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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING ON THE NRC STAFF'S DRAFT SUPPLEMENT TO
THE ENVIRONMENTAL IMPACT STATEMENT
FOR THE PROPOSED GEOLOGIC REPOSITORY
AT YUCCA MOUNTAIN, NEVADA

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TUESDAY

SEPTEMBER 15, 2015

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The Public Meeting was convened in the
Ambassador Ballroom of the Embassy Suites Convention
Center, 3600 Paradise Road, Las Vegas, Nevada at 7:00
p.m., Chip Cameron, Facilitator, presiding.

PRESENT:

CHIP CAMERON, Facilitator

ADAM GENDELMAN, Office of the General Counsel

CHRISTINE PINEDA, Office of Nuclear Material
Safety and Safeguards

JAMES RUBENSTONE, Office of Nuclear Material
Safety and Safeguards

P R O C E E D I N G S

MR. CAMERON: Good evening, everyone. My name is Chip Cameron, and I'd like to welcome you to the public meeting tonight.

And our subject for the public meeting tonight is a draft supplemental environmental impact statement that the Nuclear Regulatory Commission has prepared on groundwater issues related to Yucca Mountain. And it's my pleasure to serve as your facilitator tonight and, in that role, I'm going to try to help you all to have a productive meeting. And we're not going to use a lot of acronyms with you tonight, but two that you will hear are EIS for environmental impact statement and NRC for Nuclear Regulatory Commission.

And I just want to go over some items of the meeting process so that you know what to expect tonight and I'd like to tell you about the objectives of the meeting, the format for the meeting, some simple ground rules to help us have a productive meeting, and to introduce the NRC staff that are going to talk to you.

In terms of objectives, there's two primary objectives; and one is to ensure that the NRC staff

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gives you clear information on the EIS process and also on some of the information in the draft EIS.

The second objective is to allow you the opportunity, give the NRC an opportunity, to listen to any comments and concerns that you might have on the draft EIS. And I'm emphasizing that word, draft, because it's not going to be finalized until the NRC considers all the comments that it gets on the draft.

Comments from this meeting, a meeting at Amargosa Valley -- and I'm hoping that I'm pronouncing that correctly -- on Thursday, and a meeting that was held in Washington, DC on September 3rd, and written comments that the NRC has asked for.

So it won't be finalized until all of that happens. And what's related to a third objective, is that the NRC does these meetings before the formal comment period closes. And the NRC staff, who I will introduce in a minute, will tell you when that comment period closes. But they have these meetings before the comment period closes so that you can get some information that might help you to comment if you want to send in a written comment; and not only what you hear during this formal part of the meeting, but what you've learned out at the poster session beforehand

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or what you might learn talking to the NRC staff after the formal part of the meeting.

And I should say that anything that you say tonight is going to have as much weight as any written comment. Okay? And you should note that if you were talking to the NRC staff during the poster session, if you want that -- what you said to them to be on the record, okay, to be formally considered by the NRC, then you should say it here on -- on the record.

And format, we really have three segments to the meeting; and one is going to be presentations by the NRC staff. The second segment is we're going to see if there's any clarifying questions on the EIS process that we can answer. That will be a short segment. And then we're going to go to the most important part of the evening, which is to hear from all of you. And I have a set of cards that people signed when they came in indicating that they wanted to make a formal comment. And when we get to that final segment, which will take most of the meeting, I'll ask you to come up here to give your formal comment.

Now, I heard that some people had taken cards, they wanted to speak, but they didn't leave the

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card with us. And if you have a card that you have with you and you wanted to speak, if you could just raise your hand, Miriam will come and get that from you. Okay?

But at any rate, we'll have you come up here and give us your comments. And the NRC isn't going to be engaging in a discussion with you after you give your comment, because we probably would never ever get out of here with that. And so they won't be engaging in a conversation, but they will be listening carefully and they'll consider your comments in preparing the final EIS. And they're going to hear your comments here, and so after the meeting, if you're around, they might come up and ask you, talk to you about the comments that you -- that you gave.

In terms of ground rules, I would just ask that only one person speak at a time. And most importantly so that whoever has the floor at the moment can -- we can give our full attention to that person, but we also want to get what I call a clean transcript.

Our stenographer Jennifer Gerold is right here and if only one person is speaking, then Jennifer will know who that is and that will be clear on the transcript.

And that transcript will be publicly available within

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a few days, but we'll clarify how long it will take for that to be available. But that's the NRC's record of the meeting and that's your record of the meeting.

Second ground rule, I'm going to ask you to be crisp and concise in your comments tonight. And we have a lot of people who want to talk, which is -- which is fantastic that we have people who want to comment, but I want to make sure that we get to everybody, so I'm going to ask you to follow a five-minute guideline, nothing untoward or terrible is going to happen to you if you're a little bit over five minutes, but I would like you to follow that guideline. And luckily, there is a written comment period available where you can submit a written comment that amplifies on what you said here in your five minutes. And I apologize in advance if I have to ask anybody to just wrap up so that we can go on to the next person.

And one ground rule, and I almost don't need to mention it, but I would just like all of us, everybody, the NRC staff, me, all of you, to just be courteous to one another. You may hear viewpoints tonight that differ from your viewpoints on these

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issues, and I just would ask you to respect the person who's giving that -- that particular comment.

And the focus of this meeting is on this draft supplemental EIS, which is on groundwater issues.

And the NRC staff will explain what's in there. And I know that there are broader concerns about Yucca Mountain. This has been a long and complicated process and some of us are still here working in this vineyard.

And the NRC staff is going to try to put this draft supplemental EIS on groundwater into context for you with this long history on Yucca Mountain.

And with that let me introduce the NRC staff. We have Jim Rubenstone here. He's going to give you a welcome in a minute. He's the acting director of the Yucca Mountain Directorate at the U.S. Nuclear Regulatory Commission in Rockville, Maryland in the Office of Nuclear Material, Safety, and Safeguards.

Then we're going to get to the heart of the matter with Christine Pineda, who is the senior project manager in Jim's Yucca Mountain Directorate, and she's going to tell you about the draft EIS.

We also have Adam Gendelman here at the table and he is the staff counsel from the General

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Counsel's Office at NRC. So he'll be at the table.

And I would just say that, you know, the emergency exits are well marked if there is any type of an emergency. And there is something called -- that the NRC calls a feedback form. Okay? And this helps the NRC to try to improve public meetings that it does and it's already franked so that you can fill it out and put it in the mail if you want. And if you have a comment on the substantive aspect of this, you can put this on the feedback form too and mail it in or you could fill it out tonight and leave it here.

And I think I'll get off and I'll turn it over to Jim.

MR. RUBENSTONE: Thank you, Chip.

First of all, let me welcome everyone this evening to our second public meeting on the NRC's draft supplement to the Department of Energy's environmental impact statement for a geologic repository for spent nuclear fuel and high-level waste at Yucca Mountain.

I know that's a mouthful.

As Chip said, I'm Jim Rubenstone. I'm the acting director of the Yucca Mountain Directorate and NRC's Office of Nuclear Materials, Safety, and Safeguards.

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Again, welcome to all who have come. We appreciate you coming out. Comments are an important part of the process. Welcome to our elected officials, Mayor Goodman, Representative Titus, and we have some other elected officials with us as well.

As Chip said, we will be having another meeting on Thursday at Amargosa Valley.

As you know, NRC released this draft supplement for public comment. The comment period began on August 21st, and it was originally for a period of 60 days. In response to requests from the State of Nevada, from Inyo County and from several other groups and individuals, we have added an additional month to the comment period, so the comment period now closes on November 20th.

This allows, in our opinion, we have ample time for comments on this relatively limited document while still keeping to our obligation to complete the supplement in a reasonable time and within a fairly limited budget. We have scheduled an additional public teleconference to receive comments. That will be November 12th in addition to the already scheduled teleconference, which is October 15th. If you picked up outside, we have a handout that has all the

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information about the commenting opportunities.

As I mentioned, public comments are very important to the NRC and one of our purposes today is to accept your comments. We want to make sure that they're properly recorded so they can be addressed by the staff. And today's meeting is being recorded and will be transcribed, as Chip mentioned.

And let me also remind you that in addition to providing comments at our meetings, we're happy to accept written comments by mail to the NRC or through the regulations.gov website. The regulations.gov website also allows you to either enter the comments in or upload a document if you would like to rather do it that way then, with a prepared statement.

The handouts that we have outside, as I mentioned, we have one about how to comment, we have one that gives some background on the Yucca Mountain project, one which summarizes the recently completed safety evaluation reports that the staff did. All of those handouts, the posters that we have in the back, the meeting summary for this meeting and the previous meetings and such are available on the NRC's website.

If you go to the www.nrc.gov home page, there's a drop-down that will get you to high-level radioactive

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waste disposal, and just follow that through to key documents.

As Chip mentioned, we have the second meeting this week in Amargosa Valley. The presentation will be the same. We'll have the same handouts, but of course we're looking for the opportunity to get the comments provided by those attending that meeting.

So that's all I have to say in the way of opening remarks. I'd like to now turn it over to Christine Pineda, who is a senior project manager in our Yucca Mountain Directorate. She'll introduce the draft supplement and the process for providing comment.

MS. PINEDA: Hello, everyone. Thank you, Jim. Good evening. I'm Christine Pineda. I just wanted to make, really quickly, a quick correction that the posters will be on the website next week. They're not up there just yet, but the handouts are there.

So as Jim mentioned, tonight I will be describing to you the environmental review process for the Yucca Mountain repository, the NRC's environmental review process, and describing the content of the draft supplement that we published for public comment. So first I will give you some background about the

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environmental review process and go over some of the activities and events that have occurred over the past several years. And then I will talk about the draft supplement, and then we'll have an opportunity for you to ask clarifying questions about our process, and then we'll go to the public comment section of the meeting.

So the environmental review -- NRC's environmental review process is defined primarily -- or defined by the National Environmental Policy Act. And that act requires that federal agencies consider the environmental consequences of their proposed actions.

And the NRC puts out environmental documents for its licensing actions and also for its rules and regulations.

The Nuclear Waste Policy Act requires that the NRC -- that the Department of Energy produce the environmental impact statement for the proposed repository and it requires that the NRC adopt the Department of Energy's EIS to the extent practical.

And just to give you some background, in the -- under the National Environmental Policy Act some -- if two agencies have proposed actions that are very similar, they can choose to -- one agency could

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choose to adopt another agency's environmental impact statement, but in this situation, it's a requirement by the law.

Some of the activities that have -- the major activities that have occurred over the past several years. The Department of Energy produced its final environmental impact statement for the repository in 2002 and it submitted that EIS with its site recommendation to the President in 2002. And then in 2008, the Department of Energy produced a supplemental environmental impact statement that supplemented the entire 2002 EIS. And it submitted the 2002 and 2008 EISs with its license application to the NRC in June of 2008. The NRC staff reviewed the Department of Energy environmental impact statements in 2008 and issued what we call its adoption determination report in September of 2008.

The staff determined in that report that the EISs could be adopted, but that supplementation was needed. And that report describes the scope of the needed supplementation and the key points are that analysis, more analysis was needed. The NRC staff determined that more analysis was needed to assess the groundwater flow environment beyond the regulatory

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compliance point; and to assess the potential groundwater impacts beyond that point; and also to look at how the groundwater flows and eventually reaches the ground surface; and what the environmental impacts could be at those locations, either at areas where groundwater is pumped or areas of natural discharge; and that the analysis needed to include -- account for radiological and non-radiological contaminants.

You may be wondering why the NRC staff is supplementing the Department of Energy's EISs. In 2008 when we produced our adoption determination report, we -- at that time, we requested that the Department of Energy develop the -- prepare the necessary supplement, but the Department of Energy at that time deferred to the NRC to prepare the supplement. Subsequently, in 2011, the Commission -- as a result of not having further appropriations for the project, the Commission directed the NRC staff and the Atomic Safety and Licensing Board to cease activities related to the project. So the hearing activities that were going on as well as the technical activities were stopped.

But in 2013 a Court of Appeals decision in Washington, DC directed that the NRC should continue

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work, and the Commission directed the staff to complete its safety evaluation report, which it completed in January of this year, and also to do the supplement.

And we did -- the NRC did request, again, that the Department of Energy prepare the supplement. And, again, the Department of Energy deferred to the NRC.

