UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

***

PUBLIC MEETING TO ACQUAINT THE PUBLIC WITH

NRC'S HIGH-LEVEL WASTE LICENSING

Mountain View Casino & Bowl

1750 Pahrump Valley Parkway

Pahrump, NV

Thursday, May 4, 2000

The above-entitled meeting commenced, pursuant to notice, at 7:03 p.m.

PARTICIPANTS:

CHIP CAMERON

WILLIAM REAMER

SANDRA WASTLER

DAN GRASER

BLAIR SPITZBERG

BUDHI SAGAR

GORDON WITTMEYER

MIKE SMITH

JANET KOTAR

PARTICIPANTS: [CONTINUED]

MAL MURPHY

KALYNDA TILGES

BOB LATTA

GRANT HEDLOW

MIKE GENG

SALLY DEVLIN

JOANN DAWN

JAMES WEAVER

LOREN HALL

SUSI SNYDER

SUSAN WARD

TY BUNCH

JENNIFER VIERECK

GRAHAM SULLIVAN

P R O C E E D I N G S

[7:03 p.m.]

MR. CAMERON: Okay. Good evening everybody. We're going to get started, so if you could all take your seats, we'll begin the meeting. My name's Chip Cameron. I'm the special counsel for public liaison at the Nuclear Regulatory Commission. And I'd like to welcome all of you to the NCR's public meeting on the overview of NRC's licensing responsibilities. And it's my pleasure to serve as the moderator for the meeting tonight. And I would just like to call your attention to the fact this is rare for us, because there's lots of restrictions on the Government. But we do have coffee and danish over there for you, so please help yourself. And you can probably thank Sally Devlin for that, because she's bugged us enough about it, so we finally figured out a way to arrange it.

And I just want to cover three things with you briefly before we get into the meat of the program tonight. One is the objective of the meeting tonight. Secondly, the format for the meeting. And, thirdly, the -- I'll give you a little bit of a overview of the agenda.

In terms of objectives, this is the latest in a series of meetings that the NRC has been holding in Nevada.

And that we will continue to hold in Nevada, so that we can inform the public of what NRC's responsibilities are for licensing the repository. And to make sure that the public understands what our responsibilities are by trying to be responsive to questions that you might have about our presentations. And also we want to hear your comments or concerns about the repository licensing process.

Tonight's meeting is -- the focus is on providing information to you about our licensing process. All the way from the stage of the process that we're in now, site characterization, through when and if the Department of Energy submits a license application for the repository. And also if that does happen, what are the NRC's inspection responsibilities for the repository. So we want to give you an overview of that. Sometimes when we're out here we have a proposal on the table, a proposed rule that we want to get your comments on. We don't have any proposals on the table tonight, but as always we're interested in your comments and concerns. And we will certainly listen attentively, and try to be responsive to those concerns.

In terms of format, we were going to try to do something a little bit different tonight. Which would -- is to start out with a single group all together to hear Bill

Reamer, who is the branch chief of the High-Level Waste and Performance Assessment Branch at the NRC. That's the focal point of NRC's licensing efforts on the repository. We're going to have Bill start out with an overview of the licensing process. And have questions and comments from all of you on that -- a discussion on that. The change that we were going to make is to try to use some small group discussion to try to personalize things a little bit more to give you an opportunity to have a conversation with a particular expert in a particular area. For example, a small group on NRC's inspections responsibilities. We wanted to try this for a change. We usually do a group meeting like this. But we did want to check with you. I guess this is like using one of my lifelines to check with the audience, okay, to see, does anybody -- how many of you would not like to do the small group breakout, and just stay in one group? Because if you'd like to stay in one group, we certainly can do that. So there's a -- I guess, a few people. We're going to come back after -- if we go into small groups, we're going to come back afterwards, okay, and have summaries from those groups, and have that discussion with you. So since there are -- most of the people don't have an objection, let's try it. You know, bear with us.

And we'll get you the information tonight. So, I think you'll see from Bill Reamer's presentation that it is going to cover an overview. And if you have concerns that you want to raise right away, or questions, you'll able to raise that. That's the function of Bill's session. So let's give this a try, and if it -- if -- at the end of the evening, if you find that it's just not something that you like then we won't do it again, okay, when we come out. But the one luxury we have of doing it tonight is that we do plan to keep coming back to talk with you, okay, so that we'll have a chance to correct that if there's any problems with that. And I guess what I'll do is when we are in the group tonight, and if you have a question or comment, we're taking a transcript over here, so that we have a record of your comment. And so that you'll have a record of the presentations that were made if you would like to get a transcript from us. But please state your name, and your affiliation, if that's appropriate, for the transcript. And usually we have a cordless mic, so that I can let you stay in your seats and circulate. We don't have one tonight, so you're going to have to come up to the microphones to ask your questions. And just ask that one person speak at a time so that we could give our full attention to whoever has

the floor at the moment. And try to be concise so that everybody can have an opportunity to speak. And thank all of you who wanted to stay in the single group for your forbearance and letting us do this breakout, this experiment that we're going to try tonight.

And with that, I'm going to turn the floor over to Bill Reamer, who's going to give you a bird's eye view of the licensing process. Bill.

MR. REAMER: Good. Well, my name's Bill Reamer. Glad to see so many of you here tonight. Am I coming through okay? Okay. Good.

What are our goals tonight? We'll start out what are our goals for you? We hope that you will come away from this session with a better understanding of who NRC is. What our roles and responsibilities are for this project if there is a license application, what our role is with respect to that activity. We also want you to have a better understanding of how to access information about the project. Thirdly, if there is a license application that's filed by the Department of Energy, we want you to have an understanding of what we, the NRC, are supposed to do with that license application. And lastly, we want to give you information about how we go about assuring ourselves that

people who are our licensees are complying with our rules, and that's through-out inspection process.

And we have goals tonight for us, the NRC, as well. And that's to continue what I have called, basically an information dialogue with those people who are potentially most effected by this project. This is the, I think the eight meeting, that I have attended since I've held this job, approximately 12 months. All of them have been here, either in Nye County, or in Clark County, or in Lincoln County. And to me that's a beginning. We need to continue to be out here on a regular basis, the people from the office in Washington, as well as the people who we have here on site. And I'll have a little bit more to say about that later. We want to hear your comments tonight. And when I say "hear," I really mean that. We want to understand exactly what your comments and concerns are. And we want to respond to your questions as best we can. And if we're not able to respond tonight, then we'll get the answer for you. I heard a question just in the preliminary, a question came up about, you know, how much money really has been collected from rate payers for this project, and where does that stand? How much has been spent? How much remains in the fund? And it's not a questions I can give you an

answer to, but I will get an answer for you. Any questions, we will get an answer for you.

I'd like to point out in the table, when you came in, there is a form, which kind of a questionnaire. Hope each one of you will get a copy of that, either take a look at it tonight before you go. It asks questions like, what do you suggest are topics that we ought to address in future meetings? How can we better respond to your concerns. Any other comments you have about the NRC, and what we do. We'd be interested in hearing that, or seeing it, if you have time to write it down. And you can take a form home with you, if you want time to reflect, and then mail it to us, or give it to our onsite reps.

So who is the NRC? I liken this to introducing myself, I want to keep reaffirming when I introduce myself who we are. We are an independent regulatory agency. We are not a part of the Department of Energy. We don't get our money from the Department of Energy. We don't report to the Department of Energy. We are a separate independent entity from the Department of Energy. Our job is a regulatory job. It's to protect the public health and safety. We regulate this project, but we also regulate a number of other projects. Nuclear power plants, there, you

know, a hundred plus nuclear installations in the United States that are under our regulation. Fabrication of fuel for those plants. Disposal of the waste from them. A myriad of other nuclear, atomic energy energies that are commercial in nature, we have responsibility for to regulate. And we want to bring our experience in regulating those other activities to this project. Now usually, and typically the Department of Energy in their projects, are not regulated by the NRC. There are what's called, self regulated. But Congress did make a specific provision with respect to a repository that DOE not be self-regulated as they are at the test site, for example. But be subject to an independent regulatory agency, and that's the Nuclear Regulatory Commission, that's us.

What are we -- what is our role with respect to a geologic repository? If the project does go forward at Yucca Mountain, we're to set the rules and regulations that the Department of Energy must comply with to protect the public health and safety. We also are to provide comments on Department of Energy documents, such as the Environmental Impact Statement, and the Site Recommendation, which is due in 2001. And then if that site recommendation that's supposed to be made in July of 2001 is favorable, and if the

President of the United States agrees with that recommendation, and if the Congress agrees with the recommendation, and the project does go forward, then the next step is the Department of Energy must file a license application with the NRC. And it's our responsibility to first decide whether the project should be permitted to start construction. That's called a Construction Authorization Decision. And then later it's our responsibility to decide whether waste should be received at that -- at Yucca Mountain, at that site, and actually disposed of.

If we do grant a license, if we do issue a license, it's our responsibility to assure that the Department of Energy complies with those regulations that are designed to protect the public health and safety. And specifically it's our responsibility, it's our job to inspect the project to assure that there is compliance. And if there's not compliance, to take what's called, Enforcement Action against the Department of Energy to correct any situation that exists, and to assure that a similar situation doesn't arise in the future.

How will we carry out our role here? As we do in all the projects that we regulate we want to fairly and

objectively review all of the information. We want to make decisions that are public, that are open, that you can see, that you can understand. And decisions that are justified by all of the evidence. We will use a step rise approach to those decisions. And this is a little complicated. But the thought is that is there's a license application for the project, if DOE is permitted to go forward, that a construction authorization decision would be made by the NRC. And that would be based on all the facts that exist then. And then sometime later, perhaps five or ten years later, another decision would be made whether to permit waste to be received, and in placed in the in the repository. And that would be based on not only that initial base of information, but all the new data that has come forward in the years immediately preceding that decision. And then ultimately when -- if there is waste in place at this facility, and operations cease, then the decision -- another decision would have to be made whether to permit the repository to be closed. And that decision would be based, not just on that initial base of evidence, but all the information that has been developed over the many years that the facility has been there. So there's a growing amount -- a growing information base that decisions

will be made on. And the public, you, will be involved throughout the process.

The next step, as I mentioned, is that the Department of Energy is working on a site recommendation. The Nuclear Regulatory Commission's role with respect to the site recommendation is not to approve or to disapprove that. That responsibility belongs to the President and the Congress. It -- but it is our responsibility to provide advice to the President, and that advice is to provide preliminary comments on the extent to which all of that Department of Energy information seems to be sufficient for a license application, if the project goes forward. That's a kind of complicated statement. But it does describe what our role is with respect to the site recommendation. And you may have some questions on that, and be happy to answer that.

The Regulatory philosophy that we bring to bear on these projects is that the applicant or the licensee that we regulate, the party that's operating the facility, it's their job, it's their responsibility to protect you. It's our job to be looking over their shoulder. To be reviewing their documents. To be reviewing their activities to make sure that they're doing that.

Now let's talk about the licensing process, which is what we want to talk about tonight. It starts -- it begins with the submittal of a license application. Now that's only in this case, only if there is a site recommendation the President and the Congress approve. If there is such a recommendation, and the Congress approves it, only then will there be a license application submitted by the Department of Energy to the NRC. That license application has got to contain certain information. Specifically, it's got to contain evaluations of the safety of the repository. It has to contain the plans and procedures that the Department will use to assure safety. And it has to include their measures to continue to oversee the activities at the site to assure that the public is protected.

Now their evaluation and safety has to include first, all of the ways in which potentially people might be impacted or affected by the radiation at the repository. Secondly, to perform safety assessments to ask the what if question. What if something happens? What would be the consequence? In fact there's a -- kind of a discipline way to think about this. The first question is, "What could go wrong at the facility?" The second question is, "How likely

is that to happen?" And the third question is, "What are the consequences of that?" And we will require that the Department of Energy look at those three questions in their license application. And that will be a public document. Also, they can't just rest on the information today. They must update their document to us if they get new information that could potentially affect their conclusions. And in addition, they must include their plans to monitor ground water.

That license application, as I said, must also include a description of their safety plans and procedures. How do they plan to assure that all the people who are involved in the operations of the facility are trained and certified for their positions? What are their plans to deal with emergencies? And how will they demonstrate that they can feasiblely retrieve waste if something does go wrong, and it demonstrates that waste needs to be retrieved.

The license application also needs to include how the Department will continue oversight of the project. The controls that they propose to put into place to warn. Permanent markers. The way in which they will retain all records that relate to what has been disposed of as the facility. Again, how they will continue to monitor the

performance of that facility to assure that it's performing as they have projected. And to satisfy any other requirements that we might impose upon them as part of a license.

The staff -- the Nuclear Regulatory Commission staff will review that license application. I have approximately 30 to 40 technical people who work for me, and in addition there is a federally funded center for nuclear waste regulatory analyses in San Antonio that works exclusively on high-level waste matters for the Nuclear Regulatory Commission. They don't work for the Department of Energy. They don't work for anyone else in the United States on high-level waste issues, they just work for us. And there are in the vicinity of 40 to 50 technical people at that entity as well, who will be assisting us in the review of a license application. So we do have substantial technical firepower to bring to do this job.

I'd like to take a moment just to introduce three of the members of the center who are here tonight. Mr. Budhi Sagar is here. He's the technical director of the center. And two of his staff, Mr. Gordon Wittmeyer, and Mr. Mike Smith. And during our breakout sessions I hope you'll find a few moments to go and hear what they have to say

about what they do, because I think it's very relevant and important to understand how we are going to go about doing this review.

And in brief I like to think -- I like to describe it as the license application comes to the commission and we will literally tear it apart. We will look to make sure that the conclusions that are reached in the application are justified by the facts. And we will trace those conclusions back to the facts. And we will assure ourselves that the technical data that they've used in the license application is being used appropriately, and that it was collected in the proper manner.

We also will use our authority to request additional information from the Department of Energy if we need that in order to perform our licensing review. And we will, and we have the ability to conduct independent confirmatory analyses that bolster our confidence in the conclusions, or our lack of confidence in the conclusions that are reached by the Department of Energy. And we will document our results in a safety evaluation report, which we will make available to you, and we will be here to describe it, and to make it understandable to you.

MR. GENG: (phonetic) Can I ask a question?

MR. REAMER: Yeah.

MR. GENG: Do you provide comments to DOE on the draft environmental impact statement?

MR. CAMERON: Sir, you have to be near a microphone.

MR. REAMER: Yeah. The question was, "Does NCR provide comments to the Department of Energy on the draft environmental impact statement?" The answer is, yes.

MR. GENG: So you've already kind of seen their -- processes then -- put into these -- the licensing requests up front. You've already got a head start on reviewing some of that information, then?

MR. REAMER: Correct.

MR. CAMERON: Okay. We have a little bit of a logistical problem in the sense that for everybody who's going to talk, you're going to have to use the mic. And that's why we were trying to save the questions until the end of the presentation. But I would ask you to ask those questions again to make sure that everybody hears them, and we can have a more exposition by Bill on that. Okay? And Bill if you want to answer that in your presentation, go ahead.

MR. REAMER: Okay. There are three potential

outcomes from the licensing process that we're describing tonight. One is a decision to grant the license. The second would be a decision to grant it, but only if certain conditions are met by the Department of Energy. And the third outcome of the process would be to deny the licensee's application.

And how does the public participate? Through these meetings. I understand these are not your first choice as to where you would like to be. But I do appreciate very much your coming tonight. I hope we can establish and continue an informal dialogue with you so that you'll feel comfortable in asking questions. And you'll feel some confidence in the answer you get. And if you don't feel that confidence you'll keep asking the questions. But one way that we want you to participate is through these meetings and through this dialogue. Another way is through actually formally providing comments when we have a proposal. We don't have a proposal tonight that we're seeking comment on. And of course the third is, if there is a license application before us, down the road, that would be to participate in that process as well.

Okay. So maybe now's a suitable time to take a break for questions. Grant?

MR. HEDLOW: Yeah. In the, I guess, my question falls in the area of additional conditions, over and above business as usual for the NRC. And I --

MR. REAMER: Grant, you need to identify yourself for the record.

MR. HEDLOW: Okay. I'm Grant Hedlow. I live here in Pahrump. I'm with the enramp group -- que and lv, sponsored by DOE. And I guess the thing that I'm really concerned about is when are you going to get technical people onboard from a variety of industries? The -- I've asked this question, and I haven't really received a satisfactory answer. The Michigan casks, the dry storage casks that split open were licensed by NRC. They were done by the M&O Sandia. They were used technology that in my industry we discarded sometime before 1950. And just to add a little bit more to that, in talking to the DOE the other day, I found out that they hired the top nuclear metallurgist in the world, from GE, and those metallurgist did not know the technology that I've use in my industry since 1955 to solve those problems with regular, routine, everyday basis. One of the things that non-technical people don't understand is that the industry is badly splintered. In my industry, the kind of information I'm talking about

would normally be considered proprietary. And it's not something that we would discuss with other people. And -- but it's so common that in the industry it's called a rule of thumb. You don't even need to have the papers anymore, you just know how the thing works, and you go do it. And only people from these various industries are going to have that information. You're -- if you're going to get that information, you have to pull those people in. You can't have scientists from the university. You can't have people from Government. They don't have that information, they never will, until you get it for them. And I -- I'm working with the DOE with these experts from GE now to get the 1955 paperwork, the 1975 paperwork. They have casks far more dangerous material, far more severe conditions. Lasted 20 years with absolutely no damage. If those things were still in operation they've now lasted 40 years, or 45 years with no damage. And I assume they're still in operation. I don't know that. I haven't bothered to check. That problem was solved so long ago that why would I go back and reinvent the wheel again? You see what I'm saying?

MR. REAMER: I think I do. I -- one statement you made about casks splinting open. There haven't been any casks, licensed by the NRC, that have splint open. But I

think what you were saying is the technology that's being used, with respect to some of these storage systems, is not the most advanced technology. And that's not the technology that would be used for disposal. I think --

MR. HEDLOW: Well how can somebody have a dry casks storage onsite at a nuclear power plant without an NRC license? That even disturbs me even more.

