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Supplement to the Environmental Impact Statement for the Proposed Geologic Repository at Yucca Mountain, Nevada

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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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THURSDAY

SEPTEMBER 3, 2015

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The Public Meeting was convened in the Commissioners' Conference Room, One White Flint North, 11545 Rockville Pike, Rockville, Maryland, at 3:00 p.m., Chip Cameron, Facilitator, presiding.

PRESENT:

CHIP CAMERON, Facilitator

ADAM GENDELMAN, Office of the General Counsel

CHRISTINE PINEDA, Senior Project Manager, Yucca

Mountain Directorate, NMSS

JAMES RUBENSTONE, Acting Director, Yucca Mountain Directorate, NMSS

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PROCEEDINGS

2	2:59 p.m.
3	MR. CAMERON: Okay, good afternoon
4	everyone. My name is Chip Cameron and I'd like to
5	welcome you to the public meeting this afternoon.
6	And, our topic today is a Draft
7	Supplemental Environmental Impact Statement prepared
8	by the Nuclear Regulatory Commission on groundwater
9	issues at Yucca Mountain.
LO	And, we'll try not to use many acronyms
L1	today, but two that you will hear are EIS for
L2	Environmental Impact Statement and NRC for Nuclear
L3	Regulatory Commission.
L4	And, I'm pleased to serve as your
L5	facilitator for the meeting this afternoon. And, in
L6	that role, I'll try to help all of you to have a
L7	productive meeting.
L8	I just want to say a few words about some
L9	meeting process issues I'd like to tell you about.
20	The objectives for the meeting, secondly,
21	the format for the meeting, third, some simple ground
22	rules to help us have a productive meeting this
23	afternoon and then, to introduce the NRC staff who are
24	up at the table and who will be talking to you today.

In terms of objectives for the meeting, the

1 first one is for the NRC staff to provide you with a clear 2 explanation and clear information on the 3 Supplemental EIS, what's in the EIS and the process for 4 the EIS. objective is 5 Second to provide an opportunity to the NRC to listen to your comments and 6 concerns on the Draft EIS. 7 And I want to emphasize the term draft. 8 This document will not be finalized until the NRC 9 10 considers all of the comments that are going to come in from today's public meeting, from the comments at our 11 12 public meetings in Nevada and from the written comments 13 that people might submit to the NRC. And, the NRC staff will be telling you in a few minutes about how you go 14 15 about submitting comments on the Draft EIS. 16 In terms of the format, there's three basic 17 segments to the meeting and one of them is going to be 18 the presentations that you're going to hear from the NRC 19 staff in a few minutes. Secondly, we'll have a short amount of time 20 21 for some clarifying questions on the EIS process. 22 And then, third is going to be the public 23 comment not only from those of you in the room here in

Rockville who want to comment, but from anybody who's

on the phone from around the country who might want to

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give us a comment.

And, here in Rockville, if you want to comment, I would just ask you to come over here to the podium and provide your comments to the NRC staff.

Now, the NRC staff is going to be listening to your comments. They're not going to be engaging in any discussion with you about those comments today, but they will be listening carefully and they will consider those comments as they prepare the final Environmental Impact Statement.

Ground rules, I would just ask you to wait until all the NRC presentations are done before asking any questions. And, I would also ask you that we only have one person at a time speaking. I don't think that we're going to have any problems with that today, but we do want to give our full attention to whomever has the floor at the moment.

And also, we want to get what I call a clean transcript. Matt Miller is our stenographer, our Court Reporter, and if only one person is speaking, then he'll know who to identify in the transcript.

That transcript will be publically available and it's your record of today's meeting and it's the NRC's record.

I would ask you to be as crisp and concise

1 as you can be in your comments. I want to make sure that 2 everybody gets a chance to share their comments with the 3 NRC today. I don't think that we're going to have a lot 4 5 of people, although we're not sure how many people that 6 are on the phones will want to comment. But, I'm going 7 to ask you to follow a five minute quideline. soft five minutes, okay? And, we'll see how we're doing 8 with time. 9 10 Periodically, I will go out to the people on the phone to see what their comments are. And, we'll 11 12 start off in the audience today. And, I don't think it's going to be a 13 problem, but if I have to ask you to finish up, I 14 15 apologize in advance for that. 16 Fortunately, you can supplement 17 comments today, and this goes for people on the phone, 18

Fortunately, you can supplement your comments today, and this goes for people on the phone, you can supplement your comments with written comments. And the comments that are provided in the room today and on the phone, they'll carry the same weight as written comments. So, you can supplement.

And, final ground rule is that, just as always, courtesy, and that applies to all of us. You may hear viewpoints today that differ from your own and I would just ask you to respect the person who's giving

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that comment.

The focus of the meeting, the focus of the public comments is on the Draft Supplemental EIS which deals with groundwater issues.

And, I know there's a lot of broader concerns, perhaps, on Yucca Mountain in general. We know that this has been a long and complicated process over a number of years. And, the NRC, in their presentations are going to try to put this supplement, its focus on groundwater, into the context of the whole Yucca Mountain project. And, that may help you to focus your comments.

For those of you in the room, there are handouts, the view graphs. There's something called a feedback form that the NRC has which helps them to improve public meetings. So, you can fill that out, it's over here on the side, you can fill that out and leave it with us today, or I think it's already franked. In other words, you can take it home, fill it out and just put it in the U.S. Mail and it'll get to the NRC.

And I would just thank you all for being here in the room and being on the phone.

And, let me introduce the NRC speakers. We have Jim Rubenstone here and he's the Acting Director of the Yucca Mountain Directorate at NRC. And, it's in

1 the Office of Nuclear Material Safety and Safeguards. And, he's going to provide a welcome and a little context 2 3 for you. 4 And then, the main presentation is going to be by Christine Pineda. And, she's a Senior Project 5 Manager in the Yucca Mountain Directorate. And, she's 6 going to tell you a little bit about the Draft EIS. 7 And also, although he won't be speaking 8 unless there's a particular legal question that we need 9 to answer, this is Adam Gendelman. And, he is the 10 11 attorney for Yucca Mountain and High Level Waste and 12 he's in our Office of General Counsel here at the NRC. 13 And, with that, Jim, do you want to start us off? 14 15 MR. RUBENSTONE: Thank you, Chip. 16 I hope the sound system's working fine. 17 Good afternoon and welcome, once again, to this, the first of our public meetings on the NRC's Draft 18 19 Supplement to the Department of Energy's Environmental Impact Statement for a geologic repository for spent 20 21 nuclear fuel and high level waste at Yucca Mountain, 22 Nevada. As Chip said, I'm Jim Rubenstone from the 23 Yucca Mountain Directorate and I want to extend the 24 25 welcome not only to the folks in the room here at

1 Headquarters, but also to those who are following on the 2 web stream and are listening on the telephone. Right now, everyone on the telephone should 3 be in listen mode and when we get to the opportunity for 4 questions and comments, be prepared and the Operator 5 will let you know how to open your line. 6 As you know, NRC has released this Draft 7 Supplement for public comment and the public comment 8 period began on August 21st. 9 We had a teleconference last week to talk 10 about the process for providing comments. 11 12 As you also know, and I hope you know, 13 public comments are very important to the NRC and one 14 of the main purposes today is to accept your comments. 15 We want to make sure, as Chip said, that they're properly 16 recorded so they can be addressed. So, the meeting is 17 being recorded and transcribed. Let me remind you also that, in addition to 18 19 providing comments here today or at our other public 20 meetings, they can also be submitted by mail or through 21 the regulations.gov website. 22 handout, have a among the other 23 handouts, about how to provide comments that has the details of how to submit those. 24 And, all of the handouts, in addition to the

one on commenting, there's some background information. Those will be made available on our NRC website no later than next week. The best way to get to this information from the front page of our website is to go to the High Level Waste Disposal drop-down and then to the Key Documents link and that should get you to all the information that's involved with this Draft Supplement. Before I turn things over to Christine Pineda, our Project Manager for the Supplement, I want to note that NRC has received two requests in writing from the State of Nevada and from Inyo County to extend public comment period. They requested the additional 60-day extension beyond the 60 days that we had posted. There were also several participants on our call last week who requested that the comment period be extended as well. Now, we want to be responsive to these requests, but we also have an obligation to complete our work on this Supplement in a timely manner and on a relatively limited fixed budget. Therefore, we are announcing today, we'll be extending the comment period for an additional month with a new closing date of November 20 and that is the

date that's shown on the handout.

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1	Unfortunately, we'll not be able to add
2	additional public meetings during this extension.
3	However, we will be scheduling an additional
4	teleconference for some point in November before the
5	comment period closes. And, we'll announce the date of
6	that as soon as we have that scheduled.
7	So, let me now introduce and turn the
8	microphone over to Christine Pineda, our Senior Project
9	Manager and she will introduce you to the Draft
10	Supplement and the opportunities for providing
11	comments.
12	Christine?
13	MS. PINEDA: Thank you, Jim.
14	Everyone hear me okay?
15	I'm Christine Pineda, as Jim said, and
16	thank you for attending today. And, thanks to those of
17	you who are on the phone.
18	Today, I will go over give you some
19	background on the NRC's Environmental Review process
20	for the proposed repository at Yucca Mountain and some
21	of the larger context of the licensing the overall
22	licensing review and some of the history.
23	And then, I will give you an overview of the
24	contents of the Draft Supplement.
25	And then, we will have an opportunity, a

short opportunity, for you to ask clarifying questions and then we will go to the public comment portion of the meeting.

So, some of you may be wondering how we got

So, some of you may be wondering how we got here. The Environmental Review framework for the NRC's review for the Yucca Mountain Repository is essentially defined by the National Environmental Policy Act.

And the National Environmental Policy Act requires that agencies consider the impact of their decision making, the environmental impacts of their decision making. And, the NRC prepares environmental documents for its licensing actions and also for its rule makings.

The Nuclear Waste Policy Act requires that the Department of Energy prepare the Environmental Impact Statement for the proposed repository and it requires that the NRC adopt the Department of Energy's Environmental Impact Statements to the extent practicable.

So, given that framework, there have been a number of activities over the past decade plus, and the Department of Energy produced its final Environmental Impact Statement in 2002 which it submitted with its site recommendation to the President in 2002.

In 2008, the Department of Energy produced a final Supplemental Environmental Impact Statement and it submitted that along with its 2002 Environmental Impact Statement to the NRC as part of its License Application package.

The NRC staff initiated a review of the License Application and of the environmental documents in 2008 and the staff issued its Adoption Determination Report for the Environmental Impact Statements in September of 2008.

Next slide?

In the Adoption Determination Report, the staff determined that the Department of Energy's EISs could be adopted but that supplementation was needed and the report describes the areas of additional analysis that is needed, and that is in the area of groundwater impacts.

