in this case, the
15 Energy Department, and there are three possible outcomes to the licensing process,
16 consistent with the licensing process that we use in other programs of the NRC:

17 First, we could deny the application, and in that case the applicant
18 would not have provided enough information for the NRC to make a safety
19 determination.

20 In other words, that the applicant has not demonstrated that the
21 NRC safety requirements could be met, and we would deny it.

22 We could grant a license with certain conditions, where the
23 applicant would need to provide additional information before the license could be
24 issued, or we could grant the license as applied for.

25 Now do we decide whether to accept the Energy Department's
26 application. We have to make decisions with regard to whether or not it does contain
27 all the required information, and whether the safety claims that the Energy Department
28 has made is backed by perfect documentation.

29 Also, there are document access requirements, and that the
30 information be easily accessed by the public in an electronic form and the information
31 is timely, and we have to determine whether or not those requirements have been met.

32
33 If yes, then our detailed technical review of the license application
34 begins, and the three year clock starts.

35 How would we address safety issues? We would rely on our
36 independent experts, those at the NRC headquarters, which is my branch, as well as
37 both the independent engineers and scientists that we have at the Center for Nuclear
38 Waste Regulatory Analysis in San Antonio, Texas, which Chip mentioned previously.

39 We do have two representatives here from the Center. We have
40 Pat Mackin, who has been introduced, and also Mike Smith. Mike is at the Center in
41 Texas as well.

42 We would also require more information be submitted from the
43 Energy Department as needed if we identify that there is information gaps in what they
44 have provided to us.

45 We also do our own testing at the Center in Texas, and we would
46 document our conclusions in a transparent manner. On what basis would we adopt
47 the Energy Department's final environmental impact statement?

48 Well, the law requires that the NRC must adopt it unless one of two
49 conditions exist. First, the action to be taken as a result of the licensing process differs

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1 from that described in the final environmental impact statement, and that difference
2 may significantly affect the environment.

3 Or in the other case, there may be significant and substantial new
4 information or considerations that make the final environmental impact statement
5 inadequate that the NRC would not docket it.

6 I would like to assure you that if the Energy Department submits
7 a license application to us, we will need to have a program in place, and that we are
8 ready and prepared to judge the safety of any potential repository.

9 We do have protected standards and regulations in place, and we
10 do continue to hold our public interaction with the Energy Department, and to request
11 information that is important to understanding the potential operation of the repository.

12 And in addition we have drafted our draft Yucca Mountain Review
13 Plan, which we are here today to discuss, which the staff reviews to conduct that safety
14 review of the license application.

15 And a little more detail on our regulations. As part of the process
16 of being ready to potentially judge the safety of a repository, we did issue our proposed
17 regulations that would apply to Yucca Mount in February of 1999.

18 And we received public comment at that time to extend the public
19 comment period, and we did so for a period of about two months. And the final
20 Environmental Protection Standards were issued last June, and we subsequently
21 issued our conforming standards last November.

22 In order to ensure that the citizens of the State had an opportunity
23 to provide their comments to the NRC and we heard them, we have held
24 six public meetings during that time period on our proposed regulations.

25 And overall we have received more than 1,000 individual
26 comments, including many that we heard at meetings such as the one we are having
27 here today.

28 And that is the importance, as Chip mentioned, of the transcript that
29 will be provided, and that will provide us a written record of those comments so that
30 we can go back and review those, just as the ones that we have received and
31 reviewed by letter.

32 After reflecting on those comments that we have received, we did
33 make major changes to our rules, and I think you will find that the changes were
34 responsive to the major concerns that we heard from citizens.

35 We did wait and issue our final paper after the Environmental
36 Protection Agency had issued theirs, and we also adopted the Environmental
37 Protection Agency's limits for individual protection, as well as their separate ground
38 water limits.

39 We also retained our formal hearing process and that we currently
40 use for licensing of other facilities and other programs at the NRC. For the time being
41 the NRC has no role, or a very narrow row, in the whole site decision process.

42 It is not appropriate for the NRC to take a position on that, or
43 whether or not a repository should actually be located at Yucca Mountain.

44 As an independent regulator, our view and our licensing decision
45 would be based and shaped much later in the process, and based on information that
46 the Energy Department would submit to us.

47 As provided for under the law, we would continue to have public
48 interaction with the Energy Department to identify additional information with which to
49 better understand the license application.

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1 As a result of that, these interactions with the Energy Department
2 have identified information gaps, which then translate into or relate back to, and links
3 back to nine key technical issues which we use to categorize the technical areas which
4 we have used to guide our review of the Energy Department's site characterization
5 efforts to date.

6 And we have a handout on the table, and which some of you may have
7 already picked up, and these include such technical areas as would water move above
8 and below a potential repository; how would the waste heat affect when and how water
9 reaches the waste.

10 And how long will these containers last, and what would happen
11 to the waste when the containers are breached. These key technical issues are
12 considered important for understanding if a repository would be safe, and because
13 they are important, we have used them to be the framework for not only our rules, but
14 also the draft Yucca Mountain Review Plan that we are here to talk about today.

15 How will we judge that we have enough information about the key
16 technical issues from the Energy Department? Well, we have developed acceptance
17 criteria which are based on issues significant to safety, and these criteria and their
18 technical bases, have been documented in a series of publicly available reports.

19 The Yucca Mountain Review Plan consolidates those criteria into
20 one document, and that is what we are here today to discuss. It is an important
21 document to the program.

22 How will the NRC use the Yucca Mountain Review Plan? The
23 Yucca Mountain Review Plan is a licensing guide that the staff will use as our basis for
24 the NRC staff review of the potential license application.

25 It is a guidance to conduct an internal safety review of the license
26 application, and it will also describe, and I hope you will look at the criteria that is
27 contained in the document, to ensure that it is clear in describing how the NRC reviews
28 this, and in making a decision.

29 We welcome your comments on the plan, and we did issue a
30 Federal Register Notice in late March, March 29th, and we have also posted a copy
31 of the plan on our website, and we have hard copies here as well.

32 And as Chip mentioned, we will be having our last Yucca Mountain
33 Review Plan public meeting here tomorrow at 6:30.

34 The current comment period runs through June 27th, and we did
35 receive a comment last night for an extension of that time period, which we will
36 consider.

37 And we again appreciate your input and suggestions on the plan,
38 and hope that you will find time to file your comments either tonight or at a subsequent
39 time.

40 The NRC will be ready if Congress allows the current designation
41 of Yucca Mountain to take effect, and as I mentioned we do have our standards and
42 regulations in place, and the review plan will address the public comments and
43 concerns.

44 We also will conduct a full and fair hearing as part of this process,
45 and as the High-Level Waste Branch Chief, it is my job to ensure that the staff and the
46 individuals at the Center fulfill our regulatory obligations to protect public health and
47 safety and the environment as we potentially go through a license process that may
48 be applicable to Yucca Mountain.

49 And I am here today to hear your concerns, and I assure you that

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1 we are here to consider your comments with the utmost sincerity, and that we consider
2 them significant.

3 And before we go move on to the next presentation, I would be
4 happy to answer any questions that you might have.

5 MR. CAMERON: Okay. Thank you, Janet. This is an overview
6 presentation, and if you do have comments that relate to the NRC's overall
7 responsibilities, this would be the most appropriate time to give us comments. We will
8 first go over to -- is it Andy?

9 MR. HERESZ: Correct.

10 MR. CAMERON: Andy, and then we will go to Dennis. Andy.

11 MR. HERESZ: I am curious. How many licenses has the NRC
12 issued for high level nuclear gunshots like you are preparing to do here for Yucca
13 Mountain? And if so, could you give us a status update, and the locations where they
14 are at?

15 MR. CAMERON: Janet.

16 MS. SCHLUETER: (Off microphone) Well, currently there are no
17 facilities which are licensed to store spent nuclear fuel in a geologic (inaudible), but we
18 have issued several licenses to utilities which store spent (inaudible) --

19 MR. CAMERON: Okay. And --

20 MR. HERESZ: Well, you really are learning how to fly here is the
21 general issue that I see.

22 MR. CAMERON: Andy, we are not the -- we always need to get
23 it on the transcript, and let get the other people and if you have another question, we
24 can come back to you, okay? But I think people heard what you said. Dennis. Please
25 tell us who you are.

26 MR. BECHTEL: (Off microphone) Dennis Bechtel. I have a
27 couple of questions about -- well, during the licensing period (inaudible), and the
28 second one is that (inaudible) -- rejecting this specific role, and that is as a surrogate
29 for the (inaudible) --

30 MR. CAMERON: Okay. Janet, were you able to understand
31 Dennis' question?

32 MS. SCHLUETER: I was having a little trouble hearing him.

33 STAFF: If you use the floor mikes, you can hear a lot better than
34 you can if you use the hand mikes.

35 MR. CAMERON: I think Janet has the question, and we will keep
36 working here and when you use this, just talk closer to it. But Janet, can you answer
37 that?

38 MS. SCHLUETER: Yes, with regard to the licensing process and
39 how we license other facilities, we would continue to have (inaudible) and the license
40 application would be made publicly available, and that is one applicant would come to
41 the Federal Government, and we would log that and make that information publicly
42 available.

43 And you would have the ability to look at the application yourself.
44 If there were a need to request additional information from the department, or to seek
45 clarification on something in their package, we would typically review that by a publicly
46 available letter, and there would be a forum of communication back to the Energy
47 Department, and which would be publicly available.

48 And we would also require that the response would be made
49 publicly available, and it is possible that we would continue to hold some public

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1 interaction to obtain or seek clarifying information in the application.

2 And for some hearings, public hearings, and those hearings would
3 (inaudible). With regard to license support and the Nuclear Advisory Review Panel,
4 I believe that they had last met here last summer, and (inaudible).

5 I believe the Advisory Review Panel did (inaudible) in the Las
6 Vegas area, and the last time that we spoke to individuals connected with that activity,
7 I believe in the July or August time frame.

8 MR. CAMERON: And those meetings are also open to the public,
9 besides having the broad spectrum of affected interests represented on the Advisory
10 Review Panel; is that right?

11 MS. SCHLUETER: Yes.

12 MR. CAMERON: Okay. We are going to go to this gentlemen, and
13 we will get to all of you. We are just going to work northern.

14 MR. WARNER: Yes. My name is Tom Warner, a citizen of
15 Nevada, and a veteran. Two questions I would like to ask. In regards to DOE, would
16 you consider DOE's track record in attending such places hampered in this process,
17 and deeming them responsible for getting the whole license.

18 And, secondly, the GAO report which had some question or
19 recommendations in it, will DOE be required to address those issues with you in the
20 licensing process? It seems that Congress is ignoring your report, but I was wondering
21 will the NRC make DOE answer GAO's comments?

22 MS. SCHLUETER: Are there specific comments in the GAO report
23 that you are referring to?

24 MR. WARNER: Specifically, that they are about six years away
25 from coming up with an acceptable scientific approach to store this stuff, and it seems
26 that they were marching off with this thing even functioning before it is even approved
27 scientifically.

28 And Congress, who the GAO works for, doesn't seem -- they asked
29 for a report and they didn't seem to do anything with it. I am wondering if the NRC is
30 going to do anything with it.

31 But of more concern to me is DOE's track record in handling it.
32 There are super fund sites of DOE all over this country.

33 MS. SCHLUETER: Right.

34 MR. WARNER: And this seems bigger than (inaudible).

35 MR. CAMERON: Okay.

36 MR. CAMERON: Janet, I think the question is how does -- how
37 does the NRC -- and this would apply to any licensee, how does the NRC look at the
38 track record at other facilities, and secondly, how should the NRC somehow factor into
39 some of the issues that are in the GAO report?

40 MS. SCHLUETER: Well, with regard to (inaudible) of the energy
41 part, it is self-regulated, and we cannot have regulatory oversight responsibility on any
42 of the sites they mention, or any of the labs.

43 This case is different. We have been required by Congress to be
44 the regulator of a potential site, and so we have a role to do that as an independent
45 regulator, and we will apply the same type of rigor to that licensing section and focus
46 process as we do at our other licensed facilities.

47 We again have had no role to this point, but when it comes to
48 Yucca Mountain, obviously we will be looking at the information that the Energy
49 Department submits to us.

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1 And in making that determination, as I mentioned, the draft Yucca
2 Mountain Review Plan will be our key document, and it contains the criteria that will
3 be used to make our decision.

4 So the DOE application on the Yucca Mountain repository is an
5 independent action by the Department and by us, which might be looked at at face
6 value for --

7 MR. WARNER: So the history of the performance of the agency --

8 MR. CAMERON: We will have to get you to use the microphone,
9 sir.

10 MR. WARNER: I guess my concern is that I have never heard of
11 awarding anybody anything without going through the agency, the government, or
12 whatever it is.

13 But yet what you are telling me is that DOE is starting this with a
14 clean slate, as if they have had no problems in the handling of waste in the past.

15 But because you are going to be involved, that doesn't matter to
16 you anymore what their track record is? I understand that you have not been involved
17 in the past. You have not been involved in the past, but DOE has, and has been
18 irresponsible before. But that doesn't seem to matter in your process.

19 AUDIENCE MEMBER: (Inaudible.)

20 MR. CAMERON: There are -- excuse me, but we need to get all
21 of this on the transcript, and this is a legitimate issue that this gentleman raised.

22 And as you will be hearing later on from the NRC staff, we look at
23 qualifications, training of licensed applicants, and in some cases the NRC has looked
24 at with reactors at least management qualifications.

25 And in terms of the past history and if that is going to be considered
26 in the application, I believe that it all has to be within the four corners of the
27 regulations, and there may be some room for people to bring up that type of past
28 history.

29 And let me get a clarification here from Chet. Chet, do you have
30 something to offer on that?

31 MR. POSLUSNY: Let me just suggest this. That your comment
32 was very valid, and that would be an excellent comment under the review plan, and
33 maybe that something that we should take into account.

34 MR. CAMERON: And we will so consider it. Janet, if you would
35 comment on the GAO point to finish out this gentleman's question?

36 MS. SCHLUETER: Well, I think the issues that the GAO raised
37 with regard to whether or not the Energy Department would be ready, whether it is a
38 year from now, or three years from now, certainly would be part of our decision. We
39 are not going to license something --

40 AUDIENCE MEMBER: We can't hear you.

41 MR. CAMERON: Janet, I think you are going to have to get closer
42 to the mike.

43 MS. SCHLUETER: Sorry. What I was saying was that we certainly
44 would not license the facility if the applicant had not submitted enough information to
45 us to demonstrate that the safety requirements were going to be met, regardless of
46 whether that license application came in 2 years from now, or 10 years from now.

47 MR. WARNER: So you do acknowledge --

48 MR. CAMERON: I am going to have to ask you again to -- I know
49 that it is a natural tendency to just start talking, but we are taking a transcript, and also

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1 we have to make sure that other people get a chance to talk.

2 But if you want to make one final comment on the record, you may
3 do so. Does that answer your question on the GAO?

4 MR. WARNER: Yes.

5 MR. CAMERON: Okay. Thank you. Let's get to Judy, and then
6 we will go to Calvin, and then we will go over to the other side. Judy.

7 MS. TREICHEL: (Off microphone) Judy Treichel from the Skull
8 Valley Task Force. I would like to tell you something very interesting, because you talk
9 about our independence, and that comes up at every meeting, and someone sent me
10 a newspaper article (inaudible) very well, and it said that in this particular township
11 trustees have been asked (inaudible) to endorse the highly controversial proposal by
12 U.S. DOE and inaudible.

13 So even reporters who work in those areas have a very difficult
14 time understanding the independence, and I am just throwing that in, too, to let you
15 know that (inaudible).

16 And I think you are being really deceptive if you try to give the
17 impression that the public plays any sort of role at all in licensing. The things that you
18 listed are stuff that if they tried real hard, they could find (inaudible), but as far as
19 licensing is concerned, unless it is going to be very, very different than what is going
20 on in Skull Valley.

21 There is absolutely no ability to be approached for any role. They
22 have up there what they call limited access appearances, and the judges made it
23 extremely clear to anybody who showed up there that they were not going to consider
24 anything that the audience had to say.

25 I was there in the audience when they made their decision, and the
26 only people that possibly could benefit from listening might be the attorneys or the staff
27 of the NRC, which was a hammerheaded advocate for that, and I assume that would
28 be the case for Yucca Mountain as well.

29 So the public was standing there talking into the wind.

30 MR. CAMERON: And when you say assumed that would be the
31 case for Yucca Mountain, I am not sure about the hammerheaded advocate part of it,
32 but I just wanted to point out to everybody that I think Judy's characterization of the
33 adjudicatory part of the process was pretty right on.

34 In other words, the public can particular if they are given standing
35 to be a party to that process. And Mitzi from our Office of General Counsel can -- well,
36 I am getting into trouble here, but there is a opportunity for a limited appearance from
37 the public.

38 Well, I am going to let Mitzi talk about this so that everybody is
39 clear on this, okay?

40 MS. YOUNG: (Off microphone) Hi, I Mitzi Young, and I am an
41 attorney in the Office of the General Counsel at the NRC in Washington. Judy, what
42 you described is a limited appearance statement, and unfortunately that comes later
43 in the process, and after the parties in the proceeding have been identified.