MR. REAMER: They have an NRC license, but there have been no casks that have been -- that have splint open or ruptured at the NRC.

MR. HEDLOW: Yeah. We brought you the news article on it. What happened, it split open many times. And what happened this last time was for some reason they added acid to it before they welded it, and then they hit it with a welder, and the thing exploded. So they got caught. See and -- it's a regular routine thing, according to these GE experts, you have pipes split open all the time in these nuclear plants. That's why they've been working so hard on the metallurgy. But they didn't talk to other people in other industries, or it would have been solved years ago. And this cask that split open is just another routine thing. It split open, you welded it back up, and you go back in operation again. And there isn't anybody in the NRC that

knows the details of that stuff, so there's no oversight is my point. And we need to get oversight, especially with Yucca Mountain.

MR. CAMERON: Okay. Grant, I'm going to interrupt you for one second. And have Blair Spitzberg, I think can shed some light on this particular issue for you and the rest of the audience. And Blair, why don't you -- could you -- well, why don't you go there, I guess.

MR. SPITZBERG: I believe the event that he's talking about was a hydrogen ignition event that occurred during the welding of a shield lid for a dry cask. After the fuel had been placed in the cask, they weld the lid. And because of a galvanic reaction between the borated water, and the cask coating had generated a small amount of hydrogen gas, which was ignited with the flame from the welding. That was not a case of the cask itself splitting open. The cask had not been sealed at that point. Nevertheless it was an event that got our attention, and corrective actions have been put in place at that licensee and others similar to that to prevent or mitigate the generation of hydrogen gas.

MR. CAMERON: Okay. Thanks for that clarification, Blair. Let me ask this gentlemen who had the

question earlier. Why don't you ask it on the record for everybody, and we'll get an answer.

MR. GENG: Sure. My name is Mike Geng. I live here in Pahrump. And the question I asked was specifically does -- did the NRC provide inputs or comment to the draft environmental impact statement that DOE provided on the Yucca Mountain project? And second question related to that was the fact that they did provide the comments that provides you people with some abilities to actually start doing your homework in a way in preparing for the license request. And they had a lot of material that I assume is presented in those, both the draft and final impact statement, is going to be material that you're going to use in your licensing process?

MR. CAMERON: Okay. Bill, do you understand the question?

MR. REAMER: Yeah. The first question, yes, we did provide comments on the draft environmental impact statement to the Department of Energy. The second point is it did give us all a glimpse of information, although there's a great deal of additional technical data that's available as well. During this period of this there are daily technical reports that are being prepared right now

that are being made available to the NRC, and I think will be made available as well to the Governmental units that the Department will be relying on. And we're going to review those documents as well.

MR. GENG: A follow up, I guess, as long as I'm going.

MR. REAMER: Yeah.

MR. GENG: With regards to the commentary it did provide on the DOE impact statement, have you found anything critical in the material provided by them up to now --

MR. REAMER: We had --

MR. GENG: -- with regards to stuff you would be evaluating and using?

MR. REAMER: Yeah. We had many of the same comments that the jurisdictions out here had with respect to the way certain transportation was handled. We had comments with respect to other environmental issues. I'd be happy to get -- afterwards get your address and provide you a copy of what our comments were, if that'd helpful.

MR. CAMERON: If, Bill, if someone wanted to see a copy of our comments to DOE, would it be possible if they signed up that we could send them --

MR. REAMER: Yes.

MR. CAMERON: -- a copy? So if you want to see what the NRC's concerns were with the draft environmental impact statement, please leave us your name and address, and we will send you a copy of those comments.

FEMALE VOICE: How about TRW's comments on --

MR. CAMERON: I don't --

FEMALE VOICE: Have you seen those bills -- the most critical document I've ever seen.

MR. CAMERON: Okay. Sally, I'll just repeat that. Sally Devlin is noting that the technical review board comments --

FEMALE VOICE: No, no, TRW.

MR. CAMERON: -- TRW's comments.

FEMALE VOICE: Yes.

MR. CAMERON: All right. Bill, do you have any comment on that?

MR. REAMER: I haven't -- I don't think I've seen those. You're saying that there is a document prepared by the Department of Energy contractor on the environmental impact statement?

MR. CAMERON: Sally, why don't you step up here. Mel -- let Mel clarify something first.

MR. MURPHY: Yeah. Let me preempt Sally for a

minute, then I'll get out of her way.

MR. DEVLIN: Get out of my way!

MR. MURPHY: You owe me this, Sally. I'm Mel Murphy. I'm the regulatory and licensing advisor to the Nye County Nuclear Waste Repository Project Office. And first of all, let me -- Les Bradshaw, our project manager is out of town today, and can't be here. But let me just briefly thank the NRC again for taking the time to come here and interact directly with the people who are going to be most directly affected by Yucca Mountain, the citizens of Nye County.

But just to follow up, the NRC's comment -- the Nye County, the State of Nevada, lots of other groups and entities, and jurisdictions have filed comments on the dailies -- draft and environmental impact statement. Just as with the NRC, Nye County found some things in the draft environment impact statement that we could support. We found a lot of other things that we felt were lacking in the DOE EIS. In two major areas, what we call cumulative impacts, and analysis of transportation impacts. The NRC comments and the Nye County comments track pretty closely together, so that we and the -- we, Nye County, on your behalf, and the NRC, in its independent role, have in two

cases at least, said pretty much the same thing about the DOE, EIA, draft DIS. And we assume that those comments are going to somehow have to be addressed by the Department of Energy and they're going to have to make some corrections. I assume they will improve that EIS in response to our comments, as well as the comments of the NRC.

MR. CAMERON: Okay. Thank you, Mel. Sally?

MS. DEVLIN: I'm Sally Devlin. I live here Pahrump. And I want to welcome you all. It's so nice to have you back in this nice cool room. And I don't know how many went on that trip today in a hundred million degrees, but I'm sure this is very nice, and you're very welcome.

We have had our battles, and I'm talking about the articles and stuff we give to you. The TRW report, and this is just another thing was the most critical thing I ever saw, and I want to be sure people understand that if the Congress says, go ahead with Yucca Mountain, they still have to be licensed. We just had the NWTRD here Monday, and we did have a very good picture of dates and so forth. What we also got very much was they have no canisters. They have no transportation. They have no way of getting the rods out of the water. They have nothing at this point. And I was totally insulted, which is very hard for me, because

everybody blames everything on me, they never once mentioned my bugs, my cropic invasion. And I have sent them all the information on the -- 22, because they love nickel. And we're going to do colloidal testing. But my little thing tonight is very simple, and very fast, and that is the problem that we have is we understand that six people will make the decision on licensing, and nobody knows who they are. That's number one. What are their qualifications? Are they impartial? Who are they? It's always very disturbing to get a Board, maybe they belong to the nuclear industry. Who knows what they are. But those six people are quite unknown to the public, and I think it behooves this group to let us know, and scrutinize and meet them. They're the one's going to kill us.

The next one is that on the license application, how detailed will it be financially? As you know in January, again we got numbers. The drip shields, 10,000 of them, will cost $8 billion. The canisters, 10,000 of them, or double that amount for the second repository, which is in the EIS, as well as the draft EIS. And these are scary things that you do not let the public know, that there are two repositories planned. Thirty-five billion for the first, and, rather 25 billion for the first, 35 billion for

the second. This is all documented, but nobody says it from your organizations. And it bothers me. So how financially accurate are you going to be? Or even honest? You don't get those numbers. The only way we got the eight billion on the drip shields because we asked the question. It was never asked by the Board.

The third thing, and I think this is the most important, and I brought it to give you a souvenir. And this came from Abe Von Link (phonetic). And Abe Von Link is the one from DOE who was at our NWTRD meeting, who was going to write the licensing proposal. And we've been bitter enemies for almost eight years now. But he just became my best friend, and I put him on my committee. Can you imagine me loving Abe? And that is he gave the line in his report, and he said, "A repository should not present public heath risks unacceptable to current generations." Now you heard the word, "current generation," and he never should have said, "current." We must think in terms of future generations. So we got Abe, and Abe's number one on my committee. And I must close, and I'm going to be very short, and that is, we have no medicine. And as you know, I asked DOE at the mountain, as well as the test site for a hundred million dollars for a research hospital here. And

this is why all your baloney about accidents, and so on. There's no place to go. There's no place to go for a thousand miles. If you've read as many transportation reports as I have, there is none. There is none. And my figure, and I'd like to see it in that it's put in for transportation is a trillion dollars. Not only for the hundred and twenty ton trucks, which will wreck every highway, bridge, and so forth, but for the cost of roads, and medical, and insurance, and so on. And as you know, we all know what a dismal record the Department of Transportation has. And I will repeat it for everybody's acknowledgment because it's in the book, and that is from '87 to '96 at chemical industry, they had a hundred and twenty-five thousand accidents at chemical plants. On the road from those 10 years, they had 26,000. This is not reassuring. So I've made my comments, and I thank you again for coming. You've got hell like you always do. But I'll give these to you in writing.

MR. CAMERON: Okay. Thank you, very much, Sally Devlin. I'd like to make one suggestion to you in regard to Sally's first point about the six unknown decision makers. It might be useful for the -- all of the audience to know how the NRC's licensing decision is going to be made. Some

of this is going to be in Sandy Wastler's breakout session, and we'll bring that back to you. But I think that while we're all here in the group right now, maybe if you could just give us sort of a capsule of how this decision gets made and who makes it. Atomic Safety and Licensing Board Panel Commission, that whole business, if you could?

MR. REAMER: Well, the first step is to gather all the evidence together in what's called a record. Which is the full documentary basis that the decision is made. That's a public record. Then the decision is initially made by a panel of administrative judges. They're like regular judges, except that they sit on administrative cases. And their decision has to be based on what's called the weight of the evidence in that record. They have to go with whose evidence has proved the point. The Department of Energy has to prove their point on every issue in the hearing. They have the, what's called the burden of proof on every issue. So the Board has to find that they've carried their burden of proof on every issue. And then anything that a party wants to appeal, can be appealed to the commissioners, that's the head of my agency, the Nuclear Regulatory Commission. There are five commissioners. They come from various walks of life. Some are from State positions.

There's a woman who's from the State of Arkansas. There's a lawyer who is from Washington, D.C. from a large law firm in Washington, D.C. There are three other individuals. There are two people formerly were on congressional staffs, they worked for congressmen. One worked for a congressman from New Hampshire. The other worked for a congressman from New Mexico. And the fourth -- the fifth person is an engineering professor from the University of Florida. So they -- of course, they may not be the commissioners in five years, or whenever the decision is made, but they would make the decision today, if it was presented to them.

MS. DEVLIN: Who appoints them?

MR. REAMER: They're appointed by the President of the United States. They're appointed for terms of five years. The President can't just say, well you're not my political party, I'm going to remove you, and put all my people in. They -- they're appointed for five years, and they cannot be removed, unless they're removed for what's called cause. No commissioner has ever, fortunately, ever had that happen.

MR. CAMERON: Before we go to -- could you come up and ask your question, or make your comment? Thank you.

MS. DAUN: Would it be possible to get their

names?

MR. REAMER: Sure.

MS. DAUN: Okay. After the meeting?

MR. REAMER: Yes, be happy to give them to you.

COURT REPORTER: Who was the speaker?

MR. CAMERON: Okay. Oh, could you just identify yourself for the record, and then we'll have this gentlemen come up?

MS. DAUN: Joann Daun.

MR. CAMERON: Thank you, very much, Joann. Yes, sir?

MR. WEAVER: Hi, I'm James Weaver from Tecopa, California. And I might have other questions later, but I wanted to ask, is that the same with the administrative judges, are they appointed by the President also? And what's their term and --

MR. REAMER: No, they are appointed by the Commission. And they're typically --

MR. WEAVER: Who within the Commission appoints them?

MR. REAMER: The commissioners.

MR. WEAVER: The commissioners. Okay.

MR. CAMERON: Yes, sir. Go ahead.

MR. BALL: My name's Art Ball. I'm here as a private citizen tonight. I live in Pahrump. And since we just heard something about the cost of some of the things at Yucca Mountain, I guess it's a good time for my question. Bill already told me he wasn't the one to give me the answer, but many years ago there was a utilities study.

MR. REAMER: I said I would get it for you.

MR. BALL: You said you'd get it, right. But this might be the right time to raise it. There was a utilities tax imposed upon the nuclear powers industry, which was specifically for this -- a permanent repository. I was wondering how much has been collected? How much is typically collected over a year from a facility? What is done with it? Is this going to come anywhere near close to the figures we just heard about what the cost is? And also there is a benefits agreement in the Nuclear Waste Policy Act, which states that if a local or Government, State local or Indian tribe accepts any money from the repository fund, that they have forfeited any right to oppose said repository, if I read it correctly. I just want to know if any such Government in the State of Nevada has accepted any money of this?

MR. CAMERON: Let's bring Mel Murphy up. I think

he had eliminate that for us.

MR. MURPHY: Let me quickly clear up that last point, Art.

MR. BALL: Yeah.

MR. MURPHY: The Nuclear Waste Policy Amendments Act of 1987, which created the benefits agreement section, specifically says that by entering into a benefit agreement, and accepting money, you do not forfeit your right to oppose the repository.

MR. BALL: Oh, you do not?

MR. MURPHY: Now most State or local government has even tried to enter into a benefits agreement. But if the State of Nevada, for example, did in -- at some future time decide or to negotiate a benefits agreement, they would specifically, by statute, not forfeit their right.

MR. BALL: Not forfeit. Okay.

MR. MURPHY: Not forfeit their right to object.

MR. CAMERON: Okay. Thanks, Mel.

MR. BALL: Do you know how much is in the fund?

MR. MURPHY: I -- it's something in the neighborhood of $9 billion.

MS. DEVLIN: It's $9 billion. The Government stole the money and they're in litigation with the rate

payers. And they are.

MR. MURPHY: Not all of us use lexicon that Sally does. I don't associate myself with the word stoled. But --

MR. CAMERON: Did you get, Mel Murphy, on what his comment on the briefcase?

MR. MURPHY: But it -- right. But it -- the fund, as I recall generates about $750 million a year. Congress doesn't appropriate all of that, so the fund grows every years. But I think it's about $750 million a year. And Sally's figure I think is accurate, there's something in excess of $9 billion in the fund right now.

MR. CAMERON: Okay. Let me -- before we go to Grant for another question, let me ask for a question back here. If you could -- don't mind coming up to the microphone, and just tell us your name, and affiliation, if appropriate. Thank you.

MS. SNYDER: My name is Susi Snyder. I'm with the Shinda (phonetic) High Network in Las Vegas. I apologize for being late. I was caught up in court this morning. Anyway, my question was, you had just mentioned the evidence gathered that will be presented to this panel of judges that you're talking about. And I was wondering what that

included. That includes, I assume it's the FEIS, the sufficiency report, the Presidential recommendation. What else is included in that list of things?

MR. CAMERON: That's a good question, and how do you want to systematically answer that? Do you want to answer it? Do you want to bring Sally up to do this?

MR. REAMER: Well, let me just -- let me pick up -- let me try and answer it to move it along. Actually, it would be the license application. It would be the staff's, the Nuclear Regulatory Commission Staff's safety evaluation report. It would be any testimony of expert witnesses that was presented. Any other information that the Board or a party wanted to note that's kind of officially available, that can be noted.

MS. SNYDER: You said, party. When you say, party, what do you mean? I'm sorry, I should stand up again.

MR. CAMERON: Yeah. We're sorry that we have to come back up, but please bear with us.

MS. SNYDER: Yeah. I know. Okay. So you said, Board or party, what party -- like party, meaning can you just walk into it?

MR. MURPHY: Sure. Party meaning a participant

like the Department of Energy, the State of Nevada. Anyone else that is a formal participant in the licensing proceeding.

MS. SNYDER: Okay. And can, let's say the people also -- like people who live here in Pahrump, you know, who are directly effected by this, get involved in as a party in that?

MR. REAMER: Yes.

MS. SNYDER: Okay. Good to know.

MR. REAMER: And they can present information. They can present their own statements. They can present any information they have that they want to present.

MR. CAMERON: And let me just add something on that in terms of another meeting, future meeting that we're going to have. The NRC staff evaluates the license application, and presents the -- or prepares the safety evaluation report. That information goes before the panel of administrative law judges. Other parties to that proceeding before those judges, also present evidence in support, or in opposition to various aspects of the license application. And indeed, citizen groups, citizens, Tribal organizations, besides the groups that Bill mentioned can petition the licensing board to be a party to that

proceeding. And the future meeting that we're going to have is to come out, and again we will be in Nye County to talk about that hearing process specifically, and in depth so that everybody can understand that.

MS. SNYDER: Okay.

MR. CAMERON: So we will do that.

MS. SNYDER: That's good.

MR. CAMERON: Jan?

MS. SNYDER: I'm sorry. But I would still like the rest of my question answered.

MR. CAMERON: Sure. All right.

MS. KOTAR: Can I just answer the first part of your question --

MS. SNYDER: Yeah. Okay.

MS. KOTAR: -- or complete it?

MS. SNYDER: Yeah. Thank you.

MS. KOTAR: You did come in late, but for the benefit of everybody who may not have seen it, there are some flyers on the table as you came in. One of them addresses the ways in which the public can participate.

MS. SNYDER: Uh-huh.

MS. KOTAR: The acting as a party in the licensing hearing is but one of many ways. But it is identified there

in a very brief way. But there are also addresses, and web addresses, as well as regular addresses, where you can write to get more information.

MS. SNYDER: Okay.

MS. KOTAR: And we'd be happy to get that information for you. But I would commend you to some of the handouts on the table.

MS. SNYDER: Okay. Great. So, as I understand it, then so we were talking the licensing application, the staff safety evaluation report, any testimony of appropriate parties, or what is it -- oh, of expert witnesses that's presented, any information on the Board of party, or any for the Board or party presents. And what else is also included in this final review?

MR. REAMER: Any documents that any participate would introduce as evidence.

MS. SNYDER: Okay. So that would probably, like I'm saying that would include the final environmental impact statement, the -- would that include the final -- the FEIS, the Presidential recommendation or?