So this -- so we began work on the supplement in the spring after completing the SER.

The scope of the supplement, as I mentioned, is described in the adoption determination report and it is limited, because the NRC staff found that the EISs otherwise could be adopted. So, as I mentioned before, it evaluates the potential impacts on groundwater and the impacts associated with the discharge or pumping of groundwater to the ground surface for radiological and non-radiological contaminants.

The potentially affected area is the area of the groundwater flow path that could include contaminant releases from the repository. And, as I mentioned, that focuses on the groundwater flow path beyond the regulatory compliance location. And I'm referring to the post-closure regulatory compliance location, which is approximately at 11 miles south of

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the site.

So groundwater flows -- beyond the regulatory compliance point, groundwater flows through the Amargosa Desert and then, ultimately, flows to the Furnace Creek and Middle Basin areas of Death Valley.

And then, of course, there are points where the groundwater reaches -- reaches the ground surface at springs or it can be pumped, such as the pumping that occurs in Amargosa Farms.

This is the Death -- a map of the Death Valley regional groundwater flow system, which is a model of the United States Geological Survey. And this is the model of groundwater flow for this region that the NRC staff used to assess groundwater flow impacts associated with the repository. And the map represents the area that's encompassed by the model.

The resources, the impacts -- we looked at impacts on certain resources. And the resources that we determined could be affected by potential groundwater contamination are, of course, the groundwater itself -- and in the supplement, we referred to the aquifer environment, because it's not just the groundwater, it's the host material for the groundwater, whether it's bedrock or smaller particles

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before you reach the bedrock. And that's because depending on what the environment is that the groundwater is traveling through and depending on what the contaminants are, contaminants may flow with the groundwater or they may be slowed down by the other materials in the aquifer.

We also looked at impacts on soils at the locations where groundwater could discharge to the ground surface and impacts -- potential impacts on public health or people who might be exposed to the soils or the groundwater at those locations, as well as impacts on the vegetation and wildlife at those locations and the potential for disproportionate impacts on minority or low-income populations if those populations exist where there are either -- either pumping locations or natural discharge locations.

Key aspects or key elements of the analysis are, of course as I mentioned, we looked at impacts from radiological and non-radiological contaminants and we looked at the impacts for a period of one million years past repository closure, trying to determine at what point in that time period the contaminants would reach their greatest concentration in the groundwater or at the surface discharge locations. And our

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analysis builds on the Department of Energy's model of repository performance that the NRC staff assessed in its safety evaluation report. And you may know it as the total system performance assessment.

To capture a good range of potential impacts we -- there are two key variables, and one is the groundwater pumping. In one case, we assumed that there would be pumping for irrigation at Amargosa Farms and we assumed in this case that all the contaminants that would be released from the repository would be drawn up through that pumping at that location. And that's a conservative assumption.

In another case, we assumed that there would be no pumping and in that case all the groundwater would flow to the natural discharge locations. And we assumed for each discharge location or each potential discharge location that's similar to the pumping location, that all the contaminants would be -- would reach that location.

And we looked at two different climate scenarios. One is the hot and dry climate, which is similar to today's climate and that also would encompass a warmer climate that we might see in the nearer term, and also a cooler and wetter climate, which may be a

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climate that could be observed in the -- further into the future. And a cooler and wetter climate would produce more precipitation, which then would lead to more water entering the groundwater system, so that could affect the concentration of contaminants; and also it could also affect how -- along with the groundwater pumping, it could affect where groundwater reaches the surface.

And this relates to the next slide, which is there are some locations where we call them paleo discharge locations or prehistoric spring discharge locations that were formerly springs greater than 30,000 years ago. And they're now not active, but in a situation of a cooler and wetter climate they could become active again. So these are potential discharge locations.

The supplement concludes that the potential direct and indirect impacts from the repository would be small. And that means that, the NRC's definition of small is that the environmental effects would not be detectable or would be so minor that they would not noticeably alter any important attribute of the resources that we analyzed the impacts for in the supplement. Also that potential cumulative

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impacts would be small.

And cumulative impacts are the impacts of the repository itself when taken together with potential impacts from other activities in the region, such as potential impacts from what we used to know as the Nevada Test Site. And these impact conclusions are consistent with the NRC staff's understanding of how contaminants would move through the aquifer.

So the next steps are, as Jim mentioned, we have a public meeting in Amargosa Valley in Nye County and that's on Thursday at the same time also with an open house. And then we will have two teleconferences, one on October 15th, and one on November 12th from 2:00 to 4:00 p.m. Eastern. And the comment period closes November 20th and we should have -- we will then be reading the comments we've received and developing responses to those comments. And the responses will appear in an appendix to the final supplement.

So with that we will now have an opportunity for clarifying questions.

MR. CAMERON: Okay. Thank you, Christine. Thank you, Jim.

We do have some time for clarifying questions on the process and let's go to Bob, Bob

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Halstead.

MR. HALSTEAD: I have a question about the definition of small as it applies to impacts.

Looking at the impact statement on the continued storage rule and other documents, small has been defined in a variety of ways in the NRC NEPA documents. And the definition of small that we've seen also uses the phraseology that small means that the expected radiological doses are within the limits established by the regulations. So are there -- are there a variety of definitions of small in the NRC regulations? Because I did check the other EISs that those of us who work on these issues are familiar with.

MR. CAMERON: Okay. Adam, are we going to go to you for that one?

MR. GENDELMAN: Okay. Thanks for the question. The definition of small is as used in NRC guidance on the preparation of environmental documents.

It's NUREG 1748. I don't know if that's helpful, but that's where the term is used -- is defined.

MR. HALSTEAD: You know, we won't resolve this tonight, all I'm telling you is if you look at other very recent and final EISs, you'll find a

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different definition of small impacts. And it does not necessarily mean that they're inconsequential, it means that they are below the thresholds established by the regulations of the NRC, or in this case the EPA.

MR. RUBENSTONE: I don't think there's any contradiction in the definitions that are used. I think we're trying to use the consistent one, as Adam noted, that's from our guidance for NMSS EIS documents.

MR. CAMERON: Okay. Anybody else with a clarifying question on the process? And thank you, Bob, for that question.

Yes, sir.

MR. MACK: Good evening. My question is I really didn't understand the relationship between the NRC and the Department of Energy and how one agency can defer to the other agency. Does that mean, like, they don't want to do it or they don't have the budget or they don't have the staff, or how does that get handed off?

MR. CAMERON: Can we explain that, either Jim or Christine?

MR. RUBENSTONE: I'll take a shot at it.

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MR. CAMERON: Okay.

MR. RUBENSTONE: The Yucca Mountain situation is a little bit -- maybe the word unique does apply in this sense, because the Nuclear Waste Policy Act sets specific requirements on how the environmental pol -- environmental documents would be prepared. DOE followed through with as it was described, going through their initial final EIS and then the supplement issued in 2008. The situation that evolved subsequent to 2000 -- the 2010, 2011 time frame, I think it's safe to say, was not fully anticipated by the Nuclear Waste Policy Act.

In those conditions, DOE basically had the first responsibility to prepare that, but if DOE chose not to, then in order to move forward with potentially the eventual hearings, it was incumbent upon NRC staff to prepare the supplementation.

So I think this is a somewhat out of the ordinary situation, but it's fully within and is recognized within NRC's regulations as applied to this, that the staff could provide the supplementation if needed.

MR. CAMERON: Okay. Thank you.

Anybody else have a clarifying question

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on process?

Okay. Thank you. Let's go to public comment. And I'm going to call three or four names so you know two to anticipate. And we're going to start with Congresswoman Titus, okay, and then we'll go to Mayor Goodman, Senator Bryan and Senator Parks.

Congresswoman.

CONGRESSWOMAN TITUS: I was taking a lot of notes, so I hope that I can follow this.

First, I thank the NRC for holding this public hearing. It's very important that they hear from the people in Nevada what our concerns are. And I thank all of you for coming out on a Tuesday night here in the heart of District 1 to express those concerns, especially Mayor Goodman, who has been a great partner in mounting opposition to Yucca Mountain and Senator Bryan, who has worked on this issue for many years.

I represent Nevada's 1st District and I'm a longtime resident of southern Nevada, so I'm here to speak in opposition to reviving the failed Yucca Mountain project and also the NRC's wasteful, politically motivated, court ordered exercise in developing this supplemental EIS. Yucca Mountain

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remains an unstable site for a geologic depository and this supplemental EIS does nothing to ameliorate the many structural, geological, or logistical concerns associated with this boondoggle. So I want to repeat:

There's nothing in this supplemental report that changes those facts.

Let me also say that while I appreciate them giving us an additional month, I'm very disappointed that the NRC rejected the State of Nevada's simple request for an additional 60 days for public comment. This is just too important of an issue to short-circuit. There's a lot to be discussed, a lot that we need to study. And just to dismiss this routine request for a little additional time reinforces Nevada's feelings that you just want to ram and jam it down our throat regardless.

Some of the additional factors that I think are important to note is that, as Ms. Pineda said, this second supplemental study is based on previous models and its estimates and its studies are based on things that have been in previous models. They are not new information and they are not independently derived, so that makes it suspect to start with.

Third, the NRC itself recognizes the fact

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that Yucca Mountain can't move forward without the land and water rights granted to them by the State of Nevada and, thankfully, our governors over time have refused to capitulate on that.

And, finally, since 2009, Congress has not appropriated any money for the continuation of this project. And more recently, the courts have stopped the payment of the surcharge from the power companies to subsidize the depository, so I don't know how you're going to pay for it.

You have heard over the years, many of you, we have been together in this fight, make the simple arguments of why this is a bad idea. We don't have a single nuclear power plant in Nevada. We don't generate any of this waste, yet nearly all the materials from all the plants from California to Connecticut are going to come right here through the heart of Las Vegas to go out to this disastrous repository if it comes to fruition.

Also, the plans for Yucca Mountain utilize unproven technologies to transport this hazardous material and it puts millions at risk of exposure to deadly levels of radiation as it travels across the country on the highways and byways, through

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neighborhoods, by churches, by schools, exposing people along the way.

Third, Las Vegas is a major destination center, a tourist attraction, a convention area. We attracted 42 million visitors last year. One, even small, by whoever's definition, accident would devastate our economy in perpetuity.

Another argument that we have said is most importantly, perhaps, the geology of the proposed site is not stable. It's full of faults, it's susceptible to earthquakes, and it's accessible to the water table or to some of these groundwater flow patterns; and that, again, puts people's health and safety at risk.

Finally, going back to the non issue, the proponents of this project think it's going to be some great source of revenue for us, but it doesn't take too many people or many jobs just to watch some nuclear waste once it goes in out there. Furthermore, it will cost an additional 65 billion, billion with a B, dollars to complete the project as currently designed.

Now, these funds have to come from somewhere. Congress can't even find the money to do a highway bill. They're talking about shutting down government instead of funding it for one more year.

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I don't know where they're going to get \$65 billion.

So, in short, I would say this project has been flawed from the beginning and it remains so today, even with this supplemental information.

If I can quote Lillian Hellman, who paraphrased Shakespeare, a rose is a rose is a rose, a dump is a dump is a dump. I don't -- I don't care how many -- how many studies you try to have, you cannot hide that fact. This is a result of bad politics, not good policy. And instead we should pass the bipartisan Nuclear Waste Informed Consent Act, which comes from the Blue Ribbon Commission's recommendations that where you want to put this site should have the involvement and the consent of the people who live there.

So I thank you for listening. I thank you for being here. Appreciate being able to express my concerns and those of the constituents I have in District 1, who say Nevada is not a wasteland.

Thank you.

MR. CAMERON: Okay. Thank you. We're going to hear from Mayor Goodman and then we're going to hear from Dr. Leonard Kreisler and then Senator Bryan and Senator Parks.

MAYOR GOODMAN: That was magnificent.

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You said it and got every piece of it. And it's wonderful to have this wonderful Congresswoman, who is so articulate and fighting for us all the time, because this is our home and this is where we live.

But members of NRC who are here tonight and for all of you who have come out, this is such a critical time for us. And my name is Carolyn Goodman and I am the Mayor of Las Vegas. In fact, there has been a little dynasty of Goodmans here. My husband was going to lie down on 95, which I'm sure you heard about several years back; and I hope I don't have to do that as well.