And so, it includes groundwater impacts for the area of groundwater flow beyond the regulatory compliance point and that is to further characterize how the groundwater flows beyond the regulatory compliance point and where the groundwater may reach the ground surface either from pumping or at natural discharge points.

The NRC staff also determined that

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impacts 1 information was needed for from both radiological and non-radiological contaminants that 2 3 could be released from the repository. just to clarify, the regulatory 4 And, compliance point is a point that's approximately 11 5 miles south of the repository site. 6 And why is the NRC staff supplementing the 7 Department of Energy's EIS? 8 The NRC, as I mentioned, the NRC reviewed 9 the Department of Energy EISs in 2008 and determined 10 that the EISs could be adopted and requested at that time 11 12 that the Department of Energy produce the supplement, but the Department of Energy deferred to the NRC to 13 prepare the supplement at that time. 14 15 However, in 2011, because no further 16 appropriations were made for the Yucca Mountain 17 project, the Commission directed the NRC staff to stop work on the licensing review process and also directed 18 19 the panel of Judges to stop the adjudicatory proceeding for this project. 20 21 In 2013, a ruling by the District Court --22 the Court of Appeals for the District of Columbia Circuit directed the NRC to resume work as long as it 23 had appropriated -- previously appropriated funds. 24

So, it directed the NRC to continue work on the project.

1 And, in response to Commission direction, 2 the staff began work on the Safety Evaluation Report in 2013 and completed that in January of this year, and has, 3 subsequently started work on the Draft Supplement which 4 we have now published for comment. 5 So, and I should back up and say that, 6 7 again, we did request that the Department of Energy prepare the Supplement, but the Department of Energy, 8 again, deferred to the NRC. So, that's why we are 9 10 preparing the Supplement. As I mentioned, the scope of the Supplement 11 12 was already described in the Adoption Determination 13 Report and that's the scope that we kept to in producing this Supplement. 14 15 The scope is limited because the NRC staff 16 found that the Environmental Impact Statements were 17 otherwise acceptable for adoption. 18 So, just to reiterate, the Supplement 19 evaluates the potential environmental impacts groundwater and impacts associated with the surface 20 21 discharge of that groundwater that could result from 22 contaminants entering the groundwater from the proposed 23 repository. The potentially affected area that we 24 25 covered in the Supplement is the area of the groundwater

1 flow path that could include contaminant releases and focusing 2 it follows the groundwater flow, 3 emphasizing the area beyond the regulatory compliance 4 points. So, groundwater flows past the compliance 5 point, it flows through the Amargosa Desert and, 6 7 ultimately, to the Furnace Creek and Middle Basin areas of Death Valley. So, it evaluates the groundwater flow 8 path as well as the potential surface discharge areas 9 10 for pumping and natural discharges. This is a map of the Death Valley Regional 11 12 Groundwater Flow System and it is -- represents the --13 it's a map of the United States Geological Survey's model of the groundwater flow in this general region. 14 And this model is the model that the NRC staff used in 15 16 determining or assessing the groundwater flow and 17 assessing the potential impacts that could go into the 18 groundwater and flow through the aguifer. 19 So, you can see that -- it might be hard to 20 read - but, if you can see Yucca Mountain, the regulatory 21 compliance point is basically following that vertical 22 line south to the corner there. And, that's 23 approximately 11 miles south of the Yucca Mountain site. Next slide? 24

The resources that we assess the impacts

for include, of course, the groundwater and, in the Supplement, we use the term the aquifer environment and that's because it's not just the water that you're looking at, it's the host rock for the water. So, depending on the chemical make up of the rock and the contaminants that you're looking, the contaminants may flow freely along with the groundwater or it could become basically stuck onto the host rock.

Also, for points where there are natural discharge points or groundwater pumping locations, we looked at impacts on soils and then on potential impacts on public health, if people were exposed to soils or groundwater, as well as impacts on ecological resources, so flora and fauna, and the potential for disproportionate impacts on minority or low income populations that could be located where the groundwater reaches the surface.

Next slide?

So, as I mentioned, the analysis looks at the potential impacts from both radiological and non-radiological contaminants and looks at those impacts for a period of one million years beyond the time when the repository would be closed. So, it looks at when in that one million year period would we observe the highest concentrations for the different

1 radionuclides or non-radioactive materials. 2 And, it builds on the Department Energy's model of repository performance as assessed by 3 the NRC staff in the staff's Safety Evaluation Report. 4 Next slide? 5 To capture a reasonable range of impacts, 6 we looked at two different pumping scenarios for 7 groundwater and different climate scenarios. 8 So, the pumping scenarios include the 9 10 assumption that pumping would occur. And, for example, it would occur at the Amargosa -- where it occurs now 11 12 which is the Amargosa Farms location. It's pumping for 13 irrigation. 14 And, under that assumption, we assumed that 15 all of the contaminants would be drawn up through the 16 pumping at that location. So, that's a conservative 17 assumption. 18 And then, we also assumed in another case 19 that there would be no pumping, in which case all of the 20 groundwater would flow directly to the natural 21 discharge locations. 22 And, again, we assume for each natural 23 discharge location that the entire contaminant plume would reach that location. 24 For climates we looked at a hot and dry 25

1 climate which is similar to the present day climate, but 2 also a cooler and wetter climate because that would 3 result -- of course, there would be more precipitation 4 which would result in more groundwater entering the groundwater and entering the aquifer and affecting the 5 concentrations of the contaminants in groundwater. 6 And also, it could affect -- it could sort 7 of bring back potential discharge locations that are 8 ancient that are not currently discharge locations. 9 Next slide? 10 And, this is an example of prehistoric 11 12 discharge sites. And this is, as it says, the State 13 Line area of Nevada and California. And these are, I think, about 30,000 years old or older. 14 15 So, it's kind of hard to see, but you can 16 see in the left hand photo the sort of the layering of 17 the minerals that were deposited. And, in the right hand photo, it's a little harder to see, but you can see 18 19 similar structure there. Okay, next slide? 20 21 The Supplement concludes that the 22 potential direct and indirect impacts of the repository

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would be small, and this means that the environmental

effects would be nondetectable or would be so minor that

they would not noticeably alter any important attribute

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1 of each resource that we assessed the impacts for. 2 As well, we determined that the potential cumulative impacts would be small and those would be 3 4 impacts, when considering the impacts of the repository alone in addition to impacts from other activities in 5 6 the region. And, these conclusions are consistent with 7 the NRC staff's understanding of how contaminants would 8 move through the aquifer. 9 Next slide? 10 So, the next steps, we have a public meeting 11 12 in Nevada. We've got a meeting in Las Vegas 13 September 15th in the evening from 7:00 to 9:00 p.m. and a meeting in Amargosa Valley on September 17th, also 14 15 from 7:00 to 9:00 p.m. And those meetings will be 16 preceded by an open house. 17 And then, we'll also have a teleconference 18 on October 15th, teleconference only, and, as Jim 19 mentioned, we'll have another teleconference some time 20 in November as a result of extending the comment period. 21 And, we expect to publish the final 22 Supplement in the first half of 2016. 23 Next slide? So, we can go to clarifying questions now 24 25 and I'll just point out that there's -- this slide up

1	here has the information on it that we've also provided
2	on the handout that's on the table. It describes the
3	ways that you can present or provide your comments to
4	the NRC staff.
5	Thanks very much.
6	MR. CAMERON: Okay, thank you. Thank you,
7	Christine. Thank you, Jim.
8	We have a few minutes for any clarifying
9	questions on the EIS process. If anybody anybody in
10	the room have a question? And, Kevin, please introduce
11	yourself to you.
12	MR. KAMPS: Hello, my name is Kevin Kamps
13	with Beyond Nuclear.
14	And, one question I have is, is there a
15	phone number yet for October 15th and will it be the same
16	as the November teleconference?
17	MS. PINEDA: There is not a phone number
18	yet, but I will be getting one next week and I will try
19	to make them be the same number. But, I'll send out
20	we have our email distribution and I'll send that
21	information out once we get those phone numbers.
22	MR. CAMERON: And, if people want to find
23	out what that number is, is there do they just where
24	do they tune in to?
25	MS. PINEDA: I will add it to the public

1 meeting notice site where we already have the October 2 15th meeting posted there, so I'll add it to that site and then also in our email distribution, I'll put it in 3 4 there. But, the main place on the website would be the public meeting notification site. 5 MR. CAMERON: Okay. Thanks, Christine. 6 7 Anybody else? Yes, Diane? Please introduce yourself. 8 MS. D'ARRIGO: Diane D'Arrigo, Nuclear 9 10 Information and Resource Service. I have a couple of technical questions. 11 12 wanted to know the total amount of waste that is being 13 assumed to go into the repository and how much of that is high burn up? And, so what -- and what cask 14 15 assumptions are being made for those types of fuel? 16 quess that would be what TADs are there? 17 MR. RUBENSTONE: I don't want to get too 18 deeply into the technical details of the Supplement, but 19 just, in general, we used what was proposed as the action in DOE's License Application. 20 21 So, the inventory is as defined in their 22 License Application which is consistent with the 23 Nuclear Waste Policy Act, which is 70,000 metric tons heavy metal equivalent, 63,000 metric tons of which is 24

spent nuclear fuel.