44 When the application comes in and the NRC desires to adopt that
45 application because it makes a determination after that we anticipate it would be a 90
46 day review, and the application has sufficient information for the technical staff to begin
47 looking at whether it meets the NRC regulations.

48 And at that time we issue a notice in the Federal Register to the
49 public, and we have attorneys who (inaudible), and that you have an opportunity to act.

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1 But unfortunately our hearings are not the type of hearings that you may be familiar
2 with, in terms of DOE's proceedings.

3 A hearing is not a meeting where people get a chance (inaudible),
4 and the Congressional process and the legislative process, where people come in and
5 give testimony, and comments, and submit letters to us, where the tribunal makes the
6 decision.

7 So those who participate in that proceeding have to reach certain
8 qualifications for participation, and that is what Chip was referring to, to meet that
9 standard. You would have to show that you might be harmed by the action that would
10 be taken.

11 So there is the Federal Register notice coverage for a 30 day
12 period, and where you have to (inaudible) on the application being considered. In this
13 instance, it would be both contention on safety of the repository at Yucca Mountain,
14 and also on the NRC's decision on whether to adopt the environmental impact
15 statement.

16 And so you have both safety and environmental. So that is how the
17 public (inaudible), and anyone who wants to come in after that and wants to observe
18 what is going on, our hearings are totally open to the public, unless they are those rare
19 circumstances where it might involve classified or safeguard of information and not
20 open of the public.

21 And to a certain extent, you are absolutely correct, and (inaudible).
22 And just like if you were to sue your neighbor in court, the Judge has to be clear that
23 under the Constitution that you (inaudible), and that is the standard that (inaudible) and
24 that this repository is going to be for the entire nation, and whether the entire nation
25 should be in the hearing room.

26 And so there are qualifications, and issues that are to be
27 considered by the 3-Judge panel at the NRC. I hope that clarification is helpful.

28 MS. TREICHEL: Well, I already knew everything that you said
29 before you began, and we have been following this very, very closely. I think it is
30 misleading and should not be (inaudible).

31 And as it shows on your one slide, the NRC will provide full and fair
32 public hearings, and people misunderstand that, and that is not the case.
33 And unlike other court cases, this is --

34 MS. YOUNG: Well --

35 MR. CAMERON: I think that you might want to give a follow-up on
36 how that statement might be misleading, okay?

37 MS. YOUNG: (Off microphone) Well, what we meant when we put
38 the words, "the NRC will provide a full and fair opportunity for a hearing," it was that
39 everyone in the nation has a chance to follow these (inaudible) -- and it is very difficult
40 and a very complex issue that involves a lot of (inaudible) and for a repository of the
41 first of its kind, there are a limited number of people who have familiarity in this area.

42 And so, yes, it can be difficult for lawyers sometimes, and the court
43 (inaudible) and members of the tech team and members of the NRC staff (inaudible).

44 And so the full and fair adjudication or judgment by the judges, and
45 where the evidence presented in the proceeding shows that DOE has the burden of
46 proof in this proceeding, as their are the license applicant, that (inaudible).

47 MR. CAMERON: Okay. Thank you, and I want to get to other
48 people who have questions on this general point, and then we really have to move on
49 getting to the substance, but let's go to Calvin.

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1 MR. MEYERS: Good afternoon. My name is Calvin Meyers, and
2 I am a member of the Blackhead Pyutes. I am not a citizen of the United States, and
3 I am not a citizen of the State of Nevada, and I am not a citizen of Clark County. I am
4 a citizen of my tribe, which is a different country altogether.

5 I have plenty of things to say, and I know I you don't have the time
6 for me to comment on all of them, but there is one really important issue that I would
7 like to address, because this has been going on for at least 10 years that I know of,
8 because I brought it up at one of your meetings in Washington, and that is the trust
9 responsibility, and whether you are going to live up to that or not.

10 Some of the things that really bothered me about the whole
11 process, even just the mountain itself, is that you just look at the site alone. How do
12 you get there? Is there good Federal lands? Because if it doesn't, what is going to
13 happen is that you are going to be coming over my lands, my ancestor lands.

14 And lands that we still use today for medicine, and to gather. We
15 get together on a lot of things, and the only time we can get together is when
16 somebody dies and at a funeral. This is a lot of times when we can only have social
17 gatherings.

18 And people come not just from the surrounding area, but they come
19 from other States. They come from Utah, Arizona, California, and some from Oregon,
20 all over the country.

21 They have to travel to the reservation, and if something happens
22 to the reservation, they can't come here anymore, and I myself would think that I was
23 no longer needed because I can't practice my traditional ways of life.

24 And in practicing my traditional ways of life means that I should be
25 able to pick the food that I eat, take the medicine that I need, and able to travel in
26 safety.

27 And to know that that land that I am traveling on, or those foods,
28 or those medicines are not contaminated with radiation. Those are some of the things
29 that I feel are very important.

30 And I agree with the public hearings stuff. I can comment on the
31 things that are being said right now, but I can't comment on your book because you
32 never sent it to me.

33 The same thing with DOE. Every meeting, and every time I get up
34 to speak, I say the same words because nobody listens. It is either going in one ear
35 and out the other.

36 If you want me to put my finger in your ear and kind of keep it in
37 there for a second, I will do that. And I will ask that since you don't send us these
38 materials that we really cannot make a comment to the materials because we don't
39 know what is contained in those.

40 So I would also ask for a 10 or 15 year extension on the hearings
41 because we have sent our own people to college to learn about your science because
42 you don't want to help us. You don't want to work with us, even though the law says
43 you have trust responsibility to every tribe in the United States. Thank you.

44 (Applause.)

45 MR. CAMERON: Some of the comments later on are going to talk
46 about the issue that you raised, about the protection of lands around Yucca Mountain
47 from radiation.

48 And, Janet, do you have anything to say about trust responsibility,
49 or Calvin's point is well taken, and what Calvin has told us about before? Do you have

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1 anything at all on that?

2 MS. SCHLUETER: Well, I would mention that our role requires that
3 as part of the application the Energy Department showed clear title to the land, and
4 that it must demonstrate clear and unencumbered access to the lands to ensure that --
5 while ensuring that the safety requirements under our rules are met.

6 And that is one portion of the license application that we would be
7 looking at.

8 MR. CAMERON: And I believe that the Environmental Impact
9 Statement adoption process we will get into, and some of the types of issues, tribal
10 issues, that Calvin is concerned about?

11 MS. SCHLUETER: Yes.

12 MR. CAMERON: All right. Let's go to -- we will go to you next.

13 MS. CARTER: My name is Victoria Carter and I am a resident, and
14 I don't think you can answer my question; that you had nothing to do with what is
15 stored now, the stuff. So I would just like to say god bless you and your staff for
16 coming here.

17 MR. CAMERON: Thank you. And if you would please identify
18 yourself for the record?

19 MR. PERNA: My name is Frank Perna, and I am a Clark County
20 resident. I am going to bore you a little bit, as I am going to just go over some of the
21 history.

22 Nevada has not had a fair and equitable chance since 1982, when
23 the waste pact was established, and that waste pact said that whoever the majority
24 leader would be, and the DOE would recommend and the President would accept the
25 licensing process, he can't -- Senator Daschle today can't use procedural means or
26 filibuster to prevent a vote in the Senate.

27 And so we were sold out in 1982. We were sold out in 1987 when
28 they eliminated Texas and Washington because they had powerful people. Actually,
29 it was an Indian bill to fight President Bush, number 41, and Speaker Wright made
30 sure that Texas was eliminated.

31 And Tom Foley made sure that Washington was eliminated. So
32 it started off with an unscientific process. How can you say, well, one place
33 scientifically. When you hit a dead end, you can't go any further; but of course they
34 didn't hit a dead end, because as everyone has said, they ignored science.

35 And this process should never have been started since there were
36 293 scientific data deficiencies. Why did the NRC question it in some way? Was the
37 NRC biased, and did they see that there was 293 scientific deficiencies and they
38 allowed the process to go on?

39 I was in the audience in Cashman Fieldman's, and the DOE
40 Secretary Abraham came in, and he didn't make himself really available to us, and
41 before I knew it, he was out the door with two of his fellows.

42 So he didn't study up, and he didn't know nothing about it, and he
43 is a former Senator, and he drew the Republican party line, and so he approved it. He
44 said send the process up.

45 Then it goes to our President, who gives it half-a-day's
46 consideration. I mean, that is disgusting. He gave it a half-a-day's consideration, and
47 then he left overseas, and he started this whole process.

48 Now, before, Janet, you said that the NRC has a mission to protect
49 our health and safety. And they make licensing decisions one step at a time. Well,

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1 those 293 scientific deficiencies should stop you if you are using common sense
2 instead of science, but that didn't happen.

3 As far as the DOE process, it would be funny if we weren't so angry
4 about what the United States is doing to us. We have 49 States picking on the
5 weakest State at the time, and trying to shove something down our throat.

6 Finally, the 10th and the 14th Amendments of the Constitution.
7 The 10th Amendment is State's rights, and the 14th Amendment applies to guns, and
8 legal protection under the law.

9 I hope that your 3-Judge panel will look into that, but I doubt it. I
10 doubt it very much. We are not in the position where we have to listen to somebody,
11 like our President, and Vice President Cheney who won't send anybody to the energy
12 meetings.

13 And he won't give you any idea of what kind of conversations that
14 he had with his friends in the energy industry, and talking about homeland defense,
15 and anti-terrorist, and national security. And then to suggest that we should forget
16 strategic planning, and forget that we are at war time for the next 10, 20, or 30 years,
17 and we are going to transport nuclear waste across the country over rusty bridges,
18 deteriorating tunnels, and waterways.

19 And this is going to take three decades. This is nuts. How can you
20 mention homeland defense in the same terms with transporting nuclear waste? How
21 many train wrecks have we had in the last three months or so? No transportation is
22 safe.

23 So for us to have to be subject to our present -- and I am talking
24 about our President, and Vice President Cheney, Secretary Abrahams, and they are
25 talking about homeland defense, anti-terrorism, and national security.

26 Now, during the DOE meetings, I brought up a couple of --

27 MR. CAMERON: I am going to have to ask you to just wrap it up,
28 okay?

29 MR. PERNA: I brought up a couple of things that said that Yucca
30 Mountain isn't safe in any case. We had red flag exercises at Nellis Air Force Base,
31 and we have the Nellis Bombing Range, which is two minutes flight time from a plane
32 loaded with fuel, and loaded with munitions.

33 You know who we train there? In the '80s, we trained Iraqi pilots.
34 Now we train Kuwaiti pilots, Saudi pilots, 14 of whom crashed into our buildings, United
35 Emirates' pilots. Who are these people? They are our enemies and they are not our
36 friends.

37 And yet they get trained there, and all they have to do is get the
38 idea of veering a little bit and crashing into Yucca Mountain. That is the first thing that
39 makes it no good.

40 The next thing that makes it no good is we are not taking into
41 account the amount of suicides, and I would say that even with our own pilots that that
42 might happen also.

43 An accident. When you are in training, more accidents happen
44 than in combat. There is also tunnel blasts. Yucca Mountain is essentially a mining
45 operation.

46 Every mining operation could have blasts, tunnel blasts. And at the
47 National Academy of Sciences' meeting at Alexis, New York, they talked about 37-ton
48 walls that were falling in.

49 Well, you can't have -- we have robotics, and we don't have human

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1 beings that could think, and you have to rely on robotics.

2 MR. CAMERON: I am going to have to stop you there.

3 MR. PERNA: Well, you see, the point is that I brought all of this up
4 at the DOE meeting, and if you are not --

5 MR. CAMERON: Well, what I wanted is to have Janet specifically
6 address the points that you brought up right now, one of which is can you put in
7 context the 293 stated deficiencies that Frank is talking about.

8 And some of the rest of Frank's points are going to be addressed
9 by the NRC speakers, who we really need to get to in terms of the substance of this
10 review plan. So can you just address the 293. And I think we really need to get to Jeff
11 Ciocco.

12 MS. SCHLUETER: The number 293 warrants clarification. We see
13 it in the press all the time, and I would like to take just a minute to explain what that is.

14 The NRC has had as I mentioned public interaction with the Energy
15 Department to identify information that still needs to be gathered, and that we would
16 expect to see in the license application.

17 As a result of that process, the NRC has been the one who has
18 identified 293 areas where additional information needs to be gathered and obtained.
19 The complexity of those items varies; from a modest effort, to a more spendthrift effort.

20 The Energy Department during those public meetings has agreed
21 to provide the NRC with that information corresponding to the 293 areas, and those
22 are all documented in publicly available summaries of those meetings which are on our
23 website.

24 So that is an NRC created number, and as I said it is information
25 that we would expect the applicant to have addressed in the license application by the
26 time that they submit it to us.

27 MR. CAMERON: Okay. We have one final comment or question
28 on process.

29 MS. TILGES: Kalynda Tilges, Citizen Alert. Unfortunately a couple
30 of people that I wanted to speak to just left. A woman who was here had the false idea
31 that the NRC had something to do with the waste on-site.

32 They oversee that waste on-site. They oversee it and they license
33 the storage, and they oversee all those spent fuel from all those nuclear reactors,
34 including 3-Mile Island.

35 The other point is that in hopes of expediting this whole thing today,
36 I would like to see when you all get a question that you answer it completely and
37 honestly, because we have already seen once today that we had to take a really long
38 time to clarify to someone a dishonest answer that you gave them.

39 And at last night's meeting that I was at in Pahrump, we spent a
40 really long time clarifying at least two dishonest and incomplete answers that you gave
41 the public.

42 So if you really are unbiased, and you really are a public agency,
43 and you really want us to feel like you care about us, first of all, you are going to have
44 to do an awful lot of work.

45 But it would start with giving us honest and complete answers. And
46 if you are curious, I can go into the dishonesty that was at last night's meeting, and I
47 certainly hope not to see any more of it today.

48 MR. CAMERON: We are trying to be as complete as possible, and
49 I would just have to say from a Facilitator's point of view that I don't think that anybody

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1 is trying to be dishonest with anybody. Mike, did you have a question?

2 MR. HARDT: Yes. My name is Mike Hardt, and I hate to see an
3 hour and 10 minutes go by without a relevant comment to the content of the review
4 plan.

5 And I would ask if we could return to Slide 14, or rather Slide 10.
6 This concerns how the DOE would accept -- how the NRC would accept the
7 application.

8 It notes in there that you would determine whether it contains all the
9 required information, and I know that on page 22 of the plan that it talks in there that
10 you evaluate all of the different sections, and there is different categories of
11 information they provide.

12 And you would determine kind of section by section whether it is
13 complete or incomplete, and whether there is additional information required. It is not
14 clear in the plan whether if you concluded that one of those sections was complete and
15 adequate, whether you would then embark upon the technical review of that
16 information.

17 And while you were waiting for, perhaps other information to be
18 submitted on incomplete sections. And I guess the first part of the question is when
19 do you begin the technical review
20 of the completed portions of the application, and if you would begin the technical
21 review of those completed portions, is the clock actually starting then, or is it when all
22 of the information is finally determined to be complete? Thank you.

23 MR. CAMERON: Who wants to -- Jeff, do you want take that and
24 then get into your presentation, because I think Mike is giving us some good advice
25 here. It is time to move into specifics of the Yucca Mountain Review Plan. So, Jeff,
26 if you could try to -- if you could incorporate the answer to that in your presentation.

27 MR. CIOCCO: I will get to that in Chapter 3.

28 MR. CAMERON: Okay. Go ahead. And, Mike, if we don't answer
29 the question, please let us know.

30 MR. CIOCCO: Okay. Good afternoon. My name is Jeff Ciocco,
31 and I am with the Nuclear Regulatory Commission. I am going to give you an
32 introduction into the Yucca Mountain Review Plan, and it is a draft report, and it would
33 be our job, and the NRC's job, to assess the safety of the Yucca Mountain site.

34 This is what the document looks like, and it is an approximately 500
35 page document. We have hard copies over here, as well as CDs, and is available on
36 our website.

37 To begin my presentation this afternoon, I am going to tell you
38 about the purpose of this public meeting, and I am going to go through the purpose
39 and content of the Yucca Mountain Review Plan, and I will tell you what is covered in
40 it, and what isn't covered in the review plan.

41 And I will explain to you how the Yucca Mountain Review Plan is
42 risk-informed and performance-based. I will go through a general explanation of the
43 five chapters of the review plan, and then I will explain the structure of the individual
44 sections.

45 I will tell you how to comment on the review plan, as well as give
46 you an introduction into the following presentations.

47 The purpose of this public meeting is to describe to you the
48 purpose and content of the Yucca Mountain Review Plan. If you are not familiar with
49 the plan, we hope you leave with an understanding of what is in the document.

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1 If you are familiar with it, then you will get a better understanding
2 and if we can answer any of your questions. We seek your views on how well this plan
3 would assess the safety of the Yucca Mountain site.

4 One of our principles for good regulation is openness. Nuclear
5 regulation is our business and we want to make it available to you as one of NRC's
6 decision making tools in this project.

7 The purpose of the Yucca Mountain Review Plan is to instruct the
8 NRC staff on how to conduct a thorough and complete safety assessment on the
9 Yucca Mountain site.

