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NUCLEAR REGULATORY COMMISSION

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Environmental Impact Statement

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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PUBLIC WASTE CONFIDENCE MEETING

ENVIRONMENTAL IMPACT STATEMENT

+ + + + +

THURSDAY

OCTOBER 3, 2013

+ + + + +

DENVER, COLORADO

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The Public Meeting convened at 7:00 p.m.
 Mountain Daylight Time, Chip Cameron, Facilitator,
 presiding.

NRC STAFF PRESENT:

- CHIP CAMERON, Facilitator
- MIRIAM JUCKETT, CNWRA
- KEITH McCONNELL
- PAUL MICHALAK
- CARRIE SAFFORD
- SARAH PRICE
- SCOTT BURNELL

T-A-B-L-E O-F C-O-N-T-E-N-T-S

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

(7:00 p.m.)

MR. CAMERON: Okay. We can all take our seats, and get started with tonight's meeting. Good evening everybody. My name is Chip Cameron. And I'd like to welcome you to the public meeting.

And the topic for tonight is the draft environmental impact statement that the Nuclear Regulatory Commission has prepared on the subject of waste confidence. And we'll try and limit the use of acronyms tonight.

But two that we will use will be NRC and EIS, EIS for environmental impact statement. And it's my pleasure to serve as facilitator for tonight's meeting. And I'm going to be assisted by Miriam Juckett.

Miriam is from the Center for Nuclear Waste Regulatory Analyses in San Antonio. And Miriam and I, as facilitators, will try to help all of you to have a productive meeting tonight.

And I just wanted to go through a few things on meeting process, so you know what to expect tonight. I'm going to tell you about the objectives for the meeting, the format for the meeting, some simple ground rules that will just help us to have a productive meeting. And also to introduce the NRC staff, some of whom will

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1 be talking to you tonight.

2 The objective is very simple. The NRC
3 staff is here to listen to your comments and
4 recommendations on the draft Environmental Impact
5 Statement, and the proposed rule that accompanies that
6 Environmental Impact statement.

7 The staff will then consider those comments
8 as it prepares the final Environmental Impact Statement.
9 You'll hear the staff tell you tonight that they are also
10 taking written comments on the draft EIS.

11 And I just want to assure you that anything
12 that you say tonight will carry the same weight as written
13 comments. And of course, you're free to submit, to speak
14 tonight, and also to submit written comments.

15 One of the reasons that the NRC has these
16 meetings before the end of the written comment period,
17 is so that you can also get an understanding of what is
18 in the draft Environmental Impact Statement. And that
19 might make it easier for you to submit a written comment.

20 In terms of the format, we're going to have
21 two brief NRC presentations. And then we're going to go
22 on to you to hear your comments. And we'll ask you to
23 come up to the podium to give those comments.

24 After the NRC presentations we're going to
25 have time for a few questions on the EIS process. And

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1 I'll explain more about that in a few minutes. It will
2 be time for a few questions. But we really do want to
3 get to all of you if you want to speak tonight.

4 In terms of ground rules, when I call your
5 name, just please come up and introduce yourselves to us,
6 and give us your affiliation if appropriate. And I would
7 just ask that one person speak at a time, for two
8 important reasons.

9 One is so that we can give our full attention
10 to whomever has the mic, the podium at the time. And
11 secondly, so that we can get what I call a clean
12 transcript. We are taking a transcript. We have
13 Richard Ochesio here.

14 And with one person at a time, Richard will
15 know who is talking, rather than trying to figure out
16 whether a couple of people are talking. And that
17 transcript will be your record of the meeting. And it
18 will be NRC's record of the meeting.

19 And I would just ask you to be brief in your
20 comments, so that we can make sure that we get to
21 everybody. And I'm going to ask you to follow a
22 guideline of about four minutes for your comment.

23 And there's some leeway there, in terms of
24 finishing up. But at some point I might have to ask you
25 to sum up or to finish up. And I apologize in advance

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1 for asking you to do that.

2 The NRC staff, they're not going to be
3 responding to your comments tonight that you give from
4 the podium. They are going to be listening carefully to
5 what you're saying. And they will evaluate and consider
6 what you've said tonight, as they prepare the final
7 Environmental Impact Statement.

8 Now, I mentioned that we had time for some
9 questions. And we're not going to be able to address
10 technical questions tonight. But we want to make sure
11 that you understand what the format is for the meeting
12 tonight, what the process is for the finalization of the
13 Environmental Impact Statement. And that you
14 understand the structure and organization of the
15 Environmental Impact Statement.

16 We do have staff experts who are going to
17 be outside in the exhibit area throughout the meeting.
18 If you do have a burning substantive question on the
19 technical material in the EIS, if you go out there, they
20 will try their best to answer that.

21 And just as a reminder, anything that you
22 discuss during the open house out there, any of the
23 questions that we have in here, anything during the
24 meeting that you go out to talk to people about, they're
25 not going to be considered as formal comments on the draft

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1 EIS.

2 So if you want to have that question or that
3 point registered as a formal comment, then make sure that
4 you put that in, what you tell us tonight from the podium,
5 or what you submit as a written comment.

6 And I want to introduce the NRC staff to you.
7 And some of them I'm going to give you a biography, short
8 biography on them, so that you know what their areas of
9 expertise are, and how long they've been with the NRC.
10 But I also will introduce you to all of the NRC staff who
11 are here tonight.

12 And you're going see some, there's some
13 sheets of paper on the seats. And there's more of them
14 out on the desk. But it's what the NRC calls a feedback
15 form, which is basically, it's an evaluation of the
16 meeting.

17 If you see anything that could be improved
18 from the meeting, or even if you have a question that you
19 want to put on there, you can fill it out and leave it
20 with us. Or I think they're already what is called
21 franked. So that they have the postage paid on them.
22 And you can just put that in the mail.

23 Now in terms of the NRC staff that are here,
24 first I'd like to introduce Dr. Keith McConnell. And
25 Keith is the Director of the Waste Confidence

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1 Directorate. And he came to the NRC in 1986 as a
2 geologist. And he's served at the highest levels of the
3 agency.

4 He was the technical assistant to a number
5 of former NRC chairmen. And as many of you probably
6 know, the NRC has a five person Commission. And one of
7 those five is appointed as the Chairman of the
8 Commission, and then have the NRC staff under the
9 Commission.

10 Now, Keith was selected for the Federal
11 Government's management cadre, and that's called the
12 Senior Executive Service, better known as the SES. And
13 Keith was appointed to the SES in 2004.

14 And his first job, his first management
15 position was as the Director of the Commission's
16 adjudicatory technical program. And that was in the
17 Office of General Counsel. So he did that.

18 And before he became the Director of the
19 Waste Confidence Directorate, he was the Deputy Director
20 of the decommissioning and uranium recovery directorate
21 at the NRC.

22 And that's in the NRC's Office of Federal
23 State Materials and Environmental Management Programs,
24 which goes by the acronym of FSME. Probably something
25 you don't need to remember. But that's what it's called.

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1 He has a Bachelors in Geology from Clemson
2 University, a Masters in Geological Sciences from
3 Virginia Polytechnic Institute. And he also has a PhD
4 -- Where's the PhD from, Keith?

5 DR. MCCONNELL: South Carolina.

6 MR. CAMERON: South Carolina, University
7 of South Carolina. Next I'd like to introduce Carrie
8 Safford, who's right here. And Carrie is the Deputy
9 Director of the Waste Confidence Directorate.

10 And Carrie's been with the NRC since 2008,
11 where she joined the NRC as an attorney in the Office of
12 General Counsel. And she then assumed management
13 responsibility in the Office of General Counsel, as the
14 Deputy Assistant General Counsel for the Materials
15 Litigation and Enforcement Division.

16 Prior to the NRC she was Regulatory Counsel
17 for Mirant Corporation. And she also was part of several
18 Washington, D.C. law firms. She has a Bachelors in
19 Biology and Geology, from the University of Rochester.
20 And her law degree is from the Pace University School of
21 Law.

22 Paul Michalak is the Branch Chief of the
23 Environmental Impact Statement Branch in the Waste
24 Confidence Directorate. And he began his career with
25 the NRC in 2005 as a hydrologist in the Uranium Recovery

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1 Branch at the NRC.