But I am aware that the State of Nevada has submitted comments on the draft supplement to the U.S. Department of Energy's environmental impact statement for a geological repository for disposal of spent nuclear fuel and high-level -- high-level, not low-level, high-level radioactive waste at Yucca Mountain. The comments request an opportunity to have experts review the findings and respond accordingly.

Our citizens, all of us, deserve to have that request fulfilled.

We appreciate the Commission scheduling a hearing in Las Vegas to allow our residents and

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businesses to express their voice about the travel to and storage of nuclear waste in southern Nevada, as more than two million people reside here and are directly impacted by any decision, directly impacted by any decision regarding Yucca Mountain.

The Yucca Mountain debate is over. Leading experts who participated in the Blue Ribbon Commission agreed that we need a consent-based process to locate a nuclear waste site. Nevada never consented and Nevada never will.

Transport and dumping of nuclear waste at Yucca Mountain would be dangerous for our citizens, our visitors, for countless Americans across the country who live, work, and play near shipment routes.

Nevadans are not negotiating. Nevada will never accept waste.

Sending as many as 10,000 truck shipments of nuclear waste to Nevada across ageing and deteriorated infrastructure throughout this nation of the United States is a disaster waiting to happen and a chance that we cannot take, nor would any constituency want that. Nuclear waste on trains would pass near the world-famous Las Vegas strip, government centers, downtown Las Vegas, and within one-half mile of tens

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of thousands of residents. The stakes are beyond too high to risk any incident of failure or accident.

As a former member of the Las Vegas Convention and Visitors Authority, I know the impact on Las Vegas' tourism and convention business. It would be catastrophic and the impact would be beyond severe to the nation's top tourist destination. With 42 million visitors annually, Las Vegas would become an immediate ghost town.

The U.S. Conference of Mayors, 1,200 mayors of cities of 30,000 or greater, twice has voted unanimously for the Department of Energy to focus on the treatment, repurposing, deactivation, rather than the movement and/or storage of waste on site and avoid further health and environmental impacts from the transportation of any waste in Nevada.

We should listen to the nation's mayors, who represent millions of citizens as well, who do not want nuclear waste traveling through any of their neighborhoods and none wants storage in their backyards, so why in heaven's name should Nevada be the guinea pig?

The Nuclear Regulatory Commission, NRC's own safety evaluation report concluded that because

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the Department of Energy, the DOE, does not have the land or water rights needed for Yucca, the Commission should not license this project. The NRC is wasting time and taxpayer dollars by updating old studies for a site that will never be used for storage of nuclear waste.

The NRC study is fundamentally flawed and its conclusions are illogical, nonsensical, and moot.

The DOE's application requires the installation of titanium drip shields 100 years after the repository is closed, with no guarantee the technology or taxpayer dollars will even be available to install these drip shields. It also assumes the nuclear industry will transfer nuclear waste into obsolete storage canisters that the industry itself says it won't use. Because the NRC study relies on assumptions about the applications that are not grounded in reality, it reaches dangerous conclusions that should not even be in the public domain.

I would ask the Commission to listen to the Nevadans and hear our concerns. Please don't put our communities in harm's way and protect our tax dollars by opposing licensing of Yucca Mountain. I want to thank you, however, for coming to Las Vegas

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and hearing our concerns. At the best, we are a passionate group of people and this is our home and we want to make sure it is safe for our future generations.

Thank you very much. And thank you all for coming.

MR. CAMERON: Okay. Thank you. Thank you, Mayor.

We're going to hear from Dr. Leonard Kreisler, then we're going to go to Senator Bryan and Senator Parks.

This is Dr. Kreisler.

MR. KREISLER: Recognize me this time, Mayor? Where's Dina? She left? Dina, you still here? Dina, you don't remember 1984 Midas Myth Milagros. You brought a class out to Nevada Test Site because we had a major screw-up. If you want to refresh your memory I put it all in a book.

CONGRESSWOMAN TITUS: If you want to give me a copy, I'll read it.

MR. KREISLER: Give it to you? Come on. You're like all the other politicians.

CONGRESSWOMAN TITUS: All right. I'll buy one.

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MR. KREISLER: Good. You could --

CONGRESSWOMAN TITUS: Do you want a copy of my book?

MR. KREISLER: I didn't know you wrote a book.

CONGRESSWOMAN TITUS: I'll give you a copy of my book.

MR. KREISLER: And, Ms. Mayor, we came out --

MAYOR GOODMAN: (Inaudible.)

MR. KREISLER: We came out at the same time, 1973 more or less.

MAYOR GOODMAN: Wrong. '64.

MR. KREISLER: You came out in '64? Okay. Well, you predated me, but I remember you from 1973 and you don't speak for me, with all due respect.

I was medical director at the test site.

I'm just a simple doctor. I was the first one Board certified in occupational medicine in the State of Nevada in 1980. I also took the first course in medical care in radiation accidents in Oak Ridge, the Mecca, so I think I know -- I don't think, I know I know what I'm talking about.

Eighteen years I drank the water at the

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Test Site. We monitored it every day. They call it an alluvial tuff, the ground. After an atomic explosion -- this is not just a cast, this is atomic explosion, you get a liquefied thing and it doesn't leak out, and if it does it's minute. And I wish the NRC would quit bubbling.

My thing to you, you present a very good thing. For example, the water flow here and here. Half the people don't even understand, I guarantee you, what you said. In simple terms, if you go out to Indian Springs, from there on the water flows north, it doesn't come here. Unless you get a water czar who wants to steal it for Las Vegas, then they'll pump the water from the Nevada test site, which shouldn't be coming here in the first place, because naturally it flows north into the Amargosa Valley. For 18 years, to make it simple, I drank the water, we never had any contamination. There were about 900 nuclear detonations in the ground. And if you think you're going to get contamination, I think that would do it.

We also had NRDS, nuclear rocket development, in place. Beautiful engineering. I mean, it was wonderful. We had the shortest railroad. The jackass in Westin or something like that where

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they developed a nuclear powered engine that generated more power in six hours than Hoover Dam could generate in three or four months, it was that powerful, but we were very smart, we didn't put it into space like the Russians did. So we do things right.

In my 18 years out there, there was not one nuclear accident, not one nuclear injury, not one nuclear death. In fact, when you look at -- and now I'm going to go global. The water is no problem to me, because I know how the casts are made. And what you should be doing, the NRC, the NEI, they always forget about it, it depends who's in charge at the time, you never know what they're going to do, or the EPA. But the NEI, Nuclear Engineering Institute is supposed to be the lobbying thing. They've got an office in Henderson. When I asked to meet with him, he sent me out a secretary to interview me at I think it was the Claim Jumper. Isn't that nice? Here I am, I'm a medical director, why are you taking me to the Claim Jumper with a secretary? It's an insult.

But I want to give you some of the -- you know, you talk about exposures. I heard the Congresswoman. The words were totally, totally incomprehensible to me, because I deal in facts.

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That's what I was trained in. I'm a physician. I take a history, I take a physical, I come up with a diagnosis.

I can -- you know, they're talking about dangerous transport with horrendous exposures. I'd like to be in the debate, do they really know what the LD-50 is and what are they talking about? Are they talking about partials? Are they talking about gamma rays? What are they talking about? They don't know. It's politically motivated.

And, you know, if I get emotional, that's me. You know, I've got a little Trump in me, even though I wouldn't vote for him as president. But you know I -- because \$15 billion, you could have done this whole study in a year or two and get on with it. Get on with it.

If we had to develop the nuclear testing area like they did back in -- you know, when Truman said do it or whoever was in power, you know, we'd never get it done the way we do things today. It's impossible. There is no danger with the Yucca Mountain project. It is so close to zero I would give you better than any odds in a casino. Any odds. Why do you have to do it for 100 million years, yet the casts right next to the generating plants, they don't have to be

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okay for 100 years? In other words, it depends on whether, you know, you're on this side or that side, you know, and how you want to make it, and you want to brainwash the public.

The people I speak to in Nevada, the people that are engineers, the people that have education, real education in the sciences, are not opposed to Yucca Mountain. I don't care what you say.

Now, I had a discussion with a former governor, Michael O'Callahan. Great guy, great guy.

And he said "Len, I just want the people to vote on it." I said "I'm with you, but at least let's give them the facts, not let's skew it."

For example, let's go back and look and it's not a dump. These are partially spent fuel rods, which can be recycled. They're valuable material. The rest of the world does that. So -- and they don't explode. Now, I would have the NRDS as a regular visitors place and show them how you put these partially spent fuel rods into a canister, how you put it, again into another container and another container, and another container. And if you watch the movie, the NRC knows all about it. School kids should be talking about this. They should be taught from the day they

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can walk.

MR. CAMERON: And, Dr. Kreisler --

MR. KREISLER: Yes?

MR. CAMERON: Can I ask you to wrap it up, please?

MR. KREISLER: Okay.

MR. CAMERON: Thank you.

MR. KREISLER: But to boil it down, I'd really like to get into, because the statements that are being made from a political aspect have nothing to do with reality, they just don't. And I'd be happy to talk to any group that is really interested in the facts and want to get on with it. It is important to the nation. It's important to Nevada. And the \$30 billion that's sitting there that was collected by order of Congress should be coming to Nevada to put that repository out there and eventually get recycling of this valuable material, clearly.

MR. CAMERON: Okay. Thank you.

We're going to hear from Senator Bryan and Senator Parks and then we're going to go to Governor Sandoval's representative Bob Halstead is here.

SENATOR BRYAN: Thank you very much, Chip.

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For the record, my name is Richard Bryan and I appear here as the Chairman of the Nuclear Projects Commission. This is a commission established by the State Legislature.

In 1982 when the Nuclear Waste Policy Act was enacted, I was a newly elected governor. And at that time I believe that the legislation appeared facially to be fair and balanced. It contemplated that the country would be searched for nuclear waste sites, that three of those would be recommended to the President and they would make the decision based upon those site characterizations.

Dr. Kreisler said something about politics. Politics was involved here. No sooner had the President signed the Nuclear Waste Policy Act in 1983, than those states that had granite in the northeast said hey, take this off the table. In a wink and a nod, the administration said you don't have anything to worry about. The states of the southeast that were a part of that was also taken. And I must say that I became very suspicious and highly skeptical.

And then in 1987, the screw Nevada legislation. No one could fairly contend that that

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decision, which was to make only the Yucca Mountain the site, was based upon science. It was raw, naked political power. Nevada's delegation was junior at the time and, in effect, we were steamrolled.

So the original premise for Yucca Mountain was welded tuff. And we were told at the time that, look, the nature of that type of geologic formation eliminated the need for engineering barriers, that is the rock formation itself. No one today, no one, would argue that Yucca Mountain and its formation self-contains the potential radiation that migrates from the site. So the latest in these Rube Goldberg attempts to contain that is what was mentioned briefly by Her Honor the Mayor. And that is several hundred years after the waste canisters are in place, then 1,150 titanium drip shields, costing billions of dollars, assuming that Congress would ever do so, each weighing about five tons would be added. I don't want to take that kind of risk with the public health and safety of the people in Nevada.

Now, nowhere in the history of the planet, nowhere, nowhere -- I'm going to say nowhere has it ever been proposed as I continue to call it, because I do think it's a dump, but let's use a neutral term,

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repository, has ever been proposed to be built overlaying a water table. A water table. And, thirdly, the canisters that the good doctor mentioned, the original canisters are much, much smaller than those that are being contemplated today and there has been no study as to whether those canisters would be sufficient.

So my view is that the public health and safety is paramount. There are some who see at the end of the nuclear rainbow a pot of gold. I served in the Congress for some 12 years. In fact, I left my position as governor because of my interest in opposing the nuclear waste dump in 1988.

Let me just add a couple things. It is popular to say let the scientists decide this. Let them. They know more about it than those of you who are lay people. I am not a scientist. My background was in history in the liberal arts. All right.

In 1951 I was 13 and when the first atomic detonations occurred, they were dropped out of the sky, airplanes and we were assured, I was in the eighth grade, nothing to worry about, nothing to worry about, it will be just fine. We'll take care of all of this. Two years later I was in high school and our high school

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yearbook proudly displayed on its cover, you know, the nuclear bomb, you know, with the full tower of flame.