10 The plan ensures a quality review, and it is tailored specifically to
11 the regulation for the Yucca Mountain site. The plan ensures uniformity of reviews
12 because it follows a very similar format for each individual subsection and section of
13 the regulation in the plan.

14 And next we want to make our strategy publicly available to you,
15 and finally, the Yucca Mountain Review Plan provides guidance to the applicant on
16 what needs to be submitted in its license application.

17 And that it is really Chapters 3 and 4 of the Yucca Mountain Review
18 Plan that are specified specifically in the regulations. Chapter 3 is the general
19 information, and Chapter 4 is the safety analysis report.

20 However, this plan is not a substitute for compliance with the
21 regulations. It is NRC's guidance document on how we would review a license
22 application.

23 So in summary, the Yucca Mountain Review Plan lists the
24 information that is required for a license application, and what is the acceptable criteria
25 for a license application, and it provides a step-by-step review procedure for the NRC
26 staff to determine compliance with the regulations.

27 Next, the scope of the review plan. The Yucca Mountain Review
28 Plan would be used for all phases of the licensing process, and as Janet talked to you
29 earlier about, there are three phases of licensing, and we would use this plan for all
30 three phases.

31 The first is the construction authorization, or the building permit
32 phase. The second is the license to receive and possess nuclear materials. We
33 would use specific portions of the Yucca Mountain Review Plan in order to evaluate
34 DOE's demonstration of how they would substantially complete a construction of the
35 above-ground and below-ground facilities, and any update of that performance.

36 And the third phase is the amendment for permanent closure. So
37 this plan is to intended to cover all phases of the licensing process.

38 What is not covered in the review plan. The site recommendation
39 process. As you know, that is a process that is currently under way in Congress. This
40 plan would be used if and when a license application would come to the NRC.

41 The environmental impact statement is not within the scope of the
42 Yucca Mountain Review Plan. And Janet also talked about that the NRC has
43 regulations and a process to review the environmental impact statement. This
44 document assesses the safety of the site and not the environmental portion which
45 must accompany a license application.

46 And the last area is the transportation issue. Transportation is
47 jointly regulated by the NRC and several sister agencies of the U.S. Department of
48 Transportation. This is separate from the Yucca Mountain Review Plan.

49 This plan would assess the safety of the site once the waste is

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1 received, and it would assess the safety during the operations, and the disposal of the
2 waste.

3 Next, how does the Yucca Mountain Review Plan risk-informed and
4 performance-based. We used these four words at the NRC in writing its regulations
5 and in conducting compliance reviews.

6 First I want to say is that the plan provides for review guidance on
7 site specific regulations. We say that the regulation is written for performance-based,
8 and the regulations were written because of the risk of health effects to individuals, are
9 the basis for the objective safety criteria in that regulation.

10 For example, the EPA standards for the criteria in our regulations
11 for individual protection, ground water protection, and for human intrusion.

12 Next, the review plan applies these safety criteria and applies EPA
13 standards for acceptable compliance demonstration. So in that case we are saying
14 that the review plan is performance-based.

15 And finally we say that a review plan is risk-informed because the
16 staff focuses its reviews on areas that the staff feels are most important to safety.

17 For example, the staff may focus its review on the process of water
18 dripping through the mountain, and dripping into the tunnel on to a waste package, or
19 the staff may focus its review on the corrosion of the waste packages.

20 The NRC's reviews are comprehensive, but there are certain areas
21 where the staff may focus its compliance review.

22 What are the main chapters of this plan? Well, there is five
23 chapters. Chapter 1 is the introduction. It provides an overview of the NRC's licensing
24 philosophy.

25 For example, the NRC did not select a site or designs. And also
26 the NRC's reviews are comprehensive and focus on issues most important to safety.

27
28 It also says that the NRC will defend its licensing decision, while
29 the applicant, the U.S. Department of Energy, must defend its safety case in its license
30 application.

31 Chapter 1 also talks about the our general licensing review
32 procedures, and how each section is risk-informed and performance-based.

33 Chapter 2 is the acceptance review. It is the first screening of the
34 license application with an acceptance checklist based on the regulations in Part 63.

35 It determines the completeness of the information for the
36 engineering design, and in terms of if there is sufficient information available to
37 conduct a detailed safety review.

38 The results of the acceptance review is that we would accept the
39 license application for a detailed chemical review, and we would accept the license
40 application, but request additional information.

41 Or we would reject the license application because there was not
42 adequate information for a detailed technical review, and in our letter back to the
43 applicant, we would specifically describe corrective actions if the applicant would like
44 to resubmit its application.

45 Now, the question that I heard was if we would accept a license
46 application for a detailed review; however, we had a request for additional information,
47 then when would the clock begin for the 3 year review period. Did I capture that
48 correctly?

49 MR. HARDT: I guess there were two parts. The first part as I

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1 understand it is there are several different categories of information.

2 MR. CIOCCO: In the chapters, correct.

3 MR. HARDT: And different criteria for reviewing those. It appears
4 as though you could determine that one section of information wasn't complete, and
5 then my question is would you then embark upon the second review of that section
6 while perhaps you are waiting for additional information on another section?

7 MR. CIOCCO: Yes, we would.

8 MR. HARDT: And if that were true then, would the clock start at
9 that point; and where you would start a detailed technical review of any section on the
10 application, would you have to wait until you had all of the information for all of the
11 sections before the clock starts?

12 MR. CIOCCO: Well, as to whether the clock would start on a
13 request for additional information, and whether the clock would start before we get the
14 information in from the RAI, request for additional information?

15 MR. CAMERON: And it is all related to when you decide to docket.
16 And for people who may not know the background on this, when Mike refers -- and,
17 Mike, correct me if I am wrong, but when Mike refers to when the clock starts ticking,
18 what he is referring to is that the Commission has 3 years from a certain point to
19 review and make a decision on the Department of Energy's license application.

20 So that is what he is talking about when he is talking about the
21 clock ticking. Now he is asking when does the clock start ticking relative to the need
22 for more information, or a request for additional information. Mitzi, if you could answer
23 that.

24 MS. YOUNG: (Off microphone) I think I understand your question.
25 In an NRC licensing phase, when an applicant submits an application the
26 determination is made whether the application in general contains enough information
27 for the NRC to begin its review.

28 And if there are some details or clarifications that are required, that
29 could be done after the decision is made to docket it. So it really depends on what the
30 information deficit is and the timing of it

31 So your question or example is that if you have one area where you
32 have all the information, and there is another area where there is information gaps, I
33 think with a repository, and a repository study (inaudible), that might be the type of
34 information that could be open or pending at the time the decision is made to docket.

35 So it really depends on the nature of these information gaps, and
36 whether the NRC makes a decision on whether they can docket the application. It is
37 a hard question to answer the way that you have put it.

38 MR. HARDT: I would then just recommend that the plan might be
39 more specific, or you might clarify what happens, or when does the clock start, I guess,
40 and when is it docketed, because it really is unclear right now when that would actually
41 occur.

42 MR. CIOCCO: That is a good comment. Thank you.

43 MR. CAMERON: Thank you, Mike. We are on questions on the --
44 oh, okay.

45 MR. CIOCCO: We are now on Chapter 3. Chapter 3 is the general
46 information. Chapters 1 and 2 aren't required information for license application.
47 Chapter 3 is the first part of the information that is required in the license application.

48 The purpose of Chapter 3 is two-fold. It is to provide an overview
49 of the engineering design concept, and it is to allow DOE to demonstrate its

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1 understanding of the influence of the site characteristics on the engineering design and
2 the performance of the repository.

3 And also it contains two sections, Section 3.3 and 3.4, regarding
4 the safety and security of the site, against theft or sabotage, and the material control
5 and accounting programs. I will have a page later on that.

6 Chapter 4 is the main body of the Yucca Mountain Review Plan.
7 It is a safety evaluation chapter, and it is this much of the document, and probably two-
8 thirds or three-quarters of the document are for assessing the safety analysis report.

9 And the following presentations are going to provide you an
10 understanding of what is in those sections, Sections 4.1 through 4.5. And finally there
11 is a glossary, where you will find about 300 terms, technical terms, that are used in the
12 document.

13 Next is the structure of each individual review section in the plan.
14 Each section of this plan is very similarly structured to provide uniformity of reviews,
15 and it includes the areas under review, which is the scope of that section.

16 Next is the review methods. And it is the step-by-step procedures
17 which the staff would follow to assess compliance with the regulations. Next is the
18 acceptance criteria, and it defines the acceptable demonstration of compliance by the
19 applicant.

20 Then we have the evaluation of findings. It documents inclusions
21 of the staff's evaluation of all of the information. It would contain a listing of all of the
22 information reviewed from that section, and it would describe the basis of the NRC's
23 conclusion, and it would include a findings statement or conclusion statement.

24 And lastly we have a reference section, which lists all of the
25 references used for that particular section. And there we site other documents, other
26 NRC or nationally recognized standards in the review plan.

27 And the next slide is how to comment on the Yucca Mountain
28 Review Plan. That has already been commented on at this meeting, but we have
29 comment forms, and you can do it electronically on our website; or you can submit
30 comments in writing to Michael Lesar.

31 And finally the comment period ends June 27th, and we did receive
32 a comment last night to extend the comment period. And in conclusion the NRC seeks
33 your views on this plan.

34 There are going to be four presentations following mine, and the
35 are going to cover safety during operations, and also known as pre-closure period, and
36 that would found in Section 4.1.

37 And long-term safety, and that is found in Section 4.2, also known
38 as post-closure. I will be giving a presentation on assessing security from theft and
39 sabotage, and that is the physical protection program, and material control and
40 accounting program.

41 And then Pat Mackin is going to wrap it up with the adequacy of
42 monitoring in the plan.

43 MR. CAMERON: All right. Thank you, Jeff. This is sort of the
44 bird's-eye view of the methodology, and the objectives of this review plan.

45 We are going to go into the specific sections, but before we do that,
46 is there a question on this methodology format? Judy.

47 MS. TREICHEL: (Off microphone) When you talk about the ticking
48 clock, what happens if it runs out?

49 MR. CIOCCO: There is a 90 day period for an acceptance review,

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1 and there is a 3 year for us to write our safety evaluation report.

2 MS. TREICHEL: At the end of your 3 years and you are not done,
3 you get an additional year, and what if you are still not done?

4 MR. CIOCCO: There is an option for an additional year.

5 MS. TREICHEL: And you get that year and then what? I mean,
6 the clock starts ticking on DOE, and should Congress override the Governor, and they
7 have 90 days to submit this license application, and you all know they are planning to
8 be more than two years later, what if you decide to go five times over your 3 year limit?

9 MR. CIOCCO: My management has not given me that option, and
10 maybe Mitzi from General Counsel has a response to that.

11 MR. CAMERON: Let's go to Mitzi. What happens after we use the
12 one year extension, and we still have not reached a decision?

13 MS. YOUNG: (Off microphone) I honestly don't know, but we have
14 right now a statute that gives us 2 years. You are initially given 3 years to make a
15 license decision, and the Commission issues regulations, and our adjudicatory section
16 of our agency; and 10 CFR Part 2, and those of you who are familiar with our
17 regulations, which gives the schedule for the hearing, and it starts the clock when we
18 notice the application (inaudible), and that is when our 3 year period runs.

19 Actually, the period that the Commission has this regulation
20 (inaudible), and right now it is 3 years and change, maybe 15 or 30 days. I can't
21 remember right off the top of my head.

22 It is our responsibility to the Congress to give a report, and which
23 can be extended for one year, which was already mentioned. But I would say that the
24 Commission would -- if it took longer, that there would be another report to the
25 Congress indicating what time period.

26 But the Commission's intention in issuing its regulations, and
27 particularly in organizing the licensing support network, which takes all the documents
28 related to the nuclear waste repository, and studies done on that, and in advance of
29 even docketing the application, would be an attempt to do what is called discovery in
30 litigation at the front end.

31 So the actual time it would take to litigate the application would be
32 shorter than the hearings (inaudible.). So it is a whole-hearted attempt by the NRC,
33 the Commissioners and the staff in writing the regulations, to try to make sure that that
34 period is as close to the 3 years as possible, and to go before Congress to ask for
35 additional time.

36 MR. CAMERON: The operable part we don't exactly know, and
37 there would probably be another report by the Commission on it. Janet.

38 MS. SCHLUETER: Yes, that is entirely correct, everything that
39 Mitzi discussed. However, it is very important to keep in mind that the NRC's licensing
40 decision, which is our safety decision as the independent regulator, will not be
41 determined by a clock.

42 In other words, if we are not ready to make that decision in a 3 or
43 4 year time period, it would require that we go back to Congress and ask for an
44 extension and indicate time language we believe we could complete that activity.

45 But we will not make that decision until we are ready to do so. We
46 won't be driven by a schedule. The safety of the facility is the primary objective.

47 MR. CAMERON: Okay. Thank you. Let's have one last question
48 and then let's go to the first substantive presentation, which is on safety in Operations.
49

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1 MR. BECHTEL: Dennis Bechtel, a Henderson Vet. I had an
2 opportunity to watch the hearings over the last couple of days about the review, and
3 I guess how Congress perceives the process.

4 And I get the distinct impression, and this may be an
5 understatement here, that some of the -- that now that they are almost to the point of
6 licensing that the repository is pretty well on the road. It is going to happen.

7 And if you listen to certain Senators, that is the definite impression
8 that you are going to get. So I feel personally that DOE and Congress has ducked the
9 suitability decision, and so the NRC is the last line of defense as I see it.

10 And I think the concern -- and again going back to the process, but
11 there are a number of statements in your document that I will try to comment on a little
12 more rigorously by your statements.

13 It says, "During the acceptance review, the NRC does not
14 determine the accuracy of the information." So I guess the question is who does and
15 when?

16 MR. CIOCCO: The NRC will, and it is detailed in the safety
17 analysis report, and Part 2 of the regulations, there is an acceptance review to the
18 acceptability before we begin our technical review.

19 MR. BECHTEL: And there is also other statements. It says that
20 the NRC is not seeking scientific precision. That sort of bothers me, too. We are
21 talking about a first of its kind facility, and we are talking about something that is going
22 to affect many people over the years.

23 MR. CIOCCO: Right.

24 MR. BECHTEL: And I would think that again being the last line of
25 defense as I see it, you know, that there seems to be more rigor in how it is described,
26 or that there be some rethinking of the process to make sure that these things actually
27 happen. And there are a couple of more --

28 MR. CAMERON: Dennis, he is on this particular issue, and I --

29 MR. BECHTEL: Well, again, I am not sure where these things fit
30 in, you know.

31 MR. CAMERON: Usually we have a little bit more flexibility, but we
32 do need to get some of this on.

33 MR. BECHTEL: Okay.

34 MR. CAMERON: And we have your statement that we are
35 attaching to the transcript already. Could you just give us one more, and then see --

36 MR. BECHTEL: Well, one more and I actually have a couple of
37 recommendations, too.

38 MR. CAMERON: Good.

39 MR. BECHTEL: The NRC has no power to tell a licensee to come
40 forward with their proposal, and again that is a concern. You know, getting into how
41 you described things -- accept, reject, accept, and request additional information.

42 Well, in my mind, accept and request additional information is not
43 accepted. It is not necessarily a rejection, but it is not normally an acceptance.

44 And I think statements like that are going to give the public, and
45 definitely the Congress, are going to get the wrong impression, that okay, maybe it is
46 just some minor thing.

47 Maybe it is some minor thing, but I think that chronology needs to
48 be revised a little bit. And I guess the last thing is that it would have been helpful, or
49 it will be helpful I think to me in reviewing the document further that if you have sort of

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1 process background.

2 I mean, you have things in the organization format that I
3 understand, but how do you actually go through the process, and gee, you have a
4 problem here, and how does it stop. I think that would be helpful in trying to condense
5 a lot of words that are in the document.

6 The other thing is the final environmental impact statement. I know
7 that we several years ago had an opportunity -- Clark County had an opportunity to
8 submit testimony, as did the other affected governments.

9 And as I understand it, the NRC more or less agreed with some of
10 the comments that we had on EIS, and I didn't see those resolved in the final EIS for
11 Clark County or for you all.

12 And I am wondering that since the EIS is part of the licensing
13 package that even if the license is fine, you have the environmental impact statement
14 that is not fine, and where does that place the license?

15 I mean, the environmental part of it, and the context part of the
16 community is very important, and the license could be totally hunky-dory, and if the rest
17 of it is not adequate; in my mind that would still leave some question about the
18 adequacy of the whole package.

19 MR. CAMERON: Dennis, I see where you are coming from. Those
20 are great comments, in terms of the processed diagram, and I am going to put the EIS
21 issue that you raised in the parking lot right now.

22 And as Jeff mentioned the EIS issues are not covered by the
23 review plan, and hopefully we will have a chance to come back and address that. And
24 please give us the rest of your comments at the appropriate time when we get to these
25 things. Thank you.

26 MR. BECHTEL: Okay.

27 MR. CAMERON: Let's go to Pat Mackin to talk about Safety in
28 Operations.

29 MR. MACKIN: Good afternoon. My name is Pat Mackin, and as
30 was mentioned earlier, I work for the Center for Nuclear Waste Regulatory Analyses,
31 and I just want to clarify to you all that we were established specifically to assist the
32 NRC in an independent safety review for any license application for a repository at
33 Yucca Mountain, and that is what our job is.