2 He's also been a Senior Project Manager in
3 the NRC's Office of New Reactors. And there he
4 supervised the development and preparation of the
5 Environmental Impact Statements that the NRC prepares
6 when it's going to make a licensing decision on an
7 application to build and operate a new nuclear power
8 reactor.

9 And he worked in private industry as an
10 environmental consultant before coming to the NRC. His
11 last position, before assuming his Branch Chief position
12 in the Waste Confidence Directorate was the Chief of the
13 Materials Decommissioning Branch, and in that office
14 that we call FSME.

15 Bachelors Degree in Education from Temple
16 University, a Masters in Hydrology from the New Mexico
17 Institute of Mining and Technology.

18 I'd like to next introduce you to Sarah
19 Price. And Sarah's right here.

20 And Sarah's in our Office of General
21 Counsel. And she's here to provide counsel to the Waste
22 Confidence Directorate staff. She came to the NRC in
23 2008.

24 And her primary responsibility has been as
25 the counsel, the legal advisor to the staff in the New

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1 Reactor Office on license applications for new reactors,
2 including the implementation of the National
3 Environmental Policy Act, which is where the draft
4 Environmental Impact Statement is.

5 So before the NRC she was a hydro-geologist.
6 And I've been instructed that there's a big difference
7 between a hydro-geologist and a hydrologist. And if any
8 of you want to talk to Sarah and Paul after the meeting,
9 I'm sure they can go into great detail about the
10 differences.

11 But she was a hydro-geologist with the South
12 Carolina Department of Health and Environmental Control.
13 And she was also in a private law practice there. And,
14 Sarah, where did you, where was your law degree from?

15 MS. PRICE: College of William and Mary.

16 MR. CAMERON: College of William and Mary.

17 And the Bachelors?

18 MS. PRICE: University of South Carolina.

19 MR. CAMERON: University of South
20 Carolina, thank you. Thank you, very much. And just
21 let me introduce the other staff that's here. I won't
22 go into the biography. We've already met Miriam
23 Juckett. And T.R. Rowe, who is right here.

24 And T.R.'s colleague, I have to mention
25 here, is Susan Wittick, who is not with us tonight. They

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1 take care of all the myriad logistical details for these
2 meetings. And we thank them for that.

3 We have Sarah Lopas, who's back in the back
4 of the room. She's a communications expert in the Waste
5 Confidence Directorate. And we have Tim McCartin, who's
6 standing there in the blue shirt. He's a technical
7 expert with the Waste Confidence Directorate.

8 Mike Wentzel, is he, he's probably out.
9 There he is. This is Mike Wentzel, another technical
10 expert with the Waste Confidence Directorate. And we
11 have Jenny Davis back there, a technical expert also with
12 the Waste Confidence Directorate.

13 And John Stamatakos, John is with the Center
14 for Nuclear Waste Regulatory Analyses. And he is a
15 geologist also, expert in geology. We have Scott
16 Burnell who's with our Office of Public Affairs. And did
17 I miss anybody? Great.

18 Well, thank you all for being here. And
19 we're going to go to Carrie Safford first. And then
20 you're going to hear from Paul -- Well, you're going to
21 hear from Keith McConnell and Paul Michalak. And then
22 we're going to go on to you for questions.

23 MS. SAFFORD: Thanks, Chip. Good evening,
24 everybody. And welcome to the meeting tonight. As Chip
25 mentioned, my name is Carrie Safford. I'm the Deputy

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1 Director of the Waste Confidence Directorate. We want
2 to thank you all -- Yes.

3 FEMALE PARTICIPANT: Can I ask you again to
4 hold the mic closer?

5 MS. SAFFORD: Oh, I'm sorry. Is that a
6 little bit better?

7 MR. CAMERON: Is that good?

8 FEMALE PARTICIPANT: Your mouth has to be
9 about that close.

10 MS. SAFFORD: I can hold it. How about
11 that?

12 MR. CAMERON: Yes. If you can do that,
13 that's good.

14 MS. SAFFORD: So is that better?

15 MR. CAMERON: -- I can tell the difference.

16 MS. SAFFORD: Okay. So good evening
17 As Chip mentioned, the purpose of tonight's meeting is
18 to get your public input on the Waste Confidence proposed
19 rule and draft generic Environmental Impact Statement.
20 Both of those documents were published on September 13th.

21 Also as Chip mentioned, we're going to have
22 a short presentation tonight by Paul Michalak. And the
23 point of the meeting really is to maximize the amount of
24 time that we can hear from you, the public, and get your
25 comments in on the record.

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1 And the staff that were introduced will be
2 at the back of the room, and outside in the open house
3 area. So feel free to step out if you have technical
4 question that you'd like to have answered. And come back
5 in and join us in the room.

6 So tonight I just want to start off with a
7 couple of questions about, or a couple of points about
8 the rule making efforts at the NRC. Writing regulations
9 is one of the most important things that we do at the NRC.

10 They're a vehicle for implementing our
11 national and international policies. And they help us
12 achieve our goals of maintaining public health and
13 safety, security, and protection of the environment.

14 This is an extremely important activity at
15 the NRC, and we take it very seriously. Over the past
16 year the Directorate has been involved in this rule
17 making effort to assess the environmental impact of
18 continued storage of spent nuclear fuel, beyond a
19 reactor's license life for operations.

20 And we thank those who have taken part
21 already in our scoping process for the Environmental
22 Impact Statement, that took place at the end of last year.
23 As well as those who have participated in our monthly
24 status teleconferences.

25 One of the most important things that we're

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1 doing tonight, part of this rule making activity, is
2 reaching out to you, the public, and hearing from you and
3 taking your comments. This is your opportunity to
4 provide us with input on our draft documents.

5 This is also part of our effort to provide
6 an open and transparent process. And we look forward to
7 hearing your comments on the proposed rule and the draft
8 Environmental Impact Statement.

9 So along those lines, I encourage you to
10 take an active role, and to come up here and provide us
11 with your comments. In a moment Paul will touch on the
12 various ways that you can submit your comments to the NRC,
13 in addition to speaking them here tonight.

14 And I also wanted to remind everybody that
15 in the proposed rule there are four questions that the
16 Commissioners have posed to the public to provide your
17 specific input on. And we welcome hearing comments on
18 those as well, whether it's here tonight or in your
19 written comments.

20 Your feedback in these and other areas are
21 very important to us as we work on developing the final
22 documents. And they'll also assist the Commission in
23 their deliberations when we provide the final rule to
24 them, as well as the final generic Environmental Impact
25 Statement.

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1 So again, welcome. Thank you for joining
2 us tonight. We hope everyone here feels comfortable to
3 speak candidly and openly, and to provide us their
4 comments. And now I'll turn it over to Keith McConnell
5 for a few extra points.

6 DR. MCCONNELL: Thank you, Carrie. What I
7 wanted to do was just take a few minutes to talk about
8 the shutdown of the Federal Government, due to a lack of
9 appropriation. And the impact on the Waste Confidence
10 effort that we have underway. Particularly the public
11 meetings that we have scheduled over the next month and
12 a half.

13 The Nuclear Regulatory Commission is
14 currently operating fully staffed. We're doing that
15 because we have carryover from Fiscal Year '13 into
16 Fiscal Year '14. Those carryover funds are limited.

17 And right now the estimation is that we have
18 enough funding to continue to operate fully staffed,
19 either through Friday of this week, or slightly into next
20 week. And then the funds start to run out.

21 And what happens at that point in time is,
22 only essential NRC personnel will be working. And at
23 this point the Waste Confidence effort, because we're not
24 directly tied to maintaining safety, we will not be
25 working if the funding runs out next week.

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1 And what that, the implications of that for
2 the Waste Confidence effort is, the meetings that we have
3 scheduled for next week in San Luis Obispo, and Carlsbad,
4 California are likely to be cancelled. We expect that
5 to occur right now, tomorrow a formal announcement.

6 We've taken some initial steps to cancel the
7 meetings. We have some contracting issues that we have
8 to address. But a formal announcement is expected on the
9 status of the meetings in California tomorrow morning.