MR. REAMER: It would not include the Presidential recommendation.

MS. SNYDER: Okay. That's after the process?

MR. REAMER: That's before the process.

MS. SNYDER: Before. Okay.

MR. REAMER: Remember the process starts when and if there is a license application. The --

MS. SNYDER: Which --

MR. REAMER: -- site recommendation --

MS. SNYDER: Okay.

MR. REAMER: -- information is all in previous to that.

MS. SNYDER: Okay. Thank you.

MR. CAMERON: Thank you for the question.

MS. DEVLIN: To introduce. Excuse me for being rude. You have a very important guest here and his name is Ray Clark, sitting right behind me here, in the tan shirt. And I particularly invited him because he is EPA. And you two, you are trying to raise the standards for how --

MR. CAMERON: You're going to have to speak into the mic, Sally.

MS. DEVLIN: We have a very important guest here. And I think the entire audience ought to meet him, and you were remise in not introducing him. Ray, stand up. This is Ray Clark of EPA. And he is a lovely man, who is all our meetings. And you and EPA are having a fight. And I think

the public should know that you're trying to raise the standards, and they want to keep them as they are. And I think that this ought to be brought out I this meeting, because we're going to meet on it. So I'm sorry that you didn't recognize Ray.

MR. CAMERON: Yeah. Ray, we didn't mean to exclude you. I know you've had a tough day out on the trail out there. But this is Ray Clark from the EPA. And EPA is busy writing standards on the repository, and at some point, Ray, if we could impose upon you, towards the end of the meeting to just tell us what the status of that effort is? All right. Thank you, Ray. Grant, please step up to the mic. Thank you.

MR. HEDLOW: On another subject, have you heard of the process in Sweden? The kind of process for their licensing? The NWTRD had some guests from Sweden, and there were three or four salient points. One is local communities volunteered to have the repository. And one of them was finally selected. They volunteered on the basis that they have a veto in their pocket. That veto caused some technical changes that were pretty interesting. And it forced the NWTRD to notice that by trying to store the spent fuel rods at 360 degrees C, you're going to rupture the

zirconium sheath around it. So within a short time the radioactive material inside's going to be loose from the first barrier. By having the 360 degree C temperature, we also have a very severe environment. And in the chemical industry, I'd like to say that split things open for the first hundred, hundred and fifty years, until we finally learned how to solve it. By have the mayor with the veto in his pocket, they had to reduce the temperature to 90 degrees C. That allowed -- now the zirconium doesn't split. The cask itself can be made out of copper and steel, it's no big deal. And it can be surrounded with wet clay. They claimed they could surround it with dry clay. Clay is a really good barrier, if you can keep it intact. So the mayor made them test it. And as soon as they fired it up, the clay disintegrated, turned to sand, it was gone, it was no good. So now the clay has to be wet. And then the mayor is making them do a 10 year test to prove it. This is completing different. It was astounding to me the way the politics and the technology are intertwined in this, and that was a really dramatic example of that.

MR. CAMERON: Thank you, Grant.

MR. REAMER: The mayor is meeting with -- tomorrow with the Nuclear Regulatory Commission in Washington, with

my boss, so --

MR. HEDLOW: Oh, good.

MR. REAMER: -- I've heard that story. And there is a different process that Sweden follows than we have here. But, you know, I think meetings like these are meeting where we can hear your concerns, and we can bring the same pressure to bear. We can focus on those concerns. We can focus on those issues. We can ask the questions. So, our process is different, but I think it also permits the effected people to come forward with their concerns, and get answers, and that will drive safety toward a better conclusion.

MR. HEDLOW: That's great.

MR. CAMERON: Okay. Let's take two more, three more questions here. And then bring up the NRC speakers who are going to do our breakout groups and do that. Let's go to the lady with the -- in white there, and then we'll come up to you, and then you. And please come up to the mic, and state your name. And Kalynda you want to say something? All right. Go ahead.

MS. MOORE: I'm Susan Moore. I'm the director for emergency services in Nye County. And I specifically looked at your slides. I have about seven questions, and if we can

put the machine back on, maybe it'd be easier for those slides. The first question I happened to put down was my concern about EPA and NRC, and hopefully he'll answer it later. But I did want to know what the difference was between the two organizations, as far as this licensing is concerned? What role EPA will have, as well as you? And will -- hopefully you'll be able to answer that question?

MS. WARD: Okay.

MR. REAMER: Do you want to take them one at a time? Would that be -- do you --

MS. WARD: That's fine.

MR. REAMER: Okay. The EPA has the responsibility to establish a standard for a -- any repository at Yucca Mountain. The NRC has the responsibility to implement that standard through regulations that must be consistent with the EPA standard. The EPA is in the midst of establishing their standard. They publish their standard for public comment last winter. The Nuclear Regulatory Commission had comments on the EPA standard. We disagreed with aspects of the standard. We, for example, the EPA proposed a 15 millirem standard. The NRC urged that the standard be 25 millirem. Twenty-five millirem is the standard that the NRC applies at all the facilities, other facilities that it

regulates. Fifteen millirem is the standard that EPA has applied to the WHIP Facility (phonetic). The responsibility now on EPA is to review all the comments, and decide what it will -- what the standard will contain. And its responsibility of the Nuclear Regulatory Commission to be consistent with the EPA's standard.

The EPA standard also included a separate groundwater protection standard. The Nuclear Regulatory Commission disagreed with that. The Nuclear Regulatory Commission does not apply a groundwater standard to any other facility it regulates. However, the EPA has applied a groundwater standard at the WHIP Project in New Mexico. Now EPA has the comments, and it must decide what it wants to do with respect to a groundwater standard. And again the law says when the EPA issues a final standard the NRC must be consistent with that standard.

MS. WARD: Okay. My next question. I have been licensed under the State as far as working with radioactive material, so I'm aware of what it -- a lot of this contains, but I was never licensed by NRC. How often do you check your licensee?

MR. REAMER: How often do we inspect?

MS. WARD: Inspect. That's correct.

MR. REAMER: Okay. Could I defer that question to the license -- to the inspection -- the inspection breakout section that we're going to have?

MS. WARD: Okay.

MR. CAMERON: He's going to -- we're going to defer that question. We're going to have a breakout section on inspection. And we're going to bring the people back and they would summarize that. Okay. So we will answer that question.

MS. KOTAR: Chip, could we just give a short answer? Basically that if your -- if that question refers to the repository, we expect that there will be resident inspectors who will be on the site all the time. It varies, depends on the type of licensee, is the answer. And that's why it's a more complicated answer that you can't give one. But for the repository you would have resident inspectors who would be there all the time.

MS. SNYDER: Thank you.

MS. WARD: Okay. I've had the fortunate or unfortunate opportunity to read the EIS, and so I have some questions that relate to that. When I read through there, when the repository closes, and you know, that's the final finale, I wanted to know if you stop monitoring?

MR. REAMER: If the -- no, when the repository --

MS. WARD: Because the license ends then does that mean you stop monitoring? That's my question.

MR. REAMER: If a license ends then the Nuclear Regulatory Commission's role ends. The Department of Energy has the responsibility to continue oversight for really some indefinite period, so I think you're asking a question I need to get the answer to. I can't tell you exactly what their plans are with respect to --

MS. WARD: It wasn't clear in the EIS that they did any monitoring once it was closed. And that's my question.

MR. REAMER: They must monitor as long as we are involved in our licensing role. And they must compare the monitoring results to assure that what they're finding from the monitoring is consistent with safe operation of the repository.

MS. WARD: So when they license -- when it closes, the repository closes, then you're no longer involved then?

MR. REAMER: No, the repository will close, and we will continue to be involved until the license is terminated, which could be some period of time after that.

MS. WARD: You mentioned in one of your slides

about checking the groundwater, and monitoring it. Are you going to run some sort of testing, or is this something that DOE will be doing, and giving you the results? How are you going to monitor groundwater?

MR. REAMER: Yeah. We -- it's DOE's responsibility to monitor. There maybe other monitoring entities, as well. We will look over their records. Inspect how they're doing it, and reach conclusions as to whether their monitoring system complies with what they are required to do or not.

MS. WARD: Okay. Now we can go to slide 10. Sorry. If you can get that back on? On Slide 10 you asked -- you made three statements and I -- that's not 10.

MS. KOTAR: Sorry.

MS. WARD: And you said that in the evaluation you put -- you said, what could go wrong? You want them to tell you what could go wrong. How likely it will happen. I didn't catch the third thing?

MR. REAMER: What are the consequences.

MS. WARD: Now are you -- consequences -- they don't have to say what they're going to do, just what would be the worse case scenario? Is -- I'm not sure I understand what you mean by, what are the consequences?

MR. REAMER: What are the impacts on -- with respect to the public health and safety. Are the impact -- are there impacts? Are there consequences that could affect people.

MS. WARD: And once they identify that, then they need to identify how they're going to deal with it?

MR. REAMER: Well, then if the consequences are below the standard, in other words, if they're within safety, they've demonstrated safe operation. If they're above this -- the standard then there's not a basis to issue a license for them.

MS. WARD: Okay. Slide 9, which is the one just before it. I thought we -- on evaluation on the safety of the repository, I guess my question stem from, does DOE do an evaluation that's part of their application? Do you also do an independent evaluation? Do you just read it, or do you go out there and do an independent evaluation of the safety of the repository?

MR. REAMER: We do an independent evaluation. We surely read everything that they -- that -- all their conclusions. We then try to reach a conclusion as to whether we agree, or disagree with those conclusions. We can do our own independent calculations to either confirm or

disconfirm what we see in their license application.

MS. WARD: And finally, the last question. Slide 11. That can't be Slide 11. Slide 11 was -- had to do with emergency plan. Okay. When I looked in the EIS and I read through, there were three areas of concern that I had. The building of it itself. The operating transportation issues. And the closing. When I was a licensee for the -- in the State, we had to have an emergency plan that would deal with all aspects. And what I was wondering, is that the case on this one? Will there be a emergency plan for the building of it? Will there be a plan in operating it? Will there be a plan in transportation, as well as the closing? Is that something you require?

MR. REAMER: We require a plan for the disposal facility once it receives radioactive material. Throughout the period of time that it's being construction, there is no radioactive waste at the facility. There's no means by which there could be contamination of people, so there's no emergency plan that applies during that period of time.

MS. WARD: So once they physically receive then that plan that they're working on would be operating, transportation, and the closure?

MR. REAMER: The plan must cover the facility

itself. Transportation's a little separate. And if I might have to ask Rob Lewis to help me a little on emergency planning with respect to transportation.

MR. CAMERON: Rob, do you have a comment on that? Provide some information on that part of it?

MR. LEWIS: Sure. I think I could add something. The -- with respect to transportation the DOE, by the law, the Nuclear Waste Policy Act, will be required to train people. The emergency responders, along the transportation routes, all the way across the country. DOE hasn't started that process yet, because the shipments are about 10 years away. So they say there's not a need to do that yet. But they're working on how they're going to eventually do that. So it will be DOE training the people. And as far as the emergency response, it's really the State and local people, the policemen, the firemen, will be the first persons on the scene of an accident, and they will be the people that are truly the -- what we would call the emergency responder.

MS. WARD: Yes. And I understand that. I just wanted to know what kind of support we would have from the facility, and whether or not that's part of the licensing aspect? That's my last question.

MR. CAMERON: Okay. Thank you for those

questions. Those were good questions. Let's -- we're going to take three more people now. Then we're going to bring up, and give you a short preview of the three other topics. We'll go to breakout sessions. You can talk with these people personally, and then we'll get back together again. Let's go to this lady right here.

MS. BUNCH: My name is Ty Bunch. I'm a retired chief nuclear medicine technologist. My husband and I reside in Pahrump. My question is in regards to the continued safety oversight, in particular to the permanent markers. Due to the long half lives of the radioactive materials that will be stored, it is going to be necessary to take into consideration future generations of safety. So my particular question is, has the DOE decided what type of permanent markers that will be put into place? And if not, when does the decision need to be made?

MR. REAMER: Yeah. It needs to be included in the license application, because there are certain requirements in the Commissions regulations with respect to having permanent markers. And the license application is the place where the Department of Energy will describe what it's proposing to do.

I do not have, yeah, I don't have the submittal

yet from the Department of Energy that describes what they will do.

MR. CAMERON: Okay. Thank you. Yes, ma'am?

MS. VIERECK: Hello. My name's Jennifer Viereck. I live in Tecopa. Which is just over the California border here. I have three questions. My first has been addressed a little bit, but I'm still not really clear about this. To what extent does the NRC have a budget, or people with expertise for independent scientific evaluation? I'm just somewhat overwhelmed by the speculative nature of the science that we're talking about. And I heard your response that maybe you'd do your own number crunching, or something, but I wanted a specific answer. To what extent do you have a budget and scientific personnel to do independent evaluation, and not depend on the DOE?

MR. REAMER: My budget this year is approximately $19 million. I have a technical staff, and then about 40 technical staff that work for me. In addition, and I would urge you to talk to one of the three individuals that I asked to identify themselves, we are supported by the Federally funded center which are paid for by Government funds. And they have a staff of in the range of 50 people.

MR. CAMERON: You may have missed that part. And when we go to breakout session these three individuals from our center are going to be over here, if you need -- if you'd like to talk to them more about that.

MS. VIERECK: Thank you. Yeah. The breakout sessions, that's going to be difficult, because I really want all the information, not a fifth of it, or however it's going to work out.

MR. CAMERON: Well, we're going to bring it all back to you then.

MS. VIERECK: Great. Okay. My second question, and this may sound naive, but I really would like some clarification as to what kind of criteria is ultimately applied to evaluate this license? Because it seems like the criteria for this facility has changed so many times. When it was originally mandated in 1987, its purpose was to isolate nuclear waste from our biosphere here where we live. And it just seems to keep changing. And now I hear technical people saying, well, we really hope to slow it down for at least 300 years. So what criteria are you using to evaluate whether this thing goes in or not?

MR. REAMER: The ultimate criteria are the standards set by the Environmental Protection Agency. The

projected estimated performance of the repository must be beneath, within that standard. In addition, there are other requirements that I tried to allude to. They're -- and we call it a bird's eye view. It's not very detailed. Probably you need a more detailed interaction, but we require safety analyses to consider those three questions I mentioned. You know, what could go wrong? How likely is it? What are the consequences? We require a separate analysis called a multiple barrier analysis, or a defense in depth analysis to -- that requires the Department of Energy to again consider, well, what if the package, that canister doesn't perform exactly as you say? What would be the consequences of that?

MS. VIERECK: Right. But I guess what I'm trying to get to with my question, and where my alarm comes from as a local resident, is that I, unfortunately also read the DEIS, and what I see in there as the ultimate goal of the DOE at this point does not include isolation. And I didn't hear, in your presentation, the word, isolation. And that, as I understood it, was the purpose of this facility in the first place. So that's why I'm concerned about whether that's our goal here or not.

MR. REAMER: You know, there are others that maybe

have a longer term. I don't think isolation, in the sense of zero release has ever been a goal of this program. The standards that were set in the 1980's always looked at the reality of, if there is a release, what is the consequence of that release? What is the effect of that release? It must be a release that is so small that it could not adversely impact people.

MS. VIERECK: Well, given my understanding of health studies, such a release does not exist. My third question regards why is it that in your licensing process the DOE is left with so much power to police themselves? As I understand it, they're going to check their own water. And maybe somebody's going to look over their shoulder. I don't know if other people in the audience read it, but in the last 24 hours, I read a recent article in the Bulletin of Atomic Scientist by a former top DOE official, Robert Alvarez, and it honestly was one of the most chilling documents I've ever read in my life. Given the power that the Department of Energy has over the health of all life on this planet for the indefinite future, it seems to be in complete and total disarray. And he was very specific about how safety personnel have been systematically eliminated from their staff. And there just is very little safety.

Any facility that anybody's ever become familiar with is just a God awful mess. So why are we doing it again, and giving them this kind of power to police themselves? I'm really feeling inadequate about what I've heard so far this evening.

MR. REAMER: Well, I don't believe they have the power to police themselves as to this project. Most of their projects the DOE is self regulated. As to this project, they will be regulated by the Nuclear Regulatory Commission. There are a number of facilities that the Nuclear Regulatory Commission regulates. Nuclear power plants, the fabrication of fuel, the disposal of waste. The record of nuclear industry is good. And the -- and I believe in part it's good because of regulation. And I believe regulation is good in part because of citizen input. And I think that's the discipline we want to bring to this project.

MS. VIERECK: Well, I'd just like to point out one other study that I read recently that perhaps you're not familiar with. But it discusses the rates of infant mortality at licensed facilities that have been closed recently. And it goes over five different facilities that were closed between '88 and '89, and average infant

fatalities dropped within 15 to 20 percent. And at the Rancho Seco one, which is where I raised my child, in that neighborhood, genital deformity deaths in children age zero to four dropped 30 percent in the first year that that facility was closed. So I'd just like to register, as a local citizen, my concern about these things. Thank you very much. I'd also like to say that if the only amount of time that you're going to be looking over their shoulder is the duration of the license, I hope it's in the multimillion of years. Thank you.

MR. CAMERON: Thank you. And after awhile you may want to just provide the name of that study to the NRC staff. I'm going to check to see if they know, but if you could do that. Let's have one final --

MR. REAMER: Could I --

MR. CAMERON: Go ahead, Bill.

MR. REAMER: I do have one comment. I'm aware of the study. I'd urge you to visit various web sites. There's quite a lot of bit of critique of that study. I've not personally critiqued it, but actually I have an article that was written that was very interesting in critiquing it. I'd be happy to bring it to your attention.

MR. CAMERON: Okay. Thank you, Bill. Kalynda,

let's hear from you, and then let's get our three experts up here.

MS. TILGES: Excuse me. Common problem in my life. You sound like my stepmother who wanted to put manure in my shoes to fertilize my growth. Is it possible to get a major growth spurt at 40? My name's Kalynda Tilges. I'm with Citizen Alert. And I have a couple of questions, slash comments. My first question is somewhat rhetorical, but if you have an answer, I would certainly like one. You had mentioned in the beginning that part of the NRC's role in this is to inspect and enforce the rules. I'm curious as to how -- what -- how would you enforce a rule once the groundwater is already been contaminated? What happens then?