1 And, the assumptions about what fraction is 2 of what burn up is what was proposed by the Department of Energy. 3 4 And, the same goes for the engineered barrier system, the canisters that would be -- and waste 5 packages that would be used. Those are as described in 6 7 the license application. MS. D'ARRIGO: How much is high burn up? 8 MR. RUBENSTONE: Again, I don't have that 9 number off the top of my head, but it is whatever was 10 11 proposed in the License Application. 12 MR. CAMERON: Okay. And, Diane, we're going to try to keep this on the transcript. But, as 13 Jim said, we're not going to be able to go too deeply 14 15 into those questions, but why don't you just get it on 16 the record? 17 MS. D'ARRIGO: I was clarifying that -- I was trying to clarify how much of the 70,000 metric tons 18 19 heavy metal equivalent is high burn up and how high of And, what I'm hearing is that you don't know. 20 21 MR. RUBENSTONE: No, what I'm saying is I 22 can't tell you right now, but it is what was in the DOE License Application which included some fraction of 23 high burn up fuel, but I just don't know the fraction. 24 MS. D'ARRIGO: It did include some? 25

1	MR. RUBENSTONE: I believe it did, but
2	again, I would have to go back and look specifically.
3	MR. CAMERON: Okay, thank you. Thank you,
4	Diane.
5	Jennifer, is anybody on the phone have
6	clarifying question on process?
7	OPERATOR: Yes, first we have Mary Olson
8	from NIRS. You line is open.
9	MS. OLSON: Great, thank you so much.
10	Hi, Chip, hi to everybody else.
11	MR. CAMERON: Hi.
12	MS. OLSON: I have a sort of a historical
13	process question that is not about the SEIS content.
14	But, we heard that NRC staff reviewed the various DOE
15	documents and decided they were acceptable to be
16	adopted.
17	And, I'm just wondering if there was any
18	sort of record of decision issued on this or does that
19	come after the final little additional piece, this SEIS?
20	I want to know the history of records of decision by NRC.
21	MR. CAMERON: Okay, thanks, Mary. Jim?
22	MR. RUBENSTONE: Yes, this is Jim
23	Rubenstone.
24	Because there is an adjudication involved
25	in this process, and those are the hearings that

1	Christine referred to that were suspended in 2011. Any
2	record of decision which is a term of art in NEPA space,
3	the record of decision will happen after the hearings.
4	And, just as another, you know, background
5	historical note, the hearings, as they were beginning
6	back in 2008 and forward from there, the first step were
7	submission of contentions by various parties and
8	rulings on admissibility.
9	There were contentions admitted on the
LO	Environmental Impact Statements. So, those were part
L1	of the hearing proceedings. And the record of decision
L2	on the environmental impacts would come after the
L3	completion of the adjudication and then the
L4	Commission's review of those decisions.
L5	MS. OLSON: Thank you.
L6	MR. CAMERON: Okay, thanks, Mary.
L7	Jennifer, anybody else have a clarifying
L8	question?
L9	OPERATOR: Yes. The next question is from
20	Ruth Thomas, the Environmentalists Group.
21	MS. THOMAS: Thank you.
22	I've been looking over the adoption of the
23	Supplement and I wanted to be clear about understanding
24	this.
25	Now, they don't they talk about the NRC's

1	Adoption Determination Report which was of 2008. How
2	does that fit into the decision making system? I
3	haven't ever heard of that particular
4	MR. CAMERON: Okay, that's a
5	MS. THOMAS: determination. I mean
6	it's could somebody explain that?
7	MR. CAMERON: That's a good question,
8	Ruth. We'll go to Christine to explain that.
9	Christine?
10	MS. PINEDA: Hi Ruth, this is Christine
11	Pineda.
12	The Nuclear Waste Policy Act requires that
13	the NRC adopt the Department of Energy Environmental
14	Impact Statements to the extent possible, practicable,
15	and the Adoption Determination Report that we produced
16	in 2008 is the staff's determination that we could adopt
17	the Department of Energy's EISs and, of course, with the
18	needed supplementation. So, that's the staff's
19	position.
20	So, as Jim mentioned, there would have to
21	be a formal hearing process where the contentions that
22	have been submitted on a Department of Energy's EIS and
23	any new contentions that might be admitted would have
24	to be reviewed and then a decision made concerning the

adequacy of the Department of Energy's EIS and the NRC's

1	Adoption betermination keview and any supprements that
2	came out of the entire process.
3	So, it's just one step in the whole process
4	and it's the staff's position.
5	MR. CAMERON: And, for Ruth and everybody
6	else, the document that
7	MS. THOMAS: Well, now I remember the
8	National Environmental Policy Act
9	MR. CAMERON: Ruth? Ruth, could you hold
10	on one second, please?
11	MS. THOMAS: What?
12	MR. CAMERON: Can you just hold on one
13	second? I just want to point out to everybody that, in
14	the Federal Register Notice that announced the
15	Supplement, there is a reference to the Adoption Report
16	and it gives you a number, a citation, in the NRC ADAMS
17	system for where you can get that document.
18	And, Ruth, I think we're going to have to
19	go on to see if anybody else has a clarifying question
20	so that we could get to comment. But, thank you for that
21	question. It was a great question.
22	And, Jennifer, I'm going to ask you if
23	there's anybody who has a clarifying question?
24	OPERATOR: Yes, the next question comes
25	from Michael Keegan of the Waste Michigan. Your line
l l	1

1	is open.
2	MR. KEEGAN: Hello, thank you. That's
3	Don't Waste Michigan.
4	Could you please tell me if there has been
5	another site that has been investigated? If there's
6	been an EIS on another site, an alternative site to Yucca
7	Mountain?
8	MR. CAMERON: Okay, thanks, Michael.
9	Jim?
10	MR. RUBENSTONE: This goes back into some
11	history and I'm not going to speak too definitively
12	because this is actions that were taken probably more
13	than 30 years ago.
14	I do not know the extent of the
15	environmental evaluations that were done for other
16	sites. The Nuclear Waste Policy Act amendments in 1987
17	directed the Department of Energy to focus its site
18	characterization only on the Yucca Mountain site.
19	So, if there had been any other
20	environmental work done on other sites, my guess is that
21	it would have pre-dated those amendments in 1987.
22	MR. CAMERON: And, Christine, do you have
23	something?
24	MR. RUBENSTONE: And, this is for a high
25	level waste disposal site.

1	MR. CAMERON: Christine?
2	MS. PINEDA: I think that before Yucca
3	Mountain was designated, I think there were three sites
4	in the running. And I think there were environmental
5	documents for those three sites, at least and, I'm
6	not sure if they were, at that stage, if they were
7	Environmental Assessments or Environmental Impact
8	Statements.
9	MR. KEEGAN: Okay, Michael Keegan, again.
10	MR. CAMERON: Go ahead, Michael.
11	MR. KEEGAN: Can you hear me?
12	MR. CAMERON: Yes.
13	MR. KEEGAN: Yes, for the record, could you
14	please enter that in as to whether there has been
15	alternative sites examined or if the Yucca Mountain is
16	the only site that has been examined?
17	MR. RUBENSTONE: Well, again, I think
18	MR. KEEGAN: Thank you.
19	MR. RUBENSTONE: I believe that's
20	outside the scope of what we're trying to address with
21	this Supplement. And, again, I don't have that
22	information, but we can see if we can research it.
23	MR. CAMERON: Okay.
24	MR. KEEGAN: I disagree. That is not
25	beyond the scope, that is within the scope. I need to

1 know whether there's been an alternative site investigated or not. 2 Okay, thank you, Michael. 3 MR. CAMERON: And, I think Jim said they were going to think about 4 But, thank you for the question. 5 that. And, Jennifer, anybody else? 6 7 OPERATOR: Yes, the next question is from Paula Gotsch from Grandmothers, Mothers and More for 8 Energy Safety. Your line is open. 9 10 MS. GOTSCH: Thank you. 11 In trying to -- a process question -- when 12 you say that the staff decided that what the plan was acceptable except for the groundwater problem. 13 -- the amorphous staff, is that -- are those people that 14 15 make the decision, in other words, the group that 16 decided it was okay, are they named any where and also 17 their area of expertise? Like, how many of them are hydrologists? How may are whatever? In other words, 18 19 who made the decision? Okay, thanks, Paula. MR. CAMERON: 20 21 Jim, do you want to try to address that? 22 Yes, again, this fits MR. RUBENSTONE: into the overall process for the review of the Yucca 23 Mountain Application including the environmental 24

The staff that made the determination on

documents.

1	the adoption are named in the Adoption Determination
2	Report as the preparers as is the NRC process for all
3	environmental documents. There is a section that names
4	the contributors to that document.
5	And, again, just to be sure you understand
6	the process, in the Yucca Mountain review, the NRC staff
7	does its review, reaches its conclusions, puts forth its
8	documents and then is a party in the adjudication.
9	So, these are the recommendations of the
10	staff which are to be adjudicated before the Atomic
11	Safety Licensing Board. Again, that proceeding began
12	and is now suspended.
13	So, the final decision on the construction
14	authorization would be done by the Commission itself,
15	but that is only to happen after completion of the
16	adjudication and then the Commission's review of the
17	contested and uncontested issues.
18	So, what was in the staff's Adoption
19	Determination Report is the staff's position as to
20	whether the DOE Environmental Impact Statements could
21	be adopted by NRC to fulfill NRC's requirements under
22	the Nuclear Waste Policy Act.
23	MR. CAMERON: Okay, thank you, Paula.
24	Jennifer, anybody else?
25	OPERATOR: There are no more questions on

1 the phone. 2 MR. CAMERON: Okay, thank you. 3 We're going to go to comment now and our 4 first three speakers here in Rockville are Marty Malsch, Kevin Kamps and Kenneth Freelain. And, Marty, and all 5 of you, I would offer you this podium and microphone to 6 7 make your comments. MR. MALSCH: Good afternoon, everyone. 8 Thank you for the opportunity to offer comments today 9 on staff's Draft Yucca Mountain's Environmental Impact 10 11 Statement Supplement on Groundwater. 12 I'm Marty Malsch with the law firm Egan, 13 Fitzpatrick, Malsch & Lawrence and I'm speaking today on behalf of the State of Nevada. 14 15 Nevada's technical experts are reviewing the Draft Supplement and, as staff noted in last week's 16 17 conference call and as staff noted today, Nevada asked 18 for a 60-day extension to file comments so that its 19 experts would have an adequate time for review. We would have preferred a 60-day extension, 20 21 but we certainly welcome a 30-day extension. 22 Nevada plans to file timely and very 23 detailed written comments on staff's groundwater supplement. It would be premature for me to discuss 24

these comments today in any detail. But, I thought it

1 would be useful at this stage, this early stage, to 2 highlight three areas of likely focus. 3 First, there is the matter of scope. 4 scope of staff's current Draft Supplement is apparently controlled by staff's September 5, 2008 adoption 5 decision. 6 That decision included in Section 3.1.2 an 7 evaluation of whether significant new information or 8 other considerations arose since the DOE's 2002 and 2008 9 environmental documents could affect the conclusions in 10 11 those documents. 12 But, that was seven years ago. At least 13 four significant events have occurred since then that could affect the conclusions and DOE's environmental 14 15 documents, and all of them warrant at least some further 16 review by staff. 17 First, there was the President's March 24, 18 2015 decision that Defense high level waste should be 19 disposed of in a repository devoted exclusively to that 20 purpose. 21 In light of that decision, the proposed action and DOE's 2002 and 2008 environmental documents 22 23 to commingle Defense and commercial high level wastes violates the National Environmental Policy Act. 24