34 The regulations relating to Yucca Mountain basically split the
35 lifetime of a repository into two periods. One that would comprise construction and
36 operation, and the other would be after it would be closed.

37 I am going to talk about that period during construction and
38 operation, and then Tim McCartin of the NRC is going to talk about after we close.

39 Now, the purpose of what I am going to talk about today is to give
40 you an idea of what the scope of the information is that the NRC will look at in its
41 safety review, and the Department of Energy will have to have included in its license
42 application.

43 But before I start that, many of the things that would go on at a
44 repository are the same things that go on in many other nuclear facilities around the
45 country and the world today; handling spent fuel; packaging spent fuel; protecting
46 workers and the public from radiation exposure.

47 So there is a lot of experience and information on how to do these
48 things, and we have incorporated that into the Yucca Mountain Review Plan.

49 I am going to talk about five aspects of safety during construction

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1 and operations that occur in the Yucca Mountain Review Plan. The first of these is
2 pre-closure safety analysis, which is a set of techniques that are used not only by the
3 NRC, for the safety of complex facilities.

4 Next I am going to talk about who would operate such a repository,
5 and what their qualifications would be, how they would be trained. Then I am going
6 to talk about how a repository would be operated.

7 Then I am going to talk about DOE requirements to demonstrate
8 the capability to retrieve waste that would be put in a repository, and to store it in an
9 alternative location.

10 And finally I am going to look in the long term to address the need
11 for the Department of Energy to discuss in its license application how it would go about
12 building a repository so that the surface facilities could be dismantled and be
13 decontaminated in a way that would protect workers and the public.

14 Now, I will discuss each of these in more detail. First, the pre-
15 closure safety analysis. This is the way that NRC regulations require the Department
16 of Energy to demonstrate that it meets the public health and safety standards.

17 A pre-closure safety assessment addresses three questions, and
18 DOE will have to answer these questions, and the NRC will evaluate whether they
19 were answered properly.

20 The first is what could go wrong in a repository. The second is how
21 likely are those things that could go wrong, and the third is that if those things go
22 wrong, what are the results.

23 And by results we mean radiation doses to workers or the public.
24 The techniques for doing a preclosure safety analysis are taken from other industries.

25
26 The chemical industry uses these techniques to assess chemical
27 facilities, and the petroleum industry uses them, and the NRC uses them for other
28 kinds of nuclear facilities.

29 The NRC staff has been trained in how to use these techniques,
30 and the success records is why they were placed in the Yucca Mountain regulations.

31 Now, a safety analysis does several things. First of all, it looks at
32 what can go wrong; what are the hazards, both man-made and natural, or the events
33 and the sequence of events that could happen at a repository.

34 Examples might be a crane fails and a fuel rod drops. Another
35 example might be a vehicle that is taking a waste canister down into the repository and
36 has a brake failure.

37 Others might be fires, and explosions, and all of these things DOE
38 must examine in its safety analysis.

39 The next thing a safety analysis does is that once you have
40 identified the things that can go wrong, you look at how likely they are that they could
41 happen.

42 The next step then is to look at what the results are if those things
43 happen. What would be the impact, and the radiation doses to workers or the public.

44
45 Then from that information the Department of energy has to identify
46 what those pieces of equipment, machines, components, are that are necessary to be
47 operating to protect people.

48 Those are defined as items important to safety and they play a
49 major role in what goes on from here on. Once this part is done, the next step is to

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1 compare the consequences, the radiation doses to public health and safety standards.

2 The NRC would not license a repository to be constructed and
3 operated if the Department of Energy did not demonstrate that the public health and
4 safety standards would be met.

5 And finally for of those items that have been defined as important
6 to safety, safety reviews of the design would be conducted.

7 So that is what a pre-closure safety analysis does. The next thing
8 that I want to talk about is who would operate a repository, and how they would be
9 trained.

10 There are a number of things that the Department of Energy must
11 show here, and that the NRC would evaluate. The first of those is the Department's
12 own organizational structure, and who reports to who.

13 What is the chain of command, and what are the responsibilities
14 and the delegations of authority. Next, I mentioned earlier that certain things at a
15 repository would be identified as important to safety.

16 The Department of Energy has to show that all of those things that
17 are under safety comes under somebody's control, and then it has to show that the
18 people who are responsible for those items of safety has demonstrated what the job
19 requirements are, the prerequisites to hold those positions, and what kind of
20 qualifications they have to have.

21 Next, we look at how the Department of Energy would select and
22 train workers for working at a site. I mentioned earlier that many of the operations at
23 a repository are similar to what goes on in other places around the country and the
24 world already.

25 Well, a lot has been learned about how you need to train people
26 to operate a nuclear facility. What has been learned as in fact been written into the
27 review plan.

28 The Department of Energy would have to demonstrate how it would
29 hire people, train them, re-qualify them, and document that they are properly trained.

30 They have to have a training program that is accepted by the NRC.
31 Finally, any worker at any nuclear facility has to be trained in the hazards and the
32 properly handling of radioactive materials.

33 The Department of Energy must demonstrate that it has a good
34 program for doing that at the Yucca Mountain repository, and the NRC will examine
35 that program.

36 Next, I want to talk about who would operate a repository, and how
37 the Yucca Mountain Review Plan would examine how a repository would be operated.

38 First of all, as equipment starts to be installed if the NRC grants a
39 construction authorization, that equipment has to be tested, operated, and procedures
40 have to be checked before any radioactive waste could be brought to the site.

41 So one thing that the department must provide is a plan for start-up
42 and testing of components. The NRC will evaluate that. Second, just like for our cars,
43 you have to do periodic maintenance. It is not enough to just buy a car and drive it.
44 You have to test periodically.

45 So those components important to safety have to have some
46 period program of testing their operation to make sure that they operate in the right
47 specs.

48 DOE has to present a program for how it is going to do that. That
49 program has to show how often things will be tested, and how they will be tested, and

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1 what the qualifications of the people doing the tests are, and what the acceptable
2 results are.

3 Next, anything important to safety of workers and the public at any
4 nuclear facility have to be done using a formal procedure. There even has to be a
5 procedure for how you write procedures.

6 Those procedures have to have things like what is the sequence
7 of operations. What are the tools that you need. What are the calibration
8 requirements. What are the qualifications of the worker that is doing that test.

9 What are the results supposed to be. What do you do if the results
10 aren't satisfactory. So the Department of Energy is going to have to demonstrate that
11 it has an appropriate program for developing and using procedures that are important
12 to safety, and how to do that is written into the Yucca Mountain Review Plan.

13 I mentioned earlier that the pre-closure safety analysis looks at
14 what could go wrong at a repository. Well, if something can go wrong, you have got
15 to have a plan to do something about it.

16 So again all nuclear facilities have to have emergency plans.
17 There will have to be one for Yucca Mountain. The NRC has staff whose expertise is
18 specifically the examination of emergency plans, and those criteria have been written
19 in the Yucca Mount Review Plan.

20 Calvin mentioned earlier about questions of access to Yucca
21 Mountain, and land use. DOE has not presented any of those plans yet, but they will
22 have to in their license application, and the NRC's view in reviewing those is that
23 certain things have to be able to be done.

24 One is that the waste has to be protected from disturbance, and the
25 second is that people would have to be protected from the waste. So those would be
26 the considerations the NRC will use in evaluating any land access plans.

27 And finally in building a repository, we have complex evolution, and
28 things will have to happen in certain sequences. The Department will have to
29 demonstrate its schedules for building and constructing a repository, and the NRC will
30 examine them to see if they make sense and if they will work.

31 The next thing that I want to talk about is a requirement in the
32 regulations that DOE be able to show the capability to extract the waste from the
33 repository and store it somewhere else if something goes wrong.

34 The Yucca Mountain Review Plan gives guidance to the staff on
35 how to examine these plans, which the Department must present. And the staff will
36 look at the process the DOE proposes to use, and look at the plans for alternate
37 storage of the waste, and look at how those activities would protect workers and the
38 public.

39 The last aspect of the pre-closure safety operations that I am going
40 to talk about in this presentation is a look to the distant future. If the NRC grants a
41 license to construct and then to operate a repository at some date it would have to be
42 closed.

43 It might be a long time in the future, but right now the regulations
44 require that the Department present its design features and plans for ensuring that
45 when that time comes that the surface facilities could be dismantled and
46 decontaminated in such a way that workers and the public would be protected.

47 So I have talked about four specific areas that are unrelated that
48 would affect safety of operations at a repository. The Yucca Mountain Review Plan
49 examines all these, and it makes use of what has already been learned around the

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1 world and around the country for these facilities as a way to intimately assess how
2 DOE proposes to operate their repository. I would be glad to take your questions.

3 Yes, Ma'am?

4 MR. CAMERON: Mary.

5 MS. MANNING: (Off microphone) From what I have read and from
6 what I have heard about the plans this afternoon, and my question is are you going to
7 require the Department of Energy the worst case scenario on every part of the
8 operation (inaudible), and second, how are you going to do your risk assessment; i.e.,
9 the amount of radiation, and heavy metals in the area water, and so forth.

10 MR. MACKIN: I may ask Janet to amplify what I say, but in general
11 the NRC doesn't require a worst case assessment. It requires reasonably
12 conservative assessments of what can go wrong, and the regulation provides
13 guidelines on what the likelihood is of events that have to be considered.

14 So the reason that I think that the NRC stays away from worst case
15 is because if you name a worst case, I can come up with something worst, and you
16 can come up with something worst after that.

17 And so you don't get an effective way of looking at what can go
18 wrong, or no facility or anything would be built. So they look for a reasonable
19 conservatism considering the things that could happen.

20 I think that to my knowledge of the safety assessment process is
21 the methods that are used to identify what could go wrong are comprehensive.

22 Somebody here earlier today mentioned the issue of the air range.
23 Certainly DOE would have to examine the likelihood of an aircraft crash, and fires, and
24 explosions, and failures of equipment, failures of shielding in the waste handling
25 building.

26 Somebody else mentioned the underground structures collapsing,
27 and that certainly has got to be considered in DOE's safety analysis.

28 Cumulative risk I would address in two ways. One, the regulation
29 requires that the Department of Energy examine sequences of events that can
30 happen, and the NRC regulations deal with radiation exposures.

31 Cumulative risk is dealt with in DOE's environmental impact
32 statement, and what they consider are specific sections that deal with cumulative
33 impacts.

34 But that is not heavy metal problems and industrial safety and so
35 forth are not really addressed in the Yucca Mountain Review Plan.

36 MR. CAMERON: There may be parts of Tim McCartin's next
37 presentation that may get into that possibly. Andy.

38 MR. HERESZ: Thank you. I may have missed this earlier, Mr.
39 Mackin, but you don't work for the NRC; is that correct?

40 MR. MACKIN: We are contractors to the NRC.

41 MR. HERESZ: And you are with the Center for Nuclear Waste
42 Regulatory Analysis out of San Antonio, or someplace down there?

43 MR. MACKIN: Yes.

44 MR. HERESZ: And how long have you been working with the
45 NRC?

46 MR. MACKIN: The Center for Nuclear Waste and Regulatory
47 Analyses was established in 1987 specifically to support the NRC's high level waste
48 program. It is actually what is called a Federally-funded research and development
49 center.

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- 1 We were established by the NRC.
- 2 MR. HERESZ: So your funding is contingent upon NRC, and you
- 3 are not in this for profit?
- 4 MR. MACKIN: In fact, our parent organization, Southwest
- 5 Research Institute, is a not-for-profit organization.
- 6 MR. HERESZ: Oh, really? I thought they were out there to make
- 7 some money.
- 8 MR. MACKIN: We have to make enough money to pay our
- 9 workers and buy state-of-the-art equipment, but we don't have public stock or anything
- 10 of that nature.
- 11 MR. HERESZ: Okay. So by the nature of your relationship do you
- 12 have any political appointees with your organization?
- 13 MR. MACKIN: No, we do not.
- 14 MR. HERESZ: Okay. Thank you.
- 15 MR. CAMERON: Judy.
- 16 MS. TREICHEL: There is not a lot of information on how to retrieve
- 17 waste, and the Department of Energy thinks that will improve public confidence. And
- 18 you mentioned many times during your presentation, and it was mentioned in other
- 19 presentations, is this more than a paper exercise, or will the NRC have to see this
- 20 being done?
- 21 Because I know that at some of the dry task facilities there has
- 22 been a need or there should have been a way to remove waste from a dry task and
- 23 repackage it, and it has never been done.
- 24 And all the EIS that the Department of Energy did, and all that they
- 25 say about retrieval is that it is the reverse of placement, and as a non-scientist, I think
- 26 that is not correct.
- 27 MR. MACKIN: The Department of Energy does not require by
- 28 regulation a detailed design showing what it would use and so forth to retrieve a waste
- 29 package.
- 30 One of the reasons is, I believe, is what would cause retrieval to
- 31 take place is unknown at this time. So it must show and convince the NRC that it has
- 32 the capability that the design will allow for the retrieval of the waste.
- 33 MS. TREICHEL: Well, nothing is going to convince the public, and
- 34 I am one of them, unless -- I mean, this is all remotely done, and unless you can
- 35 somehow show that -- and I definitely think that has got to be a requirement.
- 36 People are clamoring for full-scale testing on transportation tests
- 37 and so forth, but this retrieval idea, it is definitely not just the reverse of inplacement,
- 38 and I don't think you make a convincing case that they can do it and you can't see it.
- 39 MR. CAMERON: Okay. Thanks, Judy. We are going to go to
- 40 Commissioner Herrera.
- 41 COMMISSIONER HERRERA: Thank you, and I of course
- 42 appreciate you all holding this public hearing. Let me first state my unequivocal
- 43 opposition to the plan, which has been pretty well stated. I also have a question on the
- 44 context of some of the historical context of the process.
- 45 In particular, I know that -- and I am going to refer to the
- 46 environmental impact statement, and I know that is not part of your perview.
- 47 But you mentioned that if the DOE submits a license application,
- 48 and you all find a deficiency with a portion of their application, then they have the
- 49 responsibility to address the deficiency, correct?

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1 MR. MACKIN: That's correct.

2 COMMISSIONER HERRERA: Okay. And I asked that because
3 when the environment impact statement process began, Clark County submitted
4 comments to the EIS, and never received a response to our comments.

5 Instead, what we received was an acknowledgement of the
6 comments, and were cataloged, but no response to the comments have been
7 submitted. Now, what assurance can you provide the residents of this county that if
8 in fact there is a deficiency, that the rules just won't be changed to no longer have
9 deficiencies?

10 And it is a well-founded question, because when this began it was
11 supposed to be a geological repository, and then we have seen that when the DOE
12 has found some barriers to a geological repository, got the NRC to back off so to
13 speak, and to allow them to engineer around the geologic barriers, and the NRC has
14 complied.

15 So what kind of assurance can you give folks here and folks in
16 Southern Nevada that the NRC just won't give a cursory treatment to the application
17 issues that are identified throughout the process?

18 MR. MACKIN: I would be glad to answer that, but perhaps Tim
19 McCartin or Janet Schlueter would like to. I would say that probably -- I'm sure that the
20 people here would not agree with your statement that the NRC backed off regulations
21 because DOE could not meet the previous regulations.

22 COMMISSIONER HERRERA: And in the original policy act, it was
23 supposed to be a national geological repository, correct? Is that a correct statement?

24 MR. MACKIN: Yes.

25 COMMISSIONER HERRERA: And then when the DOE found it
26 difficult to comply with the conditions of your original policy act, which required a
27 geologic repository, they submitted an amendment to that plan for the NRC to allow
28 them to engineer barriers, or issues that required them as a result of its requirements
29 to have a geologic repository.

30 And rather than the NRC referring back to the policy act that
31 mandated that this be a geologic repository, they basically allowed DOE, you know,
32 to modify its request, and you all allowed them to modify.

33 And I am not suggesting it is a relaxation standard. What I am
34 saying is that it is a different standard than is now being applied. What would prohibit
35 that from happening if future deficiencies are found, because in fact they will be found
36 based on the track record of the Department of Energy?

37 MR. CAMERON: That is an excellent question from the
38 Commissioner, and first of all, I think you may be useful for one of us to address the
39 first issue of the multiple barriers, but then also for one of us, and perhaps Tim, to talk
40 about the stability of the regulatory framework, because I think the Commissioner is
41 asking about it.

42 And I am going to ask Tim to talk about the multiple barriers, and
43 then ask Janet or whoever would like to address the stability of regulatory framework.
44 Tim.

45 MR. MCCARTIN: Tim McCartin, NRC staff. And the current
46 regulations do require that the repository be comprised of both natural and engineered
47 barriers. Natural barriers are most associated with the site, and with the geology, and
48 that is still in the regulation.

49 The regulations as you know don't have any specific numerical

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1 value for what the geology needs to provide. But it is in the regulation, and the
2 regulation defines barriers as those that prevent or substantially delay movement of
3 water or radionuclides.

4 So I would say that the regulations require that the geology has to
5 provide a substantial capability to affect safety. And I would say that if we look back
6 at why did they end up this way, the National Academy of Sciences, in their
7 recommendation for Yucca Mountain standards, specifically spoke to the NRC, and
8 they advised the NRC against putting in any particular numerical values for barriers.