MR. REAMER: Well I think enforcement has to come long before that. Enforcement has to come when monitoring indicates that the repository is not performing as it was projected.

MS. TILGES: Then I think the NRC should be the one monitoring the DOE's monitoring. Or at least -- or an independent group. That was a comment. You say the public is going to be involved at every step of the process, but I'm wondering to what extent informal meetings like this

will actually have an impact. I know you're taking transcription, if you don't speak into the mic, you don't get transcribed. That's how it work. Because a transcriptionist can't really hear you, which is one of the reasons why everyone is encouraged to come up to the mic. But -- and also to what extent will these comments -- well, first of all, what impact, and are these informal meetings, do they really account for anything? And how -- to what extent are our comments taken into consideration to actually have an impact on licensing process, and what the NRC does?

MR. REAMER: They do have an impact. The reason we're having this meeting was because it was asked for by a number of local residence. In addition, in a few moments I want to introduce a new member of our onsite office, Bob Latta. Part of the reason that I'm introducing him is because of an exchange that occurred between affected units of local government and the chairman of our agency requesting that the onsite representatives of NRC in the future providing a more attention to local concerns. And so we're responding to that. So, I think these meetings do have an impact on us. I'd like to see them continue. I hope you'll continue to come. And I hope you'll continue to, you know, ask these questions.

MS. TILGES: Well, I had read -- the reason I asked is I read your little book here, Public Involvement in the Nuclear Regulatory Process, and it said people were welcome to make comments and ask questions, but it never mentioned to what extent that would be considered. And there was a mention of being able to petition once -- regarding a licensed operating facility. Does that mean we can also petition the NRC to make changes before the licensing happens? Or do we have to wait till the licensing has happened, the DOE is on it's merry way, before we file a petition and possibly have it addressed.

MR. REAMER: No, you don't have to wait. If you do file a petition with respect to a regulation or a requirement of the NRC, you can file that at anytime.

MS. TILGES: Okay.

MR. CAMERON: Go ahead. I think Janet wanted to offer something.

MS. TILGES: Go ahead.

MR. CAMERON: Why don't you do that?

MS. KOTAR: Just to supplement what Bill has said, there are a number of opportunities where public involvement makes an importance difference to the way the staff conducts its work on a day-to-day basis with regard to specific

products. We do have another handout in the back of the room, which itemizes kind of step-wise the different types of ways that goes into -- it's a little more recent than the booklet that you're referring to. As an example, we recently proposed a regulation. We've got in excess of 900 comments on that regulation. I was part of the team that have analyzed each and every one of those comments, and we tried very earnestly to respond to those comments. The result of that analysis is now before the commissioners, all appointed by the President, as Mr. Reamer said. We are eager to find better and more effective ways that we can get the comments of people who are concerned, who take their time on an evening like this come and share their views with us. To get that into the way that we do business, not just in terms of getting information out to you, but to getting what you have to say to the decision makers in a timely way. So are open. We are hear. We want to know what you have to say. And if we can do it better, we want to hear that too.

MS. TILGES: Well, I certain appreciate have responses to our comments and questions, but I would just like to be reassured that taking the time to come out here and actually making them is going to account for something.

MS. KOTAR: I do too.

MS. TILGES: That's --

MS. KOTAR: Yeah. And we're trying to find ways to do that, but, you know, it is ultimately not --

MR. CAMERON: You're not going on the transcript --

MS. KOTAR: Okay.

MR. CAMERON: -- but you can speak into that.

MS. KOTAR: Yeah. As members of the technical staff, we can commit to you to bring your concerns to the people who are appointed by the President to make the decisions. And provide that access for you. And attempt to modify the way we conduct our business to accommodate those concerns.

MS. TILGES: All right.

MR. CAMERON: Do you have one more question?

MS. TILGES: One more. Bringing up what I spoke with you earlier, Chip, is these breakout sessions. I still have a problem with that in the fact that you're going to be giving short presentations, but the meat of each of those presentations is going to be split up. So everybody's not going to be able to hear everything. Plus, I would like to actually see when you took that little vote earlier on, were you taking it as a -- from the room as whole, or were you

discounting NRC, DOE, EPA people? Or were you counting them in that, as well?

MR. CAMERON: I discounted anybody who worked for any governmental organizations.

MALE VOICE: See, we don't count.

MS. TILGES: Okay.

MR. CAMERON: I did -- I wasn't trying to --

MS. TILGES: No, I'm serious. I'm serious, Chip.

MR. CAMERON: The NRC people were hopefully not voting.

MR. REAMER: Bear with us on this. We want to try this breakout session. We're not trying to cut anyone off. It may be a total failure. It may also be that some people who have questions on their mind find it a little more convenient and comfortable to get an interchange going. We're only going to take about a half an hour to do it. And you --

MS. TILGES: Well, we're already going on past 8:30. And I would think that in the interest of time that we could just disregard these breakout sessions right now, and just get in the meat -- into the meat of it, so everyone will know what's going on all at once, and we can get out of here before midnight. I have children waiting at home, I'm

sure other people do to. Could we possibly take another vote and not include -- making sure that we don't include government personnel?

MR. CAMERON: Okay. I just want to emphasize that we don't want any government personnel voting on this --

MS. TILGES: And that's the end of my questions.

MR. CAMERON: Seriously, if you would all prefer to stay together, we can do that. We were just trying to do something that we thought would be beneficial. Any --

MS. DEVLIN: I just want to make a brief comment. I've been to many of these meetings. And when we had facilitators such as yourself, we had rooms where -- with -- where you could write, and we'd put it up, and we put 250 pages up. This is a very awkward place to breakout, and you're really going to hear not only the gambling and the cheering, or the losing, but it isn't a physically good thing because how are you going to record the stuff with one pad?

MR. CAMERON: Bill, what do you think?

MS. DEVLIN: What do you think?

MR. CAMERON: You want to just stay in session here, and have people come up and do their five minutes and ask them questions? It seems like we're having a little bit

of trouble with this one, so maybe what we should do is we'll just --

MR. REAMER: Let's do -- can we see a show of hands? I mean if -- is there anyone who wants to do a breakout session? If there's no one --

(Laughing)

MR. CAMERON: Okay. Hey, Grant, you have to prove you don't work for any governmental organization either. Because I'm not sure that counts.

MR. REAMER: All right. Well, let's do this. Let's stay in session, and let's try to wrap up by 9:30. And then we will be around for another, let's say 15 minutes. We'll kind of form out breakout groups then. If anyone has a question didn't get answered, feel more comfortable in a one-on-one way to present that question, we'll be here to provide that answer.

MR. CAMERON: Okay. And now one last comment, and I'm going to ask Sandy Wastler to come up. Okay. Bill?

MR. REAMER: Okay.

MR. CAMERON: All right.

MR. MURPHY: Yeah. I just want to make a comment that a couple of the speakers have brought up a very important point about groundwater monitoring. And who's

going to do it, and how long it will last et cetera. Many of the people in the room, I think know about what we call Nye County's early warning drilling program. And that's a program funded through the Department of Energy, but conducted independently by Nye County, and with Nye County scientist, managed by the Nye County Nuclear Waste Program. We're now in the second year of the Phase 2 of the EWDP, as we call it. We drilled about nine holes, I think it was, last year. We're drilling another several holes this year. Next year we will do Phase 3, which has already been committed to, as far as funding is concerned. One of the holes, for example, was just completed yesterday. A pump test will be run sometime next week, and then that hole will be instrumented. That program has two fundamental purposes, one is to fill what we and many others in the program felt was a data gap, where the Department of Energy was not getting sufficient information in a geographic area, downgrading from Yucca Mountain. And Nye County proposed this program to fill that data gap. But a second, and very, very important of that program, which is one of the reasons we call it the Early Warning Drilling Program, is to have a system of monitoring wells in place, which can be used in the event that the repository is licensed. And we're not

suggesting, and nobody, you know, in the NRC is not yet suggesting that this -- that the repository ever will be licensed, but if it is licensed, Nye County's program will have this serious of 20 some monitoring wells in place. Some very, very deep down into the deep carbon and aquifers, and some very shallow in the alluvial beds. But that system will be in place which can provide essentially permanent monitoring of the groundwater. And it is our hope, as one of the tenants of the program, that as a result of licensing, if the repository is licensed, that we will continued to be funded somehow so that those monitoring wells will essentially provide a permanent system, a method to monitor the groundwater, and to give an early warning very, you know, removed from the population center in Amargosa Valley, to give everybody an early warning in the event something does, something untoward does happen in the repository, it doesn't appear to be operating the way it was anticipated to be operated, if it's licensed. So our position would not only be that the Department of Energy shouldn't itself monitor the repository, but that Nye County will have a system of wells in place, and a history and expertise and experience in dealing with those wells to provide for its own residence, and for all of the citizens

of the State of Nevada, really, the kind of permanent groundwater monitoring that we think the program would -- and I think everybody agrees that the program would call for on a very, very, very long term basis.

MR. CAMERON: Thanks, Herb, for that now.

MS. DEVLIN: One more thing, Chip. You have another distinguished besides Ray Clark for EPA. You have Dr. Anthony Hechanova, who is the head of the radiation department at UNLV. And he can tell you, and I hope everybody will question him, about how the water can be tested to stop Yucca Mountain.

MALE VOICE: And transportation.

MR. CAMERON: Okay. Great, well --

MS. DEVLIN: And to do transportation. We've got the expert here, guys.

MR. CAMERON: All right. Well, welcome Doctor. Thank you for being here.

MR. REAMER: Chip, if I could just have one minute. I would like to introduce Bob Latta. He's our newest member of the onsite rep. Bob, please stand up. Bob has more than 15 years of experience with the NRC. He has served as a resident inspector at nuclear power plants in the United States. He has an expensive -- extensive

background in quality assurance. He's dealt with local communities in the vicinity of nuclear facilities. He understands what it means to hear, and to listen to local concerns. I'm really happen that Bob has agreed to come to the onsite representatives office in Las Vegas. He'll be here, I believe in August.

MR. LATTA: Thank you for the introduction, Mr. Reamer. Okay. I'm sorry. I'm very pleased that I was selected for the position, and I'm looking forward to working with the other two onsite representatives who are there. My family is also very interesting in moving back out west. We have strong ties out here. I was born in California. My wife was born in Oregon.

One of the primary roles and functions of the onsite representatives should the repository be approved for construction, are to assure that it is designed, constructed, and ultimately operated safely. But also one of the collateral duties of the onsite representatives is to act as a point of contact for both local individuals and public officials. As you came in the door there are a couple of sheets of paper there that listed points of contact. My name is there, along with Bill Belke's, and also Chad Glenn's. We encourage you to contact us if you've

got questions. That's part of our function, is to answer and be responsive to the public. We serve the public. I'm personally very, very interested in preserving and protecting the environment as the residence of the State of Nevada, we have a stake in this issue also, and family and I. As I indicated I'm very pleased to be joining the staff here. I look forward to working with all of you.

MR. CAMERON: Great. Thank you, Bob. We're going to have Sandy Wastler, who is the chief of the performance assessment and integration section in Bill Reamer's branch come up and talk to us a little bit about what happens when the DOE, Department of Energy does submit a license application, assuming that they will submit a license application for this site. Sandy.

MS. WASTLER: Thanks, Chip. My name is Sandra Wastler. As said, I'm the chief of the performance assessment and integration section for Bill Reamer. I've spent 25 years, actually almost 26 years now with the Nuclear Regulatory Commission, and during that time the majority of my professional life has been in licensing facilities that the agency is responsible for. I started out licensing in reactors. I've participated in licensing uranium recovery facilities, uranium mills, low-level waste

disposal facilities, and two byproduct material. And what I wanted to try to share with you today is give you a quick overview of what that licensing processes is. Now some of the information I'm going to share with you is very similar to some of the stuff that Bill talked about. And the questions that everyone has had has also brought out some of these. So while some of this maybe repetitious, I think that it -- the points are important, and I want to emphasize some of these.

And one thing to start out with, I think to try to make clear is that our licensing process starts when DOE submits the license application. And there's been some discussion of the sufficiency report, and the recommendation of that to -- by the secretary of DOE to the President. Until all that process takes place, and the President, and Congress, make a decision that DOE should go forward, that's when we will -- the licensing process will start.

Licensing in general, and the process that we're going to be talking about is one that has applied to all of the different responsibilities that the agency has. So the process itself is not that different from what we've done in the uranium recovery facilities or reactors. Licensing itself, one thing I want to point out is the agency, as Bill

said, we are an independent and objective agency. NRC does not participate in the design of the facility or the site selection. And there's some principles, what we call principles of good regulation that we try to follow. One, is to be protected. Our mission is to protect public health and safety. Another of those points of good regulation are -- is to be efficient. We want to do the best possible management of a regulatory activities. We want to be clear. We want to make sure any position that we take, or any information that we provide is clear as to the agency's position. We want things to be readily understood, and easily interpreted by the public, by DOE. And we also want to be reliable. We want to be consistent in complying with our regulations, and precise, and apply the fairly. As we've said, our basic licensing philosophy, and the thing that's -- our paramount mission is the protection of public health and safety. And DOE and NRC, while we're both involved in the protection of public -- the health and safety of the public, there's two different responsibilities that we have. DOE is responsible for the safe use of nuclear materials. And NRC must assure that DOE complies with all its regulations.

This will be a multi-stage -- what we call a

multi-stage licensing. And in this DOE will be -- the first stage of that will be the construction authorization. The second stage would be to amend -- should DOE first of all, apply for the license, and we would review the license for construction. Should we provide them with that license, we would then be required to amend that for them to operate the facility and receive waste. We would have to amend that license again to authorize permanent closure. And we would have to amend that license again to terminate. These are all opportunities for public participation. But the point I want to make here is only NRC can make those decisions. That these are the gates that DOE has to go through.

Our fundamental role is two-part. One, the development of regulations and guidance. Regulations that DOE has to comply with. Guidance that for the staff on the application, or for the review of their application so that there's a consistency to our reviews. All of you are aware of Draft Part 63, we will also soon be coming out with a review plan, which is guidance to the staff on how to do the review.

The other aspect is the actual review. The assuring that DOE complies with all the regulations. We want a fair and objectively review the application. One

aspect of the guidance that we do provide is, while the guidance in of itself is written for the staff, so that there is consistent application. This is going to be a long process. And so that the same -- the staff that's involved consistently review the different aspects of the license application. We provide the standard review plan. What we call the Yucca Mountain Review Plan, in this case. Excuse me. And while it's written for the staff, one of the things that it does, it provides information as well to DOE, as to the type of information that we would be looking for. And this is guidance. It's not something that they're required to do. So while we may provide guidance to our reviewers, which may be looked at, as well by DOE, they can use some other methodologies in their application. And we also have to examine those to make sure that an approach that they took, while it might have been different from the guidance that we put out, does meet our needs.

And we also inspect. Implementing of the programs in the application. For example, the operations and procedures are done through our inspection program, which Blair Spitzberg will talk to you in a few minutes.

There's really three steps in the licensing review. The first is an acceptance review. An acceptance

review, it's often called also a docketing review. Simply ask the question, is the application complete? Does it provide all the information that's required in our regulations? And is there sufficient information to support the -- to support DOE's -- for suddenly -- all of the sudden I'm blank on the word. Conclusions. Thank you. So that they have to provide sufficient information. It's not a detailed technical review. It's basically to look to see if there's enough information there to warrant our review. We have -- if the information is not there, we can, depending on the amounts of information that would be there -- would not be there, for example, we would be able to either send the application back, not accepted. Or we could accept it and start reviews in certain areas.

The main review that we do is our safety review. And that is basically our determination as to whether the NRC requirements have been met by DOE.

Another part of the application that comes in is the environmental report. And our environmental review, in this case, is somewhat different than in others that we do. Congress has decided that instead of our developing a environmental, or an EIS ourselves, that we would adopt to the extent practicable, DOE's. The results of our licensing

review is documented in a safety evaluation report. And this basically is developed in a process while we conduct our review. We may, when the license application is accepted, we may review and find out there's particular questions or issues that we don't feel has been justified by the license application. We will go back to DOE and ask them for information. And we can go back as often as we need to request that information.

We will also have open meetings to discuss the resolution of issues that we have in the case. And all of this is the basis for the staff's recommendation to the Commission. As Bill said, and I would like to reiterate, the end result of the slice in the action, we have only three choices, we either grant a license. we grant a license with specific conditions, or we deny a license.

So with that -- that's a summary of the licensing process. There's more in depth questions, I'm sure people have, so if you want to go --

MR. CAMERON: I just wondered how all these people got into your breakout session.

MS. WASTLER: I don't know. I mean, I thought this was supposed to be a small, intimate discussion over here, but --

MR. CAMERON: All right.

MS. WASTLER: We'll just make it a large, intimate discussion.

MR. CAMERON: Okay. Let's go to Grant for his question. Please speak into the mic, Grant.

MR. HEDLOW: I'm hearing you say that you're going to not do a technical review. And then you're saying that you're going to check the safety. You're going to check all of these different things, and I'm not hearing anybody in the NRC that has the technical expertise to understand the details of this. This is a highly technical, highly dangerous industry. And a highly dangerous undertaking. The technical details are woven into the who system. Certainly you need people skills. You need the attorney skills. You need the skills to deal with the insanity in Washington. And we see Bill Gates has the technical skills, and the people skills to create a hundred billion dollar industry, and then the Government is absolutely taking him apart and making him look sick, right? So, I, you know, I'm not saying that this is an easy job, but the things that you're claiming, I'm not seeing the background for you to be able to handle it. You're not even close.