Second,

there is the July

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2015

10,

1 designation of the Basin and Range National Monument. This may affect the conclusion of DOE's Rail Corridor 2 3 Supplemental Environmental Impact Statement because some of the Caliente Corridor transects the new 4 5 monument. Third, since the Application was filed in 6 7 2008, work was terminated on the Transportation, Aging and Disposal Canisters, the so called TAD canisters, 8 that were assumed in the License Application and a large 9 amount of the commercial used fuel is now loaded in 10 different canisters. 11 12 If repackaging is required, this could give 13 rise to environmental impacts not evaluated previously. And fourth, a critical part of DOE's 14 evaluation in its NEPA documents of the so-called no 15 16 action alternative was its evaluation of Scenario 2, a 17 total loss of institutional controls and used fuel storage sites after 100 years. 18 19 In the Commission's Generic Environmental Impact Statement for continued storage of spent nuclear 20 21 fuel, NUREG-2157, the Commission held that this 22 scenario was contrary to the NEPA rule of reason and 23 violated NEPA. fair reading 24 Yet, of the DOE а

Environmental Impact Statements is that Yucca Mountain

1 is, in fact, not the preferred option under NEPA if this particular scenario is eliminated from consideration. 2 3 Nevada is continuing its review of these 4 matters and its written comments will offer more details. 5 Second, and again, as noted, well as noted 6 7 by Christine, the source term used for today radionuclides that was used in the Draft's Groundwater 8 Supplement is a result of DOE's Total System Performance 9 10 Assessment. Staff's reliance on DOE's Total System 11 12 Performance Assessment would appear to render material 13 and relevant to the Draft Supplement many, if not all, of Nevada's TSPA safety contentions. Most of these 14 15 contentions were not addressed specifically in Drafts 16 SER Volume III and raised issues that have never been 17 the subject of public comment under NEPA and in accordance with CEO regulations. We plan to offer more 18 19 details about this also in our written comments. And then, finally, the NRC is subject to the 20 21 Information Quality Act as implemented by a January 14, 22 2005 OMB Bulletin, an NRC Handbook that is part of NRC Management Directive 3.17. 23 It seems clear that the Draft Supplement 24 25 constitutes a highly influential scientific assessment

1	that is scientifically and technically novel and should
2	be subject to peer review by independent experts not
3	employed by NRC.
4	We are not aware of any plans by the NRC to
5	sponsor such a review. It would appear that an
6	independent peer review would be practical, appropriate
7	and required by law.
8	In addition, the February 22, 2002 OMB
9	Guidelines implementing the Information Quality Act
LO	required the NRC to comply with certain generally
L1	applicable quality guidelines in the Safe Drinking
L2	Water Act.
L3	It's not apparent that the Draft's
L4	Supplement complies with these principles.
L5	Again, thank you for the opportunity to
L6	comment. We will provide more detailed comments and
L7	supporting analysis in our written comments. And, I
L8	should add that I have written copies of my remarks that
L9	have things like legal citations and such and I am
20	prepared to hand them out.
21	Thank you very much.
22	MR. CAMERON: Okay, thank you. Thank you,
23	Marty.
24	Let's go to Kevin Kamps, Beyond Nuclear.

1 Good afternoon. My name is Kevin Kamps with Beyond Nuclear and I also serve on the Board of 2 Directors of Don't Waste Michigan. 3 4 NRC's DSEIS has absurdly concluded that 5 radioactive releases from the proposed Yucca Mountain High Level Radioactive Waste Dump would be small. 6 7 is essentially minimal and harmless over the course of a million years into the future. 8 Actually, if irradiated nuclear fuel is 9 ever buried at Yucca, it would leak massively over time 10 11 into the groundwater, creating a nuclear sacrifice zone 12 over a board region downstream. This would include hazardous and even 13 deadly radioactive contamination of the groundwater 14 15 currently used for drinking and irrigation water in 16 Nevada's agricultural Amargosa Valley. 17 The Ash Meadows National Wildlife Refuge and Death Valley National Park as well as the Timbisha 18 19 Shoshone Indian community inhabiting Death Valley would also be in harm's way. 20 21 The potential for disproportionate impacts 22 on minority or low income populations is especially high considering the current lifestyle of the Timbisha 23 Shoshone Indian community as well as the traditional 24 25 lifestyle of the Western Shoshone Indian Nation.

potential for cumulative impacts associated with other past, present or reasonably foreseeable future actions is very high. the U.S. Atomic Energy Commission, Department of Energy and Military conducted atmospheric nuclear weapons tests in the vicinity of Yucca Mountain from 1951 to They 1963. continued to conduct underground full-scale nuclear weapons tests at the Nevada Test Site from 1963 to 1992, many of which leaked radioactivity atmosphere and environment as well contaminated regional groundwater.

Even after 1992, nuclear weapons testing has continued at the Nevada Test Site in the form of subcritical experiments involving plutonium.

Another cumulative impact involves large-scale transport to and dumping of so-called low level radioactive wastes at the Nevada Test Site.

We join with the State of Nevada Agency for Nuclear Projects, several other environmental groups and others in urging NRC to extend the public comment deadline by at least an additional 60 days.

We also urge that additional in-person public meetings be scheduled in California where Yucca's radioactively contaminated groundwater would ultimately surface in springs as well as elsewhere

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1	across the country given that Yucca's opening would
2	launch the unprecedented large-scale shipment of risky
3	high level radioactive waste by truck, train and barge
4	through most States.
5	And, we urge that all in-person public
6	meetings also include the call in option already being
7	provided at other locations on other dates.
8	And, I would just like to echo some of the
9	statements that Mr. Malsch just made as well.
10	The SEIS is incomplete and fatally flawed.
11	It doesn't address the waste inventory that has now been
12	changed and is uncertain due to President Obama's March
13	24, 2015 decoupling of Defense nuclear wastes and
14	commercial nuclear wastes which ends a decades old
15	commingling decision.
16	This was an official Executive Memo that
17	was announced by the Energy Secretary and carries the
18	force of law.
19	The scope is too narrow. The scenarios
20	used are bogus. And, the point of compliance is
21	objectionable.
22	The point of compliance at 11 miles is
23	another one of Yucca's many double standard standards,
24	as Dr. Arjun Makhijani has put it.
25	The only way for Yucca Mountain to meet its

1 legal obligations is to dilute the radioactivity for 11 2 miles, but this contamination of groundwater 3 drinking water will extend far beyond the 11 mile 4 downstream point. The transportation impacts I mentioned are 5 a part of the need to expand the scope of this EIS 6 7 proceeding. Also, the planned waste disposal package 8 has become obsolete. The standard Transportation, 9 10 Aging and Disposal canister, the TAD, is cancelled effectively at this point. There is no actual design 11 12 that meets the specifications and requirements that has 13 not been completed. The Department of Energy has terminated the 14 15 TAD design and certification program. So, the waste 16 package performance is unknown. This has a direct 17 impact on the Total System Performance Assessment. 18 The scope issue is a false flag in this major Federal action. 19 Again, the shipping of the nuclear wastes makes this a major Federal action across 20 21 the nation. It's not a local Nevada issue. 22 I mentioned the impacts on the Timbisha 23 Shoshone who live in Death Valley in terms of environmental justice and in terms of cumulative 24

impacts.

1	The NRC itself in this document recognizes
2	on page 3-37, and I quote, the springs in the Furnace
3	Creek area including the Furnace Creek, Texas,
4	Travertine and Salt Springs are of traditional and
5	cultural importance to the Tribe, end quote.
6	And, one question I was not able to ask
7	during the clarification session and I'll ask right now,
8	and that is, if a Government shutdown will simply
9	suspend the clock on this proceeding and will that clock
10	be reactivated once the shutdown ends?
11	Thank you.
12	MR. CAMERON: Okay, thank you. Thank you,
13	Kevin.
14	I don't know if anyone know?
15	MR. RUBENSTONE: NRC does not have a
16	position on the impact of a potential Government
17	shutdown on the timing of the comment period. I think
18	that's an issue that will need to be considered if that
19	comes to pass.
20	MR. CAMERON: Okay, thank you. Thank you,
21	Kevin.
22	Is Anthony Leshinskie here? Or Erica
23	Gray?
24	Okay, we're going to go to the phones now
25	and I know there may be a couple people in the room who

1 may want to decide to comment, so we'll make sure we're 2 back to them. But, at this point, Jennifer, could you 3 active Ruth Thomas's line so we can hear her comments? 4 OPERATOR: Ruth, your line is open. 5 MS. THOMAS: Thank you. 6 7 I wanted to support what was said and particularly in terms of the Indian people. 8 would call attention to page 3-32 in the Supplement and 9 10 would like to have documentation that supports the conclusions that are met and, particularly as they 11 12 relate to the Indian property. And to remind people that have forgotten 13 14 the Indians think in terms of seven generations and this 15 is going to affect way into the future. And, I want that 16 to be considered. And, our organization will be 17 submitting written comments as well. 18 Thank you. 19 MR. CAMERON: Thank you, Ruth. 20 And, Jennifer, can you see, we had a couple 21 of pre-registrants who were going to speak on the phone. 22 Can you if either Marvin Lewis or Donna Gilmore are on 23 If they want to comment, could you activate the phone? their line one at a time? I guess Marvin first and then 24

Donna second.

1 OPERATOR: Sure, hold on just one moment. 2 Marvin, your line is open. Thank you. 3 MR. LEWIS: 4 I want to make a statement that I hope is out of scope, but I fear it won't be. 5 One, as soon as radioactive waste will be 6 7 moving to Yucca Mountain, we will have one more terrible and dangerous issue to face here in Philadelphia. 8 I don't know if you know, but I'm going to 9 10 tell you that within the last few months, we've had over 100 cars flip over in one accident, accident in quotes, 11 12 meaning I'm not sure it was really an accident. 13 don't believe anybody else knows if it's an accident because, sure enough, it appears that a qunshot went 14 15 through a window, harming the driver of the train that 16 flipped over. A hundred plus cars, passengers. And, luckily, radioactive wastes weren't 17 involved for once. And, I hope it stays that way and 18 19 it will stay that way if we never -- well, not if we never -- but, we'll have a better chance of it if the amount 20 21 of waste being moved on the tracks in this country is 22 minimized or eliminated or not moved at all, or a lot of other questions open up. 23 We have in Pennsylvania trains a mile long. 24 25 Right now, all they're carrying is petroleum from shale

1 up in Canada. We don't need more problems because we've 2 had five of them in Pennsylvania or surrounding States have accidents. 3 We've had enough accidents. 4 need more dangerous materials moving through 5 Philadelphia. Believe me, we don't. I could go on and on and on, but I'm boring 6 7 enough, I'm sure. One more item about Philadelphia, and I 8 hope it isn't true where you live, we've had a little 9 10 problem with money to keep our fire stations open which 11 would be used in an accident with radioactive materials, 12 although I'm not sure we're -- well, come to think of 13 it, how can you be well trained enough? How can you have the right equipment when a nuclear -- when a train load 14 15 of radioactive waste flips over? 16 But, we have an added problem. Some of our 17 fire stations are browned out which means they aren't 18 manned part of the time. Kind of hard to fight 19 radioactive and fires and whatever without people, but we do it. 20 21 I just want you to have some perspective on 22 what you're talking about when you're talking about 23 moving radioactive waste through this country. 24 Thank you. 25 MR. CAMERON: Thank you. Thank you,

Marvin.