10 So we would encourage you, if you're
11 interested, and you had plans to attend those meetings,
12 to pay attention to the NRC website. Or, if you're not
13 on our outreach email listing, that you talk to T.R. or
14 one of us, and get you on that listing. Because we do
15 send out information periodically on that.

16 As far as the meetings that would occur
17 subsequent to that, which we actually have two more
18 meetings scheduled the following week, in Toledo and
19 Minneapolis.

20 If the Government shutdown continues
21 through next week, it's likely that those meetings would
22 also be cancelled. So just a heads up to you all on the
23 status of our efforts. And if there are no questions,
24 then I'll turn it over to Paul Michalak.

25 FEMALE PARTICIPANT: You'll reschedule

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1 those meetings, I assume.

2 DR. MCCONNELL: We're going to look at
3 that. Our goal is to have ample opportunity for public
4 comment. The way we do that is through the public
5 meetings. And we intend to meet that goal. How we go
6 about it, given the situation, we have yet to decide.

7 MR. CAMERON: Richard, did you get the
8 question? You got it?

9 MR. OCHESIO: Oh, yes.

10 MR. CAMERON: Do you think you could just
11 repeat the question, just so we --

12 DR. MCCONNELL: I think the question was,
13 when will we have rescheduled meetings?

14 MR. MICHALAK: Thanks, Keith. Again, my
15 name is Paul Michalak. And I'm the Chief of the
16 Environmental Impact Statement Branch in the NRC's Waste
17 Confidence Directorate.

18 The agenda for today's meeting, I plan to
19 provide a brief overview about the background of Waste
20 Confidence, some of the key aspects of the draft generic
21 Environmental Impact Statement, and the proposed Waste
22 Confidence rule, and the methods for providing comments
23 on those documents. Then we'll get to the public comment
24 portion, which is really the heart of the meeting.

25 So what is Waste Confidence? Waste

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1 Confidence accomplishes two things. The draft generic
2 Environmental Impact Statement for Waste Confidence is
3 an environmental analysis that satisfies part of the
4 Commission's National Environmental Policy Act
5 obligations for reactor licensing and re-licensing, and
6 licensing and re-licensing of spent fuel storage
7 facilities.

8 The draft Environmental Impact Statement
9 also serves as the regulatory basis for the Waste
10 Confidence rule. The Waste Confidence proposed rule
11 generically addresses environmental impacts of
12 continued storage. And would contain a determination
13 concerning the feasibility of safe storage, and a time
14 frame for repository availability.

15 The Environmental Impact Statement and
16 proposed rule only cover the time frame after the license
17 life of the reactor. However, it is important to note
18 that the proposed rule on Waste Confidence does not
19 license any particular site or facility. Nor does it
20 allow for long term storage of spent fuel at any site.

21 The NRC has a long, rich history with Waste
22 Confidence, which was originally adopted by the
23 Commission back in 1984. Since then the rule has been
24 updated, most recently in 2010.

25 In 2012 the rule was challenged. And the

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1 Court of Appeals in the D.C. Circuit vacated the 2010 rule
2 making, and remanded it back to the NRC. The Court
3 identified three deficiencies with the Commission's
4 environmental analysis to support the 2010 Waste
5 Confidence rule making.

6 If found that the analysis didn't evaluate
7 the environmental effects of failing to secure permanent
8 disposal of the spent nuclear fuel. It also directed the
9 Commission to provide a forward looking analysis with
10 respect to spent fuel pool leaks, and discuss the
11 environmental consequences of spent fuel pool fires.

12 The Court did find that a generic approach,
13 either with an environmental assessment or an
14 Environmental Impact Statement would be an acceptable
15 means to address the issues associated with Waste
16 Confidence.

17 In response to the Court's decision, the
18 Commission directed staff to prepare an Environmental
19 Impact Statement, and to evaluate these issues, with the
20 possibility of issuing an updated Waste Confidence Rule.

21 There are two things that I would like you
22 to remember. The first is, Waste Confidence is just a
23 small part of the overall environmental analysis for
24 reactor or storage facility licensing and re-licensing.
25 Secondly, Waste Confidence does not license any

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1 facility, or authorize storage after the expiration of
2 a facility's license.

3 The draft Environmental Impact Statement
4 describes the impacts of continuing to store spent
5 nuclear fuel beyond the license life of a reactor. This
6 includes the impact of storing the spent nuclear fuel at
7 reactor sites in spent fuel pools, and at independent
8 spent fuel storage facilities. The storage could be
9 located both at reactor and away from reactor sites.

10 The generic Environmental Impact Statement
11 describes why the NRC is revisiting Waste Confidence.
12 It discusses the alternatives that were considered. It
13 describes how the environmental impacts were evaluated.

14 It contains information on what facilities
15 are covered, and the environmental impacts of continued
16 storage at reactor sites and away from reactor sites.

17 It also contains information on the costs
18 of the alternatives that were considered. It describes
19 cumulative environmental impacts of continued storage.
20 And it contains information on the feasibility of a
21 repository, and the feasibility of state storage of spent
22 fuel.

23 The generic Environmental Impact Statement
24 assessed the impacts of continued storage of spent
25 nuclear fuel for three time frames, based on when a

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1 repository would become available.

2 We evaluated a short term time frame, which
3 was 60 years beyond the licensed life of a reactor. We
4 also evaluated a long term time frame, which was 100 years
5 beyond the short term, or 160 years beyond the licensed
6 life of a reactor. We also evaluated an indefinite
7 storage time frame, that being where no repository
8 becomes available.

9 The generic Environmental Impact Statement
10 serves as the regulatory basis for the proposed rule.
11 The proposed rule would provide that environmental
12 impacts of continued storage are generically addressed,
13 and will not be revisited in future site specific
14 licensing proceedings, unless the NRC discovers
15 something about that site that would make the application
16 of the conclusions in the generic Environmental Impact
17 Statement inappropriate.

18 The proposed rule would revise the Nuclear
19 Regulatory Commission's regulations. Specifically the
20 citation is Title 10 in the Code of Federal Regulations,
21 Section 51.23.

22 In addition to the statement on generically
23 addressing environmental impacts, the proposed rule
24 would state that the analysis supports the Commission's
25 determinations that it is feasible to safely store spent

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1 nuclear fuel following the licensed life of a reactor.

2 It would also state that it is feasible to
3 have a mined geologic repository within 60 years
4 following the licensed life of a reactor. We are
5 specifically seeking comment on whether these last two
6 aspects should be removed from the rule.

7 The comment period currently ends on
8 November 27, 2013. To ensure that your comments are
9 considered, they must be received by that date. Mailed
10 comments must be postmarked by November 27th.

11 All comments, whether submitted in writing,
12 or provided orally, are considered. Comments on the
13 generic Environmental Impact Statement and proposed rule
14 may be submitted by several methods.

15 First, we are seeking public comments at
16 this meeting. Any comments that you provide at this
17 meeting are being transcribed, and will be considered as
18 part of the record.

19 If you have written comments, you may leave
20 them with the NRC staff located at the registration
21 table. And we will make sure those comments are added
22 to the document.

23 You may also email, fax or mail your
24 comments to the NRC. You may also provide comments using
25 the federal rulemaking site, which is

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1 www.regulations.gov. That concludes the presentation.
2 Thank you. Back to Chip.

3 MR. CAMERON: Thank you. Thank you, Paul
4 and Carrie, and Keith. Are there any clarifying
5 questions before we go to the comment part of the meeting?
6 We already had one comment on process. Let me go over
7 here. And then we'll go over to here. Yes?

8 MR. HORMELL: Thank you. Christopher
9 Hornel of Boulder. I'm wondering if this document now
10 has to be approved by the Court that required it in the
11 first place?

12 MR. CAMERON: Okay. I think that's a fair
13 question about what might happen. And is there anybody
14 who wants to address that? Keith. Oh, Carrie, I'm
15 sorry.

16 MS. SAFFORD: I'll answer that. No, it
17 does not have to go back to the Court for approval. The
18 Commission will review the staff's proposed finals. And
19 then we'll publish that in the Federal Register.