MS. WASTLER: Well, I'm not sure. Let me try to

get to your point. First of all, we do do a technical review. We do a detailed technical review. As Bill said, we have 30 -- I personally have 15 staff under me. Bill has a total of 30 to 40. We also have 40 to 50 staff at the center. And these are detailed, very highly trained technical staff. Hydrologists, health physicist. I'm a structural geologist. We have engineers. We have materials engineers. The distinction I was making, and maybe it was somewhat confused, the acceptance review is simply a review to make sure that there's enough information for us to start. And that is not a detailed technical review. And the three years that we have to do the licensing, under the Nuclear Waste Policy Act, doesn't start until we have a license application that we've docketed, that we've accepted, that has sufficient information for us to even start the technical review. So I wanted to clear that up. The acceptance review of the docketing, well, I don't want to exactly call it a cookbook review, I mean it just checks off to make sure that they covered all the specific areas that are required in the regulations. And to make sure that there is sufficient information, quantity-wise to start a review. At that point if we accept it, then we do the detailed technical review, in which we have 18 months to do

that. Now we have spent -- until -- from -- at the present time, and in fact for months and years, we have been doing prelicensing consultation with DOE. And we will continue that until they do submit a license application. And we do see the documents that DOE are using to build its EIS. We see the documents that DOE is using to make its site recommendation decision. And we evaluate these technically. So we have close to a hundred highly trained technical staff.

MR. CAMERON: Okay. Thanks, Sandy. I'd like this gentleman to come up and talk. And Sally we will get to you. Okay.

MR. SULLIVAN: My name is Graham Sullivan, and I'm with Shendahigh (phonetic) Network. I have some questions about the NRC's regulatory role. What kind of prevention of contamination can we expect for the onsite inspectors? Like what kind of healthcare are they going to have? If they have healthcare at all? Are they going to have a good retirement program? How much money are they going to make for their job? Who will be picked, and how will they be picked to live onsite and inspect this repository, if it is opened?

MR. CAMERON: Can we -- I think Blair probably

could give us some answers to that, and maybe can we bring him up right now to just --

MR. SPITZBERG: That'd be fine.

MR. CAMERON: -- do that. Blair, you may want to talk a little bit about this concept of onsite --

MR. SPITZBERG: Okay.

MR. CAMERON: -- representatives. This is Blair Spitzberg, by the way. He is the branch chief of the inspection branch in our regional office in Arlington, Texas. He's going to be up to talk about the inspection program shortly, but let's let him answer this particular question for you.

MR. SPITZBERG: Okay. Let me see if I can remember the questions. The first question, I think, related to the concerns about the radiological conditions that the inspectors would be working in, and what kind of provisions are provided for them. I was an inspector for over 15 years, and I supervise a group of inspectors now. And we follow basic radiological health protection practices. We -- we're all trained occupational radiation workers. I will say that I am personally the radiation safety officer for the Region 4 Office, and so I am very intimate with the exposures that are incurred by the

inspection staff in our region. And I can tell you that the exposures are quite low. My lifetime exposure is on the order of about 25 millirem, which is less than one chest x-ray. Our exposures, even for our resident inspectors at the operating reactors are quite low. Most of them are less than about a hundred and fifty millirem per year. And the, as you probably know, the occupational limit for exposures is 5,000 millirem per year. The other questions I think were related to selection of the inspectors. We don't know when decisions will be made as to when permanent inspection staff will be put in place for the Yucca Mountain facility. All of this is well into the future. However, it will be a competitive process, as it is with all of our selections for inspection staff. The inspection staff do have to meet certain qualifications for their experience and training and academic training. They have to come with a certain technical experience and training. And then in addition to that we subject them to a internal qualification process for inspectors, which last between one and two years, whereby they go to a number of specific courses put on by both the NRC, and outside organizations that are specific to that activities that they'll be inspecting.

MR. CAMERON: Okay. Thanks, Blair.

MR. SPITZBERG: Was there another --

MR. CAMERON: Blair will be --

MR. SPITZBERG: Was there another part of that question? Did I miss?

MR. SULLIVAN: Just how much money will they make?

MR. SPITZBERG: Oh. If you ask them, probably not enough. But I don't know -- it's -- it depends on the experience level, the grade level. We're a civil service grade structure, and I think a starting out inspector out of -- with a master's degree, coming out of school, might make on the order of 40 to $50,000, and it goes up from there.

MR. CAMERON: Okay. Thanks. We're going to do Sally, and then we'll go over to you. Okay.

MS. DEVLIN: Again, thank you. I get a tickle out of you, Blair. You've got 25 millirems, your dosimeter never worked, right? You allow the workers 5,000?

MR. SPITZBERG: No, I'm very careful.

MS. DEVLIN: They don't even use them. They haven't used them on the test site in years. But I have to get back to you, and that is you know I read all the GAO reports. And in their report on NRC, they stated that you license 68,000 or so places. And you have maybe 18 to 1,300 inspectors. Which means you go and see every facility every

year and eight months. Now this is a concern to the public. And this is published. I have the report. How many inspectors, and I hear a budget of 19 million. Where is Bill? I can't see him. Where is he? There you are. Okay. You have 19 million, you're a piker. Now they're going to need, because we're talking 43 states, an enormous number of inspectors. And the problem just one, and I say that because of Hanford, which is going to blow up any minute, and I talk to them all the time, and that is they can't get the rods out of the water. And this is a very serious problem, because if they drop the rods, which are 90 percent hot no matter how long they've been in the water, they're going to destroy the --

MALE VOICE: The Columbia River.

MS. DEVLIN: -- the Columbia River. Yeah. It makes a hole, and it goes right into the Columbia River. We have other problems here, and you can't destroy Death Valley Monument. So my question is, what is your concept of number of inspectors that are properly trained to work in 43 states, which this one project involves? I want you to get more money --

MR. CAMERON: Now, Sandy, if you feel more comfortable deferring that until Blair comes up. And I

think what I'd like to do, Blair, is to get some of these questions on for Sandy, and then bring you up, and have you answer all these inspection related things at one time.

MR. SPITZBERG: Okay.

FEMALE VOICE: Mine's inspection, too.

MR. CAMERON: That was your question too? Okay. Well, why don't you -- since it was, why don't you give that a whirl?

MR. SPITZBERG: I may need some clarification on the question. It relates to how many inspectors will we have out at the origins of the waste shipments?

MS. DEVLIN: Well, you have 68,000 now, with practically no inspections.

MR. SPITZBERG: Yes.

MS. DEVLIN: What are you going to do with 43 states?

MR. SPITZBERG: Okay. The -- all of the waste shipments will be originating at NRC license facilities. And those facilities are power operating reactors. In most cases, except in the cases that -- where the plant has permanently shut down, those sites have resident inspectors. And those resident inspectors would be observing the activities of loading the shipping cask, and preparing the

shipments for transport. At the few locations that are permanently shut down, we would probably make provisions to send inspectors to those sites to observe that activity, and to audit that process.

MS. DEVLIN: What about --

MR. SPITZBERG: Yeah. I can't respond to that. Those are DOE sites, and I'm not sure that we would have regulatory jurisdiction to go into those sites and watch that activity.

MS. WASTLER: No, I think as Bill said, DOE, with the exception of the repository is self regulated. So we --

MALE VOICE: This stuff's going in the repository.

MS. DEVLIN: This is going in the repository. And what about the 10 percent DOD stuff that's --

MR. CAMERON: Okay. Sally, you're not getting on the transcript, but --

MS. DEVLIN: No, but I'm asking a question. This is a 77,000 metric ton.

MR. SPITZBERG: Chip, I think this is a good question that -- you know, this is a good question that we need to --

MS. DEVLIN: And the DOD has 7,000 metric tons that are classified. How can you put classified waste in

our mountain? Sorry.

MS. WASTLER: I think -- I don't think at this point, I guess our answer is that we can't really tell you at this point. It's something that we have to consider. We have not gotten -- we -- while we get a lot of technical information from DOE, I am not aware that we have all the particulars of exactly where all the waste is going to come from. So that we can define our inspection program. So that is something that we are going to be doing over the next few years, is getting a clear picture from DOE of what exactly their going to be doing at their surface facilities. How the stuff is going to be packaged. How it's going to be shipped. Where it's going to come from. And we will design inspection programs similar to what we use at these other areas for that. But at this point we don't have it, and we would have to -- that would be something that we would be doing in the future, I guess is the best thing to say.

MS. DEVLIN: Can you keep us informed?

MR. CAMERON: Okay. We have one more -- we have --

MS. WASTLER: We are here to keep you informed, yes.

MR. CAMERON: -- another question. We have

another question here for Sandy.

MS. WASTLER: Hi.

MR. WEAVER: Hi, Sandy. My name's James Weaver, I'm from Tecopa. You said that the process isn't any different than your normal processes. And I would -- am I correct in assuming, maybe I'm naive. This facility is different from any other facility that -- that's been -- right?

MS. WASTLER: The facility is different.

MR. WEAVER: Okay.

MS. WASTLER: But the overall licensing process that we go through is not --

MR. WEAVER: I understand that, but since --

MS. WASTLER: -- that different from a reactor.

MR. WEAVER: I understand that. But since this facility is different, it's never been done before, don't you think a different set of rules should apply to it? That amended rules should apply to it? That, you know, other things should be looked at that you normally wouldn't look at?

MS. WASTLER: Well, --

MR. WEAVER: You know?

MS. WASTLER: -- what we look at as far as our

review is concerned, is directed at the facility that we're reviewing.

MR. WEAVER: Right.

MS. WASTLER: But the process of acceptance reviews, the safety review, the ultimate hearing process. Those activities are what are the same. But the rule is a site specific rule.

MR. CAMERON: And that rule, that substantive rule is much different than the other facilities.

MS. WASTLER: Is much different. So while each has a different rule that's applied to the particular facility that the NRC deals with, the overall framework in which we do the review is what I was referring to as the same.

MR. WEAVER: I, myself, just got finished also reading the draft EIS, and I alaude (phonetic) anyone's apparent ability to look at the big picture in it. And I certainly couldn't see the whole thing, but I have one concern, which may not particularly apply to what you look at, but that's something that wasn't really mentioned much in the EIS, and that's -- and some people might laugh, but the possibility of terroristic attack or, you know, the threat of that. And, you know, how that applies to the

licensing process, and your review of it. And that's all I had to say. Thank you.

MR. CAMERON: And that -- I think it would be useful for someone from the NRC to tell us how security concerns, such as that, are factored in to the licensing process. And I don't know if, Sandy, do you want to do it --

MS. WASTLER: I'm afraid I don't have --

MR. CAMERON: -- or Janet?

MS. WASTLER: -- a background to really handle that. But we can definitely make sure that we either bring the answer back with us the next time that we come, or possibly even have one -- someone here to respond to those types of questions.

MR. SPITZBERG: I can say something to that, Chip.

MR. CAMERON: Okay. Blair?

MR. SPITZBERG: I'm not a security expert, but we do have security experts within the regional office, and that's all they do is inspect security. The licensee would have a security plan, which would be a safeguard controlled information document that describes in very detailed description of how they would provide security for the site, and that is subject to inspection. We do have specialists

in that area that perform routine inspections of security. Not just of a Yucca Mountain, but of all of our nuclear sites that -- where security is a concern from a safety standpoint.

MR. CAMERON: Okay. Thank you. At some point we have to get Blair up here. And there's three hands I see. Let's do this quickly. We'll get Blair up to talk about inspection right after that. So that we have two over here, and Kalynda. Kalynda, why don't you come up right now and give us your question or concern --

MS. TILGES: Oh, good, it's still at the right height.

MR. CAMERON: -- for Sandy.

MS. TILGES: Sandy, you had -- let's see Slide Number 9, multiple stage licensing. You were talking about providing a license to -- first of all, there'd -- you -- possibly providing a license to construct to the repository. Then you say amend the license to authorize operation and receipt of waste. And amend license to authorize permanent closure. I don't understand, are you amending this original license, or is the DOE --

MS. WASTLER: Yes.

MS. TILGES: -- going to have to apply for a

separate license for each step?

MS. WASTLER: All right. We amend the original license. But DOE has to provide the same -- they have to come in with an amendment request, which supports and provides the information just like the original license application be for -- for construction. Where they would have to come in with the request with the supporting information to support their request to operate the facility, and receive waste. And the same with the other stages. So I mean it's one license that is amended each time through a formal process and through an application. Only it's an application to amend the license, rather than an original application to obtain the license.

MS. TILGES: Okay. It was a little -- it's a little confusing because some of what the DOE has been saying -- been talking about in their flexible repository design is that as they get the first part -- they're going to start loading it. You start at one end where part of it -- where the beginning is built, and they start loading it up, and you're building the rest of it as you go along. So it's build a bit, fill it up. Build a bit, fill it up all the way. I don't understand how it could be licensed like that.

MR. CAMERON: Can someone comment on that topic, because this came up before. In other words, when can -- what decision does the NRC make on construction authorization? Is that the complete safety decision? Janet, you know what the question is here. And, Sandy, I'm going to let Janet do this one.

MS. WASTLER: That's fine.

MR. CAMERON: Janet, please.

MS. KOTAR: Hi, I'm Janet Kotar. I'm pleased to see you here this evening. I am one of the authors of the proposed Part 63 regulations that will cover -- will be the basis for which the NRC will make this licensing decision. When the department comes in for an initial application to construct, it is a very serious and comprehensive safety and technical evaluation that will support that decision. But it is only a decision to allow them to construct. Until that license is amended further to allow receipt, they can -- all they can do is construct.

When they reach a point where the underground facility, not as completely mined out, but the underground facility that allows them to start emplacing waste. And all the safety equipment, the -- and all of the backup systems, all the filters, all of the above-ground facilities, are

those sorts of things are complete, substantially complete, then they can come to the NRC and request that they license be amended to allow begin receiving waste. That does not mean that they have to mine out each and every gallery. That has never been the intent. But what the reason for that requirement is to not allow them to do a defacto storage facility at the surface, without any kind of facility underground that would be approved on the basis of these really stringent requirements in our regulations. So the idea is that they essentially have to have the entire repository receiving capability, and safety capability in place before we would consider allowing them to receive any waste. That's not the same thing as if every gallery is mined out. And so that's where I think you get the confusion about whether the whole thing's absolutely done before they start receiving waste. No that's not true, but all of the underground equipment that needs to be in place to ensure safe receipt and emplacement is ready and there. And that they're not just all going to mound it up on the surface, and then construct later on underground.

MS. TILGES: Well, since they're talking Daily (phonetic) is talking about a flexible design, and the design has actually been changing as it goes along, how is

the licensing processing -- how is the NRC going to handle the DOE possibly changing repository designs after the licensing has been done?

MS. KOTAR: That's a very important, and very well considered question, because it's something that we also, as an independent agency, and as Sandy very carefully defined our role, is not to design the repository. We don't design the repository, DOE defines their repository. But obviously in order to make a coherent, and credible licensing decision, we have to have it a lot -- a design that's going to stay fixed to review. And then we have to know what that is in order to be able to make an informed decision. Once we have made a licensing decision based upon that application, then they are -- they may change it, but they have to do so in such a way that they don't change -- I mean if they want to paint the visitor's center green instead of blue --

MS. TILGES: That's not what we're talking about.

MS. KOTAR: -- that's not what we're talking about.

MS. TILGES: No.

MS. KOTAR: We have to have a way to discriminate between those changes, which really have no -- are trivial,

that have no effect on health and safety, and those that do. And when -- on those that do, they have to come to us for approval. And that would be in the regulations, and the mechanism for making that determination will be. We share your concern that, you know, that this design does seem to be in a state of flux. But clearly before they can come forward to the -- through the Nuclear Regulatory Commission and expect an informed decision, they have to commit to a design. Does that answer the question?

MR. CAMERON: Kalynda, I'm going to have to ask these two other people to come up now, so that we can move on. And we'll come back to whatever you have. Okay? Before we breakout.

MS. TILGES: Well, it pertains to Sandra's -- okay. MR. CAMERON: Just let me get these two people up here, because we have two more speakers that we want to get on, and questions on that. Why don't you come up first. And the emergency response lady, is that you?

FEMALE VOICE: I'm sorry --

MR. CAMERON: One of you come up, please.

MS. SNDYER: Okay. A couple of quick things on just kind of -- yeah. My name's Susi Snyder. I live in Las Vegas. A couple of quick things. I'm sorry I missed the

morning session. One is just on process, public process, and since you're here interacting with the public, you should really know that we don't feel good when we get cut off, and I feel really bad that Kalynda got cut off for myself to speak. So just so you're aware of that. You know, I recognize all these people here have spent their time and, and their energy, and their gas money, which is so expensive, to come out here tonight. But I'm sure that we all -- the reason we wanted to stay in full group was so we could hear each others questions. And it's very important for us. So I want -- I just would like to say that. And maybe ask Kalynda if she could finish her questions for -- on Sandy's presentation.

MR. CAMERON: Yeah. We're not cutting off anybody. We're making sure that everybody else who has -- who wants a chance to speak, such as yourself, gets a chance to do that. We're going to come back to Kalynda, allow her to finish her question. We want to make sure that we get the rest of the information on there. So if you have a question, please ask it.

MS. SNYDER: Okay. Great. Yeah. Thank you. The other thing is there's not signs on any of the doors. I walked around the casino in circles, looking for this place,

because I'm not familiar with this casino. And so just for your next meeting, put the signs out.

MR. CAMERON: All right.

MS. SNYDER: Okay. Here we go on my questions, I just want to clarify language on your presentation, which earlier you mentioned the sufficiency report. And I've heard this bounced around a little bit. Is that the acceptance review, or the docketing review, is that the same thing?