9 Subsystem requirements is what they were called in the National
10 Academy of Sciences' report. And the reason for that is that they felt that the
11 Department of Energy should have the flexibility to provide the greatest amount of
12 safety that they can through all the barriers.

13 And the best example is the previous regulation that the National
14 Academy of Sciences was talking to was that the waste package had a 300 year
15 requirement for the lifetime of the waste package.

16 And 300 years is relative to if we look now at what the Department
17 of Energy is estimating, is many thousands of years, way beyond the requirement that
18 we had in your previous regulation.

19 So I think that's where the National Academy of Sciences said don't
20 give a particular value, because they will try to shoot for just that boundary, and you
21 will get a greater safety product encouraging a more robust safety case, where they
22 try to get as much safety out of all of their facilities.

23 COMMISSIONER HERRERA: So in essence is it is a subjective
24 standard that may shift according to issues that are identified by the process?

25 MR. CAMERON: Why don't you clarify on that and then there is
26 another piece on this that I think is important. Go ahead.

27 MR. MACKIN: You are correct that there is not a specific numerical
28 number, and that would be something that is determined through the licensing hearing.

29 COMMISSIONER HERRERA: Can I ask a follow-up question?

30 MR. MCCARTIN: Certainly. We have some more information
31 about where the "shift" developed and we want to share with everybody, too. Why
32 don't you go ahead and ask your question.

33 COMMISSIONER HERRERA: My follow-up question is if in fact
34 as Secretary Abraham has held that Yucca Mountain is geologically suitable for the
35 nation's nuclear waste repository, then how can the NRC, the DOE, and other
36 agencies involved in the site assessment now not rely on the geologic position on the
37 site itself?

38 MR. MCCARTIN: Well, the regulation requires that there has to be
39 some natural barriers, and the capability for that at the site. So there will be a geologic
40 component to our evaluation of the Yucca Mountain site, and the safety of the Yucca
41 Mountain site.

42 COMMISSIONER HERRERA: But if engineering is a substantial
43 portion of the process, then any site in America could be identified and engineered
44 around those barriers to a certain degree of safety as well, correct?

45 MR. MCCARTIN: No, unless there is a substantial component that
46 the geologic barrier has the capability to provide, the NRC could not license it based
47 on not having multiple barriers.

48 And I guess I would like to draw an analogy to fire protection if you
49 will. So I realize that some people have questions about if the waste package lasting

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1 beyond 10,000 years, it is not a geologic repository. It is just a waste package.

2 And I would say that is not true, and I would point to an analogy
3 with fire protection. Buildings are designed to let fires burn through; electrical lighting,
4 et cetera.

5 However, if you look at this building, there is sprinklers, and there
6 is smoke detectors. Smoke detectors and sprinklers provide a safety capability.

7 You don't have to have a fire for that capability to be there.
8 Likewise, with a geological repository, when the NRC evaluates DOE's license
9 application, there may be a 10,000 year package, and maybe it will last much longer.

10 There still has to be what will the geology provide in terms of safety
11 if there are some releases from the waste package, and what the regulations require
12 is there has to be a natural barrier, a geologic barrier, that provides a substantial
13 capability to prevent or delay the movement of radionuclide.

14 COMMISSIONER HERRERA: And my final question is related to
15 process, and I should have asked it earlier, but the gentleman spent a lot of time
16 talking about the process, but I think this might be relevant.

17 And I again refer you to Clark County's experience with EIS, and
18 we provided what we think are meaningful comments to the EIS, and never, never to
19 this day have we received a response regarding our comments to the EIS.

20 Now, because the application by DOE, if it comes to that point, then
21 what kind of public involvement process will be involved at that point? Because the
22 DOE essentially will prepare an application, and submit it to the NRC, and then
23 obviously you will provide an opportunity for public comment.

24 But now what kind of assurance would be in that process to
25 address the concerns that are identified by the public and not just cataloged and
26 acknowledged that they have been received?

27 MR. CAMERON: Okay. Let's answer that question. Let me just
28 get a quick -- we have two questions that we need to answer for you, Commissioner,
29 and maybe the stability of the regulatory framework has been addressed, but we need
30 to answer this question about the environmental impact statement and the public
31 comment process:

32 Before we do that, Janet, did you want to provide the
33 Commissioner and everybody else with some background on the legislation?

34 DR. KOTRA: (Off microphone) My name is Janet Kotra, and I am
35 on the staff of Waste Management, and am the author of the Nuclear Regulatory
36 Commission Regulation for geologic disposal.

37 I wanted to correct some miscommunication. The Department of
38 Energy never came to us and asked us to change the regulation. The Congress of the
39 United States directed the Environmental Protection Agency to develop new
40 regulations, and relying on the guidance of the National Academy of Sciences.

41 We were directed to form our regulations within a stated period of
42 time to change what the Environmental Protection Agency initiated and went final on --

43 COMMISSIONER HERRERA: Well, was that because the DOE
44 could not meet its initial standard that was established under the original policy act, or
45 was it in response to just someone in Congress saying, oh, let's direct the EPA to work
46 with the NRC and all the other regulatory bodies to amend?

47 If there wasn't a deficiency in the DOE's approach or their work,
48 why would EPA have come before you for an amendment of the process?

49 DR. KOTRA: I am not really qualified to address Congress' motive

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1 for what they did or didn't do, other than to say that the science with regard to
2 evaluating the ultimate safety of the repository, and which our agency has been
3 involved in for many years, and it has evolved a great deal since the concept was
4 originally made in the late '70s of deep geologic disposal.

5 Science understands that those analyses have changed a great
6 deal and there was a recognition that it is extremely difficult arbitrarily to set values for
7 period of time facilities.

8 And that the new criteria that the Environmental Protection Agency
9 developed recognized the evolution of that science, and began trying to comply with
10 the direction of Congress, and with regard to the National Academy of Sciences.

11 I just wanted to clear up the fact that is how those rules got
12 changed. The motivation behind the direction is open to multiple interpretations and
13 analyses.

14 MR. CAMERON: Commissioner, let me get an answer to your
15 question, and it will also address Dennis Bechtel's question about the environmental
16 impact statement, and I am going to go to Mitzi Young from our Office of General
17 Counsel.

18 MS. YOUNG: (Off microphone) This may or may not answer your
19 question. But one of the things that have come up in terms of the concern that I am
20 able to understand from your comments is what guarantee or assurances is there as
21 to the integrity of the process that the rules of the game aren't going to change, and
22 I think that is how you phrased it.

23 COMMISSIONER HERRERA: Not exactly. My specific question
24 is because the DOE, who prepared the application without the benefit of public input
25 given historic context on this entire process, that the NRC would receive an application
26 that is prepared by the Department of Energy.

27 Now, the NRC will have a public comment period during that time
28 to review input. Now, when we provide our comments to EIS, there was a catalog of
29 concerns, and an acknowledgement of concerns, but never a treatment of concerns,
30 and that is a big difference.

31 Now, what in the process will ensure that the concerns of the public
32 aren't just acknowledged and categorized, but actually addressed?

33 DR. KOTRA: (Off microphone) The NRC does not have a public
34 comment period on the application (inaudible). The opportunity for public comment
35 only comes during a formal hearing, and the NRC licensing process then is totally
36 distinct from the public hearing process (inaudible).

37 In other words, they must docket the application, (inaudible) your
38 comments, and give us an opportunity for people to raise issues and concerns.

39 COMMISSIONER HERRERA: And that is exactly the point.

40 MS. YOUNG: But I am just saying there is a little bit of difference
41 in that process. Now, with respect to an application -- well, if we define a position in
42 some respect, and we have that regulation that has been longstanding since the '60s,
43 and if the NRC staff identifies a deficiency in an application, and the licensee does not
44 provide that information in a reasonable amount of time, we have the ability and the
45 authority to issue a notice of denial of the application.

46 And that is in the regulations, 10 CFR 201.108. So that is one thing
47 that we could do, is to deny the application because they did not provide the
48 information requested in a reasonable amount of time for NRC review.

49 With respect to (inaudible) in terms of the EIS, we have a very

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1 narrow role described by Congress that was on Slide 12, I think, and we have only
2 addressed the adoption issues only in two limited issues. Whether there is a change
3 that the NRC would take without significant environmental impact, or there is some
4 change in the information about the product storage location, and somehow renders
5 this EIS inadequate.

6 That does not to questions about whether in preparing the EIS that
7 DOE followed all of those regulations necessary for preparing it. So those things don't
8 even come under the NRC process.

9 COMMISSIONER HERRERA: At no point throughout the process
10 has the county's or the State's comments to the DOE's environmental impact
11 statement been addressed?

12 MS. YOUNG: I understand what you are saying, and in terms of
13 the original Nuclear Waste Policy Act, that within 180 days of DOE issuing their final
14 environmental impact statement (inaudible) -- are required to do.

15 Now, DOE on the other hand, could raise defenses and try to
16 defeat those plans. The NRC is going to take the litigation on the EIS, at whatever
17 point it is that the DOE comes in for a license application, and right now that will
18 happen in December of 2004.

19 COMMISSIONER HERRERA: Now, with respect to your comment
20 about the lack of an opportunity for a public hearing as far as the application, is that
21 a mandate from Congress or is that an NRC adopted regulation?

22 MS. YOUNG: There is not a lack of an opportunity for a public
23 hearing on the application.

24 COMMISSIONER HERRERA: I thought I heard you say the public
25 will have an opportunity to be part of the --

26 MS. YOUNG: No, what I tried to explain is that the NRC hearing
27 is a formal adjudatory proceeding. When we notice the application and docketing it --
28 and that is a horrible word to use, at that point the staff attorneys for the application
29 have all the information on the Yucca Mountain Review Plan.

30 And that is only a guidance document. For example, DOE could
31 ignore the document entirely and say we are going to meet the regulations another
32 way. That would put us in a bind in terms of using our resources for a review of it,
33 because we went along with the structure of the way that it was anticipated to be
34 reviewed in the review plan.

35 But when we issue it in the Federal Register, and it is a notice to
36 the world, that (inaudible), there is an opportunity for any person in the United States,
37 including Native American tribes, to file a petition to show status, and if they can show
38 if they are affected by it, they automatically get to participate in the proceedings.

39 But those affected, such as the local governments, Clark County,
40 Nye County (inaudible). Environmental organizations has a number of facilities that
41 could be harmed by any activity associated with (inaudible), would have an opportunity
42 to come into an NRC (inaudible) and I have (inaudible) that has been harmed, and I
43 have an issue, and I want to litigate, and a 3-Judge panel would have to make that
44 decision.

45 So it is a hearing, but it is not a meeting where people come and
46 give comments and say it is a good idea or a bad idea.

47 COMMISSIONER HERRERA: Right, and I asked that because --

48 MS. YOUNG: And it is a hearing based on factual evidence, and
49 based on people who have knowledge about the facts, and experts who have opinions

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1 as to how the repository will operate over the long term.

2 COMMISSIONER HERRERA: And I asked the question the way
3 I did was because the County, and everyone else for that matter, had an opportunity
4 to provide comments to the EIS.

5 Now, the opportunity was to provide comments, and not to get
6 those comments addressed, or dealt with in any significant way, and there is a
7 substantial difference in having an opportunity to participate and having results based
8 on the concerns that you have raised during that period of participation, and that's why
9 I asked the question in the context of the EIS process.

10 MR. CAMERON: And I think that really restating your question for
11 us, Commissioner, is -- and I don't know if there has been a decision made on this, but
12 to the extent that the Department of Energy did not adequately address -- and let's not
13 say accept, but did not adequately address the comments that Clark County or others
14 gave on the draft EIS, is there some opportunity for Clark County to raise those issues
15 again somehow with the Commission in connection with its process.

16 And I think that is what you are trying to find out, and I don't know
17 if we have a good answer to that yet, because I think there are still some things that
18 the Commission is considering.

19 But, Janet, do you want to say anything more on that specific issue,
20 because I think that is the key, and I think that we really need to hear from a couple of
21 other people here and move on to the next presentation.

22 But I want to make sure that the Commissioner and -- and by the
23 way, Commissioner Herrera, you are the Chairman of the Clark County Commission
24 for people who don't know.

25 MS. SCHLUETER: (Off microphone) Well, I think the bottom line
26 is that we are required by Congress to adopt the environmental impact statement to
27 the extent practical, and as was stated earlier today, there are one or two conditions
28 that might exist where we could not do that.

29 And as part of the licensing process, we would expect that the
30 Energy Department would provide official information beyond that which was covered
31 in the final environmental impact statement, particularly if there were significant
32 changes for other program changes with the repository, and were not covered in the
33 final environmental impact statement.

34 We are a commenting agency, and like you, we provided
35 comments to the Energy Department. We did not receive, nor did we expect
36 necessarily, a written response back from the Energy Department on those comments

37 Despite that, as part of the licensing process, the Judge will have
38 to determine the degree to which the final environmental impact statement adequately
39 meets the (inaudible) consideration.

40 If it is determined that it does not, that will then (inaudible) for the
41 Judge and the panel to render a decision on whether we should deny or grant the
42 license.

43 MS. YOUNG: Unfortunately, that's not quite correct.

44 COMMISSIONER HERRERA: Okay. I will take your word for it,
45 because I am not sure I understood what was said.

46 MS. YOUNG: Well, it is extremely complicated, and because the
47 regulations have been very narrowly interpreted, it was Congress' intent that when one
48 agency does an environmental impact statement, for the second agency that is relying
49 on that statement to take an action, that it doesn't necessarily retread entirely all the

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1 ground that the first agency did.

2 So the issue is -- your comments on the EIS had to do with things
3 under those two standards where we couldn't make the adoption decision, definitely
4 that could be a basis of a contention that would come into a hearing.

5 If it is something else, and if it is not significant new information that
6 would render the statement inadequate, it doesn't (inaudible). That is the way the rules
7 are written to day.

8 COMMISSIONER HERRERA: Okay. So today in the rules, there
9 is no assurance that Clark County's concern that the EIS will be addressed out of a
10 legal framework?

11 MS. YOUNG: Based on the general way you say your question,
12 on the general information, unless it somehow fell under those two standards where
13 the NRC's based its decision not to adopt the EIS, or let's say the NRC adopted 80
14 percent, and then 20 percent was left, and then your comments pertained to that 20
15 percent, that comment could be the basis of a contention regarding what the NRC is
16 going to do with the 20 percent.

17 So if the NRC were to adopt the entire document, there is on EIS
18 issue in the sequence. If we don't adopt the document, then the NRC looks at the
19 DOE to redo its statement, and then a lot of issues would come in.

20 But right now the way it is structured, it is on very limited, and
21 unless Clark County's comments pertained to those two standards for adoption, it is
22 not litigated in the NRC.

23 MR. CAMERON: I think the answer is yes probably.

24 COMMISSIONER HERRERA: Let me close by saying thank you
25 for your indulgence, and thank you for the indulgence of the folks who are in the
26 audience, and the answer that we received underline why Clark County residents are
27 so concerned about Yucca Mountain as a repository.

28 There is a lot of questions that remain unanswered, and there is
29 a lot of uncertainty to the process that remain unanswered, and nowhere, nowhere did
30 I hear in any of those answers that the residents of Clark County and their concerns
31 will be adequately addressed at any point in the process. Thank you very much for
32 your indulgence.

33 MR. CAMERON: Okay. Thank you, Commissioner, and let's go
34 to -- we really need to get on to the next section, and so I am just going to ask for these
35 questions to be real quick. Kalynda, go ahead.

36 MS. TILGES: I wanted to thank you for allowing our Commissioner,
37 and giving him the time to make his questions and to answer them. I think that when
38 you have called a public hearing and you ask for comments and questions that you
39 should give everyone time to make them.

40 MR. CAMERON: Absolutely.

41 MS. TILGES: And it looks like DOE has you all over a barrel, too,
42 huh? But I did want to say, and following up on what Judy's statement is, that with
43 worst-case scenarios, we live here, and we want worst-case scenarios.

44 And 9/11 was a worst-case scenario, and if we had talked to you
45 and the DOE about that on September 10th, we would have been discredited. But it
46 happened. Worst-case scenarios do happen, and we want to know what they are.

47 Also, going over worst case scenarios may bring up other issues
48 that you haven't thought of before. I don't normally like to quote television programs,
49 but anyone who watched the West Wing, Martin Sheen's last comment is, is we spent

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1 all this money and we do all these studies, paraphrasing of course, and then we can't
2 protect ourselves against the thing that we haven't thought of.

3 So the worst-case scenarios may bring up the things that we
4 haven't thought of. Secondly, I would like to know if you plan on testing, full-scale
5 testing, to destruction the transportation casks, and the waste storage casks that will
6 be placed in the mountain?

7 MR. CAMERON: Okay. I think we heard your comment, Melinda,
8 on worst-case and the reason for doing that. Let's just briefly address that cask issue
9 and move to Abbie and Dennis, and then we have to go to Tim McCartin, because this
10 is an extremely important part of the repository protection process. So, Chet.

11 MR. POSLUSNY: Chet Poslusny, Spent Fuel Office. Our office is
12 sponsoring a risk study, both package and performance study, started in '99 and
13 expected to continue until 2005, and which includes testing of casks beyond current
14 regulations.