Jennifer, can you see if Donna Gilmore is on the phone and wants to comment? And then, someone who I thought was in the audience who I think is on the phone is Tony Leshinskie from the State of Vermont.

Can you see, first, about Donna and then next about Tony?

OPERATOR: Okay, Donna, your line is open.

MS. GILMORE: Okay, thank you.

Yes, I'm questioning -- it seems to me that the NRC should be required to justify their assumptions. You know, I've been familiar with the high burn up fuel and the lack of information available to confirm storage even short term or the long term and the impact of that.

There needs to be -- the NRC shouldn't be able to just say something is true and assume it without having facts. There are documents that they reference, they need to be updated with current information, not old decisions that were made prior to high burn up being used. So, they need to go back to the drawing board on that.

We're sitting here in San Onofre, in a marine environment where these canisters we have are subject to stress corrosion cracking, talking about transporting these. Right now, there's no approval for

1	cracked canisters. There's no approval to transport
2	them. There's no approval to there's no evaluation
3	for seismic risk of cracking canisters. No one at the
4	NRC knows what's going on with that fuel right now.
5	I mean, Bob Einziger said I hope we never
6	have to open one of those, you know, I mean this is your
7	own experts.
8	So, you need to go back to the drawing board
9	on this. I'll have more comments later. I hope to
10	Nevada in person on that because I don't want to take
11	up everybody's time because I could go on for an hour,
12	but I won't.
13	Thank you.
14	MR. CAMERON: Okay, good. We'll look
15	forward to seeing you in Nevada possibly. And, thank
16	you, Donna.
17	And, Jennifer, is Tony on the phone? Is he
18	available?
19	OPERATOR: His line actually just dropped.
20	But, I do have five other comments.
21	MR. CAMERON: Okay. Well, let's go to
22	Abby Johnson.
23	OPERATOR: Okay. Abby, your line is open.
24	MS. JOHNSON: Hi, this is Abby Johnson with
25	Eureka County.

Τ	I apologize, I missed the very beginning.
2	I know this isn't a comment exactly on the document, but
3	I'm wondering if there's a place where the view graphs
4	that Christine was going through are available on the
5	website?
6	MS. PINEDA: I apologize, they're not
7	available at this moment, but they will be up very
8	shortly and they'll be on the well, they'll be if
9	you go to, as Jim was well, you weren't on the line
10	earlier, but if you go to the NRC's web page and then
11	you go to Radioactive Waste and High Level Waste
12	Disposal and then go to Key Documents, that's where
13	we're going to be posting all of the documents related
14	to the meetings and other documents related to this
15	project.
16	MS. JOHNSON: And, would that be like
17	sometime this week or next week?
18	MS. PINEDA: That'll be next week.
19	MS. JOHNSON: That it would be posted?
20	MS. PINEDA: Yes.
21	MS. JOHNSON: Okay, thank you so much. I
22	appreciate that.
23	MR. CAMERON: Okay, thanks, Abby.
24	MS. JOHNSON: Thank you, Chip.
25	OPERATOR: Tony, your line is open.

MR. LESHINSKIE: 1 This is Tony Leshinskie. I'm representing State of Vermont and the State Nuclear 2 3 Engineer. When I registered for this conference, I 4 anticipating speaking, 5 but I found out subsequently that by registering the way I had done that 6 7 I had reserved time to speak. I was hoping that some of my colleagues from the Agency of Natural Resources 8 who do evaluate groundwater issues would be able to join 9 me today, but they are unable to do so. 10 11 But, since I do have the opportunity, 12 hearing the discussion so far, it reminded me of a 13 teleconference I listened to several weeks regarding greater than Class C waste. 14 And I would 15 direct the Yucca Mountain project to review the 16 transcripts of that particular hearing. In particular, there were a number of 17 concerns raised about whether it was possible or 18 19 probable to accurately evaluate whether, you know, a geologic area will be arid or dry 10,000 years from now. 20 21 And, the comment that stuck with me, and I do not have 22 the commentator's name with me, pointed out that 10,000 years ago, Death Valley was underwater. 23 And so, this type of consideration should 24

To what extent that has been done

be evaluated here.

1	so far, I'm really unable to judge. But, I would ask
2	that if it has not been considered so far, please do so.
3	And, please consider, again, the ideas that were raised
4	regarding greater than Class C waste issues.
5	Thank you very much and that's all I have
6	to say.
7	MR. CAMERON: Okay, thank you, Tony.
8	And, Jennifer, how about Gwen Dubois?
9	OPERATOR: Gwen, your line is open.
10	MS. DUBOIS: Thank you.
11	Hi, my name's Dr. Gwen Dubois, I'm from
12	Chesapeake Physicians for Social Responsibility. I'm
13	an Internist in Baltimore.
14	First of all, I'm concerned with
15	environmental justice issues and the continued exposure
16	knowing that no level of radiation is safe and for
17	pregnant women, children and women in general, more
18	sensitive to the carcinogenic effects of exposure to
19	radiation.
20	So, we're asking the same communities to
21	continue to bear exposure and even though they say that
22	there's no or the EIS says that there's really no
23	significant exposure to radionuclides, I think that's
24	sort of under this assumption that low level is safe.

And, of course, we don't know what events

could happen.

And, along the same environmental justice concerns, I'm from Baltimore, as I said. Baltimore is a city with a lot of poverty, especially inner city. And, in 2001, we experienced a chemical containing train that had a terrible fire in a tunnel right near the downtown and near the baseball stadium. And, the temperatures went to 1,800 degrees Fahrenheit in that tunnel.

And, of course, we all thought, oh my God, imagine -- or us in the anti-nuclear community -- what if that had been radioactive waste?

And, when I say anti-nuclear community, I'm just active against the concerns about nuclear weapons and nuclear power as it creates plutonium and highly enriched uranium initially because of its ability to create a more proliferation.

But, then seeing nuclear power and what to do with its waste that we have no really good solution for.

So, I am concerned, in summary, that we're going to okay a plan without any casks that we can put the waste in as we transport across the country knowing that there are going to be accidents. You know, I bicycle, if you bicycle enough, you're going to be in

1 an accident. If you drive a car enough, there's going 2 to be an accident. What the figures are is that every 700 miles 3 4 -- I don't remember what the figure is, but you can imagine that there are going to be a certain number of 5 accidents and then we're going to have waste, some of 6 7 this high burn up fuel stored and then transported. don't have that all worked out yet. 8 So, I don't see how we can approve one part 9 10 of this without making sure that every step on the way has such a low likelihood of a catastrophe happening 11 12 that the benefits outweigh the risks. We're not there 13 yet. And, we should have seen enough with things 14 15 that we didn't expect to happen whether it's Hurricane 16 Katrina or Sandy or Fukushima that the unexpected 17 happens and if it coincides with very dangerous material 18 being caught in the middle of it, it's a catastrophe. 19 So, we're not there yet and I think an EIS, at this point, 20 is premature or has to be redone in a more complete way so that we have evaluated all the factors. 21 22 Thank you. 23 Thank you. MR. CAMERON: Thank you very much. 24 Jennifer, could we go to Paula and then 25

1	Maureen and then to Ace Hoffman?
2	JENNIFER: One moment.
3	Paula, your line is open.
4	MS. GOTSCH: Thank you.
5	In listening to what's been said so far, it
6	seems to me that just to go back to why Nevada was not
7	granted the full 60 days.
8	When you were talking about a problem
9	that's supposed to go on for millions of years, it seems
10	so petty to not give them the whole 60 days. They have
11	a right here to have as much time as they need and it
12	just seems in other words, you have a schedule to get
13	your work done, where does that all fit in in the scheme
14	of things when you're talking about millions of years
15	of a problem?
16	The public has seen what happened at
17	Hanford and now WIPP. So, here's two sites that were,
18	you know, managed by the NRC and DOE or who ever and they
19	failed miserably and subject to ridiculous accidents.
20	And, my question about who signed off on
21	this and said it was acceptable and what were their
22	credentials was part of what someone else brought up.
23	What about an independent peer review?
24	Some thing so important, it seems to me,
25	that why not open it up to other people?

1 The problem I see here and I think that 2 you've got to consider also what you're opening up a can of worms which everybody who's spoken so far spoke about 3 all the unfinished business and all the stuff that isn't 4 5 settled is that by doing this. It's like you're going to say, okay, I'm 6 7 moored with the nuclear industry because now we have a place, at least one place, to put this stuff and now 8 we'll probably have another one. We can okay this now 9 10 so that's going to look good. And that's just bad to do that because you don't have place. 11 12 And here's people saying you're opening up 13 this risk all over the country. Don't make believe stuff. Don't make believe it. 14 Thank you. 15 16 Thank you. MR. CAMERON: Thank you, 17 Paula. 18 And, for Maureen, Jennifer, can we have 19 Maureen and then Ace? 20 Maureen, your line is OPERATOR: Yes. 21 open. 22 Most people know me as MS. HEADINGTON: Moe, I don't know if they know Maureen. 23 But, you know, I'm listening to this, I was 24 25 on the last hearing that took place about a week ago and had put in a request for the additional 60 days. And, I'm the person who talked about the fact that I'm a grassroots activist and it takes longer for news to trickle through grassroots, but we're really at the heart of what's going on because we outreach to communities, not just a membership base.

And, 60 days isn't even enough, an extra 60 days isn't enough.

The comments moments ago made by Dr. Dubois about EIS being premature, it absolutely is premature. I think that if you take a step back and look at just commonsense and sound judgment, this is about a calendar that is running the show. It's dictating everything and there seems to be a nonchalance about the significance of all of these important facts, details, observations that I'm hearing today and have been hearing for a long time.

I get a sense that these issues kind of are compartmentalized and taken in isolation. But, I want to point out, I was in the Chicago area and home to more reactors in Illinois than any other State. We're sitting on lots of waste.

They've got to find out, first of all, stop making it. But, given the fact that we still do, find a way to get rid of the waste on site. If they're smart

enough to do it at Yucca, then be smart enough to get rid of it on site and take away the dangers inherent in transport.

I've been following the stories about the bomb trains which are amazing. And no matter what it is that's being transported, whether it's plutonium fuel rods or other flammable or volatile cargo, it seems that the problems are pretty much the same. But, it's like, have you considered not just this in isolation, this transport of plutonium to Yucca Mountain in isolation, but against the backdrop of everything else going on?

Because the trains carrying crude oil from Alberta tar sands or the fracked Bakken shale crude from North Dakota known as bomb trains because they're flammable, volatile cargo.