20 And it will become effective, of course
21 subject to challenge again, like any of the rules are
22 subject to challenge. Then it would go through the NRC
23 process, and then subsequent through the Court process.
24 But the Court does not need to review what we've done here
25 in response to the review.

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1 MR. CAMERON: Thank you.

2 MR. HAGGERTY: Yes, my name is Bern
3 Haggerty. I live in Laramie, Wyoming. Did that work?
4 My clarifying question is, I know I saw some clips from
5 the meeting in Baltimore, or Rockville, I guess it was.
6 Is this meeting being videotaped, internet broadcast,
7 anything like that, besides just a transcript?

8 MR. CAMERON: Carrie?

9 MS. SAFFORD: No, it's not being
10 videotaped. We're transcribing it here. So there will
11 be a transcript. It will eventually be posted on the
12 NRC's website under the Waste Confidence heading. But
13 there is no videotape on the website.

14 Actually I just want to -- I'm sorry, Chip.
15 I just wanted to add, at our last meeting, at the end of
16 this public meeting process, we will have a final
17 concluding meeting in the Rockville Headquarters
18 location. And that meeting will also be webcast,
19 teleconferenced, and transcribed as well.

20 MR. CAMERON: Good. Thank you.

21 MR. KLEVORICK: My name is Phil Klevorick.
22 I'm actually out of Clark County, Las Vegas, Nevada. I
23 have a couple of questions regarding, clarification
24 questions on the potential for the rescheduling of the
25 California meetings.

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1 And if they are rescheduled, I would assume
2 that they're probably going to go towards the end of this
3 whole comment period. And subsequently, if they do
4 that, is it likely that the comment period will be
5 extended as a result of that?

6 MR. CAMERON: Okay. Good question.
7 Keith?

8 DR. MCCONNELL: Yes. That's one of the
9 things we're looking at. We have to, if we -- When we're
10 furloughed we basically can't work at all. So once we
11 get off the furlough, once the Government comes back and
12 we're fully staffed, then we're going to have to
13 re-calibrate and look at extending the public comment
14 period.

15 But that would involve us also having to
16 communicate with our Commission. Because our
17 Commission, five-member Commission, has provided us with
18 explicit direction about how we should do this, and how
19 long we should take. But we'll be in communication.
20 We're able to work through that process.

21 MR. CAMERON: Thank you. Anybody else
22 before we go to comment? Okay, great. Thank you for
23 those questions. And I think first I'm going to read the
24 names of our first three speakers. And the first would
25 be Rebecca, Rebecca English.

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1 And then we're going to go to Michael Green,
2 and then we're going to go to Bern Haggerty. And,
3 Rebecca, it may be awkward for you to hold that. So see
4 if you can give it a try. And see if we can pick you up.

5 MS. ENGLISH: Can you hear me as I speak?
6 All right. Thank you. Good evening everyone. I'm
7 Rebecca English, better known as Becky English in these
8 parts. I'm actually representing Sierra Club this
9 evening, the Rocky Mountain Chapter, which is our state
10 wide chapter, representing over 45,000 members and
11 supporters throughout the state.

12 I'm a volunteer. I'm not a professional.
13 Sierra Club is preparing, legal staff is preparing a
14 formal comment in this proceeding. But I just wanted to
15 be here tonight to let you all know that Sierra Club has
16 no confidence that high level nuclear waste will be safe
17 after nuclear reactors close.

18 We need to make sure that all waste is done
19 as hardened on site storage. And that the NRC does not
20 begin to issue licenses again until that is a state of
21 the art nationwide.

22 We don't believe that the NRC should be
23 issuing any new licenses in view of the confidence issue,
24 and a number of other issues as well, which I understand
25 it's really not appropriate for me to go into this

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1 evening.

2 Sierra Club, in case some of you may not be
3 aware, is opposed to nuclear power in general, as we are
4 also opposed to other non-sustainable forms of energy,
5 such as fossil fuels. So my particular expertise in our
6 chapter is working on that transition to clean renewable
7 energies, and energy efficiencies in order to meet our
8 needs.

9 Our Federal Government does not know how to
10 keep the doors open and the lights on. We are lacking
11 in confidence in the larger picture as well, about the
12 Federal Government or any agency of the Federal
13 Government, to be able to sustainably and competently
14 manage these issues.

15 So our stance, if you want to review it, we
16 have a Sierra Club policy page on the nuclear confidence
17 issue, and also the nuclear power issue in general. We
18 also happen to agree pretty much wholesale with comments
19 that have been published by the Nuclear Information and
20 Resource Service, NIRS.org.

21 So I don't think I want to go into those in
22 detail. But I do want to thank your agency for complying
23 with the Court's order, and doing this needful process,
24 and making this nice meeting. Thank you very much.

25 MR. CAMERON: Okay. Thank you. Thank you

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1 very much, Becky. And now we're going to go to Michael
2 Green. And if you could just introduce yourself and
3 affiliation. Thank you.

4 MR. GREEN: Good evening. My name is
5 Michael Green. Can you hear me? Michael Green, I'm the
6 Associate General Counsel of Nuclear and Environmental
7 matters for Arizona Public Service Company.

8 APS is a co-owner and the NRC licensed
9 operator of the Palo Verde Nuclear Generating Station,
10 which is located approximately 50 miles West of Phoenix,
11 Arizona.

12 Before I begin my comments, let me say,
13 thank you, to the NRC Staff, for hosting this meeting,
14 as it was originally scheduled, particularly, in light
15 of the budget situation you addressed off camera.

16 I know it's having, probably, having a
17 significant impact on the professional work life you
18 maintain, but also your personal work life. So I know
19 that there's some uncertainty, and we appreciate your
20 carrying on with this meeting.

21 We'd also like to compliment you and the
22 Staff, on the quality of the document you prepared. I
23 mentioned outside before the meeting started, that given
24 the time constraints that you were facing, the documents
25 were all very, very well done.

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1 The purpose of tonight's meeting is to
2 receive public comment on the NRC's Proposed Generic
3 Determination on the environmental impacts of continued
4 storage of spent nuclear fuel beyond a reactor's licensed
5 operating life and prior to ultimate disposal.

6 Simply stated, the NRC is correct, in
7 concluded that it is feasible to have a mined geologic
8 repository available within 60 years after the licensed
9 operating life of a nuclear power plant.

10 There are no technical barriers to
11 achieving this result, nor are there any financial
12 barriers given the current and growing balance in the
13 nuclear waste fund.

14 As a threshold matter, APS agrees with the
15 Court versus NRC, that the National Environmental Policy
16 Act is a procedural statute that is intended to ensure
17 fully informed and well-considered decision making.

18 The draft Environmental Impact Statement
19 that was prepared, could be done, and was done, on a
20 generic basis, because first, continued storage will
21 involve spent fuel storage activities, for which
22 environmental impacts of operation are sufficiently well
23 understood, as a result of lessons learned and knowledge
24 gained from operating experience.

25 Second, activities associated with

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1 continued storage are expected to be within this
2 well-understood range of operating experience, thus the
3 environmental impacts can be reasonably predicted.

4 And third, changes in the environment
5 around spent fuel storage facilities, are sufficiently
6 gradual and predictable, to be addressed using this
7 generic approach.

8 The 575-page Draft Generic Environmental
9 Impact Statement contains abundant and comprehensive
10 analyses of the issues remanded by the Court through the
11 Commission, as well as all issues that should be
12 considered in the Environmental Impact Statement
13 process.

14 Consequently, there is substantial
15 evidence to support the conclusions regarding at
16 reactor, and away from reactor storage, as well as the
17 conclusions regarding commutative impacts of those
18 scenarios, when combined with other federal and
19 non-federal actions.

20 APS realizes that tonight's meeting is the
21 first in a series of many meetings that will be held
22 throughout the country, to receive public feedback.
23 Although, it's too early to tell, we believe it's fair
24 to say, that the NRC is likely going to receive many
25 comments that challenge the staff's conclusions

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1 regarding environmental impacts of short-term,
2 long-term, and indefinite storage, as well as postulated
3 accidents and potential acts of sabotage or terrorism.