Is there any scientist today who would have any credibility whether you're for the site or against it to say it's safe to drop an atomic bomb from an airplane 65 miles from Las Vegas? The people who paid that price were the people downwind. And the Congress ultimately provided some --

Do you think the people at Fukushima, which were assured by their scientists nothing to worry about, absolutely nothing to worry about, we've got this under control. Well, we all know what happened at Fukushima and you can go on with what occurred at Chernobyl.

So when they say let the scientists -- Dr. Kreisler says let me talk about the facts. No one can categorically indicate that any of those proposals to remediate against the possible migration of radionuclide that would exist for thousands -- hundreds of thousands of years, nobody can categorically assure us that that would be safe. So put me down in the skeptical and doubtful category.

I would associate myself with the comments made by Congressman Titus and the Mayor and not repeat that. But this may be a gambling state and I've lived

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here since 1942, so I've had some experience in this state. I'm not prepared to gamble on the health and safety of Nevadans based upon these assurances that are given today that there's really nothing to worry about.

And for those who see this nuclear pot of gold at the end of the rainbow, I'm here to say it's not there. No Congress can bind a successive Congress.

Each Congress has the right to make that determination.

Even if you thought that the financial benefits outweighed the risk, the \$30 billion, that's money that went into the nuclear waste trust fund to, in effect, take care of all of the potential problems that may occur with respect to storage, not Yucca Mountain per se.

So I would respectfully suggest that there's some misguided conversation here about science versus politics. We are in this room tonight because of the politics of 1987.

MR. CAMERON: Thank you. Thank you, Senator Bryan.

We're going to go to Senator Parks and then we're going to hear from the governor's representative Bob Halstead, and then we're going to hear from Shannon

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Raborn, if I have that correctly, from Senator Reid's office.

Senator Parks.

SENATOR PARKS: Thank you, Mr. Cameron, and -- for allowing me to speak and thank you for bringing this public hearing to Las Vegas.

My name is David Parks. I represent Senate District 7 here in southern Nevada in the Nevada Legislature and the Senate. I also serve on the Legislative Committee on High-Level Radioactive Waste.

I've been the chair of the committee as well as the vice chair of the committee. I'm also here tonight representing my Democratic colleagues in the Nevada Senate who strongly voice their opposition to Yucca Mountain.

The Department of Energy's proposed rail transportation route for nuclear waste is unworkable.

And even if it could be built, nuclear waste trains would still have to travel through downtown Las Vegas, and nuclear waste trucks would still have to travel on the Las Vegas beltway. This is of particular concern, because the DOE's proposed national transportation plan ignores the 2006 safety and security recommendations of the National Academy of

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Sciences and grossly underestimates routine radiation impacts and the consequences of severe accidents and possible successful terrorist attacks that could cause release of radioactive materials.

If the Department of Energy cannot build a rail line to Yucca Mountain, tens of thousands of truck shipments would be required on our surface streets and highways. DOE's environmental impact statement, which are part of the DOE's license application to the NRC, propose to route these shipments through Clark County and Las Vegas using Interstate 15 from Utah and Arizona and from California, connecting with the eastern and western portions of the Las Vegas beltway, which is Clark County's Interstate 215, then continuing north along U.S. Highway 95 to Yucca Mountain.

Even if a rail line could be built, the DOE would still ship a number of truckloads of high-level nuclear waste through the Las Vegas valley along these roads that I've mentioned every week for probably the next 50 years. A single accident near Las Vegas could wipe out tourism and devastate the economy, as you heard from the Mayor and Congresswoman.

In addition to the above, I'd like to point

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out that the environmental impact statement is based on a big lie. It assumes the Department of Energy will install titanium drip shields, as the Senator mentioned, using tax dollars that have not been appropriated and in all likelihood never will.

I thank you very much for allowing me to speak.

MR. CAMERON: Okay. Thank you. Thank you, Senator Parks.

We're going to hear from Bob Halstead now for the Governor and then we're going to hear from Shannon Raborn and then we're going to Ian Zabarte of the Western Shoshone government.

This is Bob Halstead.

MR. HALSTEAD: Thank you, Chip.

For the record, I'm Bob Halstead, executive director, Agency for Nuclear Projects State of Nevada.

The State of Nevada will be submitting detailed technical comments by November 20th. Those comments will address groundwater and health effects impacts and the NRC staff's assumptions about the repository and waste package design that affect groundwater impacts and the computer models and data used in the staff's evaluation of groundwater impacts. And we will

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also challenge the limited scope of this draft EIS supplement.

Tonight I'd like to read the letter that Governor Brian Sandoval will be submitting for the record tomorrow for all of you. This letter, like hopefully yours, will be addressed to Branch Chief Ms. Cindy Bladey. And the Governor's letter begins:

"I appreciate the efforts of the U.S. Nuclear Regulatory Commission staff to conduct public hearings and seek public comment on the draft environmental impact statement supplement for the proposed Yucca Mountain nuclear waste repository, but as Governor of Nevada and as someone who has been closely involved with the federal nuclear waste program for many years, I am concerned that Nevadans and the nation are still being forced to deal with an unsafe repository site and an unworkable nuclear waste management plan.

The time and resources being spent on the NRC Yucca Mountain licensing proceeding could be much better utilized by focusing on workable, forward-looking solutions to the country's nuclear waste problems, as recommended by the bipartisan Blue Ribbon Commission on America's nuclear future. Even the U.S. Department of Energy has given up on Yucca Mountain, has terminated

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the DOE program, and has sought to withdraw the license application.

"I recognize that the decision to go forward with the Yucca Mountain proceeding was not made by the Commission, but, rather, was the result of an order by the U.S. Court of Appeals for the District of Columbia circuit. Yet, that same court acknowledged that NRC has inadequate funds to complete the legally mandated proceeding, with the chief judge in that case writing in dissent that it was a, quote, 'useless thing,' unquote, to resume the proceeding. This dilemma is reflected in the task confronting the NRC staff in this draft DIS supplement.

"As you'll hear today and in written comments from Nevada representatives and others, the site is unsuitable and infeasible due to changes in storage and transportation requirements. And as NRC staff has already pointed out in its safety evaluation report, DOE does not possess the land and water rights necessary to receive a construction authorization.

"Moving beyond the failed Yucca Mountain nuclear waste repository is essential if our country is ever going to safely solve the problem of spent nuclear fuel and high-level radioactive waste. The

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continuation of the NRC Yucca Mountain licensing proceeding actually impedes progress towards finding workable and expedient solutions by diverting our focus.

"Sincere regards, Brian Sandoval, Governor of Nevada."

Thank you.

MR. CAMERON: Thank you, Bob. And thank the Governor for that.

And Shannon. I'm sorry. And then we'll hear from Ian Zabarte and Dan Schinhofen from Nye County.

MS. RABORN: Shannon Raborn on behalf of Senator Harry Reid. I have a statement from the senator. I'm going to read it for you for the record:

"The draft supplemental EIS for Yucca Mountain was completed because two years ago the U.S. Court of Appeals for the District of Columbia Circuit directed the NRC to continue wasting limited remaining funding the Commission had for Yucca licensing. Completing the draft supplemental EIS was a waste of time, because the Yucca Mountain project was terminated in 2009 and zero funding has been appropriated for over five years.

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"Furthermore, the NRC has already acknowledged that the license application cannot be approved, because the federal government does not have the water it needs, nor control the land necessary to build a nuclear waste dump in Nevada. These are just a few reasons why the Yucca Mountain project will never be built. Congress should instead focus on consent-based solutions that don't shove nuclear waste down a community's throat over the objections of its people.

"That is why Senator Heller and I have introduced the Nuclear Waste Informed Consent Act, which would require the Secretary of Energy to secure written consent from the governor of the host state, affected units of local government, and affected Indian tribes before a nuclear waste repository may be built."

Thank you.

MR. CAMERON: Thank you. Thank you, Shannon, and thank the Senator.

And Ian. This is Ian Zabarte and then we'll here from Dan Schinhofen and then we're going to go to Dr. Jacob Paz and Kevin Bell.

MR. ZABARTE: On the record, I am the

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principle man for foreign affairs for the government of Newe Sogobia and have the legitimate authority to speak on all matters subject to tribal law and custom.

The exterior boundaries of Newe Sogobia are defined by the 1863 treaty of Ruby Valley, which includes Yucca Mountain. I am a board member of the Native Community Action Council, a party with standing in the licensing proceedings that contends the Department of Energy cannot prove ownership to Yucca Mountain. The significant encumbrance -- this significant encumbrance precludes the licensing by the NRC.

I am a board member of Poo-Ha-Ba, a Western Shoshone religious institution situated along the Amargosa river at Tonopah as it turns towards Timbisha at Ferns Creek. Now spiritual practices and ongoing life way of Poo-Ha-Ba are impacted and further threatened by the proposed Yucca Mountain project. We received no funding for our participation.

The government of Newe Sogobia does not consent to the inclusion of any part of our treaty defined property into the boundaries or jurisdiction of the United States or any state or territory. The Newe are spiritual people that combine religious belief

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and government; and as such the government of Newe Sogobia is the embodiment of the Western Shoshone land and people. Our ethnic identity is Newe Sogobia, literally translated, the people's mother earth.

We informed the United States Department of Interior that Newe Sogobia is not for sale and the Yucca Mountain is not BLM land. We informed the EPA that the environmental radiation protection standards for Yucca Mountain are not protective of Newe Sogobia, and that our exposure would be significantly higher because of lifestyle differences.

Our living life ways that include longstanding religious practices, tribal laws, customs, and our traditions. We informed the Department of Energy through spiritual leader Corbin Hardy that our land and people are being destroyed by testing of weapons of mass destruction and the development of Yucca Mountain as a high-level nuclear waste repository.

Newe Sogobia cannot endure an increased burden of risk from any source because of our past exposure to fallout from nuclear weapons testing. Our understanding is borne out by the National Academy of Sciences biological effects of ionizing radiation 2005

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report that states there's no minimal threshold -- minimum threshold for radiation carcinogenics.

Currently, the United States Nuclear Regulatory Commission is the agency to assume the responsibility for the policies and practices and the resultant impact to Newe Sogobia, our very existence as a people.

The central issue that impacts the Newe result from the destruction of our property that impair our treaty-reserved right to use our land and life-giving water. Nothing in the treaty of Ruby Valley ever contemplated the destruction of Newe Sogobia by American nationals through their agency the U.S. government.

I and many Newe expressed alarm at the systematic policies and practices that placed a disproportionate burden of risk upon Newe practicing traditional religious life ways that require water for praying, cleansing, and healing, with no response.

Ethnographic studies conducted by the Department of Energy failed to identify the Newe as we actually exist, as a people governed by our own traditional form of government. Instead, the

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Department of Energy substitutes many tribal governments created by the United States and invited organizations for the purposes of site characterization at Yucca Mountain. These groups are known as the consolidated group of tribes. The traditional Western Shoshone government of Newe Sogobia was not invited to participate. From our perspective, the process employed by the Department of Energy is environmental racism designed to systematically dismantle the living life ways of the Western Shoshone people in relation to our land.

The cultural resource study protocol of cultural triage justified for use in the Yucca Mountain site characterization process is an attack. I can't imagine is used in response to natural disaster or declared war. There is no war or natural disaster that might employ the use of triage. What was created and used by the Department of Energy is an immoral act forced upon the ethnic Western Shoshone people for the benefit of the United States and the profit of the nuclear industry.

This meets the minimum threshold of genocide under the Proxmire Act, the Genocide Convention Implementation Act of 1987. It is our

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intent to stop, correct, and prevent these acts from ever happening to our people in the future.

Thank you.

MR. CAMERON: Thank you. Thank you, Ian.

And Dan Schinhofen and then we'll go to Dr. Paz, Kevin Bell, and Phil Klevorick of Clark County.

MR. SCHINHOFEN: Thank you for the time.

Thank you, NRC, for being here. I'll read my prepared statements and hopefully, I'll have a minute to answer a couple of other things.

The National Environmental Policy Act in its implementing regulations of the Council on Environmental Quality exists to ensure the environmental information is available to public officials and citizens before decisions are made and before actions are taken. Moreover, federal agencies are to the fullest extent possible to facilitate public involvement in decisions that affect the quality of the human environment.