In 2015, there were five separate oil trains that left the tracks that resulted in explosions. Some were in Ontario. But, what happens in Canada equally can happen here and does. We had one of these happen here in Illinois just a few months ago.

These oil trains travel unchecked through highly populated areas in Canada and in the U.S. It's a slap in the face to be told there is minimal or small or no danger. I would like something quantified. I

want to know what small means. I think we're entitled to transparency here. We need to know how these statements could be made and if they are, attribute them. Start footnoting everything you have so that we can decide if we feel that those are reputable people making these decisions. If so, I would question their judgment.

I just feel that this is a disaster waiting to happen. It's the old you can get it right 99 times out of a hundred but that one time, what will it do? What will it cause? It is inevitable.

And, if you look back at DOE's projections for the GNEP, Global Nuclear Energy Partnership, on which I worked in my community. DOE actually did make -- come up with numbers of how many accidents there would be. So, you can't go on the assumption that there will be none. There will be some and it's a matter of that cost benefit and how many of us or our homes or our families are worth it to the powers that be?

I would like transparency in terms of any elected official that dares to speak on this subject, that at the same time, that it must be said how much money they are getting from the industry, from anyone affiliated with nuclear power industry, because otherwise, they have zero credibility.

1	I would ask that this project be put on hold
2	until the Price-Anderson Act is abolished because, if
3	you are limiting liability to the nuclear industry, then
4	you are also admitting liability. And, it should not
5	fall on the public.
6	And, I thank you for this time.
7	MR. CAMERON: Okay, thank you, Moe.
8	Jennifer
9	OPERATOR: And, next we have Ace Hoffman.
10	Your line is open.
11	MR. CAMERON: Okay.
12	MR. HOFFMAN: Okay, thank you. This is
13	Ace.
14	Earlier in the meeting, it appears that
15	there is a lack of funding. And I wonder if that is the
16	main reason why we're not going to have meeting in
17	California or Illinois or Connecticut or anywhere else
18	where there are nuclear reactors? Is it because of a
19	lack funding?
20	And, this is for a project which will
21	probably cost \$50 billion and that's not including
22	that's my estimate, of course but, it's not including
23	the money that was already spent which I guess is about
24	\$30 billion that's been tossed down the hole.
25	Or is it the reason that there's not going

to be a meeting in California because groundwater destruction, after an accident, a transport accident anywhere, doesn't count? It only counts if it's a groundwater problem at Yucca Mountain?

And, lastly, is there not going to be a meeting in California because Death Valley, where the waste can end up even if it's an accident in Yucca Mountain is already considered a wasteland? Or is there some other reason?

Is this, on a second topic, is this expected to be the last waste repository in America? Does the plan consider whether or not it's going to be an open ended problem? If we don't shutdown the reactors, then how can it possibly be large enough to hold all the waste that's ever going to be produced?

And, I want to make a note of three facts which is that one this is that the Arizona Police and the Federal Bureau of Investigation are still looking for who ever derailed the Sunset Limited there 20 years with the loss of life.

And, earlier this year, a train carrying, I don't know what it was carrying, but it ran into a fuel truck which was carrying fuel, a military fuel truck, shut down the highway next to it for hours and hours and, you know, did quite a bit of damage. Fortunately and

1	miraculously, nobody was killed as far as I can recall.
2	These crude oil trains that will be going
3	left and right, that are going left and right all over
4	the place, is there a plan, and is it going to be
5	described, how you're going to be sure that the spent
6	fuel trains are not on the same tracks next to each other
7	as one of these bomb trains or any kind of dangerous
8	train or any train, they're all dangerous, are they all
9	going to be stopped as the spent fuel trains go by?
10	And I don't think any of that is out of scope
11	because it's all going to produce groundwater problems
12	when there's an accident.
13	Thank you very much.
14	MR. CAMERON: Okay, thank you. Thank you,
15	Ace.
16	And, I think we have Mary Olson next, is
17	that correct, Jennifer?
18	OPERATOR: Yes. Yes, Mary Olson, your
19	line is open.
20	MS. OLSON: Great, thank you.
21	This is Mary Olson, the Southeast Office of
22	Nuclear Information and Resource Service. We do have
23	members in all 50 States.
24	And I want to echo the fact that people are
25	talking about things which a license would trigger.

And, although there are parts of the Total System Performance Assessment which suggests that maybe a license for Yucca Mountain is not the very next step, this SEIS is being construed as if it's just this little teeny tiny piece and, yet, as completing the License Application to some extent, and that License Applicant would trigger all these transport comments.

I want to support the fact that NRC listened to these concerns that people are bringing.

I also want to absolutely support an additional 30 days. Thank you for the 30 that was granted today. I know it's a little bit odd for a grassroots advocate to extend the comment period into the High Holidays, but I also think that the State of Nevada has every right to a 60-day extension and we formally request that. I will do it in writing, but I am right now verbally, formally requesting the full 60-day extension.

And, I also heard today the peer review idea. Hell yes, this is very important work. It's going to be a global trendsetter for the rest of the world and, yes, there should definitely be peer review on this work, on all of it.

Now, we come up against a portfolio of issues which have been touched on today and I want to

clarify that our community has deep concerns that the License Application does not, probably never did, but does not now reflect factually based data about the components of the program that we expect to be quote, unquote the reality.

So, if NRC is going to move forward with this SEIS with its License Application based on the DOE Application as written, I heartily commend that they should all become license conditions, that if the license conditions of the License Application are not met, that the thing will come to a glorious grinding halt.

Either that or you guys have to stop smoking whatever it is you are and get real because the fuel is different than Department of Energy originally assessed it. There may be a quote, unquote high burn up component, but today, we know from your very own staff that every reactor is burning high burn up fuel and started in the mid '90s and that makes 15 years of fuel, some of which may or may not be mixed into the queue, depending on how that politics goes, at a different rate than is in the Application which was based on data that predates the NRC decision to help the industry go to high burn up fuel.

So, you have all these pieces in your

1 pockets and the left hand and the right hand either 2 better start talking to each other or the left hand better become an iron glove that says these are the 3 4 license conditions and if they are not met, the license is invalid. 5 Because this is ridiculous. And, I'm --6 7 yes, I'm pissed. So, there's the high burn up issue, there's the TAD, Transport, Aging, Disposal, which 8 never occurred. 9 We now have all the container issues that 10 Donna Gilmore said she could talk hours about. And, she 11 12 could and should. And, you guys should listen. And, 13 I know some of the guys at NRC are listening. But, is the Yucca Mountain Directorate 14 15 talking to those people? I hope so. You should, you 16 should at least have lunch together and say what's Donna 17 saying and get it straight because she knows what she's talking about. 18 19 We're having a very worrying series of problems associated with stainless steel containers, 20 21 lots of heat, lots of radioactivity and the fact that 22 there are designer versions out there that are unique on sites where modifications were made. 23 I mean, this is a nightmare and if you're 24

just going to like launch into it without acknowledging

that it exists, heaven help us all.

So, the containers, what's in the containers and then we come to the fact that we just had a President uncommingle waste that this whole License Application rests on. The not so thermally hot Defense waste is not necessarily bound for Yucca Mountain anymore.

As a matter of fact, it says it is not in the Executive Order. So, how are you going to reconcile the design of Yucca Mountain based on the Defense waste with it not now being part of that picture?

In other words, the License Application should be invalidated, guys. And, if it's not, then you should put conditions on every single aspect of that deal.

And, how does this relate to the SEIS? It relates directly because all of those components that I'm talking about directly impact the source term. They directly impact the solubility of the source term. They directly impact the heat loading and, therefore, the rock characteristics and, therefore, the vast flow pathways.

There is no way that any of those issues I just raised do not have to do with the ultimate system performance assessment upon which this SEIS projection

is based.

And, finally, I want to fully thank Ace Hoffman for bringing up the fact that if this is groundwater impacts, you've got them nationwide in this picture. And there's absolutely no way that you should only be looking at the Yucca Mountain piece.

I mean, if that's what this SEIS is about, it should be called, you know, like Standard Compliance or something like that because there will be groundwater impacts, as he pointed out, every time there's an incident or an accident that involves any type of release or contaminated exterior of containers which we know from Germany and France is a really prevalent problem when you start moving this stuff around.

Now, final comment, when we sued Nuclear Information and Resource Service and public citizens sued the EPA on the Environmental Standard for Yucca Mountain and they --

MR. CAMERON: Did we just -- Jennifer, are you still there? It sounds like we lost our connection.

While we're waiting for the connection to come back, is there anybody in the room who wants to --

OPERATOR: Thank you for calling, may I please have your pass code? Caller, I'm not able to hear you. Please check the mute feature on your phone.

1	I am still not able to hear you, please check your number
2	and try your call again. Thank you.
3	MR. GENDELMAN: Hello?
4	OPERATOR: Thank you for calling. May I
5	please have your pass code?
6	PARTICIPANT: The pass code is 9708500.
7	OPERATOR: Thank you. And, may I please
8	have your first and last name with the spelling?
9	PARTICIPANT: I think Christine Pineda is
10	the conference organizer. But, this is the Nuclear
11	Regulatory Commission line.
12	OPERATOR: Okay. So, this is a leader
13	line then?
14	PARTICIPANT: Yes.
15	OPERATOR: Okay. I will rejoin you with
16	an open line.
17	PARTICIPANT: Thank you.
18	OPERATOR: You're welcome.
19	MR. CAMERON: So, are we going to finish up
20	with Mary Olson, Jennifer? No?
21	Can we go back in the room now while we're
22	waiting or should we wait?
23	OPERATOR: You are reconnected to the
24	conference, hold on just a moment.
25	Mary, your line is open.

1 MR. CAMERON: Yes, Mary, could you finish 2 up for us, please? OLSON: Very briefly, 3 just 4 because of the deep time involved, we're talking about compliance in a million years. 5 So, our little regulatory rules today have a little room in them for 6 7 this Federal Agency to consider its role, you know, in a broader context. 8 So, I am invoking the moral context that we 9 now know and did not know when we did that law suit on 10 the standard that little girls and women are somewhere 11 12 between seven and two times more vulnerable than the 13 standard man who still dominates the regulatory structure for NRC and all of its brethren and sistren 14 15 agencies. 16 And, therefore, I am formally asking that 17 you guys really throw all of the concerns people are 18 raising into a context where you understand that, you 19 know, it's a moving target what protection means. It's 20 a moving target what the whole scenario and the source 21 term means. 22 All these targets are moving and you have 23 a responsibility for all the generations to come, not just who ever's pulling your strings on your next 24

deadline.