15 We are considering doing a full scale test, and not the destruction,
16 but full-scale testing. We are planning to have a meeting for public input on that plan
17 itself in August, probably around the middle of August, in Vegas. So we will look
18 forward to consulting with you on that topic.

19 MR. CAMERON: Okay. Thank you. Thank you, Chet. Abbie
20 Johnson.

21 MS. JOHNSON: My name is Abbie Johnson, and I am the Nuclear
22 Waste Advisor for Nevada, and I live in Carson City, and I have a 6:30 plane, and
23 given the new travel things between Las Vegas and Southwest, I have to leave pretty
24 soon.

25 So I just want to say my peace, and try to make it more comments
26 than questions to speed it up a little bit. First of all, it is a kind of confusing agenda
27 where there is lots of times for questions, and no time for comments. So I am going
28 to make some comments, and they might be out of order, but here I am.

29 The first one is I did find a copy of the Yucca Mountain Review Plan
30 and looked in the glossary for the word safety, and I didn't find it. I heard safety about
31 250 times in the past two years.

32 I remember when DOE's Carl Burt's came to Reno and said if it is
33 not safe, we won't build it, and at first we actually believed him. And then over the
34 years we came to realize that safety meant license ability, and so I think it is really
35 important for the public to be able to read what the NRC considers to be the definition
36 of safety.

37 It is almost as common as the word is or the, and yet I really can't
38 tell you what is safe and what is not, but I can tell you that my version of safe is
39 different than your version of safe, which leads me to my often-repeated joke of if an
40 earthquake happened tomorrow, DOE would say, well, we got our 10,000 event out
41 of the way, and let's move on, along with what Kalynda said.

42 Secondly, apparently DOE has something called a pre-closure
43 safety analysis guide, which is kind of like this Yucca Mountain Review Plan, and if I
44 am reading the minutes of the meeting that you guys had a few weeks ago correctly.

45 I don't want an answer now, but at some point I would like to
46 understand the relationship between DOE's guide and this guide, and if DOE is
47 changing its guide to reflect what is in your draft guide, or are you kind of trying to read
48 their guide and figure out what should be in your guide.

49 The third thing is in the past week or so Secretary Abraham has

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1 made some sweeping statements that 77,000 metric tons is just the beginning, and
2 that he feels that Yucca Mountain can probably contain, and as scientists say, that
3 Yucca Mountain can contain 120,000 metric tons.

4 I see that you have a definition of repository footprints in the
5 glossary, and I am wondering if that footprint is kind of like my 14 year old son's feet;
6 it just keeps growing.

7 What I really want to know is how will the NRC deal with the ever-
8 growing footprint through the licensing? You know, DOE has not told us if it is a hot
9 repository or a cold repository. That makes a big difference in terms of the size of the
10 footprint.

11 And then here they go again saying, oh, we can stuff more waste
12 in there, and there is enough room for everything. Well, we are hearing that, and
13 frankly, it is our land, and we want to know how you can handle an issue like that
14 which seems concomitantly unfair, and putting unfairness on top of unfairness.

15 I am sure -- and I am not sure if there is time for an answer right
16 now, but it is something that I would like to understand how the NRC is going to deal
17 with the licensing, especially if in the middle of the license procedure DOE comes to
18 you and says, well, guess what, we want more space. How does that work? Thank
19 you.

20 MR. CAMERON: Thank you, Abbie. Can we address the -- do we
21 have anything to say about the repository, the growing repository footprint issue? I
22 think Janet Kotra had something on that. Janet.

23 DR. KOTRA: (Off microphone) Very briefly, the law currently limits
24 the capacity to the 70,000 metric tons. If DOE wanted to increase that, it would take
25 an act of Congress as I understand the law right now.

26 But I think it is also important to realize that that limit set by
27 Congress was not a technical or safety limit. The Nuclear Regulatory Commission in
28 evaluating a license application could make a determination, for example, that only
29 40,000 could safely be placed in the mountain.

30 And if that were the case, then that would determine it. So it is an
31 upper limit right now that would have to be changed by Congress. If Congress
32 changed the law with regard to that, then the NRC would have to certainly take that
33 into consideration if an application came in for a larger quantity.

34 But there is no requirement that we would grant either the existing
35 upper limit if it did not demonstrate to meet safety requirements.

36 MR. CAMERON: Okay. Thank you. And we are going to go
37 Dennis, and then this gentleman, and then we have to move on. Abbey.

38 MS. JOHNSON: Chip, I was just going to say that I look forward
39 to the day that if we have to take this thing and the NRC says you can only fit 40,000
40 metric tons in Yucca Mountain, and you guys could stand firm on that, and not be
41 overridden by politics. But I am still pretty skeptical about that.

42 MR. CAMERON: We understand that, Abbie. Dennis, and then
43 this gentleman, and then we will ask Pat to sit down and then have Tim. Dennis.

44 MR. BECHTEL: Yes. I am not sure that you totally answered the
45 question about regulatory stability, but I think part of the concern that the public has
46 and Clark County is with the suitability guidelines that were modified well into the
47 process, and as I understand it to look at more of a systems approach.

48 But nonetheless your concern is out there, and I think the
49 Commissioner expressed it well, that shifting gears again could conceivably happen,

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1 and that is a concern of the public of Clark County.

2 MR. CAMERON: Thank you, Dennis. Yes, sir, and if you could just
3 tell us who you are.

4 MR. LEVINE: Sure. Eric Levine, KLAS, Channel 8 television,
5 Henderson, and I am a resident. My question is simply this. I am not a scientist, but
6 I just wondered if you guys work who work for the Nuclear Regulatory Commission,
7 where do you all live? Just a quick question.

8 MR. CAMERON: All of us live in the Washington, D.C. area,
9 except Bob Latta, who is right here, who is our on-site representative, and we can
10 provide you more information about what they do.

11 MR. LEVINE: Can I ask my question?

12 MR. CAMERON: Go ahead.

13 MR. LEVINE: Thank you. Simply put, I was just wondering that if
14 this stuff were to get out of a canister on your front lawn from any of these hundred-
15 and-some-odd reactors, whether it is a fire, a terrorist attack, whether they forget to put
16 a lid on it, what if an -- I don't know -- accident happened -- and there have been
17 predicted accidents over 40 years -- could you walk up to it?

18 Could you touch it? Would it kill you? Would it get in your lungs?
19 I mean, is it a risk to your health, your kids' health? With your house, would it ruin the
20 resale value of the property?

21 What physical and financial, and detrimental, and psychological,
22 and whatever risk it poses, whether it be here, or in your community of D.C., or
23 wherever, what risks would it pose, if any?

24 I know that you have great safety procedures, but I am wondering
25 about the risk of what you are transporting.

26 MR. CAMERON: That is a good bottom-line question. Who wants
27 to address that?

28 MS. SCHLUETER: Well, I think there is actually two pieces at the
29 end of the that with the transporting element, which we could speak to as far as the
30 safety record of the transportation of spent nuclear fuel in this country to date, and I will
31 let Chet do that from our transportation group.

32 First though with regard to the environmental standards that you
33 mentioned. We have rules in place which are consistent with the Environmental
34 Protection Agency's standards that require that the potential site that is licensed would
35 have to adhere to, and that applies to the individual limit for a member of the public
36 that you could receive a certain dose, and that dose is 15 millirems per year to an
37 individual.

38 And there is also a separate standard that applies to ground water
39 pathway, and that is 4 millirems per year. These standards are extremely
40 conservative. They are also a fraction of the public dose limit which is allowed for
41 other operations in the United States from a variety of facilities.

42 They are also consistent with and even lower than some
43 international recommendations by bodies, and organizations, and scientific groups.
44 So we believe that they are conservative, and adequately conservative to protect the
45 citizens and their ground water source as well, as well as the environment.

46 MR. LEVINE: I'm sorry, but my question is the materials. Would
47 you touch it on your front lawn if it broke out of a canister, and would something
48 happen to you? How deadly is this? I don't know and I am asking you. I really truly
49 don't know.

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1 MS. SCHLUETER: Well, certainly spent nuclear fuel needs to be
2 adequately stored, and transported, and -- well, do you mean can I touch it? No, I
3 would not touch spent nuclear fuel.

4 MR. LEVINE: Well, would you be evacuated if you touched it?

5 MR. CAMERON: Excuse me, Eric, but we have got to get this on
6 the transcript, and I know that it is an important issue. What are the consequences in
7 terms of the repository if anything happened to mis-fire, and I think that is the question,
8 okay?

9 And obviously if it is on someone's front lawn, we don't want it to
10 be on anybody's front lawn. But if you could give an answer with what the dose
11 standard is, and maybe comparisons.

12 I mean, if we could try to help Eric understand this better.

13 MR. LEVINE: That is not the question. I am talking about --

14 MR. CAMERON: Well, what I am asking if there is anything else
15 that Janet, after hearing Eric's concerns, if there is anything else that Janet can provide
16 on that that would give him an idea of what the hazards are.

17 MS. SCHLUETER: Well, the dose limits that I mentioned, one
18 comparison that I could give is that the 15 millirem per year could be compared to a
19 transcontinental airline flight.

20 MS. TREICHEL: What is that problem compared to spent fuel
21 here?

22 MR. CAMERON: Would you please let her try to answer the
23 question.

24 MS. SCHLUETER: For example, it has been measured that a
25 typical transcontinental flight would result in 5 to 10 millirems to an individual in the air.

26 The standard applicable to Yucca Mountain is 15 millirems, and so
27 very comparable, a very comparable millirem exposure.

28 MR. CAMERON: And let me just see if Janet has anything to add
29 to that.

30 DR. KOTRA: (Off microphone) She answered your question and
31 that the stuff is very dangerous, and the reason that the NRC has regulatory
32 responsibility and is so concerned about the appropriateness of the standard as Janet
33 has mentioned is the fact that the public, and the workers who handle the material
34 have to be protected.

35 This is a very serious job, and we take it very seriously. This is
36 dangerous material, and that is why it needs to be handled properly and when it is
37 stored on site, and when it is transported, and when it is disposed.

38 What Janet attempted to tell you is that we are very cognizant of
39 the importance of setting and enforcing very stringent standards for protection from this
40 material wherever it gets.

41 MR. CAMERON: Okay. Eric, I think maybe that did it.

42 MR. POSLUSNY: If I may?

43 MR. CAMERON: All right. Chet. Go ahead.

44 MR. POSLUSNY: Briefly, there have been about 1,300 shipments
45 of spent nuclear fuel over the past 20 years, and in casts that have been approved by
46 the NRC, and there have been more in casts that the DOE has shipped, and obviously
47 more overseas. But there have been no serious accidents in any of those shipments.

48 We understand that there will be a large number of shipments if the
49

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1 repository is approved. We are concerned about security as well. We are looking at
2 our regulations right now and we are doing vulnerability studies for both storage casks
3 and transportation casks. One study will be done by December of this year and
4 another one a year later.

5 And the results of those analyses may require new designs, or
6 changes in the design requirements, as well as changes in the security requirements.
7 In fact, we have approached additional security requirements at all sites with spent
8 nuclear fuel in the U.S.

9 That is being done through an advisory, and also it is being worked
10 on as an order as we speak. So these items are important, and obviously September
11 11th has been a lesson, and we are committed to safety.

12 MR. CAMERON: Okay. I think we really.

13 MR. DANIELS: Can I ask a question?

14 MR. CAMERON: Yes.

15 MR. DANIELS: I am Dennis Daniels and I am speaking for myself.
16 You said there has been no serious cast accidents. Have there been any?

17 MR. POSLUSNY: There have been -- considering the casks, there
18 have been less than a dozen accidents, or less than 10 actually, over the past 20
19 years.

20 One accident occurred in 1971, I believe. A cask was thrown about
21 a hundred feet off of a truck. And it received only surface damage, and there was no
22 radiation release.

23 MR. CAMERON: You know, we can't go on with the transportation
24 thing, but Andy, I will let you go one quick question, and then we have to get on.

25 MR. HERESZ: Just a real quickly. If these casts are so safe, what
26 do we need Yucca Mountain for?

27 MR. CAMERON: This is one piece that they have to hear, and this
28 is an important piece, and Tim McCartin is going to talk about it, in terms of long term
29 repository requirements.

30 I know that we are over time and maybe we are not over time yet,
31 but I know we are late, and we have other presentations. This one we really want you
32 to hear, and I think we are going to try to encapsulate the next two very quickly. Tim.

33 MR. MCCARTIN: Tim McCartin, and I am an employee at the
34 Nuclear Regulatory Commission. As Chip indicated, I will be talking about the long
35 term safety, and that is that period of time after waste is in place in a potential
36 repository at Yucca Mountain.

37 My safety I mean that the future behavior of the potential repository
38 would be within the safety standards and requirements of the Environmental Protection
39 Agency and the Nuclear Regulatory Commission.

40 My talk today, I really want to focus on three particular topics. First,
41 I would like to describe briefly the safety requirements that the repository must behave
42 to.

43 Secondly, the requirements on how DOE is to evaluate the safety
44 of a repository, and third how the NRC would review DOE's evaluation of safety. And
45 with that, the requirements for long term safety, there is a requirement for individual
46 protection, a ground water protection standard.

47 There also is a standard to judge the safety of the repository if there
48 was an accidental drilling through the repository. Someone could potentially drill
49 through the repository inadvertently sometime in the future, and we call that the human

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1 intrusion standard.

2 All three of those have numerical values to them as we discussed
3 a little bit earlier with respect to the multiple barrier requirement, which is the fourth
4 requirement for the repository.

5 The repository, as I explained briefly before, must have both natural
6 and engineered barriers, and I will explain that in a little more detail.

7 For multiple barriers, when I speak of an engineered barrier, we are
8 talking about a safety function of the repository that is man-made. Examples of that
9 would be the waste package, and the drip shield.

10 The drip shield is a metal tent that is over the waste package, and
11 it prevents drips from falling directly on to the waste package. It shields the waste
12 package from dripping water. That is why it is called a drip shield.

13 In terms of the site, the natural barriers, the site geology also has
14 to provide some safety function. The waste is buried below a few hundred or
15 hundreds of feet, or almost a thousand feet of rock that provides protection from
16 individuals coming into direct contact with the waste, and sort of -- a brief example
17 would be if it is on my front lawn.

18 Well, it is buried a thousand feet below the surface, and it is not
19 going to get on someone's front lawn. Likewise, the potential eventually is that there
20 could be some releases from the release package. Those releases would have to go
21 through those rock layers.

22 There is thousands of feet of rock that the waste would have to
23 travel through very slowly before it could get to a point where there could be a potential
24 source of contact with human beings.

25 Those really are the requirements for the repository. The next
26 question is how is DOE going to evaluate the repository. DOE is required to do a
27 systematic and thorough analysis of the
28 repository.

29 The regulations, both EPA's and NRC's regulations, refers to a
30 performance assessment as that systematic analysis. And as Pat Mackin described
31 earlier during operations, this kind of analysis also addresses the same three kinds of
32 questions.

33 And they are what can happen, and what could happen, and how
34 likely is -- Janet, could you put up those slides. And what could go wrong, and how
35 likely it is, and what are the consequences if it happens.

36 Those are the same three kinds of questions. I would like to
37 describe the performance assessment, the requirements on the department in doing
38 this evaluation with respect to these three questions.

39 In terms of what could go wrong, once again, we need the
40 department -- Pat is required to do a very thorough analysis. You will see in the
41 regulations and in the Yucca Mountain Review Plan that we have identified three
42 categories to ensure that the department does a thorough analysis.

43 We speak of features, events, and processes. Features are the
44 kinds of things that we could go out and see and measure, like a fall, or a large crack
45 in the rock. How wide is that crack, and how long is that crack. It is a feature.

46 Events are the types of things -- something that might happen at
47 a particular time, such as earthquakes, volcanoes occurring, at particular times.

48 Thirdly, in contrast to an event that happens at a particular time, we
49 speak of processes, which are things that occur gradually over long time periods, such

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1 as the dripping of water into the repository, corrosion of the waste packages, or
2 processes.

3 All of those -- the features, events, and processes -- will affect the
4 performance of the safety functions of the repository, the barriers, and we would
5 expect DOE, in terms of looking at what could go wrong, a comprehensive list of those
6 kinds of things that will affect the safety performance of the repository or the barriers.

7 Secondly, having identified what can go wrong, the next question
8 is, well, how likely is it to go wrong. And there is really three aspects to looking at how
9 likely something is, and the probability that something might occur, and how often it
10 might occur.

11 Next, related to the probability is the extent, and how big or how
12 large that particular event you are looking at. For example, earthquakes. Very small
13 earthquakes occur very frequently. Larger earthquakes occur less frequently.

14 And so when you are looking at that probability, you also have to
15 consider how big the event is, and secondly, the location. Where something happens
16 certainly will have an effect on the performance of the repository.

17 An example is the dripping. Are we getting dripping water on all
18 the waste packages or a very few? There is a certain likelihood about how many
19 packages might experience drip. Having identified what can go wrong, and how likely
20 it is, the final question is, well, what are the consequences when these kinds of things
21 happen.

22 The Department of Energy, in their performance assessment, this
23 systematic analysis, is required to look at the safety during normal conditions. When
24 the barriers are behaving as expected, and the safety features are functioning as
25 expected.