4 As the staff reviews the comments made in
5 this public comment period, we remind the staff to keep
6 in mind the fundamental proposition that the National
7 Environmental Policy Act is a process statute.

8 Notwithstanding the fact that some
9 stakeholders may disagree with your technical
10 conclusions and argue that you have not reached a correct
11 decision, the record contains substantial evidence to
12 support your conclusions.

13 In closing, the analyses contained in the
14 Waste Confidence Draft Generic Environmental Impact
15 Statement support what the Commission and the Industry
16 have long known. If necessary, spent nuclear fuel can
17 continue to be stored in a safe environmentally sound
18 manner, for a long period of time, while we wait for the
19 political process to reach agreement on a disposal
20 solution.

21 In the meantime, the NRC can and should
22 issue its revised Waste Confidence Decision. Thank you
23 for the opportunity to present our views.

24 MR. CAMERON: Thank you very much, Michael.
25 Next, we're going to go to Bern Haggerty, and then we're

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1 going to go to Michael McGarey, and Michael Keegan, who
2 I don't think is here, at this time. But any rate, let's
3 go to Bern.

4 (Off microphone discussion.)

5 MR. HAGGERTY: All right, in four minutes,
6 I have a lot of thoughts about this, and I do plan to
7 submit written comments. I was going to submit a
8 beautiful, even poetical statement titled Radiological
9 Hygiene and the Necessary Culture of Unease.

10 But I'm not going to do that, because I only
11 have four minutes. I quickly went through the draft
12 document, and I want to submit comments on Section 6.4.15
13 Transportation. This is the part that addresses
14 cumulative impacts from transportation.

15 I should back up and say my name is Bern
16 Haggerty, or Bernard Haggerty. I live at 2068 North 16th
17 Street in Laramie, Wyoming. And my interest is that I'm
18 a commuter along Interstate 80.

19 I travel 50 miles each way to work, from
20 Laramie to Cheyenne, along the highest elevation portion
21 and arguably the most dangerous portion of Interstate 80,
22 which is probably, in any nationwide waste shipment
23 campaign, the busiest route for transportation, of
24 radioactive waste.

25 I have it as kind of a hobby to keep track

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1 of the violations of transportation rules that occur
2 along that stretch during my commute. And I want to
3 refer, specifically, to a couple of phrases in the
4 section I cited from the Draft Statement.

5 The radiological impacts from spent fuel
6 transportation conducted in compliance with the NRC
7 Regulations are low. The NRC also concluded that
8 regulations for transportation of radioactive material
9 were adequate to protect public against unreasonable
10 risk.

11 NRC concludes that radiological impacts
12 were incidents free and accident transportation of spent
13 fuel from a single at-reactor storage facility to
14 repository would be small. The same conclusion is
15 reached with respect to a system-wide inventory.

16 I want to list the assumptions that go into
17 this, which I think are invalid, which I hope the
18 Commission will address in its final report, if a
19 Supplemental Impact Statement is compiled.

20 The radiological doses seem to be based on
21 an assumption that there will be only external exposures
22 to radioactive materials, and that there will be no
23 contaminations, say, on the outside of a shipping
24 container.

25 There's also a peculiar, the Draft

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1 Environmental Impact Statement pieces together, I don't
2 know what the technical term for this, but it pieces
3 together a large number of transportation studies of
4 various kinds, including two of them from 1972 and 1975,
5 which really need to be updated.

6 Since those dates, the Interstate Commerce
7 Commission has been eliminated and replaced with the
8 Service Transportation Board. And I think my basic
9 comment here, is that the assumption of institutional
10 controls, and the express assumption that transportation
11 regulation is adequate is just false, and needs to be
12 re-examined.

13 Here's what I've learned, and this is the
14 purpose of my visual aid, is an example of what I take
15 to be an obvious violation of the transportation safety
16 regulation.

17 The safety regulations require the
18 commercial vehicles transporting hazardous materials to
19 use extreme caution. And when the weather is bad,
20 basically, they're required to pull over.

21 This is a, I don't know if you can see it
22 from where you are, but this is a truck carrying
23 radioactive materials. I suspect it's from Tennessee on
24 its way to Idaho National Engineering Laboratory.

25 On this particular day, Interstate 80 is

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1 covered in a polished ice coating. And this truck,
2 pretty clearly, was in violation of the transportation
3 safety regulations.

4 If you want to hold it for a second, that's
5 fine, or you can set it down. It's has illustrated my
6 point. So I correspond, and I've done this several
7 times, with the Federal Motor Carrier Safety
8 Administration, which presumably regulates and monitors
9 violations of transportation safety regulations.

10 And their response in written form to the
11 Congressman, who helped me get this response, was "the
12 Federal Motor Carrier Safety Administration believes
13 that the judgment about weather conditions should be left
14 to professional truck drivers, the police, State, and
15 local officials."

16 In other words, the Federal Motor Carrier
17 Safety Administration does not monitor or enforce the
18 transportation safety regulations that apply to
19 shipments of radioactive materials.

20 And I think this is in direct contradiction
21 to the assumption stated in the Section I quoted. And
22 so some digging needs to be done before a final Impact
23 Statement is made.

24 Let me quote to you, from a description of
25 an incident that wasn't just a weather-related violation

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1 of the transportation regulations. November of 1996, a
2 tractor trailer overturned on an icy road in Northern
3 Nebraska, while carrying two nuclear warheads to a
4 decommissioning facility in Texas.

5 And this is from an article in the Bulletin
6 of the Atomic Scientist by Robert Alvarez. Nebraska
7 officials criticized the Department of Energy for
8 failing to follow protocols that required advanced
9 notice about such shipments.

10 They also raised concerns about their
11 transportation of route, which required the trucks
12 travel in an area hours away from the nearest equipment
13 capable of salvaging the truck from the ditch.

14 Later, a former DOE official disclosed that
15 the radiation monitoring equipment on the truck had been
16 removed, by order of the Department of Energy.

17 Apparently, in September of 1996, one of the
18 drivers had claimed that his daughter died from a rare
19 brain tumor, because of his exposure to radiation at
20 work. And in response, the Department of Energy ordered
21 the monitors removed.

22 So two months later when the truck carrying
23 the warheads crashed the Department of Transportation
24 had no way of knowing whether that had been a radiation
25 leak.

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1 To me, these are examples of the absence of
2 effective institutional controls in the Continental
3 Scale Transportation Project that will accompany any,
4 either interim storage, or off-site permanent
5 repository.

6 And so my conclusion is that I'm opposed to
7 the option of off-site storage, in any form, and I think
8 that the Nuclear Regulatory Commission should not
9 express any confidence in any plan that requires
10 transportation off the site where radioactive materials
11 are produced. Thank you.

12 MR. CAMERON: Okay, Bern, thank you.
13 Thank you for coming all the way down from Wyoming.

14 MR. HAGGERTY: You're welcome.

15 MR. CAMERON: Thank you, very much. We're
16 going to go Michael McGarey, Shawn Martini, and Thomas
17 Cannon. Is Mike McGarey here from Nuclear Energy
18 Institute? Okay. Shawn Martini, Thomas Cannon, and
19 Richard Andrews. And this is Shawn.

20 MR. MARTINI: Thank you, my name is Shawn
21 Martini. I'm here representing Consumer Energy
22 Alliance and our 240 plus member companies, who support
23 affordable, reliable, energy in a balanced domestic
24 energy policy.

25 CA's a national non-profit organization

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1 that seeks a more sensible energy policy for our nation's
2 energy consumers. CA has long believed that nuclear
3 energy must remain a part of a balanced and sensible
4 national energy policy.

5 And furthermore, the United States must
6 find ways to thoughtfully expand the source of
7 carbon-free electricity, in order to meet rising
8 consumer demand, in an increasingly carbon-constrained
9 world.

10 Nuclear energy is historically provided one
11 of the most consistently affordable sources of
12 electricity. Since fuel cost typically account for less
13 than one-third of a nuclear plant's production cost,
14 nuclear energy consumers are less susceptible to
15 fluctuations in price.

16 However, over the past few decades,
17 American nuclear consumers have been forced to shoulder
18 the increasing cost of nuclear waste management.