1	So, thank you for listening.
2	MR. CAMERON: Okay, thank you. Thank you,
3	Mary.
4	And, Jennifer, we're going to hear from
5	Michael Keegan and then we're going to come back in the
6	room to some people here who want to talk.
7	And then, I'm going to check back with you
8	to see if there's anybody else on the phone. Okay?
9	Could up put Michael on?
10	OPERATOR: Okay. Michael, your line is
11	open.
12	MR. KEEGAN: Okay, thank you. Can you
13	hear me?
14	MR. CAMERON: Yes. Yes.
15	MR. KEEGAN: Can you hear me?
16	MR. CAMERON: Yes, we can hear you,
17	Michael.
18	MR. KEEGAN: Okay, very good.
19	Let's see, am I on speaker? I want to make
20	sure I'm not on speaker, just a moment.
21	OPERATOR: I just lost his line.
22	MR. CAMERON: Okay. Just out of
23	curiosity, we are going to come back in the room after
24	Michael gets back on. But, do you have anybody else out
25	there on the phones that wants to comment?

1 OPERATOR: Not at this time. Again, if you'd like to make a comment, just press star one. 2 3 MR. CAMERON: Okay, good, good. 4 least gives us an idea of how to deal with the rest of the time. 5 Why don't we wait one minute and see if 6 7 Michael comes on? Otherwise, we'll go here in the room and we'll get Michael on later on. 8 Okay, let's go to the room. We'll go to 9 this gentleman here and, if you could just please 10 introduce yourself to us? 11 12 MR. NELSON: Hi, good afternoon. My name 13 is Dennis Nelson. I am a Director of SERV, Support and Education for Radiation Victims. I'm also a retired 14 15 Naval Officer and a research biochemist, biophysical 16 chemist. 17 And, I was struck by this idea that there's minimal impact of such a repository, at least 11 miles 18 19 downstream in the underground stream. It seems very strange to me that you can 20 21 make those kinds of assumptions over a million years. 22 It's just -- I find it kind of ludicrous. But, the point I wanted to make is that, 23 from my perspective as a biophysical chemist, I think 24 25 that this whole process of risk estimation is wrong,

that it has been subverted by people who have tried to impose dose as a construct on radiation and it just doesn't fit.

I've done toxicology. I know toxicology and I'm a chemist. And toxicology is based on dose. And dose -- in fact, there's a statement in toxicology that dose makes the poison. In other words, everything is potentially toxic if you get enough of it even water, you can drown in it.

But, all of this is based on chemical and chemical concentrations. That doesn't happen with radiation. Radiation has a single nuclear disintegration which has enough energy to precipitate a reaction without high numbers of atoms. I mean, a single atom can do that.

But, in toxicology, it takes millions and millions of atoms because of Avogadro's number. It's such a big number that you have to have billions and trillions of atoms of a toxin to cause something to happen.

And so, by inference, you can say that, if it's diluted, if it's diluted sufficiently, you get below that threshold concentration, nothing's going to happen. And that's true. In toxicology, if you get below the critical concentration, nothing happens.

1 But, that's not the case with radiation. 2 single disintegration can cause -- has enough energy to precipitate a chemical reaction or a destructive 3 4 reaction. It's more like a bullet going through tissue. You know? Radiation going through cells is 5 6 like a bullet going through tissue. It causes damage 7 and that damage has to be repaired. make those kinds of 8 So. you can't constructs and you can't assume that downstream -- 11 9 10 miles downstream it's going to be diluted enough that nothing's going to happen because a single atom can 11 12 cause something to happen. Now, probability-wise, that's not 13 14 likely because we're constantly getting bombarded with stuff and with radiation and cosmic radiation and all 15 16 that. 17 But, it is causing damage and that damage 18 has to be repaired and there's a limited amount of repair 19 capability in a human body. 20 You're born with your repair cells, your 21 pluropotential stem cells. You have a certain number. You have a certain number of divisions that a cell clone 22 23 can go through before it's used up all its telemers and then it has to die. It has to go through apoptosis, self 24

25

cell destruction.

1	But, that and then it's replenished with
2	the pluropotential stem cells. But, you only have a
3	limited number of those.
4	So, any damage that you do to your cells is
5	going to, in some way, affect you and affect your life.
6	And maybe your life expectancy because if you use up all
7	your potential repair cells, you've used them up and
8	then you die.
9	So, I just want you to think about that.
10	It's not as simple as you're making it out to be and these
11	guys who say that radiation can be radiation
12	exposure, the risk from radiation exposure can be
13	described as dose are they're just plain wrong.
14	Thank you.
15	MR. CAMERON: Thank you. Thank you very
16	much, Dennis.
17	And, Jennifer, can you put Michael on and
18	then we'll go to Erica Gray?
19	OPERATOR: Yes. Michael, your line is
20	open.
21	MR. KEEGAN: Okay, thank you. Thank you.
22	I'm sorry, you got cut off there apparently.
23	What I wanted to point out is, yes, indeed,
24	this goes back decades. And the institutional records
25	have been lost. The history has been lost. And, it's

been these -- been critics who have tracked us for decades who are now the historical record.

What I'm seeing lacking is quality assurance throughout this process. And, I want to point the NRC staff to an audit report by the Office of the Inspector General of November 16, 2009 where they found quality assurance was lacking within the NRC on reviewing quality assurance programs, too cozy with the industry and just things were done too casually.

I see that same quality assurance lacking here and that really is the fundamentals of engineering.

And, when I hear all these open ended questions unresolved, things that have changed tremendously, it's troubling.

So, I want to direct the NRC to have a quality assurance program in place. I certainly do advocate a peer review and there has to be accountability. There has to be responsibility and the buck has to stop somewhere and in Rickover's Navy, the buck has to stop and there has to be somebody who is responsible ultimately.

And, what I am seeing is everybody sort of passing the buck, dodging it. We now have the NRC doing what was to have been a DOE project. It's just so compromised in so many ways.

1	And, those are my comments. Thank you.
2	MR. CAMERON: Okay, thank you. Thank you,
3	Michael.
4	Do we have Erica on the phone, Jennifer?
5	OPERATOR: Erica Gray, your line is open.
6	MS. GRAY: Hello, can you hear me?
7	MR. CAMERON: Hi.
8	MS. GRAY: Hi, this is Erica Gray calling
9	from Richmond, Virginia. I'm going to just kind of
10	repeat, obviously, what a lot of other people have
11	already stated.
12	There is no way you can look at a time frame
13	of millions of years. I heard Arjun Makhijani on a call
14	a couple of weeks ago stating that a prominent geologist
15	had stated, you know, may be you can look out a hundred
16	years, maybe even go into five hundred, but past that,
17	there's no way you can look at further into the future.
18	The idea of putting stuff underground and
19	thinking we can seal it off is just a bad idea. When
20	it comes to high level waste, high burn up, I'm here in
21	Virginia where Dominion has signed us up for a high burn
22	up fuel cask demonstration and experiment.
23	So, there is really no way that the industry
24	nor the NRC really can guarantee safety or really know
25	how this high burn up fuel is going to behave in the

1 coming decade or two decades. 2 You know, fast tracking this idea is bad and really, I think that peer review is going to be very 3 important and, really, look at our experiences we have 4 across the country. I mean we've got Hanford. 5 got the WIPP facility, we've got Savannah River site, 6 we've got plumes. I don't have confidence. 7 We need to stop making this waste in the 8 first place and the brakes need to go on this idea, this 9 kind of thinking we can throw this stuff underground and 10 the job's done. That's not going to work. 11 12 So, that's all I have to say. Thank you. MR. CAMERON: Okay, thank you, Erica. 13 How about John LaForge, Jennifer? 14 15 OPERATOR: John, your line is open. 16 MR. LAFORGE: Yes, thank you. 17 I represent Nukewatch in Wisconsin and I 18 report on these issues extensively. 19 I'm wondering now, I see that the transcript's being written as we speak and I just wanted 20 21 to know if this transcript of today's discussion is 22 going to be available after today? Will it be 23 accessible online? 24 MR. CAMERON: Okay, can we answer that for 25 John?

1	MS. PINEDA: Yes, the transcript will be up
2	when we do our website update next week with all of the
3	documents related to this meeting and the transcript and
4	the meeting summary will be up, too.
5	MR. LAFORGE: How about
6	MR. CAMERON: Okay.
7	MR. LAFORGE: sooner than that? Won't
8	it be able to be looked at even this evening or tomorrow?
9	MS. PINEDA: The NRC staff has to review
10	the transcript for errors and things like that before
11	we can finalize it and post it.
12	MR. CAMERON: And, I think
13	MR. LAFORGE: Thank you.
14	MR. CAMERON: that there's a time
15	element for the Court Reporter to be able to get you the
16	transcript, too, right?
17	MS. PINEDA: Well, we will get it up as
18	quickly as we can.
19	MR. CAMERON: Okay, thanks, John.
20	Anything else?
21	MR. LAFORGE: No, thank you.
22	MR. CAMERON: All right.
23	Jennifer, is there anybody else on the
24	phone?
25	OPERATOR: Yes, we have Ruth Thomas for the

Environmentalist Group. Your line is open.

MS. THOMAS: Hello. I wanted to bring out the plans that have been going on for some time and this deciding what priorities the Nuclear Regulatory Commission needs to focus on and what activities need to be eliminated or shut down.

And, from the public's viewpoint and for the future, the NRC needs to stop all the work that they're doing on these future reactors and future plans and think about solving or trying to solve or put as many people as possible on the activities related to waste and dealing with the problem we already have and not continue to encourage and to license more and more facilities and all kinds of facilities.

And, there's going to be a meeting about it

-- well, the Commission is going to meet on this issue

the 8th of September. And, the meeting that they had

on the 1st of September, I haven't finished reading the

transcript, but there were -- well, I know I wasn't able

to get on the call and a lot of other people weren't

because the line was closed for I don't know how long

during the meeting, not the whole time, but a good bit

of the time it was closed.