MS. WASTLER: No, what is was -- when I started out what I tried to make clear was the sufficiency report, and the recommendation is -- this is a DOE process. All right. They are currently preparing their site recommendation report. That site recommendation report or that site recommendation will be submitted, when it's complete, it will be submitted to -- by the Secretary of the Department of Energy to the President, recommending that DOE go forward and license the facility. The President will make its -- his decision, and submit that decision to Congress. Where if Congress and the President agree to go forward, at that point DOE would develop its license application and submit it to the NRC --

MS. SNYDER: Great. Let me interrupt you right

there, because here's something that I want to talk about, which -- it follows right into my next question, and that is, okay, Congress just on whatever it was, three, four or five days ago, or whatever, I don't even know. I'm in a time warp. But voted to send all these thousands -- this 95 percent of the nation's radioactivity out here temporarily, for so called temper -- interim storage. This mobile Cherynoble bill that I'm sure everybody in the room is familiar with, and now if this -- that would sent stuff here 2007, that's seven years, that's not too long. And now you said that you'd need -- that you need the -- oh, where'd I write down -- okay, you need that, you know, make sure all the systems were in place and everything before you'd start the licensing -- to accept the license application -- make -- DOE had to be on top of their stuff, so to speak. To have their, you know, their little system in place. But what happens then, because if you are responsible for this commercial radioactive waste, which a lot of this stuff is, and your onsite inspectors will be monitoring the loading of it, as it leaves these power plants, and comes out here for so called interim storage, where is the licensing in that, and where do you -- where does NRC fall in the mobile Cherynoble debate? And I'm sorry if I -- if this got

covered earlier, but it's something that's very close to my heart. I really need to know. And so that's -- see what I'm saying? It kind of falls into what you're saying.

MS. WASTLER: I think I understand what you want to know whether we have a position or a part?

MS. SNDYER: Kind of, yeah. Cause --

MS. WASTLER: At this point I don't believe the Legislature -- we have any legislation that would allow storage at the site. That's what Janet was getting at.

MS. SNYDER: Yeah. That's -- could you --

MR. CAMERON: Janet, do you want to answer that?

MS. SNYDER: -- did you get my -- Janet, did you -- yeah, I knew you would. Yeah. Okay.

MS. KOTAR: Yes, I understand the question. What you're asking is, have the congressional legislation overridden the presidential veto, and the waste would have been moved out here on an interim storage, as an interim storage facility pending a decision about the repository, would that be the licensed facility or would it not, is what you're asking?

MS. SNYDER: Pretty much, yeah.

MS. KOTAR: Yeah. And the answer to that question is, yes, it would.

MS. SNYDER: Okay.

MS. KOTAR: And we have rules on the books right now that license interim storage facilities, whether they're located in Illinois, or they're located in Washington State or their licensed here.

MS. SNYDER: Interesting.

MS. KOTAR: Rob Lewis is from our Spent Fuel Project Office, and he is -- he can speak in more detail, if you'd like to follow up with him about how we go about doing that. That's the gentleman over there --

MS. SNYDER: That guy -- okay.

MS. KOTAR: But the answer to your question is, if it's commercial waste coming from commercially licensed nuclear power plants, you know, we would license its storage or disposal. The question I think that was key to the debate about the legislation in the issue that you're talking about --

MS. SNYDER: Yeah.

MS. KOTAR: -- is do you grant a license for a storage facility before you know if the repository is going to be acceptable and licensed? And I think that's what the debate turned on, as I understand it.

MS. SNDYER: As -- yeah, a lot of it.

MS. KOTAR: But the question -- but the bottom line is, we would license either one.

MS. SNYDER: Okay. But what I understood from -- let me just -- I just want to clarify for myself here. I'm sorry for taking up so much time. You said that you have current rules in place for interim storage, does that mean that there's a license pending for interim storage? Because when I talked to the guys out there at the test site, they say, oh, yeah, we don't know where it would go. Maybe we'll park it out on Frenchman Flat or something.

MS. KOTAR: Actually, there is a license under consideration, and hearings are going to begin in June in Utah. Rob, did you want to add to that?

MR. LEWIS: Yeah.

MS. DAUN: I'm sorry. Is that having to do with this particular place out here?

MR. CAMERON: No, no, it doesn't. It's another -- it's an interim storage facility.

MS. SNYDER: Is that the Skull Valley? Is that Skull Valley?

MS. KOTAR: Yes, it is.

MR. CAMERON: That's right.

MR. LEWIS: Just very quickly. We do have several

operating interim storage facilities, but with respect -- I think you asked one question about did NRC take a position on that law? Or that bill that did not become a law?

MS. SNYDER: I know DOE opposed it, so, I'm curious.

MR. LEWIS: We did not take any position. We were prepared to do whatever the law directed us to do, had it been signed. We were -- remained neutral throughout it, is my understanding.

MS. SNYDER: Okay. But there are going to be hearings in June in Utah, talking about Skull Valley, which would also start sending shipments all the way around the country out to this part of our planet?

MR. LEWIS: Yeah. We have this map here that shows several storage sites that are in existence around the country. Most of them are at reactors, with the exception of some fuel from Three Mile Island. The reactor that was damaged, is now stored at Idaho National Engineering Laboratory. And in addition, there is a license application that NRC currently has in house that we're reviewing, which would involve a storage facility in Utah, west of Salt Lake City. And that's a private operation. It's not DOE that's doing it.

MS. SNYDER: Yeah. On the Skull Valley Goshoot (phonetic) Reservation. Yeah. I understand those folks don't really don't want it there.

MR. CAMERON: Thank you, Susi. Can we have your question?

FEMALE VOICE: It actually got answered earlier.

MR. CAMERON: Okay. Thank you. Well, that gives us a chance to go to Kalynda for her question to Sandy and Blair. Could you come up to do your presentation, please? Kalynda.

MS. TILGES: Thank you. I'd like to know where I could get a copy of that map that you just had up on --

MR. CAMERON: We'll get you a copy.

MS. TILGES: Tonight? Can I get one tonight? Is that possible?

MR. CAMERON: It maybe possible. We'll try to get one for you tonight. Okay?

MS. TILGES: Great. Thank you.

MR. CAMERON: All right.

MS. TILGES: My last question, comment, looks like I got a couple of these. There's an overhead that you didn't show, but it's listed here in your presentation, "Licensing safety review. Review framework. NRC

regulations for Yucca Mountain, Part 63." It's my understanding that Part 63 at this point is proposed, it isn't actually there. Part 60 is what's in effect right now. So you're, without even actually having 63 in effect, you're already to go along with them? You're already asking the -- I'm really confused on this issue. I've been to a lot of DOE meetings lately, and they bring up the point that they are operating in compliance with proposed Part 63, so I'm wondering when the NRC is, you know, are you actually going to adopt 63, and leave Part 60 by the wayside that has these subsystem requirements in there, where the Part 63 doesn't address that issue at all? Is the DOE going to basically guide the NRC along in making Part 63 what it's going to be?

MS. KOTAR: I believe I understand your question to be what law -- what regulations apply right now? On the books we still have Part 60. As a practical matter, that -- those regulations incorporate as the overall standard, or health and safety objective, EPA standards, generally applicable standards, which have been -- were remanded by the courts, and then were set aside for Yucca Mountain by the Energy Policy Act of 1992. Where EPA was directed to develop site specific standards for Yucca Mountain. So we

do not have, in effect, a -- an applicable regulation, because there is no EPA standard for it to implement. So there really, you know, if an application were to come forward this second, we could not apply those regulations until there's a final EPA standard in place. Subsequent to the promulgation of the rules back in the early '80s, EPA now is embarking on a new regulation for Yucca Mountain, at the direction of the Congress, we're given a one year to implement those regulations. And because there's no way we could put comprehensive regulations in place in one year, we try -- we started out on a parallel process. EPA, you know, and NRC were working together. NRC got a little bit ahead, but as Bill Reamer indicated that the law says that when EPA has final standards in place, our Part 63 regulations will be amended, if necessary, to implement those standards. So that is why people are, you know, assuming that the Part 63 when the Commission votes upon it, and when EPA has final standards in place that we could be consistent with, will be the regulatory framework. And that's why Sandy has that on her slide.

MR. CAMERON: Thank you for answering that, Janet. Kalynda, if you need more information on that, please talk to Janet after we break up today. We're going to go to

Blair Spitzberg to talk about -- you've heard from him a couple times, he's going to talk about the NRC inspection program. Blair.

MR. SPITZBERG: Thank you. My name is Blair Spitzberg, and I serve as the chief of the Fuel Cycle and Decommissioning Branch in our Region IV office, which is located in Arlington, Texas. The Region IV office is -- Arlington is between Dallas and Fort Worth, close to the DFW airport. And we have responsibility for the inspection program and all NRC licensed facilities basically in the western half of the United States, and Hawaiian and Alaska, and some of the Pacific Islands that are U.S. territories. I'm just going to talk from my slides informally, and I'm going to hit the highlights. I've answered a few of the questions that I think I wanted to cover in my presentation, but I want to leave some time, if there's specific questions that I can address.

I want to start by telling you why I was asked to come here, and that's because my understanding is that in many of these public meetings, prior to tonight, there has not been a lot of discussion on the NRC's inspection program. And that's what we do in the Regional Office. And some of the licensed activities that my particular branch

inspects are very similar in nature to the types of activities that would take place at a Yucca Mountain, when and if it is licensed by the NRC. So while I cannot tell you precisely what the inspection program for Yucca Mountain would be, that's something that would have to be developed between now and the time that they would be given authorization to construct the facility. I can give you a glimpse at what we inspect at facilities that perform similar activities to Yucca Mountain.

So let me start with basic principles, and just discuss what the role of the regional offices are. Why do we have regional offices, we could all be in Washington, D.C., with the rest of the folks that are here tonight representing the NRC? Well, a decision was made back in the beginning of the NRC, when it was split, and was formed as an agency, that the regional offices could -- be being separated physically by our headquarters office, would be able to focus more on the safety of the individual licensees and facilities. And so that is our prime responsibility is to conduct safety inspections of NRC licensed facilities. And by being separated from our Washington office, we don't get drawn into a lot of the other activities that the NRC has responsibility for, such as licensing, and public

affairs, and government affairs, and project management, rule making, some of the other activities. Our focus strictly is on safety inspections. We do have one other major responsibility and that is the emergency response role. We maintain an instant response center in the regional offices, and a 24 hour around the clock readiness to respond to emergency. So in the event that there was an event or an emergency, we would be the first agency responders. There's also response role for the headquarters office, and in our headquarters operation center. But we would likely be the first individuals to arrive at the scene. And while this response role has seldom been used for actual events, we do train and drill quite hard for that responsibility in the event that that is needed.

What the are the objectives of the NRC Inspection Program? It's really very simple, we verify safe conduct of licensed activities. We verify the adequacy of licensee controls. And we examine trends in licensee safety performance. When a license is issued for a facility the license will contain the requirements and commitments that the licensee has made to the NRC, and we inspect against that as well as the regulations that they're subject to. So the criteria that are specified in a license, we have

procedures, individual procedures for inspecting all of those criterion and safety requirements.

Just to give you an idea of some of the areas that our inspection procedures that currently exist cover, that would probably translate directly to a waste repository. I've listed some on this slide here, and I'm not going to go through each on of them, but I just wanted to give you the flavor of the areas that my inspection staff, and other experts within the regional offices currently are trained and qualified in inspecting. And that these types of -- these category of inspection would, of course need to be inspected at a geologic repository. In addition to these there maybe some other unique inspection activities that might need to be developed that are unique to a high-level waste repository, and when the license application comes in, and we would be working with headquarters to develop these unique inspection procedures, as needed.

I wanted to discuss another important aspect of the Regional Inspection Program, and that's the review of allegations. Allegations come to us by many different forms, telephone, letters, word of mouth. We receive allegations from workers, from ex-workers, from wives of workers, from anonymous sources, from neighbors, a wide

variety of sources provide allegations to us. And we have a very formal process for reviewing these allegations. They go before a formal panel in the regional office that consistent of senior NRC management, technical staff, legal staff, representatives of our Office of Investigations, which is a separate investigatory office within the NRC. And when the review of that allegation determines that there's a potential safety issue or compliance issue, related to the allegation, then it is investigated formally. And this is historically provided a good source of information on safety activities at licensed facilities. So we look at allegations very seriously and aggressively pursue them when they have potential safety impact.

I mentioned to you that we don't know exactly what the parameters or the design of the inspection program would be for a Yucca Mountain facility, however we can project, based on our current inspection programs, that it would consist of resident inspectors and that inspection activity would be augmented by inspection expertise from the regions, and in some cases from headquarters. The process would be that they would do an inspection over a period of time, which could range in terms of length, from perhaps a week to a month, and what -- at the conclusion of that inspection,

the inspect -- preliminary inspection findings are debriefed to the responsible first line management in the regional office. Then the next week when the inspectors are back in the office, they would have a formal debriefing with the senior management in the office, and a determination would be made at that point whether any action was needed on part of the licensee to correct any findings.

We do have a formal enforcement process that takes into account the significance of any safety violations. We have a number of tools available to us to achieve compliance and enforcement with the regulations, depending upon the significance of the infractions, we could issue formal notices of violations that the licensees would need to respond to. In other cases we can take more severe actions, such as issuing civil penalties or orders to modify or revoke a license. We do have all of these capabilities within our enforcement program, and they're exercised based upon the significance of the inspection findings.

That concludes my formal remarks. So I'll -- I don't know, Chip, whether you wanted to go to --

MR. CAMERON: I think we've heard a couple answers on inspection questions, but let's see if there's any others out, and then we'd want to finish off the evening with this

whole program runs on for all of us, whatever your point of view is, and that's information. Okay. Sally?

MS. DEVLIN: Thank you very much for a very informative program. I didn't realize that you regulated the transport of radioactive material. And this is -- I've made presentations on this to you at the hearings in Vegas several times. I was asked a question about limitations of liability, and of course I got the report from Washington on Price Anderson. And my friend here just asked the question, when one of these canisters blows up, and pollutes the world and so on, what is the liability? And Price Anderson has 500 million and 60 million for the attorneys. Now that is a very small amount, and my analogy of course was it wouldn't build half a casino in Las Vegas. Now how do you handle that? And I say that because I have never heard anybody but myself mention Price Anderson. I introduced the Board to it. And what goes on in Texas? You must -- there's radioactive stuff going across the nation all the time, and they are having accidents. And you -- they have admitted it. And this is probably why I got into this was on transportation. And this is the most terrifying portion of the whole project is transportation. And I'm not going to say anymore, we'll talk a little bit --

MR. SPITZBERG: I understand the question. I'm not probably the best person to respond to Price Anderson questions. However, I can tell you that for the -- for those accidents that have occurred involving the shipment of radioactive material, most of the accidents have involved accidents involving delivery trucks for radiopharmaceuticals and that type of much lower activity -- radioactivity, and in those cases the packages are not as well designed, and are not subjected to the same qualification criteria as the packages for high-level waste. So in those cases if there have been some contamination say of the pavement, or the surrounding area where those accidents have occurred, the cleanup has been relatively simple and inexpensive. And so I don't think that any invocation of Price Anderson type of funding has been needed in those cases.

Chip, do you have any --

MR. CAMERON: Well, I was going to say, I think we owe Sally an answer on that applicability of Price Anderson, and I'm glad that you brought the issue up, because it doesn't come up too often, and it is an important issue. And --

MR. SPITZBERG: By the way, the safety record -- there's a publication on the back table on the

transportation of radioactive materials, and there's some statistics in there that are very revealing about the safety of transportation of radioactive materials. The incidents of accidents are quite low. And those accidents that have occurred have generally not resulted in significant impacts to the safety of the public.

MS. DEVLIN: This is a different project.

MR. CAMERON: Okay. Go ahead. And Kalynda do you have a questions on inspection?

MS. TILGES: I can wait until everyone's gone. I'll wait till last.

MR. CAMERON: Okay.

MS. BUNCH: Ty Bunch. Being my background is in the medical field. We were inspected by the NRC of course. We knew that they were going to come in every scheduled time, say every two years, but along with that they would do, what we would call surprise inspections, where we had no idea out of the blue, a man would be there or a woman would be there. Hi, I'm from the NRC. I used to be responsible for the in-house radiation safety officer. And in my experience those were of the most value when we had no idea that we were going to be inspected. Will that be considered as part of what you're going to be doing?

MR. SPITZBERG: Yeah. That's a good question. We still do some unannounced inspections, and we always have that option available to us. In some cases we do announce inspections of that type of license, because we like to ensure that the right people are going to be there for us to inner face with, however we do still do some drop in inspections. In the case of Yucca Mountain where there would be resident inspectors, then what you would probably look for is off shift inspections, you know, in the middle of the night, and back shift, things like that, but yes, that is an important aspect of the inspection program is the option to do unannounced drop in inspections.

MR. CAMERON: Okay. How many more people have inspection questions? So there's two back there, and Grant and Kalynda. Let's go, Kalynda, do you want to go ahead and ask yours now, and then we'll go over there, and then we'll go to Grant. Okay?

MS. TILGES: Okay. Well, just for the record and any kind of questions, I can always wait till last, because sometimes I can drop my questions. But this one kind of directly ties in with what Ty just said. I was curious as to whether the resident inspectors were going to be a 247 deal, but apparently they're going to have shifts, and they

won't be there 24 hours a day, seven days a week?

MR. SPITZBERG: Yes. I don't think we've gotten to the point where we've sorted those of details our on the inspection program. I'm sure that decision would be made well in advance of the construction activities, but for example, at operating power reactors we don't maintain an around the clock presence. We do have resident inspectors, however, at the power reactors. And so I don't know that any decisions or thinking along those lines for around the clock coverage have been made. I will say, however that one of the responsibilities I have is the loading of spent fuel into dry cask for the ispicies (phonetic) that Rob showed up on the map here. We have several of those ispicies operating in our region. And when licensees do a first time evolution, such as a loading of a cask, we do provide around the clock coverage quite often for those types of activities.

MS. TILGES: Just as a quick comment on that, as it was mentioned before, this is not a reactor site, this is something completely different, and I would certainly hope that the onsite inspection would be taken -- that that would be taken into consideration. And just as a process point, I keep forgetting to do this. My name is Kalynda Tilges. I

with Citizen Alert. And sorry to the transcriptionist. And this may seem like a silly little thing, but oh, well, I don't understand, is there a difference between on onsite rep and a resident inspector, or are they -- is it different? Two titles for the same thing, what's the difference?

MR. SPITZBERG: Well the -- I've not looked at the job description for the onsite rep, but the onsite rep is not doing inspections in the same sense that we do them from the regional offices in the sense that they're not -- first of all inspectors report to the regions, and not to headquarters. The onsite reps are part of the high-level waste organization, so they're more akin to the licensing function than they are to the inspection function. So there's that the independence of the inspectors, and their reporting chain through the regional office is one difference. The other difference is, to my knowledge the onsite reps are not performing inspections according to any inspection procedures, or inspection manual chapter. They're not documenting their findings in the same manner that the inspection staff would be expected to document it.