In crafting the Nuclear Policy Act and the amendment that singled out Yucca Mountain in Nye County, Nevada as the sole site to be studied as a location for a repository, Congress took care to ensure that

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the affected units of local government had the means to review activities with respect to Yucca Mountain for purposes of determining any potential economic, social, public health and safety, and environmental impacts of a repository on a unit of local government and its residents. Section 116 of the Nuclear Waste Policy Act directs the Secretary of Energy to make grants to any affected unit of local government for this purpose. The Act defines the term, quote, "affected unit of local government," unquote, to mean the unit of local government which -- with jurisdiction over the site of the repository, in other words Nye County, of which I am a Commissioner.

Under the act, the Department of Energy was assigned responsibilities to prepare the license application and supporting environmental impact statement. The Nuclear Regulatory Commission was to adopt the environmental impact statement to the extent practical.

Beginning in 2010, a series of deliberate actions were undertaken by the Administration to try to destroy the program. The Department of Energy attempted to withdraw the license application. The Nuclear Regulatory Commission failed to overturn the

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Atomic Safety and Licensing Board rejection of the attempted withdrawal. The Nuclear Regulatory Commission unilaterally stopped work on the review of the license application and a number of affected parties took the Nuclear Regulatory Commission to court and were successful in obtaining a writ of mandamus to force the Nuclear Regulatory Commission to resume review of the license application.

Previously to these actions, Nye County and other affected units of local government received grants from the Department of Energy and actively participated in the license application process. When this site was designated in 2002, the Nye County Board of Commissioners passed resolutions that Nye County would constructively assist the United States in fulfilling the commitment to provide a geologic repository to protect the safety of its citizens.

The hearing tonight, ultimately, is the consequence of a commitment by the Department of Energy to supplement its environmental impact statement to address certain questions raised by the Nuclear Regulatory Commission staff. However, the Department of Energy reneged on its commitment and left it to the Nuclear Regulatory Commission staff to answer its own

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questions. Whether or not there was an explicit collusion of two federal agencies is immaterial, the consequence is the same. If the Department of Energy had done the environmental impact supplement, there can be no doubt that Congress would have intended for the affected units of local government to receive grants and would allow them to participate in preparation of this document. Because the Nuclear Regulatory Commission staff prepared the supplement, the Department of Energy can argue that because it was not doing any work, the affected units of the local government had no right to receive grant money.

I have no comments to offer tonight on the environmental impact statement; however, Nye County will provide limited comments based on a cursory review of the document by the close of the public comment period. Without the Section 116 funds, Nye County and other affected units of local government cannot afford to hire technical experts to help them critically review the document.

Unless and until affected units of local government receive grants sufficient to allow them to participate in the finalization of the supplemental environmental impact statement, any action of the

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Nuclear Regulatory Commission to finalize the document makes a mockery of the intent of the National Environmental Policy Act, the implementing regulation to the Council On Environmental Quality, and the intent of Congress and the Nuclear Waste Policy Act for the Secretary of Energy to provide funds for such review.

A couple of important facts: Nevada already has a nuclear dump. It's sited in Nye County. It's called Area 5.

Recently, the Governor did sit down for a year-and-a-half and talked with the DOE and decided that U 233 235 was okay 40 feet in the ground, but they still oppose Yucca Mountain, saying it's unsafe. It's so much easier to oppose something than it is to work for solutions. That's all we're asking for, and eight other counties. So nine of 17 counties have asked the NRC and DOE to move forward with the licensing so the science can be vetted. The State has 218 contentions, it was 229, and we welcome them and we hope they get a chance to have them heard.

As to whether we'll trust the government to do it, we trust the government every day when we go into a grocery store, when we buy fast food, when

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we fly in an airplane, when we drive highways. Suddenly, we can't trust them to do this? It seems silly to me.

Thank you very much.

MR. CAMERON: Okay. Thank you. Thank you, Commissioner.

We have Dr. Paz coming up and then Kevin Bell and Phil Klevorick and then we're going to hear from Ace Hoffman, Sharon Hoffman, Rod McCullum, and Judy Treichel.

MR. PAZ: Good evening. I just was surprised that this hearing is the eve of my holiday, and they should be more sensitive when you schedule a hearing, not a major holiday.

My comments are the following:

Number one, NRC in the supplement estimated that the radiological dose would be small. What is small? Do they take into account the bystander effect or are they going to hold meetings? Nobody knows.

Second, based on 300 milligram background radiation, at Yucca Mountain we have alpha radiation high energy. I don't know who likes to drink the holy water of Yucca Mountain and get cancer or to sell it on eBay as a cure for cancer.

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Second, they're using unapproved EPA model. How you can make a statement it's small. Something is wrong scientifically. I contacted, it was 15 years ago, or ten years ago, I cannot remember, and I said there is an issue of synergism interaction between the metal and the radionuclide. DOE simply give me the runaround. I got a message we don't regulate it. We don't need it to do it. We're not authorized. On what ground, scientific and legal, they can come and stand?

I just can mention three Supreme Court decisions. One is Kleppe versus Sierra Club in 1976.

It's very clearly stated when -- I'm sorry -- the U.S. Supreme Court suggested then when a number of proposals of correlated action that will have cumulative or synergetic environmental impact upon the region are pending currently before the agency, the environmental consequence must be considered together.

Then we have Citizens of Preserve Overton Park versus Volpe Secretary of Energy say how it look.

What's meaning how it look? It's meaning what does the Congress meant? And the Congress meant that we should study it. Then we have another one is Baltimore Gas versus Natural Defense Council. And very simple,

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while the agency must allow significant environmental risk to be affected into the decision whether they propose action, it may determine its risk insufficient as long as the determination is not arbitrary and capricious. Up to now, DOE refused to do the study and NRC followed their footsteps.

Second, groundwater contamination. There was a lack of scientific evidence to be into put the DOE model and why? Number one, we don't have a resolve issue of canister corrosion both DOE and state of Nevada opposed. Scientifically, they have failed to represent the matrix. They ignore sulfate. Why are they including all the chloride and nitrate? I don't know.

Second, what puzzles me is why chromium is disappeared from groundwater in Amargosa Valley? None. About 42,000 are going to be deposited at Yucca Mountain.

We don't have scientific data study and the competition between radionuclide and heavy metals at the near field. We don't know where there's a KT.

What's going up, it doesn't fall down. It doesn't make any sense.

What's interesting here is the groundwater

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should have been based upon credible scientific evidence, but rather than to use assumption and calculation, it can lead to very serious area of groundwater.

MR. CAMERON: And, Dr. Paz, could you wrap up for us, please.

MR. PAZ: Okay.

MR. CAMERON: I think you're out of time now, but if you have one more important thing.

MR. PAZ: I want to submit a written comment. This is just bits of the iceberg. Thank you.

MR. CAMERON: Okay. Thank you. Thank you, Dr. Paz.

And Kevin from California Energy Commission and then we'll go to Phil Klevorick from Clark County.

MR. BELL: I didn't need reading glasses when I started with this case.

My name is Kevin Bell. I'm a senior staff counsel with the California Energy Commission. I represent the Energy Commission in the Yucca Mountain proceedings. Can you hear me?

On behalf of the California Energy

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Commission, thank you for the opportunity to offer comments today on the NRC staff's draft supplemental environmental impact statement that purports to cover impacts to California's groundwater resources from contaminated groundwater originating from the proposed Yucca Mountain high-level waste repository.

The California Energy Commission was admitted as a part of the Yucca Mountain nuclear repository proceeding before the Atomic Safety Licensing Board on May 11th, 2009. California's original petition to intervene and contentions challenge the adequacy of several aspects of the Department of Energy's various environmental impact statements regarding the Yucca Mountain repository. The Atomic Safety Licensing Board admitted California's contentions related to the transport of radioactive material in and through California by truck and rail and to potential radioactive contamination of groundwater in California by radionuclides released from Yucca Mountain.

California's contentions challenged whether DOE's environmental documents are adequate statements under NEPA and are therefore practical for adoption by the NRC. After, as originally proposed,

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DOE's environmental documents failed to properly analyze the risk to California's precious groundwater resources from the repository, DOE thereafter declined to supplement its environmental documents in any meaningful way in this regard and the NRC supplemental environmental impact statement has been submitted in an effort to address the deficiencies in the analysis to those groundwater impacts.

The California Energy Commission will be filing detailed written comment on the SEIS. Our agency's technical staff are conducting a thorough review of the draft supplement to ensure that California's concerns have been addressed with respect to California's groundwater resources.

The California Energy Commission has joined in the State of Nevada and Inyo County's request for an extension to file those comments. We had joined in the original request for a 60-day extension. We do appreciate the NRC's willingness to extend the deadline to November 20th by 30 days. In the meantime, California remains concerned.

Again, thank you for your consideration and for the offer to submit comments today.

MR. CAMERON: Thank you. Thank you,

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Kevin.

And this is Phil Klevorick, Clark County.

MR. KLEVORICK: Thank you, Chip.

For those who don't know me, my name is Phil Klevorick. I'm the program manager for Clark County Nuclear Waste Division. I welcome the NRC for hosting two of those meetings in southern Nevada and including Las Vegas. As you can tell from the turnout, there's a significant level of interest.

I just want to start off, I have no prepared comments at this time. I will be preparing some comments prior to the deadline, so I'm just going to be speaking off the cuff for quite a bit of this.

For those who have not read this document, this is a supplement to the existing document. It was back in 2008 or '09, whenever it was submitted. Clark County is disadvantaged because of the NRC's review of this. And it's not because of the NRC, I'll be perfectly clear in this. You guys were put into a position by the judge in a court decision. The Department of Energy are the ones who should have supplemented this document. Because they didn't supplement it, as Commissioner Schinhofen presented in his comments, we have not received funding to

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significantly or seriously review a scientific and technical document. That needs to be done.

Now, Clark County has no contentions on groundwater currently under the submitted EIS or the submitted license for Yucca Mountain back in 2009. That doesn't mean that we won't. And the reason why I say that is because it's very clear and it's very well known to probably everybody in this room that southern Nevada and, particularly, Las Vegas, Clark County needs water. That doesn't mean we're not seeking out water resources in other counties and rural areas. And I know that the rural areas are not happy to hear that, but we have a sustainability issue. And that doesn't mean that the groundwater that is available or around that area, that Las Vegas or Clark County won't be seeking out to try to acquire.

So I want to be clear that even though we don't have a contention on the groundwater currently, there could be something that could come up from that.

As a result of that, I have to seek other ex -- or an expert or experts or somebody of technical knowledge inside a southern Nevada water authority agency, an independent agency from mine to try to give us a review.

First of all, they have to go back and review the

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original document and compare it to this supplement document and do an analysis.

The other thing is that -- and again, I'm not trying to be disrespectful to the NRC, it's kind of like the fox guarding the henhouse. Back when this whole process started, the NRC was supposed to remain entirely impartial and review a document and a process of a separate applicant and I think they crossed a line on this.

Now, I don't know if they crossed the line, because I have not gone through this, but it gives the perception to the general public of independent review and being forced to do this or, actually taking on the responsibility of doing this, I think it probably crosses to some point.

My final comments on this it gets back to the Section 116 funding. Back when the funding was eliminated back in 2010 by the President and in a subsequent note to the AULG, the affected units of local government, several of the offices have shut down. I am the only person left in my office. I don't have a technical knowledge background for groundwater review.

I would have to find those in an expert

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through contracts or exterior consultants. So I think that there -- that's something that needs to be done.

And I was very disappointed and I would support the State of Nevada and the State of California and Inyo County when they were asking for a 60-day extension, because there's a lot of us out here who are not able to do that in such a short period of time. We've expressed these concerns in previous EIS documents. Sometimes they've been heard and most of the time they haven't been, particularly by the Department of Energy.

All these short timelines that are created create advantages for the regulators and not for the oversighters.

And again, I'm going to put more of this in comments, in written comments, and I appreciate the time.

Thank you.

MR. CAMERON: Okay. Thank you. Thank you, Phil.

And, Ace, are you ready to come up here, and then we'll go to Sharon Hoffman and then Rod McCullum and Judy Treichel.

MR. HOFFMAN: Hi. I came up from Carlsbad, California. We have a nuclear waste dump

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about 15 miles from where I live. It's called San Onofre. It used to be an operating reactor. Harry Reid felt that storing the waste on site would be the solution rather than Yucca Mountain. It's not a very good solution and one of the reasons is because those canisters are about a half inch thick and they're made out of stainless steel and in our case they're sitting on a coast where there is salty water. Diablo Canyon, the northern reactor, the one that's still operating in California, not the one that had an illegal and unauthorized experiment that blew it apart.