So, the public's viewpoint in consideration --

1	MR. CAMERON: Okay, Ruth
2	MS. THOMAS: was not well represented
3	at all in the transcript and it's we're the ones that
4	have well, actually, we're the ones that are paying
5	for all this either through our taxes or our electric
6	bills.
7	And, yet, it's such a struggle for a member
8	of the public to get to say anything or to get
9	information. So, I've been doing it for 43 years and
10	I guess I'm just an optimist, I think maybe somehow or
11	other this will be turned around.
12	MR. CAMERON: Okay, Ruth, thank you very
13	much
14	MS. THOMAS: Thank you.
14 15	MS. THOMAS: Thank you. MR. CAMERON: Thank you and I should have
15	MR. CAMERON: Thank you and I should have
15 16	MR. CAMERON: Thank you and I should have said this earlier and it's usually in this type of
15 16 17	MR. CAMERON: Thank you and I should have said this earlier and it's usually in this type of meeting we only allow someone one opportunity to
15 16 17 18	MR. CAMERON: Thank you and I should have said this earlier and it's usually in this type of meeting we only allow someone one opportunity to comment. But, it was good to hear from you again, Ruth.
15 16 17 18	MR. CAMERON: Thank you and I should have said this earlier and it's usually in this type of meeting we only allow someone one opportunity to comment. But, it was good to hear from you again, Ruth. I just wanted to alert everybody to that.
15 16 17 18 19	MR. CAMERON: Thank you and I should have said this earlier and it's usually in this type of meeting we only allow someone one opportunity to comment. But, it was good to hear from you again, Ruth. I just wanted to alert everybody to that. And, we have one person here in the room who
15 16 17 18 19 20 21	MR. CAMERON: Thank you and I should have said this earlier and it's usually in this type of meeting we only allow someone one opportunity to comment. But, it was good to hear from you again, Ruth. I just wanted to alert everybody to that. And, we have one person here in the room who wants to comment and I understand we have one person on
15 16 17 18 19 20 21	MR. CAMERON: Thank you and I should have said this earlier and it's usually in this type of meeting we only allow someone one opportunity to comment. But, it was good to hear from you again, Ruth. I just wanted to alert everybody to that. And, we have one person here in the room who wants to comment and I understand we have one person on the phone.

1	OPERATOR: Okay.
2	MR. CAMERON: Diane?
3	MS. D'ARRIGO: This is Diane D'Arrigo,
4	Nuclear Information and Resource Service.
5	I, of course, fully support the comments of
6	my colleague in our Southeast office.
7	And, actually, I'm concerned that I asked
8	a couple of questions earlier about basic content, basic
9	assumptions of what's being considered in the document.
10	And, I would say that it appears that the
11	NRC is not prepared, if you were going to have a question
12	period, to not have someone here who could give me the
13	answer to what the amount of waste is that's going go
14	into the facility or that the assumptions are going to
15	be. What amount of high burn up fuel?
16	These are basic things that you're asking
17	us to comment on and we just got the document about a
18	week ago. So, it would be, I would say for future
19	hearings, it would be good to have somebody from the NRC
20	who could answer these questions unless you really don't
21	have the answers. But, my suspicion is that you do, you
22	just don't have the technical people here.
23	So, I will point out that that's a pretty
24	important aspect to whether or not this facility is

going to meeting the environmental criteria under NEPA.

There's a lot of political pressure right now to, well, there has been, to increase the amount of waste that will go into the Yucca Mountain site to have it take more than the 70,000 metric tons.

We know, as earlier was mentioned, that all

We know, as earlier was mentioned, that all reactors are using high burn up fuel now. So, the amount of radioactivity in the commercial fuel is much greater than would have been assumed on the earlier assumptions.

It was also mentioned that the President made a decision to not include the Defense waste which doesn't have as much radioactivity, the commercial fuel is much, much hotter even if it's not high burn up.

So, this is a more specific concern about you don't know what is going to be in the inventory. And, yes, you've asked DOE to give you more information, but we are saying that you need a lot more information and to proceed without knowing that is irresponsible.

And it's already a problem with the previous earlier conditions. Our organization with others made a petition to the Department of Energy several years ago to disqualify the Yucca site because it couldn't meet the existing criteria based on water, volcanos, earthquakes.

The amount of radioactivity that could go

1 into the air and into the water both at the site and from transport across the country needs to be included in 2 this and it's not clear that it is at all. 3 4 Let's see, so that's part of what I wanted 5 to say. I also wanted to support the concerns that 6 7 have been raised about environmental justice. The notification or the inclusion of concerns of people who 8 have greater susceptibility to radioactivity, who have 9 10 more exposure because of their cultural habits or the 11 concentration of the radioactivity in the milk from 12 Amargosa Valley or in the food from Amargosa Valley. 13 The scope needs to be broader and consider all of these things. 14 15 casks or the packages, as were 16 apparently do not exist and I mentioned, 17 understand how -- well, we would oppose -- we oppose the approval of a plan or an Environmental Statement when 18 19 there is no container. The containers themselves, the casks, at 20 21 least for high burn up fuel now, have not been certified 22 for transport. I'm not sure if that's still the case for storage, but for transport, it's my understanding 23 that there's not a transport container for high burn up 24 25 fuel that's been certified by the NRC at this point.

Yet, the assumption is made that the NRC will approve that and that the containers will be able to be moved. But, at this point, that's not the reality.

And then, once the containers are in the mountain, we obviously need that drip shield and we would need more of that. What does it mean when there's higher amounts of inventory?

Over the years, during the Yucca Mountain process, the Yucca Mountain development of all the environmental documents, the rules changed three or four times for what was the point of compliance or the amount of radioactivity or the length of time.

So, all of this seems to be in a flux and you can use now what DOE's current limits are, but we are calling on you to use the assumption that women and children, the fetus, are more susceptible to radioactivity and need greater protection, that radioactivity will bioaccumulate in the environment and from the air and the water and the milk and so forth, the crops.

And, to err on the side of conservatism as the protection levels change. I support the concern that was raised about not really knowing how much radioactivity does hurt someone because the information is changing and the information is not taking into

1 consideration the most vulnerable parts of our life 2 cycle, the human life cycle and others species' life 3 cycles. So, my conclusion is that we still believe 4 that the site should be disqualified. We support a 5 6 longer comment period. We believe the NRC should 7 provide or would support making whatever assumptions you're going to make be license conditions since these 8 seem to be able to change as my coworker suggested. 9 10 MR. CAMERON: Thank you. Thank you, Diane. 11 12 Jennifer, could you put Gary Sachs on 13 please? Yes, Gary, your line is open. 14 OPERATOR: 15 MR. SACHS: Thank you. 16 Isn't Yucca Mountain dead yet? Hasn't 17 Yucca Mountain been killed numerous times? Wasn't water found? We're still here? How old are we? 18 19 is it we're not understanding that there's water where you intend to put radiation or if you use the wrong cat 20 21 litter all things are bound to explode? Don't you think 22 so? 23 But, who am I to say? So, I do not support Yucca Mountain opening under any circumstances. 24 25 not support planning the ability to -- you do not have

1 the ability to plan for a million years. 2 I support everything Diane said and every thing that was said prior to when I spoke today. 3 4 And, Chip, I assume Diane is in the room I am extremely disappointed in not believing 5 that the NRC doesn't have someone who could respond 6 7 technically to the concerns that are raised in the room. Because they have -- have had concerns responded to, 8 bringing passion to my dialogue in the room with you. 9 10 And if it's not happening there, but maybe Diane's not 11 there. 12 MR. CAMERON: No, she's here, Gary. 13 Okay, thank you. Thank you, Gary. And, Jennifer, is there anybody else on the 14 15 phone? We're getting close to closing here, but we 16 don't want to miss anybody that might be on the phone. 17 OPERATOR: There currently are questions in the queue. 18 19 If you would like to ask a question, press star one or make a comment. 20 21 CAMERON: Okay. We still have a 22 Anybody else who hasn't spoken yet little bit of time. want to say anything? 23 I'm going to ask Jim Rubenstone, Acting 24 25 Director, Yucca Mountain Directorate, to close out for

1 us.

2 Jim?

MR. RUBENSTONE: Thank you, Chip. Thank you to everyone who took part in this meeting, especially to those who provided us with comments.

As I said in the beginning, we do take your comments seriously and we appreciate them very much and we will do our best to address them as we move this document to its final stages.

I'd like to remind you once again that we will have some additional public meetings. They're on the slides that we will get posted. They're on the handout that is here about commenting. And that you can also comment by mail and at the regulations.gov website.

We will do our best to get all of this information posted to our website as quickly as we can. But, as Christine noted, we do need some time to review the transcript before we put it up because we want to make the most accurate transcript that we can.

I'm getting a signal we may have one more commenter, so I will stop there and let -- we'll take one more, the additional commenter on the phone.

OPERATOR: Okay. Barbara Stevens from the Volunteer Nuclear Information Resource Service, your line is open.

1	PARTICIPANT: Right, Barbara this is
2	her husband. I'm holding the phone for just a second.
3	Here she is.
4	MS. STEVENS: Oh, I'm sorry. I was hoping
5	my husband could talk for me.
6	But, can I speak now?
7	MR. CAMERON: Yes, go ahead, Barbara.
8	MS. STEVENS: Okay. I'm a my husband
9	and I were in New Mexico at the time of the 20 years of
10	the Environmental Impact Statement for WIPP. And, we
11	got to the point of into it 20 years, we had a legal
12	Federal hearing on opening WIPP and all the scientists
13	who the independent scientists were allowed to speak.
14	And, while they were speaking, the DOE,
15	whoever did it, the NRC, DOE, whoever it was opened WIPP
16	while the legal hearing was going on.
17	So, we come from a place of not having a lot
18	of respect for these agencies that are so tied to the
19	giant colossal owners of the nuclear everything.
20	So, I'm sorry, we worry forever about any
21	kind of credibility and certainly, water, just drinking
22	water, is enough of an issue perhaps.
23	Please forgive me for being so, you know,
24	resentful or something or concerned about the
25	credibility of the agencies that are so closely tied to

1	the industry.
2	So, I guess, at this point, I could bring
3	up drinking water or water, all the groundwater issues.
4	Of course, the my husband is shouting.
5	That does sound like we're back to and it's the
6	transportation is absurd. You know it. We all know
7	it. We all know that you're selling, you know, that
8	what's happening.
9	So, please reverse your course.
10	MR. CAMERON: Okay, Barbara, thank you and
11	your husband. Where are you located anyway?
12	MS. STEVENS: Greenbelt, Maryland.
13	MR. CAMERON: Okay.
14	MS. STEVENS: But, we were in New Mexico.
15	MR. CAMERON: All right.
16	MS. STEVENS: For about a 20 year period.
17	MR. CAMERON: Okay. Thank you very much
18	and, Jennifer, we're going to go back and let Jim
19	Rubenstone close out for us.
20	Thank you, too, for your help, Jennifer.
21	MR. RUBENSTONE: Yes, I thank you very much
22	to our operator who did a fine job in getting the
23	comments in.
24	And, again, I want to thank everyone for
25	their comments. We will have further meetings and, as

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1	we noted at the beginning, we have extended the comment
2	period until November 20th.
3	And, with that, I want to thank my
4	colleagues here, Christine Pineda, Adam Gendelman and,
5	of course, Chip Cameron and our very capable staff that
6	helped out in this meeting.
7	So, again, thanks to all the commenters and
8	we will see you at our next meeting.
9	(Whereupon, the above-entitled matter went
10	off the record at 5:01 p.m.)
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