MS. KOTAR: Could I follow up on that?

MR. SPITZBERG: Sure.

MS. KOTAR: And there's a reason for that, and that is because the Department of Energy is not a licensee yet. We're in a prelicensing mode. What -- the reason that we have an onsite representative office is to provide some oversight of the site characterization activities. They studying that's been going on at Yucca Mountain, so that we will have a basis to make findings about the adequacy of the site characterization. But we have not entered into a licensing relationship with the Department of Energy at this time, and that -- there's a lot of decisions as Bill Reamer indicated, that have to taken, not just by our agency, but by the President, by the Congress, by the Department itself, before we get to that point. When we get to that point, then like all of our other major licensees, there will be decisions about the -- how many resident inspectors we will have. What their backgrounds will be. What their hours will be. What type of provisions will be make for additional inspections from headquarters? All those types of things, you know, will be part and parcel of our oversight and regulation once, you know, there is a decision to grant a license. But until that time, we are maintaining a less formal, but nevertheless important function by observing how the site's characterized. And as Bob Latta

indicated, not just to look over DOE's shoulder, although that's an extremely important role, but also to interact with the public, and to understand what those concerns are as we gear up for a much more formal relationship, once they've submitted the application. Once they've submitted an application, they become, in our lexicon, an applicant. And there's a lot of attaches to that, so that's kind of just a thumbnail.

MS. TILGES: And one more question just along this line here, then I actually have a general question for you later, but this right here isn't the form -- isn't the time for it this evening. Has it been -- is it being -- is it going to be taken -- maybe it hasn't been decided yet, but is it being thought of at least, will every shipment, every emplacement be monitored, or will it just be certain ones? I mean they're going to be coming in fast and heavy everyday once it starts. Are -- is every emplacement going to be monitored? Every cask going in going to be monitored? Every gantry that's slid in going to be monitored? Or are you just going to pick certain -- pick and choose certain ones?

MR. SPITZBERG: I think the answer is that we would either monitor every one or we would examine the

records associated with every one.

MS. TILGES: So that hasn't actually been decided yet?

MR. SPITZBERG: That has not actually been decided yet. And I think a lot of that will depend on the frequency of arrival, and processing of the individual casks into the emplacement. I don't get the impression just from my, the little knowledge that I have of the concept of operations, that this is going to be something that's going to be happening so fast and furious that we would not be able to monitor pretty thoroughly the activities taking place.

MS. TILGES: And it's my understanding that not every cask is going to be the same. I'm not talking about the size, shape or design necessarily, I'm talking about exactly what's in it, and --

MR. SPITZBERG: Yeah.

MS. TILGES: -- you know, dealing with burn up credits and other things like that.

MR. SPITZBERG: There will be a very detailed audible record of all of that, and we would be looking at that quite rigorously.

MR. CAMERON: Okay. Thank you, Kalydna. Susi, question -- inspection?

MS. SNYDER: Sorry. You kind of threw me off by calling my name. Okay. Yeah. I have a couple of questions. One is about your Slide Number 4 that wasn't up. And I would also -- again, my name is Susi Snyder. And I'd like for the record to request a better copy of Slide Number 2 just for my own -- you have my address. And it's a neat little map I'd like to see it more clearly.

MR. SPITZBERG: Which one are you speaking of?

MS. SNYDER: This -- right now I'm talking about Number 4.

MR. SPITZBERG: I don't have them numbered, maybe you can help me.

MS. SNYDER: It's the one -- it's the map.

MR. SPITZBERG: Oh.

MS. KOTAR: I've got this right here.

MR. SPITZBERG: Okay.

MS. SNYDER: I notice it happens to me like five people trying to file all at the same time. It just -- it hardly ever works.

MS. KOTAR: Well, he gave an abbreviated presentation.

MS. SNYDER: Yeah. Okay. My question on this, the level of -- I guess, actually this was very much covered

by what Kalynda just said. And thank you for asking those great questions. The level of inspection effort will be risk based. And that risk then, as I understand it, and I just want clarification here -- oh, we're on different slides -- that level -- that's the one I want my own copy -- I want a better copy of. Because I can't see it on this, it's too small. But this is the one I was talking about. Yeah. There we go, risk based. Now, that's DOE -- DOE assesses that risk, is that what you were saying earlier is that?

MR. SPITZBERG: Yeah. That DOE performs an integrated safety analysis, which we then review. And based upon our review of that, and our determination of the relative risk, that is how we would focus our inspection effort. That's not to say that the lesser risk activities, we wouldn't inspect. But we would inspect more on the higher risk activities.

MS. SNYDER: Okay. And so you just said here that the -- you'll be doing your review of those. But you also said earlier that you'll be adopting the DOE's analyses to the extent practicable, which is a great word I've learned since I've started this EIS process.

MS. KOTAR: Okay. But I did not say that.

MS. SNYDER: Oh, yeah -- I think -- I'm sorry.

MS. KOTAR: Bill Reamer said that --

MS. SNYDER: Okay.

MS. KOTAR: -- and Sandy also said that.

MS. SNYDER: Sandy said it. Oh, yeah, so that -- so then --

MS. KOTAR: Sandy --

MS. SNYDER: -- that risk analysis would still be it -- it's still from the DOE would be --

MS. KOTAR: The risk analysis, no.

MS. SNYDER: No, okay.

MS. KOTAR: It's the environmental impact statement --

MS. SNYDER: Okay.

MS. KOTAR: -- that we are obligated by law to adopt to the extent practicable. And we will have to make a judgment that's part of the environment review about whether it is practicable, and the extent to which it is practicable to adopt the EIS.

MS. SNYDER: Okay.

MS. KOTAR: The risk assessment that you're referring to is part of our safety -- detailed safety review.

MS. SNYDER: Okay. That's -- I was curious on that, and I very much appreciate your clarifying it for me. The other thing -- okay. This is the last -- probably the last one -- okay. Now on Number 11 you were talking about the enforcement if needed. And I would just like for everybody to be aware of the NRC's enforcement record. And as I understand it NRC -- when NRC enforces a safety violation on a reactor say, they issue large fines. Well, those fines don't come out of the utility company so much as they come out of the rate payer pockets. And now if enforcement can -- are we talking about? You're not going to go out there and arrest DOE or something. You're going to go out there and issue fines, but those fines will come then out of our pockets, and I'm just wondering how are you going to enforce safety violations? And --

MR. SPITZBERG: Well, as I mentioned there's a number of different tools available. Civil penalties is only one of the options available. If -- depending upon the significance of the infractions or the violations, the safety significance, we could issue orders to the licensee to either cease activities, revoke the license, modify the license. We can issue orders to individuals, if individuals have been involved. And for example, wrongdoing. We can

issue civil penalties. We can remove individuals from licensed activities. We have a wide range, and most of these enforcement tools have been fairly effective in bringing about a high level of compliance with our regulations. There's not too many licensees that want to be repeat offenders when it gets into the significant violations. And --

MS. SNYDER: But the thing is there are licensed operating facilities around the country which are repeat offenders, and they have not been shut down. And so it's hard for me, as I come from the east coast, you know, and I saw a lot of things. I saw -- just recently I saw, you know, this horrible thing at Indian Point Reactor, which is only 30 miles from where I grew up. And, you know, and I don't see the utilities being accountable for it. And I want to know that, you know, that here DOE, and those utilities who, I guess, which makes up the rate payers, but I want to see that there is an accountable person. I don't know want to see, you know, Joe Blow get fired because he was hung over last night, and he came in and he stumbled over a cord, and, you know, whoops, there goes Yucca Mountain. But, you know, what I'm saying? I'm trying to be appropriate, I've had a long day. But like -- but that's,

you know, you gave me civil penalties, and you can, you know, fire and remove individuals. But, you know, and then long term you could shut it down, if there is severe repeated violations, is what I heard? Is that --

MR. CAMERON: Could someone just really emphasize for Susi, and for the rest of the audience how seriously we take this enforcement responsibility and what would happen if we saw deviations from procedures or whatever. Blair?

MR. SPITZBERG: I can try. I've tried to address this, and maybe what we need to do for one of these meetings is get a representative of our enforcement staff out here.

MS. SNDYER: Yeah. I'd like to meet them.

MR. SPITZBERG: We do have a dedicated enforcement staff. And these are individuals whose only job is to review and take enforcement actions consistent with the NRC's enforcement policy. By the way, which is available on our web site. And it might be good, if you want more information, would be to review that. I did not bring a copy with this -- tonight. However, as I mentioned, the NRC has, over the years, exercised all of these enforcement options for virtually every category of licensee that has been found to be in significant noncompliance with the safety requirements. And up to and including removal of

individuals from licensed activities. We also -- I'm only mentioned it in passing, but we also have an office of investigations, and their sole purpose -- they are independent of both the regional staff and the headquarters staff, their sole purpose is to investigate potential wrongdoing among licensees. So if there's -- and by wrongdoing, I mean things that would comprise criminal acts, such as falsification of records, lying to NRC inspectors and so forth.

MS. SNDYER: Yeah. But I met a guy who used to work at Vermont Yankee, and he worked there for 16 years. And was told by his superiors, you know, watch out for this particular pump, it's red flagged. It was red flagged for nine months, and that's inappropriate. It was my understanding if you've got a coolant pump that's red flagged, it's supposed to be replaced within a month, or else NRC calls for a shutdown. That did not happen. And so I'm just, you know, I just want to know that we'll have -- that we can expect more of you than we have seen in the past, because I, you know, I remember that kid in third grade who passed away from leukemia. I remember these things. And it's because of unenforced, you know, well first of all the, you know, the 25 millirems, that's way too

much. But it's because of these regulations that are unenforced that these things are allowed to happen. And I don't want to see them happening. I don't want to see them happening here.

MR. CAMERON: Susi, thank you. But I think that your point is coming across loud and clear. Thank you very much.

MS. SNDYER: Good. That's the way I like to be. All right. Thank you.

MR. CAMERON: Susan Ward.

MS. WARD: Susan Ward, Nye County. My questions, of course, would have to do with emergency response, so I have four or five, but they all are pretty similar. Do you respond to the facility -- is that what, you know, you mentioned that you respond, you have this 24-hour number, and you respond to the facility, to the repository, or do you respond to transportation accidents? Could you be more clear on what your response is?

MR. SPITZBERG: Yes. The facility itself would have an emergency plan which would define certain categories of emergencies. And depending upon what the nature of the emergency is, they would have to make a declaration and notification to the NRC, and we would respond to the site.

It would be the resident inspector probably would be the first person there. He would be supported by a site team from the region, if that was called for, depending upon the circumstances.

As far as transportation is concerned, the primary responsibility for that would be the shipper, and the State's response organization, which are, as Rob mentioned, have all been trained to respond to contingencies involving transportation accidents. Of course, DOE also has RAP teams, or radiological response teams that could respond -- that would respond to these types of events, and of course we could provide support and response also as needed, if the States so requested.

MS. WARD: Okay. I'm aware of those response teams. But you said you are going to respond, are you going to bring any specialized equipment, or is it just personnel in an advisory capacity because of the license?

MR. SPITZBERG: We have -- we do have emergency equipment that we keep ready to respond. Mainly it's radiological monitoring equipment, survey instruments, and so forth to look for contamination. We have emergency dosymetry that we can deploy. We maintain an Incident Response Center in the regional office, which is tied into

our Headquarters Operation Center. And we have a trained and on duty staff of emergency personnel that when they receive the call, then we have call out lists that then get in everybody that's on the duty rooster engaged as needed by the -- under the direction of the regional administrator.

MS. WARD: Okay. So when you show up at the scene, then you will bring equipment, monitoring equipment and so forth? The information that you determine would that be given to the county or --

MR. SPITZBERG: Yes, that is correct.

MS. WARD: -- or how would we be in the loop on this and --

MR. SPITZBERG: The states are part of the planning for -- of the NRC for responding to emergencies. The states do have a role in this responsibility, we have State liaison personnel in the states that interface with the state authorities, and I'm not sure exactly how -- what the interface would be in Nevada, since Nevada is an agreement state. They would almost certainly have a role in responding to emergencies at the site, if one were to occur. But I'm not sure if -- I'm just speaking in terms of how it works at the power reactor sites not -- and how that would specifically, in terms of the relationships between the

state and the NRC, and Yucca Mountain, I'm not sure I can speak to that at this point.

MS. WARD: So in that planning phase -- the emergency response phase, it would -- it appears to me that we need to be sure that the county is also included in the notification in order to find out what's going on since it is --

MR. SPITZBERG: Yeah. Normally, the states and counties would be involved in terms of being fed the same information that the NRC receives, and then their responsibilities would extend from the site boundaries out into the adjacent areas. The NRC's responsibility would be on the site itself.

MS. WARD: Do you have any idea how long it would take you to get to the site? I mean have you thought about it? You have to fly in and then you have to drive up there.

MR. SPITZBERG: You're talking about from the regional office?

MS. WARD: Yes. And what regional officer would you be coming from?

MR. SPITZBERG: We have contingencies, if needed, to retain the services of private jets to fly our initial site teams to the sites. And so I don't know what the

flying time would be for a private jet. I would take -- say it would probably be on the order of an hour and a half flight time, plus a muster time of probably a couple of hours. But as I mentioned, we would have the site --

MS. WARD: And then you would have some driving time?

MR. SPITZBERG: Yeah.

MS. WARD: Okay. Thank you.

MR. CAMERON: Thank you, Susan.

MR. LATTA: Just draw a parallel to the commercial reactor --

MR. CAMERON: Bob, you're going to have to speak into the mic if we want to get this on the record.

MR. LATTA: We're trying to draw parallels to contingency plans that we have in place for operating reactors, and that's a little bit different for me to extrapolate 10 years down the line what DOE's emergency plan is going to represent. I, as a resident was about 20 to 30 minutes away from the site, and I did get calls, and I did respond, and I was there. You know, I didn't have a -- so the NRC presence is there, and it's available on short notice. But once again, we are not controlling the -- their response. We just observe it. You know, obviously if we

can see things that are not appropriate we can take action. But it is the responsibility of the licensee. It is the responsibility of the licensee to -- those activities.

MR. CAMERON: You're just going to have to -- why don't you step in there.

MR. LATTA: No, that's all I'm going to say. The only parallel I could draw like I say is on the operating reactor side, and to that extent the residents are clearly part of the initial response personnel.

MS. DEVLIN: I have to ask you a question in reference to that. We have three experts here, Roy Clark, Dr. Hechanova, and my -- where did he go? There you are. Come over here, don't run away. And we're talking about dosage, radiation dosage. And they can discuss this. I haven't heard you mention it, and I think it's the most important thing that there is. And of course radiation poisoning is number one on my list with no emergency preparedness, or hospitals in Nye County. And in many other counties that these -- this transportation will go through. We have no railroads. We have no roads. They're all a nine hazard as you well know. Our U.S. 95 is a nine hazard, that makes it he highest hazardous road in the nation. There isn't any category higher. So we've got a lot of things to

resolve with radiation poisoning, and I hope you can give some answers to the public. That is something we definitely need.

MR. CAMERON: Okay. Thanks, Sally. Let's take two more questions on inspection. And then we're going to bring Dan Graser up. And Dan, why don't you come up and get ready to do your talk on information? Gentleman in the back, please come up to the mic, and Kalynda. Kalynda, why don't you do yours really quickly while he's coming up?

MS. TILGES: I just have a quick comment. You're talking about violations and how to handle those, and that's something that Susi brought up. Kalynda Tilges, Citizen alert, for transcriptionist. I just want to make a comment that in the case of a nuclear reactor, if there's a violation, you can shut it down. You can't shut Yucca Mountain down. That's my comment.

MR. LATTA: Well, yeah. I don't understand your parallel there. If the violation --

MS. TILGES: Well, what --

MR. LATTA: -- is serious enough, we can issue a stop work order, if that's what you're talking about.

MS. TILGES: Yeah. But you can't turn it off is what I'm saying.

MR. LATTA: Well, I don't --

MS. TILGES: Shut it down --

MR. LATTA: -- know what you're talking about when you say --

MR. CAMERON: You're going to have to speak in the microphone.

MR. LATTA: Yeah, I don't --

MS. TILGES: If there's a safety violation where something serious has happened, God forbid.

MR. LATTA: Well, could you explain what that would be?

MS. TILGES: Groundwater contamination. Open containment.

MR. LATTA: Well, groundwater --

MS. TILGES: A spill of some type.

MR. LATTA: Groundwater contamination would have been preceded by several other events, wouldn't it? If we're talking about fuel that is in a container, which is seal welded. We're talking about a breech of numerous barriers here, aren't we? So I don't know exactly what situation you're hypothesizing. But it would, in my mind, be as a result of numerous failures.

MS. TILGES: If there's a serious violation --

MR. CAMERON: So that the point is that we would catch that before it would happen, is that --

MR. LATTA: Yeah, I -- you're going to have to explain to me the nature of the accident that you think would require immediate shutdown. Because I don't understand the term, shutdown, here.

MS. TILGES: Well, I don't think that, you know, either the NRC or the DOE has come up with all the different scenarios, and I certainly wouldn't be one to come up with all them.

MR. LATTA: No, but what Blair has talked about at length, is the fact that we have numerous years of experience of handling spent fuel, and inserting it in canisters, and storing it. That I don't think you can disregard that experience on our part. We have some expertise in the field. It has not been applied to a high-level waste repository. That's what I'm saying, we're trying to extrapolate the inspection techniques that we have developed for power reactors, and apply them to a high-level waste repository. So if you're saying under what conditions would we stop movement of fuel? That would be dictated, once again by DOE's procedures and programs, which they have in place. If they're lifting fuel from spent fuel pool, and

the fuel -- and the crane stops for any reason, or it jogs, or they can't index it properly, they stop. Their procedures require them to. So I -- I'm not exactly sure of your question.

MS. TILGES: Well, maybe I'm not exactly sure of it either. I'm not a scientist, I'm basically a public citizen at this point.