19 Without a federal waste management system
20 in place, utilities and consumers across the country have
21 been shackled with the cost of maintaining nuclear waste
22 on existing reactor sites, while continuing to pay \$750
23 Million Dollars annually, into the nuclear waste fund.

24 Fortunately, American nuclear providers
25 have successfully demonstrated that they can safely

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1 store nuclear waste while we wait for the Federal
2 Government to enact a long-term solution.

3 Federal policymakers must act now to
4 develop consolidated facilities for interim storage, as
5 recommended by the President's Blue Ribbon Commission on
6 America's Nuclear Future, and supported by a bi-partisan
7 group of congressmen. Our nation must also pursue an
8 agreed-upon site for permanent disposal.

9 CA strongly supports the NRC's efforts to
10 keep nuclear facilities safe and reliable. And as you
11 continue in the waste confidence rulemaking, we urge you
12 to proceed efficiently and quickly.

13 A timely resolution on this matter is
14 essential. And existing and future nuclear facilities
15 need greater certainties about licensing time-lines and
16 decisions, in order to maintain and expand this vital
17 part of the U.S. energy portfolio. Thank you.

18 MR. CAMERON: Okay, thank you, Shawn.
19 Okay, next, we'll go to Tom, Tom Cannon.

20 MR. CANNON: Good evening. My name is Tom
21 Cannon. I'm the Manager of Nuclear Field Procurement
22 for Arizona Public Service, for the Palo Verde Nuclear
23 Generating Station.

24 The NRC is correct in concluding that it is
25 feasible to have a mined geological repository available

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1 within 60 years after the licensed operating life of a
2 nuclear power plant.

3 There are no technical obstacles to
4 achieving this, nor are there any financial obstacles,
5 given that the Nuclear Waste Fund now has a balance of
6 more than \$26 Billion Dollars.

7 There is a strong international scientific
8 consensus that geological disposal is the best solution
9 to permanently isolate spent nuclear fuel from the public
10 and the environment.

11 Studies by the National Academy of Science,
12 and the International Atomic Energy Agency have
13 confirmed this conclusion. In fact, the International
14 Atomic Energy Agency concluded in 2003 that the
15 geological disposal is the generally accepted solution
16 in practically all countries faced with the issue.

17 Sweden and Finland are developing
18 geological disposal facilities and are expecting to
19 begin disposal of their spent fuel by the early 2020s.
20 France is making significant progress. They have
21 selected and characterized the geological region and are
22 now working to identify a specific site.

23 Belgium, China, and the United Kingdom,
24 plan to start geological disposal by 2050 or earlier.
25 The United States made significant progress towards

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1 geological disposal, up to the point where the Yucca
2 Mountain licensing process was abruptly ended in 2010.

3 The Energy Department had documented its
4 safety case in a license application and a final
5 Environmental Impact Statement. The Nuclear Regulatory
6 Commission concluded an exhaustive review of these
7 documents and sent DOE more than 600 detailed scientific
8 and technical questions.

9 The Department of Energy answered all the
10 questions to the NRC's satisfaction. The NRC was
11 preparing the Safety Evaluation Report when the process
12 was abruptly halted.

13 The President appointed a commission to
14 examine nuclear waste management issues, and they issued
15 a report that suggested finding two or three alternate
16 sites using a concept-based process.

17 Legislation is pending in the Senate to
18 begin the process of selecting alternate sites.
19 Recently, the U.S. Court of Appeals ordered the NRC to
20 resume the Yucca Mountain licensing process, which will
21 further inform our efforts towards geological disposal.

22 Even if development of the Yucca Mountain
23 repository is not resumed, both the industry and some
24 members of Congress, are calling for the NRC to complete
25 and issue the safety evaluation report.

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1 The United States was the first country to
2 develop commercial nuclear power plant, and we have the
3 largest nuclear program in the world, 100 reactors, and
4 five more under construction.

5 Having once being a leader in this
6 technology, we're at risk of losing our competitive edge
7 and our nation's credibility towards other nuclear
8 powers.

9 We have the technology to develop a
10 geological repository for spent nuclear fuel, and we have
11 the money to do so. The only thing blocking the United
12 States from building a geological repository is
13 political decision-making.

14 The analysis contained in the Draft Waste
15 Confidence Generic and Environmental Impact Statement
16 supports what the industry has long known. If
17 necessary, used nuclear fuel can continue to be stored
18 in a safe, environmentally sound manner, for a long
19 period, while we wait the political process to reach
20 agreement on the disposal solution.

21 In the meantime, the NRC can and should
22 issue its Waste Confidence Rule. Arizona Public Service
23 Intends to provide written comments on the four issues
24 that were raised in the Rulemaking. Thank you.

25 MR. CAMERON: Okay, thank you, Tom. Our

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1 next three speakers are going to be Richard Andrews,
2 Michael, Michael Apted, and Bill Barlett. This is
3 Richard.

4 MR. ANDREWS: Well, thank you, for having
5 this meeting. Everybody hear me okay? Okay. My name
6 is Rich Andrews, I'm a citizen here in Colorado, in
7 Boulder County.

8 I'm a registered professional chemical and
9 environmental engineer for more than 40 years. Having
10 operated in the field of environmental engineering,
11 regulatory affairs, including managing the licensing of
12 two uranium mills in the late 1970s, where I had,
13 obviously, a great deal of contact with the NRC.

14 However, I quit that job after a few years
15 when I fully came to the realization that I really
16 couldn't stay involved with the industry. That
17 realization was that the industry is fully and
18 irretrievable flawed, undeniably linked to weapons
19 proliferation, and not capable of being operated safely,
20 or even sanely, given the extreme catastrophic
21 consequences to human health and the environment that
22 could occur. And in many cases, already have occurred.

23 I was born when President Truman was handed
24 the keys to the nuclear bomb, within the days of that
25 incident. For my entire life, ever since, the

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1 Government has been promising the benefits of nuclear
2 technology, but all we really have to show is a legacy
3 of broken and false promises.

4 Plus, the reality of the dangers while
5 laying all the problems of waste from this nuclear age
6 on our children. When I grew up in Kansas in the 1950s,
7 the AEC was planning a nuclear waste disposal repository
8 in the Kansas salt mines. That never happened, nor has
9 anything happened since, to solve the waste issue.

10 I appear today, to comment on the Draft GEIS
11 on Waste Confidence. I reviewed the document, and will
12 continue to do more in-depth analysis of it, and while
13 I'm grateful that the courts mandated this process, I
14 find that the NRC response to that mandate is not only
15 insufficient in many technical areas, but lacks in
16 honesty and integrity.

17 My first recommendation is to remove the
18 misleading title of Waste Confidence. Waste Confidence
19 simply does not exist in the public, nor the nuclear
20 industry, and probably not even at NRC.

21 The Draft GEIS simply fails to address the
22 realities of the dangers of spent nuclear fuel. In fact,
23 throughout the document, it continually denies the
24 dangers of inherent catastrophic consequences at any of
25 the many causes of potential system failures.

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1 Failing to even legitimately describe those
2 consequences. Before I go into details, since I might
3 run out of time, I have a lot the say, I'm going to give
4 you my recommendations first.

5 First, require all reactors to immediately
6 harden the structures housing spent fuel pools, since at
7 a minimum, spent nuclear fuel will have to stay in them
8 for about five years for primary cooling. They are
9 dangerous and vulnerable. We only need to look at
10 Fukushima to see the very much imperiled spent fuel at
11 the top of those reactors.

12 Second, move as quickly as possible to
13 remove the spent fuel from fuel from cooling pools and
14 into hardened dry casts that are small enough for
15 transport. Not 125 to 150 tons, those are just too large
16 for transport.

17 Third, the key difference from many other
18 commenters, particularly from the environmental
19 community and what I'm saying is, I want all of those
20 casks removed to off-site facilities remote from heavily
21 populated areas.

22 And placed and dispersed arrays of burial
23 bunkers to make them less vulnerable to terrorist
24 attacks, and reduce the consequences if attacked.

25 Finally, to discontinue any new licensing,

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1 or license renewals of any nuclear generating plant or
2 facility, including all states of the fuel cycle. In
3 other words, stop permitting waste generation. Better
4 yet, withdraw all the current licenses, and totally focus
5 on repository disposal.