26 Second, when we have all those features, events, and processes
27 we have examined identified, what is the safety during what we at the NRC have
28 sometimes referred to as disruptive conditions, such as the potential for a volcano,
29 increases in rain fall, will and have the potential to affect once again those safety
30 functions.

31 And in the analysis of the consequences the department would be
32 looking also at the effect on the functions of each of the barriers. That is the analysis
33 that the Department of Energy is required to do, this performance assessment.

34 This sets the context, and there are safety requirements, and the
35 evaluation of safety for my third topic, which is, well, how will the NRC review DOE's
36 safety evaluation.

37 And there are a number of things that we consider and that you will
38 see in the review plan. First, the purpose of the barriers. We will look at what DOE --
39 what they are relying on for safety, and what are the safety functions that they have
40 identified that ensure that the safety of the repository will occur for out into the future.

41 Next, we will look at their features, events, and processes. They
42 have identified what can go wrong, and we will look at their identification to see that
43 it is a complete list.

44 Next, the likelihood and certainly well beyond, we will look at the
45 consequences, and how they evaluate the consequences of when these things go
46 wrong.

47 We are estimating the future behavior. So evaluating those
48 consequences relies on scientific models, computer models, to estimate what the
49 future behavior of the repository, the functioning of the barriers, et cetera.

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1 That has to do with what is the scientific information supporting that
2 evaluation that the Department has presented, and you will see in a review plan that
3 a large portion of that for this evaluation, there is 14 large topic areas related to the
4 heat of the waste, volcanoes, earthquakes, corrosion of the waste package.

5 And there is a lot of information that the NRC needs to evaluate in
6 terms of what, how, they have supported the performance assessment. And I guess
7 I would like to respond very quickly to Dennis Bechtel's comment about scientific
8 precision.

9 And it is a good comment that I will say that this document, the
10 review plan, is written for the NRC staff. And there are times when we write things that
11 we don't write for people on our floor and our ability, and we don't think of other
12 interpretations of words.

13 And I will say that scientific precision is one of those terms that we
14 know what we mean. We are talking to ourselves, and it is not very clear to other
15 people, and I think that is a good comment. I think we need to go back to the
16 document and look for certain terms and clarify those things.

17 What is meant by scientific precision? What we intended, and I
18 don't know exactly what sentence, but I have in my mind where it might occur, but what
19 we had intended by that, we are not interested to a very precise answer because it
20 might be the answer to the wrong model.

21 You might, for example, say that the waste package is going to
22 corrode after 25,000 years, 300 days, 12 hours, 15 minutes, and 5 seconds. That is
23 a very precise answer, and that is not what we were trying to get.

24 We don't want a precise answer. What the department needs to
25 do, and what our review gets into, is that when you look at scientific information, this
26 is a very complex subject. Estimating out to the future is very difficult.

27 There are going to be scientific differences between different
28 scientists. The Department is required to evaluate these differences, and we will look
29 into how they document these differences.

30 In our regulation, we use a word alternative box. That is part of
31 looking at the differences, and rather than giving a very precise answer that could be
32 wrong, as I indicated, we would rather see what requires the department to evaluate
33 this scientific uncertainty, these differences of opinion, and the waste package we
34 estimated to survive somewhere, let's say, somewhere between 5,000 years and
35 25,000 years.

36 It is not very precise, but the information is uncertain. The scientific
37 information and that range of the lifetime of the waste package is supportable, and that
38 is what we were trying to get at with the scientific precision. It's not that we don't want
39 a defensible calculation, but we were trying to get to that point, and I realize that we
40 need to be a little more careful.

41 And there are probably other terms in there that are not -- that
42 people outside of our floor, people will get the wrong impression. With that, I would
43 like to turn to a brief example. What are the kinds of things that we would look at when
44 we are reviewing these things.

45 If you look at the review plan, you will see a lot of discussion of
46 geology, of corrosion science, et cetera. But for one example, when we look at
47 dripping water, there are a number of things that the department of energy will present
48 in its license application.

49 First, they are currently doing testing and do measuring to estimate

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1 what that dripping is. We will certainly look at the experiments, and the measurements
2 that they made, and how it relates to estimating what dripping could be.

3 Second, future climate changes. This gets into the features,
4 events, and processes. Over time, rainfall could increase, and climate changes, and
5 how will that affect dripping, and that is another aspect that you will see in the review
6 plan.

7 The heat from the waste, and the waste going in is fairly hot. It will
8 warm up the rock and the water. The properties of the rock will change, and the
9 properties of the water, and obviously some of the water will boil away.

10 All of that will have some potential effect on dripping. That also
11 needs to be evaluated. And lastly as someone brought up, the drifts, the tunnels.
12 Right now if you go into the tunnel at Yucca Mountain, it is relatively smooth, and
13 relatively uniform.

14 Maybe dripping will drip off to the side, et cetera, but with time that
15 tunnel -- rocks will fall, and there could be some collapse. It would be this smooth
16 tunnel. There will be holes, cragidy things, et cetera.

17 The long term changes in the tunnel, how will that affect the drip,
18 and you will see those kinds of topics in our review plan. These are the kinds of things
19 we need to look at, and how the DOE has addressed them.

20 With that, I would like to just close with a brief summary, in terms
21 of that long term safety depends on both the site and the man-made barriers, and it
22 also requires a thorough performance assessment, and this performance assessment
23 needs to be supported by sound scientific information.

24 And those are the kinds of things we will review. Thank you.

25 MR. CAMERON: Thank you, Tim, and also for some real world
26 examples. Yes, sir?

27 MR. JACKSON: Hi, my name is Hugh Jackson, and I work for
28 Public Citizen, a public interest organization out of Washington, although I have been
29 in Henderson, and sitting patiently and listening, and you finally got to performance
30 assessments.

31 And so I thought that this would be a good time as any to get up
32 and say that I share the comments made earlier about the awkwardness of the format
33 here, requiring questions, as opposed to comments, and so I hope that you will allow
34 me to provide some preparatory remarks before I get to performance assessments
35 specifically.

36 And I have been crossing things out, and so I will try to be short.
37 Energy Secretary Spencer Abraham has argued, and a lot of people in Congress were
38 arguing as well on the floor of the House when it was debated there, is that all we need
39 to do is move this long to the next stage of the process.

40 That a vote for Yucca Mountain, or a veto rather, isn't a vote to start
41 shipping this stuff tomorrow. It is merely a vote to let the NRC take up licensing and
42 go to -- I believe Abraham's words were the neutral and objective NRC.

43 That you is an abrogation of responsible leadership, and it is
44 founded on false premise. The NRC justifies some of its most important programs
45 from reactor licensing, which is going on at a break neck pace, even after September
46 11th, to power plant uprates, which is letting power plants run hotter and longer
47 between scheduled shutdowns, and even to reactor design certifications for new
48 reactors by entrusting the NRC's regulation-encoded belief that waste will be shipped
49 to Yucca Mountain, and I am referring, of course, to the waste confidence rule.

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1 The NRC has a massive and insurmountable conflict of interest
2 that precludes an objective assessment of the license application. The commission
3 is bias in favor of the project, and is found in the Yucca Mountain licensing rule itself,
4 and under which it has been noted, and site suitability can be considered, and safety
5 and feasibility of transporting waste is not considered.

6 In the NRC's conflict of interest, predisposition of the Yucca
7 Mountain license application being approved favorably is certainly on display in this
8 plan.

9 Specifically with regards to the performance assessment, where
10 the spirit of complicity is certainly on display. The NRC advisory committee on nuclear
11 waste, which I know you have addressed, has repeatedly criticized the DOE's methods
12 of assessing performance.

13 Specifically, the committee has expressed a lack of confidence in
14 the DOE's modeling process, and the DOE's liberal use of "conservative" assumptions,
15 and this was also a phrase that Mr. Mackin brought up earlier.

16 And using those assumptions in lieu of realistic evidence. In a
17 September 28th comment to NRC Chairman Richard Meserve, the advisory committee
18 warned that "the inconsistent use of conservatism" throughout the DOE's models
19 "makes it difficult to identify the issues that are important to risk and precludes a risk-
20 informed analysis of the proposed repository on the basis of evidence."

21 I will move along here. In a subsequent letter to, George
22 Hornberger, who is the chairman of the advisory committee on nuclear waste wrote in
23 a subsequent letter to Meserve that absent a realistic evidence and science-based
24 analysis, and inferring that is not what the DOE has done, the question of how safe is
25 the repository is unanswerable.

26 In the DOE's performance assessment, "the spirit of calculating the
27 real risk was not evident."

28 Now, conveniently for the DOE, it doesn't have to calculate the real
29 risk. Realistic risk analysis isn't a priority in this review plan either.

30 The plan instead allows DOE to base its license application on the
31 same heavily criticized conservative assumption-based performance assessment that
32 the DOE relied on in the site recommendation.

33 Particularly in Section 4, the plan itself says that in many regulatory
34 applications, a conservative approach can be used to decrease the need to collect
35 additional information, or to justify a simplified modeling approach.

36 Conservative estimates for the dose to reasonably and maximally
37 expose an individual may be used to demonstrate that the proposed repository needs
38 NRC's regs, et cetera, blah, blah, blah.

39 The NRC appears to have either missed the point of the advisory
40 committee, or is willfully ignoring it. Just because the NRC says estimates "may be
41 used to demonstrate the dump safety does not mean that those estimates realistically
42 demonstrate anything of the sort."

43 And the NRC gall is unmitigated. The agency openly declares that
44 it hopes to "decrease the need to collect additional information." Now, somebody
45 earlier brought up the General Accounting Office, and the report that showed that it
46 had 293 unanswered questions.

47 And if anybody knows that the DOE is years away from having the
48 information that would be ready to approve an acceptable license application is the
49 NRC.

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1 Instead, the NRC has allowed the DOE to hide real risk behind
2 these models and these abstractions, while at the same time putting its own bias on
3 full display. The skids are greased, and no matter how incomplete or riddled with
4 inconsistencies, make no mistake, the NRC will absolutely, positively, accept DOE's
5 license application, and I hope that everyone here understands that.

6 And if that same lack of objectivity continues to hold sway within
7 the NRC, that no matter what the real risk to the public posed by the Yucca Mountain
8 Nuclear Waste Repository, the NRC will ultimately approve DOE's license.

9 Citizens place trust in public institutions such as the NRC to protect
10 public health and safety. The NRC's complicity with DOE is an affront to that trust, and
11 an affront that is doubly primacies, because as I mentioned earlier, politicians are
12 using the myth of NRC objectivity to rationale their support for the Yucca Mountain
13 project.

14 I mentioned earlier the waste competence decision of the NRC's
15 conflict of interest regarding this plan and this project, and this whole nuclear waste
16 fiasco.

17 In that waste confidence decision, the NRC states that it believes
18 that Yucca Mountain will be built, and accordingly, no discussion of nuclear waste is
19 required in connection with issuing a new reactor license or amending an existing one.

20
21 So as they go along relicensing all of these old reactors all across
22 the country, or to use this is terms of power uprates as well, and letting reactors run
23 longer and hotter, the first question a reasonable person asks is, well, what are you
24 going to do with this waste.

25 And the NRC's answer is, oh, well, you can't ask that question
26 because we have a waste confidence decision that says we are pretty sure that Yucca
27 Mountain will be built.

28 The NRC has even extended that logic to proceedings on certifying
29 the designs of new reactors as part of the Bush administration's obsession with
30 creating new nuclear power plants.

31 Many of the most significant decisions made by the NRC effectively
32 result in a creation of more high level nuclear wastes, and each and every one of those
33 decisions refers to the NRC's belief that waste will be shipped to Yucca Mountain.

34 The NRC is incapable of analyzing the DOE license application
35 objectively, because the NRC has too much riding on Yucca Mountain. When the
36 NRC ultimately decides that nuclear waste should be shipped to Yucca mountain, it
37 already has. Thank you.

38 MR. CAMERON: Thank you for those comments and opinions,
39 including the specific ones on performance assessment, and I guess I just wanted to
40 clarify one thing in case there was any misunderstanding, is that we really do want to
41 hear comments such as that.

42 This is not just a question session, but we just have the format so
43 that we can try and have comments and questions on these topics after they are done.
44 But thank you for your comments.

45 I guess I would ask -- I was going to say that pretty soon we will be
46 ready to start tomorrow night's meeting, but I do want to have the security and the
47 performance, and the monitoring, to have that information for you.

48 We are going to try to encapsulate it and make it quick, but does
49 anybody have a question for Tim on -- well, any further questions or comments for Tim

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1 on the performance assessment issue?

2 MR. MCCARTIN: Well, Chip, if I could just respond to just one
3 quick item.

4 MR. CAMERON: Sure, go ahead.

5 MR. MCCARTIN: We heard what our advisory committee said.
6 They are worried about the use of conservatism that may be masking certain things,
7 and they would like to see a more realistic calculation.

8 You will see in the review plan that if the Department uses
9 conservatism that there is a justification, and that indeed by conservatism they are
10 saying that we will use this assumption because we have strong evidence that if we
11 use it, we will not be under-estimating what the dose could be.

12 And an example that I would give you is maybe they assume that
13 all the waste packages are dripped on, rather than trying to develop a model for where
14 things drip.

15 Well, if I have all of them getting wet, that is conservative. So I am
16 not under-estimating the dose. So whatever calculation they are doing is larger than
17 we would expect.

18 The actual performance would be better, and that is what the
19 advisory committee was getting at. They felt that the DOE analyses -- actually the
20 performance of the repository was much better than they were presenting, and they
21 want to see them doing a more realistic analysis.

22 But the NRC regulations, we have the standards for safety, and if
23 you can meet those standards with a conservative analysis, then the actual
24 performance will be even better than that.
25 So in terms of granting a license that would be okay.

26 MR. CAMERON: Well, just a little bit of an explanation on that.
27 Thank you. Dennis.

28 MR. BECHTEL: Dennis Bechtel again. And this goes to Tim or
29 others, but in your review will you -- is this just an internal review, or will you be using
30 outside people as well? It is just curiosity how you -- well, I mean, right now.

31 MR. MCCARTIN: We have the Center for Nuclear Waste
32 Regulatory Analyses, and the NRC staff, and combined, I will say -- well, if I throw in
33 the Division of Waste Management in the NRC staff, that is approximately a hundred
34 individuals.

35 However, the Commission has many other experts, and there could
36 be material experts in the Office of Research, hydrologists, geologists, that the
37 Commission could call on if needed, and additionally the Commission certainly can
38 hire consultants.

39 But the one caveat for us and why we have the Center is that we
40 would not hire any consultant that had done previous work for the Department of
41 Energy, a conceived conflict of interest. But we hire consultants from around the
42 world, et cetera.

43 MR. BECHTEL: Okay. Well, your statement mentions (inaudible).

44 MR. MCCARTIN: And we certainly follow not only what the
45 Department does, but we follow what the State of Nevada's comments are, and the
46 TRB's comments. We are aware of the other issues being raised, and so we follow
47 those.

48 MR. BECHTEL: The other part is just this expert elicitation issue.
49 If given the fact that you are probably are not going to have all the data that in the best

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1 of all possible worlds that you would actually like to have, and there has been some
2 expert elicitation annals and things, where does that fit in the review, or is that --

3 MR. MCCARTIN: Well, there is very specific guidance on how to
4 conduct an expert elicitation for people. It is areas where possibly there is no easily
5 measurable data, and you need to do an elicitation, a questioning of experts.

6 And you get a panel of experts together to try to come up with what
7 seems to be a reasonable representation.

8 MR. BECHTEL: Well, would you do that, or --

9 MR. MCCARTIN: Well, the Department of Energy would or could
10 conduct an expert elicitation. They would need to do it according to our guidance. We
11 would certainly review how the elicitation was done, et cetera.

12 MR. CAMERON: Okay. Thank you. And thank you, Tim. Calvin,
13 you had one question? Maybe the expert elicitation struck something in Calvin's mind.

14 MR. MEYERS: Calvin Meyers. I have been sitting here listening
15 to you when you talk about the engineered barriers, and I have been to a lot of DOE
16 meetings, and people see me a lot of places, and I am not the brightest person in the
17 world, and I am not the stupidest.

18 But when I ask people about what happens if -- and we are talking
19 about barriers, but what happens if the mountain itself cannot do what it is supposed
20 to? The comment that I have always received was, well, we will engineer around it,
21 which makes no sense to me.

22 And to sit here listening -- and like I said, I am not the brightest
23 person, but it sounds like this is not science, but this is guesstimation.

24 MR. CAMERON: Well, I think you can see both parts of Calvin's
25 question there, and if you could address those?

26 MR. MCCARTIN: Certainly. I believe the regulations do not allow
27 you to engineer around the bad side. The requirement is for natural and engineered
28 barriers, and there has to be a capability for the natural barriers, the geology of the
29 site, to assist in ensuring safety.

30 I realize that DOE has a design that has pushed the releases from
31 the waste package currently beyond 10,000 years. That does not reduce or diminish
32 the requirement that there has to be a capability for the natural system.

33 MR. MEYERS: I know what it says. I am just telling you what
34 DOE's comments to me are. I know that the mountain is supposed to hold -- well, what
35 the requirement there is, and though it is not a complete barrier, but they seem to think
36 that they can engineer around anything, around whatever happens, and they can
37 engineer around it.