MR. LATTA: Right.

MS. TILGES: And I'm just concerned that Yucca Mountain is not the same as a nuclear reactor, and it can't be handled the same way. If there is a serious problem it's not something that you can shut off and stop.

MR. LATTA: Right. But there are a number of parallels, like I say, the fuel as it arrives, would be unloaded from the canisters, and conceivably either stored in a spent fuel pool, or immediately loaded into the waste packages. You know, there's only one or two options there. And there are procedures which control all of those activities. Licensed personnel, trained personnel.

MS. TILGES: If I was a scientist or a technical person, I could probably argue --

MR. LATTA: It's a very, very controlled process.

MS. TILGES: -- this point with you further, but

at this point I'm just going to leave it until I understand it better.

MR. LATTA: Well, yeah. I'm sorry. I'm not trying to be evasive here. I guess I -- if I'm going to answer the question I -- you have to pose to me the conditions under which you think the NRC should be stopping the, you know, the operation of the facility.

MS. KOTAR: May I just interject here? Because I think where Bob is having a problem is that the scientific and technical community tends to view a power reactor as a much more fast moving, higher energy source of potential hazard. If something does go wrong you do have the potential for scenarios that can deteriorate over a very short time constant. When you're talking about the very large amount of waste that we would put in a repository, yes, you have a potential for a great deal of exposure, if not properly shielded, but you don't have the potential mechanism for distributing large amount of radioactivity in a short period of time. So as Bob indicated, you have the capability to see, with your performance confirmation period, you know, long before, you know, waste begins to get to the groundwater, you would have other indications in your monitoring program that the performance is not as you

expected it to be. And you could take corrective action, including retrieval, during the retrieval period. But before that you would have opportunities to stop further emplacement. Go in and do further tests. And that you have a luxury of time that you do not have with a reactor. They are different systems, that's true. And there are different safety considerations that have to be taken account of in both cases. But I think that the perception, as safety people that we are, that you have a -- an emergency -- the potential for an emergency with the time constant of a reactor accident, is, you know, that probability is just not as high in the case of a repository.

MR. CAMERON: Okay. Thank you.

MS. TILGES: I hope that's true. Thank you.

MR. CAMERON: And let's -- one more question, and we really need to get Dan Graser on. Okay? Here to talk about information.

MR. SULLIVAN: My question is -- my name's Graham Sullivan, I work with Shendohigh (phonetic) Network. Did the NRC license the USC ecology dump at Beatty? And -- which is leaking plutonium, which it wasn't even supposed to have at all in the first place. And what about Maxiflats (phonetic), it's a super funds site, and if they -- if it is

a regulated area, or a licensed dumps, what kind of inspection personnel are located there?

MR. SPITZBERG: We didn't license Maxiflats. And I believe that Beatty was licensed by the State of Nevada, if I'm not mistaken. Is the State fella still here? And so I don't have any knowledge of what you speak of. But, you know, that was a low-level shallow land burial site, Beatty, Nevada. And it was for what we call low-level waste which is distinct and separate from the high-level waste that we're talking about at Yucca Mountain. And that waste was not contain arise (phonetic) by the way, also. And it didn't have the multiple barrier system that the Yucca Mountain facility would feature.

MR. CAMERON: Okay. Thank you, Blair. Thanks, Bob. Thanks, Janet. The last presentation we're going to do tonight is an important one because it's how people get access to information on the repository. It's a very simplistic way to say it. But Dan Graser, who is a licensing support network administrator, is going to tell us about the information management and litigation support system that's available, will be available to the public for use in this proceeding. Dan.

MR. GRASER: Thank you, Chip. Good evening,

everybody. As Chip said, I'm the licensing support network administrator. I work for the Atomic Safety Licensing Board and Panel. That is the group of administrative judges who will actually be hearing the case. And I'm not a lawyer. I'm a computer guy. So I'll be focusing on the use of computers and how it's going to support the entire process.

The Licensing Support Network is driven by an NRC administrative rule that defines how hearings are conducted. They rule that I'm talking about is 10CFR2 Subpart J. That rule basically directs that the material that any of the participants intend to use during licensing proceeding needs to be made available prior to the commencement or prior to the docketing of the license application. And the -- this rule has been on the books since 1989. It was revised in this -- early 1999 to change the focus of the originally intended system, which was considered to be a mainframe to worldwide web based system, computer based system. And the object of the system is to connect the document collections that each of the participants, potential participants, or parties to the hearing process need to make their -- the documents that they determine are relevant documents, they need to make their own documents available on the web, and this system is going to connect all of those collections.

And it will mean that you do not need to go to 10 or 11 different sites on the Internet. You can go to a single site, and using a single interface, identify the location and existence of documents that may have been placed out there by the Department of Energy, or the State of Nevada, or any of the other participants. The only thing that you would need to get access to this web site is a standard PC type computer with a web -- a browser, such as Netscape or Internet Explorer, and you need access to an Internet service provider capability to connect you to the Internet. The system is intended to be operational by July of 2001.

The -- I'd like to focus just very quickly here in terms of who has been involved in this. What it's really all about, and when it's going to be happening. The who in terms of this system, who's involved in it, as I indicated NRC has, since this past year assumed responsibility for implementing and operating the central search site. And as I said, each of the parties or participant organizations has the responsibility of making their relevant documents available on a computer system that can be connected to this network. The participants maintain their own collections, but NRC has given me the responsibility of ensuring that once a document is placed out there, that it doesn't

disappear sometime later. That once a document has been placed out on the web, that we can track that document through the whole process, and make sure that when it comes out the other end, we can say which organization placed the document out there, and when it came into the official docket of the system we can say that that's a true and accurate copy of the document. So my job is to ensure the integrity of the data for the duration. The computer system itself is probably going to be out there throughout the duration of the license hearing -- through the licensing procedure. And as indicated a couple times earlier tonight, that's three-year procedure. The clock starts ticking at the point the license application gets submitted.

The system. We've had a Federal Advisory Panel that's assisted us in defining the system. And participants on that panel have been meeting fairly regularly since, again 1989 time frame, but with renewed vigor here the last year. The State of Nevada, the affected units of local Government, including all of the counties in proximity to the Nevada test site, National Congress of American Indians, Nevada Nuclear Waste Task Force has had ongoing representation. Of course the Nuclear Regulatory Commission, the Department of Energy and representatives

from the nuclear industry. Now that's pretty much who's involved in it.

The real question is what does that mean to you as citizens, and why is a computer system important? There's a fairly large amount of information out there. The high end estimate right now is in the vicinity of 6 million pages of material, of relevant material that the parties maybe making available. And that's a lot of information to be out there. Obviously, you won't have time, if you started reading right now to read all 6 million pages. In fact, you probably don't even want to read all 6 million pages, but you do know that there are issues that concern you. And there is documentation out there from all the various parties, and you want to know, how do I get the facts that I need to support the issues or to be educated about the issues that I'm concerned about? And that's what this computer system is intended to do, is to provide a single location with a relatively simple user interface that will allow you to identify, by topic, by authoring organization, by a lot of different criteria, and be able to rapidly identify the documents that you would be needing to support your role in the licensing activity.

I've brought along a couple of flip charts here to

give you a flavor of what such a portal site would look like, and again this is the sort of place that you could go to directly on the Internet. The site that I picked here is from the National Library of Medicine. And the -- this chart is just indicating that you can have multiple underlying document collections, and in our case we would have a DOE collection, and a State of Nevada collection, and so forth. On the second chart, once you go in there and search the system and start looking for documents, you would get a list that comes back and basically says, here are a number of documents that are responsive. And if you click on the link, this system will bring back the text of the document. And if it happens to be nontextual documents, such as a topographical map, for example, or an engineering drawing, instead of bringing back the text document, it will bring back the image for you.

This system is going to be available and it will be used by the participants to prepared their contentions. That is to prepare the -- their position on a particular issue. And it will also be operational during the course of the licensing proceeding.

Out of this potential 6 million pages of material, not all of that material gets into the official docket file.

In fact, only a relatively small subset gets into an electronic docket file that will be made publically accessible, again through the Internet. But in order for a document to get to docket file, it has to come through this collection here. Except with, of course, if it's testimony during the hearing. But the electronic docket and this discovery collection are part of a broader initiative. The licensing proceeding, it is NRC normal practice, normal custom to conduct licensing proceeding in the vicinity of the facility that's being licensed. So there's a fairly, if NRC's consistent in this regard, the license hearing is probably going to be held in the Nevada area. Fair possibility that it would be in the City of Las Vegas. And NRC is looking at incorporating essentially an electronic courtroom. Because the kind of information that might be presented might be computer models, or simulation, or flip charts and overheads. And people giving testimony. And NRC's intention is to digitize the entire proceedings, and that digital record becomes the official record of the license proceeding. And the would be the record upon which any subsequent appeals, or lawsuits or anything else would be based. That entire courtroom proceeding, all of the testimony, all of the audio/visual materials would probably

all be digitally stored and saved. Now once we have all this information digitally stored and saved, we're also exploring the possibility of taking this electronic information and pumping it out in a couple of difference ways, as well. Possibly through cable, cable type networks like, you know, Cspan, or other public cable channels. And you could also take this digital recording and pump it through the Internet, and if you had a PC that was capable of downloading motion video and audio files, you would be able to watch the licensing proceedings in realtime on your computer. And I just want to make --

MS. DEVLIN: You do teleconferencing?

MR. GRASER: The teleconferencing is also something that is being looked at, because in fact there maybe situations, so, yes, it is something that we would be looking at.

I just want to reemphasize that these are things that we're exploring right now. But at a very minimum we do have the licensing support network, and we will have an electronic docket, and you will be able to get through it, as a member of the general public, right through the Internet.

When will this system be available? I've included

a flip chart with some of our milestones. I intend to have this system designed, completed sometime September 2000. We will move right into the system development phase between October 2000 and June of 2001. And I intend to deploy the NRC piece of the system, which is the connectivity and that central search page, have that deployed by July 2001.

The participant organizations, according to that 10 CFR rule have to connect their document collections at prescribed times. The Department of Energy and the Nuclear Regulatory Commission have to make their collections available within 30 days of the site recommendation. The other participant organizations have to make their document collections available within 30 days of the license application.

The other aspect of this is that the parties do have to make the documents available as prerequisite for participation in the licensing activity. The question has been previously identified, what about smaller organizations who in fact may not have documents? Would that preclude them from going before the presiding officer, and asking for a status for the -- to participate in the hearing? And so that question has been raised, and I don't have the definitive answer on that one, but it has already been

identified, and people are working on that particular issue.

At this point I'll open it up to questions, and answer any specific questions that you have.

MR. CAMERON: How about questions about this information management system? Yes, sir.

MR. SULLIVAN: I just got one really quick question. My name is Graham Sullivan again. This is really great what you're doing, putting it out there to the whole, you know, multimedia universe, or whatever, but what about people that don't have money to have computers or anything like that, or cable, short circuit T.V., or anything like that and --

MR. GRASER: Okay.

MR. SULLIVAN: -- where are these people going to be able to get this information, the 6 million, whatever estimated?

MR. GRASER: Excellent question. Thanks for bringing that issue up. That was raised this afternoon as well, There are a couple of different alternative ways that information can be gotten. The 10 CFR 2 rule, for example, requires that the access to the system be provided at both DOE and NRC's public document rooms. There are public

document rooms in headquarters, and in various locations around the country. There are -- NRC maintains document rooms in the regional offices. DOE's got a couple of document rooms out here. So that is one area. In addition, it raises the point, well if all this material's going to be electronic, what if I don't use electronic? Right. And the 10 CFR also have provisions in it that indicate that the availability of the electronic information does not preclude getting documents in response to the normal FOIA type request. And FOIA type requests you can specify the media or format that you want that information delivered on. So you can pursue it in that regard. The other aspect of it is that the documents themselves are maintained by the authoring organizations. And the system does have a requirement that the participating organizations identify in the computer record where you can -- who you can contact, where you can acquire an image version of any of the documents that are out there in electronic format. So for example, if it's a Department of Energy document, when you look at that record in the electronic environment, and you say, well, I want to have a paper copy of that, and there -- it's a big document, it might be 2,500 pages, and I don't want to have to go to the public library and pay a dollar a

pop to print it out, right? That's where the system will point you to a point of contact at the Department of Energy and they will tell you where an image copy of that document can be acquired.

We've also had discussions with the Nevada, or at least exchanged e-mails with the Nevada State Librarian and Achieves Association in terms of exploring access to the system through the State library system. And we've received indications from them that the computer terminals are available in all of the local branch libraries scattered throughout the State. And again it's not the hundred percent answer. But it is a piece of the capability that is available.

And finally there was a question raised this morning as to whether or not NRC intends to continue to make documents available through the public document room in a paper format. And I took an action item to follow up on that particular item. That the public document room operations and the agency's future plans for that are something that I'm not a hundred percent on top of right now, so I did take an action item to get back on that one.

MR. CAMERON: Good. I think that's a pretty comprehensive answer to the question. Do we have any other

questions for Dan on information management litigation support? Yes, Sally?

MS. DEVLIN: Just -- thank you, Dan. That's very interesting. I do all this stuff with demographics, and what did I do? And you realize when the transportation group from NRC was out here, and we had a major problem, it was really kind of fun, and that is we're talking distances. We're talking from here to Tonopah is 200 miles. We're talking from Tonopah to so on is another 200 miles. We're talking Eureka. We're talking no population in hundreds of miles. And the question came up with the transportation, you have to go to the bathroom, where do you go to the bathroom? Well, until you hit a town, you go to a brothel or you go to a casino. Well, it's very much the same thing with your information highway. We don't have these things. We don't have the T19's, we don't have the frame relays, we don't have the fiber optics. We're isolated and there's no cohesiveness in this State on information. The universities fight one another. The community colleges fight one another. We hope to get a community college here, then we will have a basis. Again, but they have to buy the information. I can't get through to the NWRTB or to any of the agencies, because they won't pay for it. The last --

the latest stuff, and I go to the computer all the time, is 1998. Now that's money. And so this is what we're talking about. Now my feeling is that somewhere along the line money should be available for these isolated areas on the communication highway. And I hope you make a note of this, because we are deprived, denied, and a few other things. So you're getting the picture, we do not have the technology. The State's 20 years behind everywhere. And I'm looking at modern transportation with television, and this, that and the next thing. We absolutely have today no capabilities along these line. That's why I love to talk to my friend there about transportation, because you have 200 miles between something and there's an accident, what happens? If they -- and transportation again if they push the button it goes to the area of origin, it doesn't come here. So we have a major communication, transportation, everything problem, and on this licensing, we want to know what DOE is presenting to you because we are very much up to date on their science. And my commentary on the environmental impact statements would be, I feel like if I took the bible and condensed it into 600 words, I could have done that with the draft, as well as the EIS, simply because there were only half a dozen pages there of any value. And the reason

is one, there's two repositories, two, the money and no transportation, no canisterization.

MALE VOICE: And Moses kept it on two tablets, yes.

MS. DEVLIN: Exactly. So there's my analogy. Right.

MR. CAMERON: I'm glad you guys are on the same wavelength. Thanks, Sally.

MR. SPITZBERG: The one thing that I just would like to -- and again this is kind of a side thought on my part, you know, if you look at the process for a unitary point of view, and you say, well what can I do as an individual citizen? And how can I have a direct pipeline, if you will, into what's happening and what's going on, and who's using -- who is seeing which documents? You're shouldering a lot of the burden on your own shoulders. And one of the things that immediately rushes to my mind is that there are already recognized constituent organizations, and it just becomes a matter of affiliations. But at a minimum, you're a member of the State of Nevada, super group, and you're a member of a county in the area, so you're a member of that group. And the State and the county are going to have web sites and computer access, and they're -- and you

may choose not to -- you may -- okay. But -- right -- but there -- my point being that there will be people in these constituencies who will be in some fashion more effective or less effective being able to channel some of the information back down to their constituent organizations. And you may choose or not choose to affiliate with them, and rather choose to focus on a citizen action organization or coalition. And I think the more of these groups that you belong to, the better opportunity to have at least somebody keeping you attuned of what's going on, even if you are not directly wired. There are going to be people here who will make it a point to make sure they are wired.

MS. DEVLIN: It won't be Pahrump. But we want communication with Las Vegas. They have the numbers to do it.

MR. SPITZBERG: Right. Well, I think that's a local issue.

MS. DEVLIN: No, it isn't.

MR. SPITZBERG: I --

MS. DEVLIN: I beg your pardon. It isn't a local issue. It is an issue of facilitation. It is an -- information highway. We have nothing. And it's going to be a long time before we do. And unless we have intra

communication, north to south, which we also don't have, that we have a problem. Now, I'm in a group, and we're going to form a foundation for the community college. We received 800 pages of the Board of Regents, and we threw out what we didn't need. And five of us read a hundred pages, and then reported on it. Now, you're talking 6,000 pages. So you're talking -- there should be monies, there should be something to do this. And otherwise, we are as usual denied.

MR. CAMERON: No, I don't --

MS. DEVLIN: Everybody that has a brain that can read here is into something, doing something. So the demands on individual is very high.

MR. CAMERON: I think people agree with you on that, Sally. I'd just like to thank Dan. Thank you very much. Now before we take a vote on whether to go into breakout sessions -- I'm glad you still -- I'm glad you can laugh at that.

MS. DEVLIN: Next time you come to the community session, where you said we have three rooms.

MR. CAMERON: Okay. No, you've made a very good point, Sally. That was a great point. No, before -- but -- listen, we really do need to close up here. And I just want

to thank everyone here for their perseverence and attention. The NRC staff will be here. Some of you may have more specific questions. I think we've heard a lot from a lot of you, and good comments and good questions. Bill, do you want to say anything finally? Okay.

MR. REAMER: Just reiterate what you said.

MR. CAMERON: All right. Thank you very much all of you. And we'll be back out here again on other issues. So thank you. We're adjourned.

MS. TILGES: I just hope you schedule longer than two and a half hours for a public workshop next time.

MR. CAMERON: Yeah. Well, you're right.

[Whereupon, the meeting was concluded.]