6 Let me focus the rest of my comments on one
7 of the key elements that I wanted to deal with in the
8 generic EIS, and that is the issue of terrorist attacks.

9 I find that the statement totally
10 understates the risk of terrorist and sabotage. The
11 mechanism that NRC uses to define risk is, let's multiply
12 what the consequences are times the probability of
13 occurrence.

14 They do admit the consequences are
15 significant in their statements. They also say that
16 they would be destabilizing. Well, I think those are
17 kind of internally jargon or code words for significant
18 yes, permanent, yes, if an accident happens.

19 Destabilizing, that just totally
20 understates the reality of how many deaths would occur
21 if a single spent fuel fire, or Zirconium clad fire, or
22 other dispersal from an attack or some other event, be
23 it natural or manmade occurs.

24 The tables that are presented in the
25 appendices that describe these just totally understate

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1 those impacts. The probabilities are totally
2 understated. We know that terrorist attacks happen in
3 our world. They happen anywhere, anytime and anyplace
4 that a terrorist wished to make them happen.

5 If we look at 9/11 as an example, the
6 situation could have been enormous in its impacts. In
7 fact, 9/11 was small. We don't want to admit that but
8 it was small. The potential of those same multi-tiered
9 attacks at three locations simultaneously could have
10 wiped out all of New York City and much of New England,
11 if they had merely decided to put one of those planes and
12 attack the spent fuel pools at Indian Point.

13 They didn't do that. They chose
14 politically, targets that were chosen for other reasons,
15 to just prove that they could attack the government, they
16 could attack the airline industry, and they could attack
17 a financial symbol.

18 MR. CAMERON: Richard, could I just get you
19 to sum up for us?

20 MR. ANDREWS: I will be glad to do that and
21 I will leave copies of my comments that are more
22 extensive, and I will be submitting much more extensive
23 written comments later.

24 MR. CAMERON: Great, thank you. Thank you
25 very much. Michael?

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1 MR. APTEDE: Hello, I'm Michael Apted. Not
2 the movie director Michael Apted, unfortunately. I'm
3 Michael Apted of more or less nuclear waste management,
4 often confused.

5 By way of sort of introducing myself and my
6 background, my expertise, my experience, I have a
7 Bachelors of Science in Chemistry from MIT, a Ph.D. in
8 Geochemistry from UCLA. I have about over 30 years
9 experience in this area of overall nuclear waste
10 management, storage, and particularly focusing on
11 geologic disposal. And that really will be the focus of
12 my talk, sort of building on some of the points that Paul
13 raised and that I think, Tom, in an earlier talk raised
14 as well.

15 Let me get right to my key message and I'll
16 repeat it at the end that when I look at not just in the
17 U.S., but when I look at internationally what's going on,
18 because all countries that have nuclear power are
19 confronting this issue of storage, transportation,
20 handling, terrorist attacks and ultimately the
21 permanent, safe, long-term disposal of nuclear waste,
22 and what I find deficient in the current EIS is the lack
23 of real sort of summary review documentation identifying
24 this real progress that's going on in other countries.

25 In a few years they'll probably be opening

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1 repositories in several European countries. In ten
2 years there will be several different types of repository
3 concepts that are going forward in terms of licensing.

4 That kind of progress really should be
5 reflected in this whole idea of 60 years being a short
6 term, really. In six years we're probably looking at
7 high confidence that there will be these kind of
8 successful, licensed, under-regulatory-review
9 repositories. And I think that theme should be more
10 closely represented in the EIS.

11 Currently I serve as a technical expert for
12 the regulatory authorities in both Finland and Sweden.
13 Construction license applications for geologic
14 repositories have been issued, they're under current
15 review. I think, Finland, the current schedule is a
16 decision, yes or no, by sometime late in 2014, in Sweden,
17 the schedule now is sometime in 2015. So
18 these decisions on showing that there can be a successful
19 and robustly safe closure of the nuclear fuel cycle are
20 coming soon, not 60 years but in a few years. And I think
21 that perspective, again, should be built in and brought
22 into this EIS.

23 Now in addition to Sweden and Finland,
24 France, Switzerland they're a few years behind.
25 Somewhere in about the next five to ten years they'll also

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1 be bringing new and different repository concepts to
2 their regulatory authorities. Again, looking to show
3 and demonstrate a safe closure of the fuel cycle.

4 I think, again, some sort of appreciation of
5 looking outside the borders of the United States. A few
6 weeks ago in Canada, for example, they're looking at
7 regulatory licensing, public commentary review of these
8 deep disposal of intermediate and low level waste at the
9 Bruce site in Canada. This kind of progress really needs
10 to be brought forward into this idea of confidence.

11 Other nations, Canada, as I mentioned,
12 U.K., Japan, Russia, China, all are also heavily invested
13 in progress and developing new ideas, new concepts for
14 safe, long term -- and by long term I mean out to a million
15 years -- safe, permanent disposal of this highly
16 radioactive material.

17 And so again, this kind of progress, the NRC
18 has bilateral agreements with many of the regulatory
19 agencies around the world. It would be useful if they
20 used those bilateral connections to bring in that kind
21 of information to be reflected in this EIS report.

22 So to close, my view is that really there
23 is high confidence as of today that there will be
24 demonstrated safe, long-term, permanent geologic
25 disposal of spent nuclear fuel, high level waste that's

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1 arising from the nuclear industry and nuclear weapons
2 programs. This kind of information really ought to be
3 reflected more in the report as it stands today. Thank
4 you very much.

5 MR. CAMERON: Thank you. Thank you
6 Michael. And we're going to go to Bill Barlett and
7 Tammera Baker and then Ronald Booth, and I think Bill is
8 joining us right now.

9 MR. BARTLETT: Thank you. Good evening
10 everyone. My name is Bill Barlett. I have the pleasure
11 of being co-chair of the state Green Party for the last
12 couple of years.

13 And the Green Party, as a stance, we do not
14 agree with nuclear power, but we disavow all nonrenewable
15 energies in favor of renewable energies and we do
16 understand that in the interim there is a place for
17 nonrenewable energies to maintain a steady energy grid,
18 but long term we need to be thinking about phasing out
19 these dangerous technologies in favor of more green
20 technologies that can supply effective fuel sources.

21 Tonight we're talking about waste
22 confidence. And in my home, if, for instance, we have
23 plastic bottles, and if we had to recycle those, we
24 recycle plastic bottles when we get them. It's
25 fantastic. But this isn't exactly plastic.

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1 And I know that we have scientists lined up
2 that will tell us that the scientific facilities are
3 available to safely store this nuclear waste, but what
4 we heard earlier is it's the politics. And it's the
5 politics that always makes the mess. As we can see now,
6 this panel might not even be able to function next week
7 because of politics.

8 So while I have faith in our science ability
9 to store this radioactive material, I don't exactly have
10 faith in the humans that are directing a lot of these
11 administrative procedures that are supposed to make this
12 safe, particularly as our friend from Laramie was telling
13 us about the transportation difficulties and some of the
14 other people are going to talk about some other things
15 here tonight.

16 We try to prepare for all the eventualities
17 that we can and we hope that the operators that are
18 putting together these facilities are preparing for
19 these eventualities and that they're listened to.

20 In Fukushima, for instance, the people who
21 created those plants, there were people involved in the
22 creation of that plant who have problems with the
23 placement of the plants and the way they were putting it
24 together. They weren't listened to and they left that
25 project and it was still created and this is what we have

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1 today.

2 So there are people involved who can affect
3 the process and bring up ideas in case we have disasters
4 like an earthquake, like a tsunami, like a flood. But
5 the nicer the waste confidence looks, the more the
6 industry feels comfortable in creating more nuclear
7 waste, which again, if I wasn't able to recycle plastic
8 at my house, if it just turned up in a bin in the backyard
9 for the animals to choke on and to fill up my yard over
10 time, we would stop using the plastic and start looking
11 for something else to use instead.

12 So that is the Green Party position. Can
13 we store things in an ideal political climate for long
14 terms? Quite possibly. I'm sure the science is there.
15 But is the human touch there? Is the finesse of our
16 political system there? Is the political will to keep
17 us safe there, when we already know that the shareholders
18 of multinational corporations have the reins of our
19 government. It's been proven.