Diablo Canyon is dry casks are already experiencing conditions that are conducive to chloride-induced stress corrosion cracking. And it's only been about -- it's only been a couple of years and that wasn't supposed to happen really at all, but certainly not anytime soon.

So if they move these 10,000 loads of waste to Yucca Mountain, they're probably going to be sitting outside for a long time before they even get into the -- into the hole. And once they're in the hole there's water dripping down from the ceiling, that's why they're going to need those drip shields that they're going to put in in 100 years. A five-ton drip

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shield, is that what I heard it was? Maybe it was 5,000 pounds, so two-and-a-half tons. That sitting on top of a half-inch thick canister scares me. I can't guarantee that they're going to install those correctly.

And we're talking about groundwater here.

Well, if there's an accident in the transportation routes anywhere in America, the groundwater is going to be affected at the accident site. So how come these hearings are only being held in Nevada? We need hearings near San Onofre. We need hearings about what we're going to do with the waste.

Now, I heard somebody say that the Nevada test site never released any radiation. They were underground tests. Well, the truth is about one in eight, one in eight, of those tests breached the surface. And that's why there are downwinders and that's why those downwinders are dying.

The DOE's estimate of how much leakage there's going to be from one of these casks -- okay.

There's little pellets about the size of the tip of my pinky, and there's maybe, I don't know, 50,000 of them in each cask. One teeny tiny little bit of one little tiny pellet is all they estimate is ever going

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to be released, even if a jumbo jet crashes into them.

And, believe me, they are not going to survive a jumbo jet crashing into them.

An A-10 Warthog pilot went crazy in Utah about 15 years ago, flew the jet all over the place.

He could have gone anywhere and he could have shot depleted uranium bullets at these dry casks. They can't survive anything like that.

The Blue Ribbon Commission. The Blue Ribbon Commission was only trying to decide on an interim waste storage site, not a permanent repository.

And I guarantee those 1,200 mayors who don't want waste anywhere near them, there's not going to be a place where they want the waste.

One other problem -- okay, there's a lot of other problems and I have about eight of them listed here. But one other one that I wanted to mention is if you look at the documents that they handed out, this waste repository is only going to hold about 63,000 tons of the 74,000 or whatever. The numbers are in there. They're printed. It's not even big enough for the waste that already is in existence. So where are we going to put the next one? Is it going to be south of Las Vegas, maybe? We can bracket Las Vegas? Is

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it going to be in Death Valley? There's just -- we're not done even, if you decide to approve this thing.

I've been working on this a long time. My eyes were a lot better. I'd look at my notes more carefully, but I didn't bring the glasses. Oh, yes, I did.

But I wanted to mention that 15 years ago, 12 years ago, when I was up here opposing Yucca Mountain, Oscar Goodman got up and he said -- I don't recall him saying he was going to lie down on the highway, but I do recall him saying he will arrest and throw in jail any trucker caught driving nuclear waste through Las Vegas.

And I don't think the -- the new Goodman is going to be any easier and I don't blame her. This is a dangerous plan and you should not let it happen.

We have a problem, we have a problem with nuclear waste and we don't know what to do with it and we can't let it sit there. So your solution is to shut the reactors down, because at least then the problem isn't getting any bigger. So we're in the wrong -- you're in the wrong business.

You're not going to be able to build this.

You don't have this money, you don't even have the

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money for the hearings, how are you going to get the money for the reactors? For the trains? For the transport casks? To dig the hole for the titanium? I mean, come on, this is just ridiculous.

Let me put these on for just a moment.

Okay. We talked about funding, we talked about groundwater. I guess I covered just about everything on my list.

Okay. Thank you very much.

MR. CAMERON: Okay. Thanks, Ace.

And this is -- this is Sharon Hoffman.

MS. HOFFMAN: My name's Sharon Hoffman. And as they said, we came from California. I have to say what a great pleasure to see the elected officials participating in this process so actively and speaking out against Yucca Mountain.

It is proof positive that nobody wants the waste. And I think what Mayor Goodman said is something we should all take to heart. We -- nobody wants it and there's a good reason why nobody wants it.

But I want to talk specifically about groundwater today. Ms. Pineda talked about a million year projection of what that groundwater would do. I don't think we can project a million years in the

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future. We have no manmade things that have been around for a million years. We don't know what the geology will do, we don't know what the hydrology will do.

It's ridiculous to think we could project what's going to happen a million years from now. And this is part of the reason you hear lots of solutions that -- solutions, supposed solutions that talk about 100 years or 300 years. A hundred years is a blink of the eye in the lifetime of nuclear waste and I don't believe they're going to put the titanium shields on either, but even if they did what's going to happen in 10,000 years? Nobody knows.

So Yucca Mountain doesn't make any sense, because we cannot project like that. So the only thing that could possibly be done is to stop producing waste and then to monitor the waste that we have. But we can't even begin to look at a solution until we stop making it.

I want to talk about groundwater, since that's the main subject of this hearing. According to the National Groundwater Association, which is the organization of professionals that deal with the quality of groundwater and drilling wells and making them safe and all of that, 26 percent of all fresh water

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in the nation is groundwater, that is, all the fresh water we use, there's actually a great deal more; and 44 percent of the U.S. population depends on groundwater. If we don't protect the groundwater, we are not protecting the lives of future generations and really that's what it's all about.

Thank you.

MR. CAMERON: Okay. Thank you, Sharon.

Rod and then Judy and then we're going to go to Joe Kennedy and Holly Woodward and Eddie Jim.

MR. MCCULLUM: Thank you, Chip. My name is Rod McCullum. I'm here on behalf of the Nuclear Energy Institute. I'm neither a lobbyist nor secretary, I'm a nuclear engineer. I work in the regulatory process.

NEI is the trade association of the U.S. nuclear industry. We represent the owners and operators of the 99 commercial nuclear plants in this country as well as those who are building the five under construction and work on those plants. We bring safe and reliable electricity to millions of Americans including many, if not most, of the 42 million people who visited Las Vegas in the last year.

We are very interested in this process.

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We are going to file detailed written comments by the deadline. I'm not here to present the comments of NEI, but I do want to say just a couple of things.

I first of all, I want to thank NRC for holding these hearings and for taking up this task of completing this very small but important step in the licensing process. I also want to thank all of you for coming out here tonight and participating in this process and to your elected officials for participating in this process. As someone who works in the nuclear regulatory process for a living I can attest to you it is a very rigorous process. I could recount and regale you with stories of my interactions with NRC, but indeed they are a very tough regulator and I think you all think they should be.

Those processes only have credibility to the extent there's public participation. It is one of the great things of American democracy. It's what, in spite of how we may feel about our politicians, makes us great is that we have democratic processes that are well established, rigorous, and tested.

So, again, this is -- this is a small step forward in this process. It is a rigorous analysis -- updates using the latest information from

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yet another group of people, the groundwater analysis comes to the conclusion that the impacts are small. This conclusion is consistent with a lot of the other science out there.

Of course the most rigorous part of the process yet lies in front of us and has been mentioned, we'll need Congress to support it moving forward and we'll need an active Department of Energy to support it moving forward, that is the licensing process.

In that licensing process, the science gets challenged, it gets tested. But it's more than that.

I've heard the words used in the Blue Ribbon Commission, the word consent mentioned a lot. And I'll tell you what it means to us. There's as many definitions of consent here as there are people in the room, but I'll tell you what it means to us in the nuclear industry.

Consent is not something you're given, consent is not a piece of paper, it's not a statement by a politician. Consent is something we have to earn every day by the way we safely operate our plants and our safety culture, the way we demonstrate that, the way we are citizens of our communities. And our track record there speaks for itself. People who work in

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some of these technical disciplines -- the jobs in the nuclear industry are among the most sought after jobs, because it is a very safe working environment.

So consent is something that must be earned. And I would say to you if the licensing process were to continue, the we were to go forward to take this small, narrow look at updating the groundwater analysis and go forward into challenging the science, there is an opportunity for consent to be earned here in Nevada. It's all about how those 219 surviving contentions, 218, how are they resolved?

I want to echo the words from the representative from Nye County, it's about working for solutions. It's not just about challenging the science. It might be opportunities to do additional science, to give Nevada a stronger role in assuring the safety of their citizens. But I'm getting ahead of myself, this is about a groundwater supplement.

A lot has been said. A very broad and, frankly, entertaining set of statements has been made and I've kind of enjoyed sitting there, despite me being on the other side of some of these issues. And all I can say at this point is I look forward to enjoying that debate. I look forward to the next step in the

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process. I'm hoping that Congress will fund them. I'm hoping you and your elected officials will continue to participate and to engage.

So, again, thank you, NRC, for taking this step. Thank you all for participating. And I hope to have opportunities in the future to continue to move this process forward.

Thank you.

MR. CAMERON: Okay. Thank you. Thank you, Rod.

We're going to put a couple of people on that do have some family constraints. But we're going to go to Virginia Valentine and Jenna Morton and then go to Joe Kennedy, Holly Woodward, Eddie Jim, and Judy Treichel.

MS. VALENTINE: Thank you very much, and I'll be very brief.

Thank you for holding these hearings here and giving us the opportunity to participate. My name is Virginia Valentine. I represent the Nevada Resort Association, which is about 68 resort hotels in Nevada.

As Mayor Goodman mentioned, we have about 40,000 -- or 40 million visitors a year here. 27 percent of the state's general fund comes from taxes on games and the

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resort industry, and we employ hundreds of thousands of people, about 37 percent of the workforce.

We are strongly, strongly opposed to the siting of a nuclear repository in the State of Nevada; and I would agree completely with what Representative Titus just said about this just being a supplemental study on something already that didn't make it any better. I also am -- I don't usually make this point, but since Dr. Kreisler said that educated people and engineers would support this, I have to say I'm an engineer and I'm opposed to it.

My earlier career -- thank you.

Earlier in my career, in fact, I started the Clark County Regional Flood Control District, so I do have some background in hydrology. And I'll tell you one thing we know about water is that it moves, it migrates and I think all of you who live here and those of you from California I appreciate you coming over and sharing your stories with us. We don't have one precious drop of water to spare or to contaminate in anyway, so I am -- again, we are a tourism-based economy here.

Even the perception of things that don't go well here, when they show something on the national

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news, even if it rains and it floods here, people cancel their reservations, they don't come here. We are very vulnerable to anything that impacts Nevada, the perception of Nevada. It wouldn't take much of an accident or an incident to happen here at all. And when you say -- so when you say "small," to me even something that is very, very small can have a very amplified impact on this economy.

So, again, I would -- I don't know -- we just have shown if nothing else in this great recession that we are not a very resilient economy, we're very vulnerable. I don't think anything that I have heard recently has changed any of the science, any of the concerns, or any of the risk about this project and I would just tell you that we are very opposed.

And thank you, again, for allowing me to comment.

MS. MORTON: Hi, I'm Jenna Morton and I am representing my friends who could not be here because they're tucking their children into bed. And I thank you for allowing me to speak and thank you for all of you who have not come from Las Vegas. We welcome you all and we're thrilled to have you here, so thank you for allowing me to speak.

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I guess it's just obvious, nuclear waste is deadly. The Nuclear Regulatory Commission study is fundamentally flawed, it's obsolete, and in the words of my good friend Mayor Goodman, it's illogical, nonsensical, and moot. The study is based upon assumptions that are not current.

And I'll be brief, I know we've heard a lot tonight. But if transporting tens of thousands of tons of deadly material through several major metropolitan areas with the risk of accident were logical, given that the fact that the transport and storage containers to be placed in Nevada do not yet exist, it's impossible to even study the risk to the groundwater on the site.

As a businesswoman, the mere consideration of such a plan so close to the livelihood of Nevada's family -- families -- sorry -- baffles me.

As a taxpayer, I say that not one more penny of our money should be spent on this bridge to nowhere.

The \$15 billion spent so far could have funded 15,000 years of after school programs for Las Vegas children.

That \$15 billion could have funded after school All Stars programs for 90 million children.

Let's start spending on a viable solution.

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We know we need a solution, let's start spending on something that's reasonable or at least more relatively reasonable than what we're talking about here.