38 And I know that's wrong, and so when I come here to listen to you
39 guys say that it is not supposed to be the complete answer, because every time they
40 tell me that they will engineer around it, then why not go somewhere else, and they
41 don't need to come out here to the west. Put it where it is at.

42 If it is that safe, and they can engineer around that much, they can
43 leave it where it is at, and that is my comment. And I just wanted to make a comment
44 that I self-taught myself about what this Yucca Mountain stuff is, and when you guys
45 talk, in all the game-playing that you guys do, I see right through you guys, and I think
46 everybody else here does, too.

47 So you are not fooling anybody. You may think you are, and you
48 don't answer questions, or you bounce around or dance around an answer, why get
49 up and say anything? Just sit down and say nothing, and that would take less of our

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1 time, and we would still get the point. That's all I just wanted to say.

2 MR. CAMERON: Okay, Calvin. Thank you, Tim. We are going to
3 have Jeff talk about security real quickly, and then I am going to ask Pat Mackin to
4 come up and talk about the repository monitoring, and we will open it up for questions
5 on that.

6 And I also want to introduce Bob Latfa again before we stop for the
7 afternoon.

8 MR. CIOCCO: Okay. Thanks. I am going to give you an overview
9 about security from theft and sabotage that is located in Chapter 3. The two programs
10 are in Section 3.3, the physical protection program, and Section 3.4, the material
11 control and accounting program.

12 Both of these programs must be described in detail to the NRC to
13 give us a high level of confidence that the site would be safe. The physical protection
14 plan -- I am going to tell you that the review plan sets up a protection goal which DOE
15 must establish and maintain a physical protection system to assure that the waste
16 operations are not harmful to our national defense and security, and that it does not
17 pose an unacceptable risk to public health.

18 That said, there are certain capabilities in the regulations, and in
19 the Yucca Mountain Review Plan, and the elements of the physical protection system
20 include the security organization, physical barriers, entry controls, recording events to
21 the event, and a response plan.

22 The response plan, very specifically, identifies regulations, and they
23 are called safeguard contingency plans, and that is to identify all of the what-if's. What
24 are some of the perceived dangers at the sites, and how would they be recognized,
25 and what kind of response would they have.

26 The second element is that since 9-11, as was mentioned earlier I
27 think by Chip, the NRC has done a top to bottom review of all the physical protection
28 at our licensees, including the potential Yucca Mountain site.

29 Once all the data is examined, and any final decisions are made,
30 we will go back and revise the Yucca Mountain Review plan to comply with any
31 physical protection requirements.

32 The other program in Chapter 3 is the material control and
33 accounting program, and the purpose of that is to protect against an attack, and to
34 respond to the theft or loss of nuclear material on site.

35 The elements of the program include material balance which must
36 account for nuclear materials that the DOE would be authorized to possess by the
37 NRC.

38 There must be physical inventories, and there is record keeping,
39 and there is controls on the transfer of nuclear materials at the site. Both of these
40 plans are for the on-site operations of Yucca Mountain and not regarding the
41 transportation.

42 Now, these are two programs that must be included in the license
43 application, and they must be well-written, and they must be approved by the NRC
44 before they are implemented, and will be very detailed inspection programs for both
45 the physical protection and the materials control and accounting programs. That is an
46 overview of Security from Theft or Sabotage.

47 MR. CAMERON: And I don't have -- we are going to have Ted
48 Mackin come up, and I am not trying to cut off any discussion, but we will try to have
49 one package here, and then go to you for questions. Pat.

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1 MR. MACKIN: The Department of Energy has to demonstrate that
2 it has ways in place to guarantee what it said was going to be safe continues to be
3 safe throughout the lifetime of a repository.

4 And there are basically three programs involved in that, and the
5 first of those is a requirement for a performance confirmation program that is required
6 by the regulations, and it is the set of continuous or periodic monitoring, measuring,
7 of the properties of the geology and the waste packages, and the other design
8 components, to give confidence that things are operating as DOE said they would
9 operate.

10 So that is a program of performance confirmation that is required.
11 The second one acknowledges that although will not grant a license for Yucca
12 Mountain unless convinced that it is safe, it acknowledges that in a complex system
13 unexpected questions can come up during the lifetime of a repository.

14 So the regulations require that DOE have in place a program that
15 identifies these questions, and sets up programs to resolve them and answer them,
16 and that the NRC examines those are necessary, and curtails or stops operations at
17 the repository while they are being resolved.

18 And lastly accuracy and reliability of information really talks about
19 a quality assurance program in some way so that we all can have confidence that the
20 information that the DOE is gathering, and the way it is operating, and the
21 qualifications of its personnel, the accuracy of its analyses, can be relied upon.

22 So these three aspects of a continuous monitoring program are
23 required to be demonstrated by the DOE in its license application, and the Yucca
24 Mountain Review Plan provides guidance to the staff on how to evaluate them.

25 MR. CAMERON: All right. Thank you, Pat, for doing a good job
26 of condensing that, and I would just ask if there are questions or comments?

27 MR. KELMAN: First of all, I would like to comment and say that
28 everybody here seemed to believe that this is a unique project, and that the NRC must
29 now look at this process as they have said it is unique, and look at their own
30 processes, and are those processes adequate.

31 The NRC must have a new, open, general public involvement
32 process. The process that you have described is unacceptable. This is a unique
33 program, and this is like saying we are going from a generating plant that generates
34 power through coal, and we are going to use the same review process with nuclear
35 materials.

36 The process that you now have in place is not an adequate process
37 for the general public. As a unique process, the NRC should not be myopic in its
38 viewpoints. It has a safety plan, or it has many safety plans for on-site storage, and
39 generators, and for on-site storage at a proposed repository, and the casks are within
40 the system.

41 But it does not address the broad spectrum of transportation. It is
42 presently shifting those responsibilities to other Federal agencies.

43 The NRC needs to address the transportation issue. The NRC will
44 also be reviewing the license that none of the public has an opportunity to review either
45 at the same time or prior to NRC receiving that.

46 At this point in time, we have received documents from the
47 Department of Energy that is labeled a final environmental impact statement. To the
48 best of our knowledge, three agencies, including in the Department of Energy, has told
49 us that this is not the real final environmental impact statement.

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1 Therefore, they have lost their credibility to this organization, and
2 to this community. Finally, the NRC must really review the background, the
3 experience, and management ability, and track records of the licensee in this case.

4 It is like Al Capone applying for a liquor license in Chicago. I think
5 that Chicago at that one time would have turned him down. If Enron employees went
6 and applied for a license from you, I think you would have looked at the management
7 capabilities of the Enron Corporation.

8 I think what we are asking you here is to look at the past practices
9 of the Department of Energy, its contractors, and include that as part of your review
10 process. Thank you.

11 MR. CAMERON: And thanks, Harry. And could you tell us your
12 full name, Harry?

13 MR. KELMAN: I am Harry Kelman,
14 K-E-L-M-A-N, and I with Clark County, the Nuclear Waste Division.

15 MR. CAMERON: And Harry, thank you for those comments, and
16 the last one on management capabilities was brought up originally today, and I think
17 that is something for the NRC to think about as well. Thank you. Yes?

18 MR. HERESZ: I guess this is the appropriate time for me to give
19 my closing comments. And quite obviously I am utterly opposed to the insanity of
20 using Yucca Mountain as a nuclear garbage dump.

21 When the DOE was here a few months ago, I sat and waited for
22 eight hours to give five minutes of testimony, and Secretary Abraham promptly just
23 flushed it down the toilet, because the people that had packed the room that night
24 made no impact on his decision at all.

25 And I am beginning to get the same sense from the NRC. Las
26 Vegas is my home, and Nevada is my home, and I live here. I don't go back to
27 Washington, D.C. after a couple of -- three days, and just start working on another job
28 like you folks do, and take this as just another job.

29 This is a life or death issue for those of us here in Nevada. I want
30 you to know that we are going to do everything that we can to put the stops to what
31 you are trying to do to Nevada, and it doesn't appear that you are going to help us, and
32 so our only resort is going to have to be through the courts.

33 MR. CAMERON: Okay. Thank you for that comment. Are there
34 further questions or comments on security or performance monitoring?

35 MR. BECHTEL: I really appreciate you holding the hearing in
36 Nevada for one thing, and what I think is definitely needed is more hearings in the
37 future on a very complex issue that as you can tell is very important to Nevadians.

38 And in my former life, and in my interactions with the NRC, I
39 appreciated the opportunity to sit down with you all and talk about the environmental
40 impact statement. I know that we had a lot of access and a lot of concern, and our
41 comments deeply reflected one of your comments.

42 But I am hoping that -- you guys are the last line of defense, and
43 having just a lot of the
44 -- having heard a lot of the Congressional hearings, they are down the track.

45 And I think that it is going to be incumbent upon the NRC to be --
46 well, there is the old saying about Caesar's wife, but just making sure that you actually
47 do follow through, and I realize that the Commission is an appointed group, too.

48 But that this is a very serious issue to all of us, and it requires a lot
49 of vigor in your review.

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1 MR. CAMERON: Okay. Thank you, Dennis. I wanted to just
2 introduce Bob Latta, our on-site representative again, who is right here. But Bob is
3 one of our on-site representatives here, and they fulfill a very key position, and it will
4 become more and more important in the future.

5 And I think that one of the things that they do is that they are
6 available to people in the community, and they are here on-site to be called and asked
7 questions, and get information from them, and about your concerns.

8 And I think that Bob has an example of something from one of the
9 citizens that he deals with, and something to read into the record, but Bob, if you want
10 to say anything about the on-site rep position and responsibilities, feel free to do that.

11
12 MR. LATTA: Thank you very much. I am one of three full-time
13 NRC employees stationed here in Las Vegas, and I am a resident here and have my
14 family here.

15 We serve as the extra point of contact between the NRC and DOE,
16 and the NRC has had a presence associated with the Yucca Mountain project for a
17 number of years, and I believe they will continue with that activity.

18 I am very grateful to Chip for allowing me the opportunity, and
19 before he left Frank Perna asked me if I would read a comment for him into the record,
20 and I told him that I would do that. And these comments from Frank Perna, a resident
21 of Clark County, Nevada.

22 He states, "I suggest that the audience request a full hearing record
23 of the joint meeting of the U.S. Senate Energy and Appropriations Committee held on
24 May 3rd of 2001, and that request can be made through the Committee on Energy and
25 Natural Resources, and the address is 364 Dirksen Building, Washington, D.C.
26 20510."

27 Also, that the Energy Chairman, Richard Meserve, showed his bias
28 by promoting a lifting of the ban on foreign ownership of nuclear power plants and the
29 promotion of Price-Anderson legislation, and eliminating paperwork related to license
30 renewal of nuclear power plants.

31 He believes that these things are risky and those comments again
32 were provided by Frank Perna.

33 MR. CAMERON: Okay. Thank you, Bob. Calvin, do you have
34 another remark for us, please?

35 MR. MEYERS: (Off microphone) A closing comment. My name
36 is Calvin Myers, and I was born and raised here, and not going anywhere, and I am
37 different from everyone of you guys. You guys say you are residents, but I am not a
38 resident. I am part of the land, which is more important.

39 Because I can move to Washington, D.C., but my heart will bring
40 me back to the reservation, and that is where I grew up and that is where I will be
41 buried, and I am proud of that, because I am the only one in this room that can say that
42 I was born and raised here, and I am going back, no matter what.

43 No matter where I die, I am coming back to the reservation
44 because I am still part of that land, even when I am gone, which brings up the fact that
45 when you talk about that transportation has to be part of the licensing application,
46 which has never been talked about, and you guys keep dancing around it, it is the
47 most important parts of my tribe, my people, and for people all over the United States
48 that are indigenous to the land.

49 They hold the land more valuable than the dollar, and we hold the

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1 land as part of us, and the land grows for us, and the land has helped us for many,
2 many years, and it will help us for many, many years in the future.

3 I see the land, and I am going to talk about some spiritualities, and
4 social things, and even the financial well-being of the tribe. But I see the land take me
5 and my father, and my two aunts to Arizona when we were told not to leave because
6 the weather was too bad, and when we came to Las Vegas, we stopped out at
7 Henderson and got something to eat, and my dad gave food to the land, because that
8 is what we were taught to do, and he prayed to the land and the mountains over here
9 for a safe journey.

10 And my ex-car was an old Pinto wagon, and it took a quarter of oil
11 to go from here to over to Vegas and another quart to go home. Well, we took that car
12 down to Arizona to identify my brother's body, and we went down there and the roads
13 were dry, and there was nothing wrong, and we came home and the car had used a
14 quart of oil, and that is our spirituality.

15 And that is what we hold dear to us, which you can't buy, and which
16 you can't pay for. You can't buy something like that. If with transportation, and
17 anything happens and if and when those things come down the railway or down the
18 interstate, when it comes down by my reservation and it impacts my store, which is the
19 biggest financial money making venture that we have, and it is our only one, and we
20 are trying to be people like anybody else, and we are striving as hard as we can to
21 make those goals, and to take that step into the future, because we can't just look at
22 ourselves today. We have to look at who is coming down the road, and if it is going
23 to be there for them.

24 So if that is the impact, then it impacts many, many generations.
25 And also when the transportation of the waste comes down the freeway, our children
26 go to the county school off the reservation, and they go as far as 25 miles away from
27 their home to go to school every day.

28 So if those kids can't go to school, their education is going to be
29 impacted, and their future of being able to live the same way that you guys enjoy, will
30 be impacted greatly, and not just a little bit.

31 Not that they just can't go to school regularly, but they could be
32 impacted for their entire lives. And I am talking about the spirituality of when I did, and
33 when I come home to the reservation, we have songs.

34 And we have a trail that I am supposed to go on, and this
35 transportation is going to affect and be on that trail. Is that trail going to work for me
36 when I die. Will it be impacted, and is that going to work, and is it going to help me to
37 go where I need to go after I am gone.

38 That is something that you can't buy, and something that the DOE
39 nor the NRC will want to step in, because they don't have it in their heart, and they
40 don't have it in their knowledge. They think it is a hoax.

41 And that's why I see, the DOE and everybody else in the
42 government, and what they think of our traditions. We are not savages. We are some
43 of the kindest people in the world, because we have seen what people can do to other
44 people, and which is being done to us today.

45 And not just by this project, but by other people and the U.S.
46 Government, and taking funding away from us, and we can't go to the doctor unless
47 we really, really have to go. We can't get glasses and those things are being taken
48 away from us.

49 These things that you talk about today, the radioactivity, and the

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1 transportation, it is going to take away more than that. It is going to take away the
2 medicines that we use today.

3 It is going to take away some of the things that we use to make
4 baskets, which is part of our culture, and it is going to take that away from us, and they
5 can't use those things anymore.

6 And you can't put something in your mouth that is radiated,
7 because we know -- and we are not stupid -- that that will kill you, if not right then, but
8 in the near future.

9 And not only that, but it will impact your kids, your grandkids, and
10 everybody else in the country, and it impacts those people. We know that. We are not
11 stupid.

12 We can't use the land the way we want to, and we can't even travel
13 the way that we want to anymore, because those things will impact it too much.

14 And I am not just talking about how it impacts us today, but our
15 future as a tribe, our future as a government. And I have stated this many times
16 before, that when our government -- we have six people in our government, and one
17 truck could wipe out our government, and I know our Constitution, and it does not have
18 a way of restarting our government.

19 And the impacts that you talk about today, that is how it impacts my
20 tribe, and I would assume there are other tribes who will be affected down the road.
21 So you need to get out of your box, and I mean completely out, and think what is really
22 happening here.

23 And what is really happening here is not just the destruction and
24 the contamination of my lands, but of all of the United States, because when you ship
25 a lot of those things, it is going to accumulate, and it is going to destroy people. Thank
26 you.

27 MR. CAMERON: Okay. Thank you, Calvin. Let me close with --
28 and before I forget, I wanted to thank Dennis Daniels and Clark County. Dennis
29 helped us with the room and has stayed on beyond closing I think, but thank you.

30 And I want to thank all of you who attended today for coming today,
31 and for expressing your concerns, and your skepticism, your suggestions with us. This
32 is an extremely serious issue, and you live here, and we recognize that this is really
33 serious.

34 It is a conclave, and we may have had difficulty -- and to use
35 Calvin's phrase, dancing around, and questions may have been difficult, and frankly
36 they are difficult questions, and we want to try to give the best answer, and the right
37 answer to you.

38 And sometimes that is hard to formulate, and some of the
39 questions we don't know, and it is a valuable question to have to ask and to identify
40 that particular question.

41 But the NRC has been given a job to do by Congress, and we do
42 take it extremely seriously. All the people take their jobs seriously, and we have a
43 mission to protect health and safety, and we are trying our best to do that.

44 But basically I would just like to thank all of you for being here, and
45 Janet, did you want to say anything in closing?

46 MS. SCHLUETER: I agree with everything that Chip said. It is a
47 difficult job, and a serious one, and one that we worked very diligently in, and we
48 appreciate you taking your time to come today, and thank you for all your comments.
49

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MR. CAMERON: All right. Thank you very much, and we are adjourned.

(Whereupon, the meeting was concluded at 5:45 p.m.)

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