As a mother, one iota of risk to our groundwater or any risk at all is too much for our children and the children of our future. Nuclear waste is deadly. Let's move on.

Thank you.

MR. CAMERON: Okay. Thanks. Thanks, Jenna.

And let's hear from Joe Kennedy, Holly Woodward and Eddie Jim. And I have to thank Judy Treichel for her forbearance on this.

Joe.

MR. KENNEDY: Good evening all, I'm Joe Kennedy. I decided to come down here last night, so I'm not totally prepared, but I wanted to come in and, you know, say a few things here, you know, about the water and about what's going on with the transportation and other things and our feelings about, you know, who we are. As I said, I'm Joe Kennedy. I'm Timbisha Shoshone of the Western Shoshone nation, so I'm an indigenous person in this area and Yucca Mountain is a very spiritual place for the Timbisha Shoshone and

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the Western Shoshone nation.

First of all, you know, I kind of wanted to touch on something about what the good doctor said earlier about 18 years, which is a drop in the bucket, which isn't very long, because when we look at life we look at thousands of years ahead. And -- you know, so you know, his words of saying that things are safe are not always as they seem. So I just wanted to comment on that.

First of all, you know, the connection between the water, the water's just -- there is just one water. My father told me of a story that his father told him, which was my grandfather, that they put a vessel in the water in Fish Lake Valley when Fish Lake -- when they had a lake, and they sent it to Devil's Hole and so they know the water is connected. So all the water is connected, if water is connected from Fish Lake to Walker Lake, from Fish Lake to Deep Springs, and our people knew all of that. So I think we need to keep that in mind, that there is only one water. And as our people always have talked about that is very sacred to us that we need to, you know, keep that in mind.

You know, and as far as trusting the

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government, you know, on certain things, when they did the atomic tests out there and they told people that it was going to be safe, you know the downwinders were affected. So that was another thing the doctor mentioned that it was safe. But it wasn't really, because we had a lot of folks that got, you know, cancer and stuff.

And a lot of Shoshone and also Timbisha did some studies also looking where that nuclear, you know, the fallout fell. And a lot of it fell on our lands, on where the Timbisha Shoshone have trust lands now. And so, you know, it's all over in every county, every state across this country, so and around the world. So it's -- it's pretty much went around the world.

Also, you know, they told the Navajo and assured them that it was safe to mine plutonium and get that stuff. And so I think we're leaving out that first part of it, because if you go and look at what happened with the Navajo Nation and mining and, you know, their water and how it affected them and them being told that it was safe, I mean, there's just the story right there. I mean, it wasn't safe. People were dying, people were getting cancer and all of those

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things.

Also the water being very important, you know, in our part of the country because it's so scarce.

Endangered species like the pup fish in Devil's Hole -- like I talked about the vessel coming from Fish Lake, so the water is connected and it could affect those animals, those fish, those reptiles, those plants that are nowhere else in the world and that you may only find here around this country. You know, with as much water as we have, we don't have very much.

And as far as, you know, time goes, the Mother Earth can change at any time and we can see wetter times, we could see drier times, we could see earthquakes, we could see volcanoes, so looking into the future, you know, a million years, that can't be predicted. There's no way it can be predicted.

Our people have stories of wetter times in Death Valley when there was a lake and there was big animals running around and those kind of things.

So, you know, they've talked about those stories already, so those things are important and respecting things, because if you don't respect things in a good way, those things can disappear, they can change in a way that will wreak havoc upon us as we know it and

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make a change. The earth could live without us, but I don't think we could live without the earth.

The earth is very important to us. We as Shoshone people look at the earth as our mother and we look at the sun as our father, you know? But then there's a higher power that created the earth, the moon, the stars, the planets out there, that created all those things, so our religious beliefs, you know, tell us that we have to listen to those old stories that we have and that we had in the past.

Our people have faced, you know, a lot over the years since European contact. We've faced germ warfare, used smallpox-infected blankets and, you know, brought to our people. And the government's saying hey, this is -- you know, we're going to keep you guys warm, you're okay with us, but then it wiped out a whole population.

Those of you that don't know the, you know, history around here, probably over 98 percent of the population eliminated within ten years or less, you know, by these tactics, you know, besides the rapes, the murders, you know, the massacres. And that's our American Holocaust that isn't talked about anywhere else. It's something that should be talked about, you

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know, and I think Ian touched on genocide and that's what it was. I mean, it was something that went through so fast, so hard, the Hopi Nation disappeared. Because I heard stories of the thousands of the people in the valley that I live in, Fish Lake. And when the Europeans came there, there were so many Indians they called it Indian Valley. But now when you go there it's just a couple of families.

In Lida, close by in the 19 -- 1890s, there was over 500 Shoshones and they had their own butcher shop and store and stuff like that and then they were just wiped out from smallpox-infected blankets in just ten years, and there are only pockets of Shoshone.

So I know my elders, we made comments on the SEIS, on the water, because we know that the water is just one water. It's very important. And we've watched spring after spring after spring be destroyed.

Over at the Navy, Coastal Hot Springs, the water we can't use over there because of the construction of the geothermal. Other springs in Death Valley have been affected that once were hot water and now they're not.

In the past 150 years we've seen so much change that it's unbelievable for Western Shoshone to

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conceive.

So anyway, I know you're getting ready to tell me to wrap up, so I'm going to go ahead and wrap up a little bit and just let you know that the earth can change at any time and it can change for the worse or for the better for us, but, like I said, the earth doesn't, you know, have to have us around.

And I also want to say that, you know, we look at law and the laws for us and we look at land, air, water, and the sun, and maybe we should look at the sun on the end of laws, you know, the S, as something to get the power from for each individual house instead of letting, you know, the power companies control at all -- you know, getting the money.

MR. CAMERON: Thank you. Thank you, Joe, for that perspective. Thank you.

And Holly. Is Holly still here? And we have a few more speakers, but we should be -- we should be done by 9:30 at the latest.

Holly.

MS. WOODWARD: Hi, I'm Holly Woodward, and I'm a citizen here in Las Vegas. And I did want to comment that I thought this draft supplement to the EIS is too narrow in scope. But it looks like the only

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thing that the NRC found to critique was the land ownership and water rights.

But what I'd really like to talk to today -- or tonight about is ecology. And Nevada is number three behind California and Hawaii in biodiversity, so I think you should keep that in mind.

You did mention or, you know, in the handout it does have ecology and that's really important and it's all conducted to the water, so I hope you really take that seriously.

Thank you.

MR. CAMERON: Thank you, Holly.

And Eddie. This is Eddie, Eddie Jim. And then we'll go to Judy Treichel, Dennis Bechtel, and Forrest Darby.

MR. JIM: I'll make it very brief, since we're running out of time here.

Hi, I'm Eddie Jim of the Pahrump Paiute -. I'm actually chairman of the Pahrump Paiute Tribe and the tribe opposes this project.

Since this is a water issue, I will stay on the water issue. Water is life to the Pahrump Paiute Tribe. It is sacred, it is religious. The Tribe is not willing to play Russian roulette with the water.

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Wildlife is very important to the Tribe. Water is needed for our existence. The Pahrump Paiute Tribe's ancestral homeland is not -- is very large, it does not concentrate on the Pahrump Valley only.

The closure of Yucca Mountain, we won't have to worry about contaminants in the water from this project. If these nuclear dumps continue, Nye County will be known as gateway to nuclear waste. That's something to be very proud of.

Thank you.

MR. CAMERON: Okay. Thank you, Chairman.

And Judy, then Dennis Bechtel, and then Forrest, and then we have four more speakers.

Judy Treichel.

MS. TREICHEL: Thank you. My name is Judy Treichel. I'm the executive director of the Nevada Nuclear Waste Task Force.

We're told that this has a very -- that this meeting is to cover a very narrow scope, but I don't accept that that's right. At Yucca Mountain it's all about groundwater. A Yucca Mountain repository will either work or it will not because of the groundwater. The only question to be answered is can waste placed in Yucca Mountain be isolated and not

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contaminate the groundwater? And the answer to that is no.

Soon after site characterization began, it was established by the State of Nevada scientists that the DOE guidelines for groundwater travel time were violated at Yucca Mountain. Groundwater moves from the repository footprint to the accessible environment in less than 1,000 years.

Even with the keyhole-shaped adjustment that was created specifically for Yucca Mountain by the EPA, which went from five kilometers to 11 kilom -- or to 11 miles for dilution, the groundwater travel time disqualifiers was still violated. So in 1989, Governor Bob Miller wrote to the Department of Energy saying that the site should be disqualified, but it was not.

And then in 1999, ten years later, outgoing Governor Miller and incoming Governor Guinn again wrote stating the reason for disqualification and, again, they were denied. But their arguments weren't ignored and, in fact, they were acted upon two years later when in 2001 the Department of Energy guidelines disqualifying conditions for the repository were eliminated. The problem was solved.

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With the guidelines no longer a problem, the DOE submitted the Yucca Mountain site recommendation in 2002 along with the EIS and we're here to give statements regarding that supplement. Six years later, then required by law, in 2008 DOE submitted a license application for construction authorization to the NRC with an EIS supplement again.

Both the site recommendation and the license application were based on a repository that had both commercial and defense waste. The design was based on a specific package called a TAD, which stands for transportation, ageing, and disposal of the waste and with that TAD it would regulate the heat and, ultimately affect the relays from the repository to the groundwater.

Today in 2015 there is no TAD. Those very specific containers never got off the design drawing board, they were never built, but the release rate of the radionuclides to the groundwater is estimated in the total system performance assessment that is totally dependent upon the TAD waste package. Also, it is now six months since the presidential memorandum that President Obama signed, which has the force of law and it was issued stating that defense and commercial waste

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cannot be placed in the same repository, but the design of Yucca Mountain hasn't changed, even though the cooler defense waste is relied upon in the release estimate to moderate the heat output.

So without the TAD and the cooling effect of the defense waste, the NRC's EIS has no credible technical basis to analyze the impacts of radioactive contamination on the groundwater and the groundwater discharges to the region.

If Yucca Mountain is to be considered for a license, there needs to be a new site core recommendation, a new EIS, a new license application from the Department of Energy, and then a new acceptance review, for each of those must be done by NRC and also a new safety evaluation report.

Finally, Nevadans and the people in reactor communities know and communicate with each other. NRC keeps assuring all of us that we can trust their complete objectivity and dedication to long-term safety. But just in the past few days people living near reactors have learned that the NRC has cancelled a study to examine for the first time since its flawed 1990 study, the long-term cancer risk to the community's residents. NRC said that the eight million dollar study was too

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much. That's the same amount NRC just recently expended on doing the Yucca Mountain safety evaluation report that's known to be based on incomplete information and obsolete assumptions. Nevadans can learn all we need to know about NRC's actions by just watching the reactor communities.

Thank you.

MR. CAMERON: Okay. Thank you. Thank you, Judy.

And Dennis, and then we'll go to Forrest and then we have Jim Hadnot, I'm not sure, and then we have Paul Moradkhan. I'm not sure, sorry, I probably mispronounced that, and then Leonard -- Webster Mack and Leonard Willoughby. And this is Dennis Bechtel.

MR. BECHTEL: Thanks, Chip, and thanks to the NRC for holding the meeting in Nevada here. I'll try not to convey too many redundancies here. Just about everything has been said, I think.

A couple of comments. One is with regard to the time extended for review. And while the NRC's 30-day extension for SEIS review is welcome, I believe there strong arguments to justify a 60-day extension.

Many of the important participants, and I'm referring to affected units of local government and tribes, have

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almost no resources with which to undertake the analysis. Phil got into this a little before. Review, therefore, will probably have to be undertaken by staff with other speedometers and probably not the technical background to be able to do it.

Given the many delays that have been experienced over the life of the Yucca Mountain program, I don't feel an extension of 60 days is unreasonable, in fact it probably should even be more than that.

A few other comments. Judy mentioned and I will reiterate that the -- the total program has been -- is significantly different from when it was originally envisioned; and I feel the NRC needs to acknowledge in the final SEIS that there are recent developments that may serve to change the program significantly and create a need to revisit the EIS and SEIS.

One, based on recommendations from Energy Secretary Moniz in January of this year, the President authorized the development of the sole repository for the disposal of high-level radioactive waste resulting from atomic energy defense activities. And Judy mentioned that. Subsequently, Dr. Moniz indicated that DOE would begin identifying and vetting a defense

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waste repository on separate sites for one or more interim facilities for spent fuel from shutter reactors requiring, of course, a Congressional approval.

The construction of the independent defense waste repository could change the character of a permanent repository. What EIS and SEIS would then no longer reflect the current state of the nuclear program.

And I'd also add that there's been a lot of talk about the transportation of the waste. Well, the one alternative was to have waste transported by rail from Caliente around the top of the test site to the repository. Currently, there's a monument that's been proposed, the Great Basin National Monument, which would be right in the middle of that. So what that means is that there would be, probably, the need to revisit transportation. And it may mean that more waste would end up on the highways, which may mean the reconfiguration of canisters and things that would end up in a repository that would be totally different; and that's not reflected in the current documents.

Finally, and this gets into the small issue that's come up a couple of times, the NRC has accurately noted that unsupportable assumptions about human

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activities, and I'm quoting, "Far in the future will result in correspondingly unsupportable conclusions about potential impacts." Notwithstanding the great uncertainty of future activities, climate, et cetera, the document is replete with statements that "the impacts will be SMALL" -- in capital letters -- many times. Small from releases of radioactivity, the accessible environment.

We don't know what the impacts would be.

The time frame is just totally unreasonable to even think about that. It may therefore be more prudent to recast these small, medium, or large impacts to intermittent or uncertain, because we really don't know what the impacts are going to be.

But, anyway, I mention this in part because some in Congress may consider the conclusions reached by NRC and the SEIS as the affirmation that Yucca Mountain is a more than adequate site for a repository, a conclusion that is obviously premature.

To be realistic, we need to remember the recent experiences with a waste isolation pilot project, WIPP site in New Mexico. WIPP was touted as a repository that would isolate waste from the public for centuries. Needless to say, it hasn't worked out

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that way and it's probably the same for Yucca Mountain.

Thank you.

MR. CAMERON: Thanks, Dennis.

And Forrest.

MR. DARBY: Over the past 20 years or so I think this is my, I don't know, third or fourth or fifth one of these meetings that I've attended. And I'll take less than five minutes.

I'm just going to hit all the notes where I was writing down things that people were talking about. I'm strongly in favor of restarting the Yucca Mountain project. My condo was paid for by work that I did out at the test site. I was an electrician on the TBM, made over 100,000 a year. That was a long time ago.

The -- Dina mentioned there's \$65 billion worth of work left. That's a lot for our workers. A lot of them are out of work right now.

We're talking in figures like one million years and so forth. There's been a lot of scientific conversation in this room. I would suggest to anybody who really is interested in these scientific subjects to look at where the earth is going to be in 300 years.

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Forget about one million or 500 years. A lot of work is being done in that area with global warming, ocean pollution, overpopulation. We're going to be in a real tough spot by 300 years, a real tough spot here in the world.

Also, nuclear power provides -- has no carbon footprint, so if you do it right, it's not a bad thing. I hear a lot of -- the previous speaker just talked about having to change the casks and all of that because the trains aren't viable. The new train route would come from the north, it wouldn't go through the monument. If it ever went to Yucca Mountain, there's a train route already set up.

So it would stand -- I don't see any trucks going through Las Vegas. I think if it ever started up, all of it would be by train and all of it would come in from the north.

Everyone, Senator Bryan, lots and lots of people talked about, you know, is it a political decision or not? I think it's totally a political decision. We're going to find out pretty soon, because Crescent Hardy, I'm a strong Democrat, he's running against four Democrats in CD-4 who all opposed Yucca Mountain. He's in favor. I think Crescent's going to

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be re-elected on Yucca Mountain alone, just like Steven lost his seat because of Yucca Mountain. These are just my thoughts.

Anyway, it was old home week to me, because I've worked at virtually all of the places, many of the places that were talked about. I worked at San Onofre, I worked in Area 5. There's a story, I worked all over the Test Site, I worked at Yucca. Area 5, I could talk for an hour on that. One of the speakers talked about all the waste coming in. Hello. A lot of it comes into Area 5 every day, every day, folks.

Yucca was selected primarily -- one of the criteria was what they call overburden and underburden.

We talk about the water coming down and I can't remember, it has to go through about 1,500 feet of dirt before it gets to the repository and then another 1,500 feet to get to the groundwater. But, anyway, that was one of the main criteria, it was in between and one of the few places in the world, really, like that, where it would have to go with a lot of protection on both sides of it.

Anyway, I think that's probably about it, but the big thing is the time frames. Really look at

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where the earth is going to be in 300 years with the amount of pollution and global warming. This planet's in trouble and it's not for Yucca Mountain. We've got a problem.

Thank you.

MR. CAMERON: Okay. Thanks. Thanks, Forrest.

And Jim, then we'll go to Paul Webster, Leonard and we're going to finish up with Andrew Lingenfelter from Senator Heller's office.

Jim.

MR. HADNOT: My name is Jim Hadnot. I am a Clark County resident. I've lived there for about 13 years. I'm definitely in the minority, I think, in the group. Well, I have a unique background. I have a civil engineering degree. I practiced here in Las Vegas for seven years. My licenses are still current. I now work for a company that manufactures radiopharmaceuticals. So I understand groundwater and I understand what radiation is.

I think a lot of the dissent comes from the general population, which just doesn't understand what nuclear waste is. So I -- I guess my real point is I am a proponent for this project. I can't fathom,

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you know 300 years from now having this stuff spread across 100-plus, sites in the U.S. I can't understand why all the opposition has no other plan. The plan is just don't do it. Well, what are you going to do? But nobody has another plan. I find that very frustrating.

It's good that we come together and we talk and I think that's very important, but the science is there and if you don't understand the science, then find someone to help you understand it.

I guess, in summary, I support the project.

Thanks.

MR. CAMERON: Okay. Thanks. Thanks, Jim.

And Paul.

MR. MORADKHAN: Good evening. I'm Paul Moradkhan with Las Vegas Metro Chamber of Commerce.

First, I'd like to thank the NRC for providing an opportunity to speak tonight. I'd also like to thank Congressman Titus, Senator Reid's office, Mayor Goodman, Senator Bryan and Senator Parks for expressing many of the points the Chamber has also agreed with over the years.

In regards the releasing the supplemental

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draft, the Metro Chamber is the state's largest business community -- and there are thousands of our members throughout this community employing almost 230,000 Nevadans -- is adamantly opposed to Yucca Mountain. This has been our position for almost two decades and that has not changed with release of this information.

Many of our concerns rely on the environmental factors and the use of water and the contamination of potential water issues at hand, as have been discussed tonight.

Our leadership of the Metro Chamber was in Washington, DC just last week and shared with members of Congress their continued opposition. Our Chamber believes that Las Vegas is the economic engine of the state. Our residents, our employers, and our employees must be listened to and for that reason the Metro Chamber is in continued opposition to Yucca Mountain. This draft supplement does not resolve or mitigate any of our existing concerns and long standing opposition to the Yucca Mountain.

Thank you for your time. We will be sending formal comments before the November 20th deadline.

Thank you.

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MR. CAMERON: Thanks, Paul. Thank you.

And Webster.

MR. MACK: Good evening. My name is Webster Mack. I'm a resident here in Las Vegas. I've lived here for over 35 years.

MR. CAMERON: Could you just speak into the microphone, Webster.

MR. MACK: Okay.

MR. CAMERON: Thank you.

MR. MACK: I've been here for over 35 years, so that almost makes me a lifer. I had a career with the Environmental Protection Agency and my background is I'm a geologist and I'm currently teaching geography and geology.

So I want to be sort of neutral on this and say that we are sort of rearranging the deckchairs on the Titanic and you're worried about whether or not someone is going to get an ocean spray. We're talking about groundwater, okay.

In my opinion the planet has a more serious problem; it's called global warming and climate change.

And long before the repository even gets built or even becomes an issue about groundwater, Planet Earth is going to be in so much trouble that we're all going

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to look back on this and laugh.

We all like electricity and I personally think nuclear energy as a clean, non-carbon burning, non-fossil fuel source of energy, needs its day in the sun, so to speak. We need nuclear energy, even though we hate the fact that it creates nuclear waste. Which begs the question, the question is not what are we going to do with this waste, the question is we have no long-range nuclear energy plan and this repository -- notice the word repository means you can go back into the place and pull the stuff out. It's not a dump. It hasn't been isolated from man's ability to go in there. The repository means you're holding the hope alive that you can go in some day when the political climate changes and reprocess the fuel and let it run for another 1,000 years. There's a lot to be said about nuclear energy and the fact that it's a clean source, non-polluting atmosphere, CO2, carbon warming, global greenhouse gas.

So the problem is, in my opinion, there's no long-range plan for nuclear energy. As you know, there's a fuel cycle. There's a front end fuel cycle and there's a back end fuel cycle. If you want to use the word cycle. Because we do not have a long-range

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energy plan, we're dumping everything into this repository and we're kicking this problem down the road for a million years or 10,000 years. God help us, I don't think Planet Earth will be inhabited by humans within the next hundred years or so because of the pollution that we've created.

So I salute you for sitting through this meeting and listening to these arguments and railing against the repository and railing against Yucca Mountain. I think that's just -- you can't see the forest for the trees. So I salute the Nuclear Regulatory Commission for holding these meetings. They got dumped on to sit here and take this abuse from the public, but this is a public forum. We're exchanging ideas. We're trying to understand the problem. With many heads and many minds, we'll possibly get solutions.

The Nuclear Regulatory Commission I thought was doing to regulate the Department of Energy and the Department of Defense unless the Department of Defense got a pass and they don't have to answer to the Nuclear Regulatory Commission.

The Department of Defense recycles fuel today. France made a decision many years ago, they're

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running nuclear power plants. They're recycling their fuel. They don't have a long-term repository problem.

We need to recycle the fuel in my opinion. We need a long-range nuclear energy plan that addresses the front end of the fuel cycle and the back end of the fuel cycle.

I salute you for sitting through this long evening.

Thank you for being forbearing.

MR. CAMERON: Thank you. Thank you, Webster.

Leonard, Leonard Willoughby, and then we have one last speaker, Andrew Lingenfelter.

MR. WILLOUGHBY: Hi. My name is Leonard Willoughby. You probably recognize me, my name. But I only have one comment and that's on models. How did you validate your models and did you use current parameters that are now available to validate those models? And that's it.

MR. CAMERON: Okay. Thank you Leonard.

And Andrew.

MR. LINGENFELTER: Thank you, Chip, and thank you to the NRC for being here tonight. I know it's way past midnight on the East Coast and so I'm

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sure you guys are ready to go as well as the folks here in the audience. With a two-year-old at home, you know, now is about my bedtime as well.

So just to be quick, I just want to express very much, you know, the gratitude is beyond words for all of you showing up here tonight to express your concerns; and I think the NRC will find that these are well informed concerns, very valid concerns. And I think the gist of this meeting is just to take local governments, tribal governments, and the State into consideration when making these decisions. And even with the extension of the notice for comment, these things are vitally important and you can't really begin to get this process even moving without the consent of local and state and tribal governments. And so I think that's really where this discussion ought to be had, is where those folks feel and are on these issues.

And so thank you very much for being here and for coming to Las Vegas and to Amargosa Valley on Thursday evening and to the folks who showed up here tonight.

MR. CAMERON: Thank you. And from Senator Heller's office.

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And I would thank all of you for your patience and your interest and I'm going to turn it over to our senior NRC official Jim Rubenstone to close the meeting out for us.

Jim.

MR. RUBENSTONE: Thank you to everyone.

First, I've heard some applause tonight. I will step out of my role and ask for some applause for our able facilitator, Mr. Chip Cameron. And as long as you're clapping, I would say give yourself a round of applause.

I've been to a number of NRC meetings. This is in the top ranks for people being passionate, but also being courteous and respectful of other speakers. We very much appreciate the great turnout and we very much appreciate all of the comments that have been raised today, and we will consider all of these as we move forward to finalize this supplement.

Again, just reminders, the comment period is open until November 20. We welcome your written comments. We welcome your attendance at the meeting on Thursday at Amargosa Valley and we have, as we said, two more telecons where you can provide comments on October 15th and November 12th.

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So, once again, thanks to everyone for coming out. We very much appreciate the comment process and have a good evening.

(Whereupon, the session ended at 9:36 p.m.)

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