20 So the goal, more renewable energies, less
21 nonrenewable poisonous energies. Let's not have a
22 plastic island that's radioactive in the ocean, let's
23 have more renewables.

24 The projections here say they're trying to
25 prepare for the 20 percent of energy that we use as

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1 nuclear energy now, into the future. But as a Green, I'd
2 like to see us projecting less than 20 percent into the
3 future while we prepare for that 20 percent.

4 I won't take up anymore of your time. I
5 appreciate everybody's hard work on this issue, because
6 we are all relying on you to keep us safe on this. So
7 thank you very much.

8 MR. CAMERON: Thank you Bill. Thank you
9 very much. We're going to hear from Tammera Baker, and
10 then we'll take a little break for five minutes or so,
11 so you can stretch or whatever. So Tammera?

12 MS. BAKER: Good evening. My name's
13 Tammera Baker and I'm a communications consultant with
14 the Palo Verde Nuclear Generating Station, which is about
15 45 miles west of downtown Phoenix.

16 Nuclear energy plays a vital role in meeting
17 our nation's electricity needs, protecting the
18 environment and preserving the fuel and technology
19 diversity that is the strength of the U.S. electricity
20 supply system.

21 One hundred nuclear power plants in the
22 United States generate nearly 20 percent of our
23 electricity, and in seven states nuclear power plants
24 generate more electricity than any other source. Since
25 1992, Palo Verde has been the largest power producer of

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1 any kind in the United States. This generated
2 approximately 4,200 megawatts of electricity that's
3 enough to supply and meet the electrical needs of
4 approximately four million people in the Southwest. The
5 Energy Department projects that U.S. electricity demand
6 will raise 28 percent by 2040, and that's even with very
7 modest economic growth.

8 That means the United States will need
9 hundreds of new power plants of all types to meet the
10 increased demand and replace older facilities that are
11 being retired. Some of these new plants are going to
12 have to be nuclear, like the five that are currently under
13 construction in Georgia, South Carolina and Tennessee.
14 Nuclear energy is the only emission-free source of
15 electricity that can be widely expanded.

16 The president has set very ambitious goals
17 for reducing carbon dioxide emissions, and the United
18 States simply cannot get there without nuclear energy.
19 In addition to generating clean energy, nuclear plants
20 strengthen state and local economies through jobs, taxes
21 and secondary spending. Palo Verde, for an example, is
22 a major employer in Arizona and it also makes a
23 substantial amount of local purchases from suppliers,
24 supporting the region's economy. The plant directly
25 employs 2,800 employees and contractors with the

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1 combined annual payroll of \$255 million. It also
2 indirectly supports an additional 5,800 jobs and \$253.7
3 million in payroll annually in other businesses
4 throughout the state.

5 The presence of nuclear power, or nuclear
6 plants and its employees filters throughout the local
7 economy. Analysis shows that every dollar spent by the
8 average nuclear plant results in the creation of \$1.04
9 in local economy, \$1.18 in the state economy, and \$1.87
10 in the U.S. economy. Again using Palo Verde as my point
11 of reference, the plant creates an economic impact of
12 \$1.8 billion in the Arizona economy, and it's the largest
13 single commercial taxpayer in Arizona, paying
14 approximately \$50 million in property taxes alone.
15 These tax dollars benefit our schools, our roads, and
16 other state and local infrastructure, not to mention the
17 generosity of the Palo Verde employees who donate over
18 a million dollars every year to local charities.

19 For many reasons nuclear energy is a vital
20 part of our nation's electricity system. It's essential
21 for the Nuclear Regulatory Commission to complete the
22 Waste Confidence rulemaking and move forward with
23 issuing renewed operating licenses for existing nuclear
24 plants and license to build and operate new plants. I
25 would like to thank the NRC tonight for hosting this

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1 public meeting and providing us with an opportunity for
2 making these comments.

3 MR. CAMERON: Okay, thank you. Thank you
4 Tammera. And let's take a break for five minutes or so
5 and we'll come back and hear from Ronald Booth, Ellen
6 Buckley and Susan Long. Thank you.

7 (Whereupon, the foregoing matter went off
8 the record at 8:22 p.m. and went back on the record at
9 8:47 p.m.)

10 MS. ALISA NAVRKAL: Nuclear energy is
11 extremely expensive, prohibitively so. Without
12 significant public subsidies it is too expensive to
13 continue. Taxpayers shouldn't be expected to pick up
14 the tab for dirty and dangerous energy production when
15 clean renewable energy resources are far cheaper, safer,
16 reliable, and available.

17 If a cloudy country like Germany can shut
18 down its nuclear power stations and be powered by 50
19 percent renewable energy at times during this past year,
20 the United States can, too.

21 For the sake of our children and our future
22 generations, it's time to transition beyond dirty and
23 dangerous energy sources to a clean renewable energy
24 future. Thank you.

25 I'm also reading comments on behalf of

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1 Leslie March, she was unable to be here this evening.
2 This is Leslie's statement. My name is Leslie March. I
3 live in Hillsboro, Oregon. I'm a member of the Sierra
4 Club Nuclear Free Corp Team, but the following are my
5 personal comments.

6 The Sierra Club will submit their comments
7 at another time. Thank you for giving me the opportunity
8 to speak. I am very concerned about the entire process
9 of this EIS. The NRC seemed to be in a hurry to proceed
10 to the end of the process without giving any part of it
11 careful review.

12 The public meetings are not being held near
13 reactor communities with the exception of the California
14 meetings. The public was not given enough notice for the
15 meetings. It has been less than 30 days since the draft
16 EIS was submitted on September 13 by the NRC.

17 I want to reproach the NRC for trying to rush
18 this whole process. I want to make one thing perfectly
19 clear. I am not confident that the NRC will be able to
20 site a permanent repository within 25 to 30 years. I'm
21 also not confident that they are fully prepared to store
22 the existing 80,000 metric tons of radioactive waste
23 already sitting at the 104 reactors across the country.

24 As a financial professional I am concerned
25 that the true cost of the nuclear fuel cycle are not

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1 discussed in this document. The long-term social and
2 monetary costs of the creation of radioactive waste are
3 not evaluated, nor are the costs related to the potential
4 accident or incident related to fuel spent like pool
5 fire, pool leakage, long-term cask storage, or
6 transportation of radioactive waste.

7 In addition, the costs of handling the
8 existing on-site waste and restoration of the lands
9 decimated by mining were ignored. In my case, I am
10 concerned about the generic aspects that the NRC wants
11 to bring to this process.

12 Each reactor site has its own unique
13 signature and needs to be treated individually. In my
14 case, the Columbia Generating Station is in the
15 agricultural center of Washington State. An accident
16 there threatens \$9.5 billion worth of products in
17 Washington and another \$6 billion in Oregon.

18 This is besides having Seattle, Spokane,
19 and Portland affected based on what direction the wind
20 blows. We also have the risk of contaminating the
21 Columbia River and the double jeopardy of having the
22 Hanford reservation next door.

23 I am asking that the EIS thoroughly discuss
24 spent fuel impacts for each reactor, follow an EPA by
25 considering alternatives for creation of future waste

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1 including the alternative to continue the moratorium on
2 re-licensing and licensing reactors with the goal of
3 phasing out all reactors by 2020 or sooner.

4 The EIS also needs to include an
5 investigation of the carbon effects of the fuel cycle.
6 As we continue to try to decrease greenhouse gasses in
7 the United States, continuing to mine, mill, and process
8 uranium is a contradiction.

9 In fact, one of the most dangerous chemicals
10 that depletes the ozone layer, Freon, has been used in
11 converting uranium to fuel. Construction and
12 de-commissioning are also high carbon emitters. The EIS
13 needs to look at renewables and energy efficiency as
14 being an alternative to creating more nuclear waste.

15 In conclusion, I am proposing that the EIS
16 meet its and EPA requirements by offering alternatives,
17 considering each reactor site separately, and to
18 evaluate all costs involved, not just how much it will
19 cost to do an EIS. Thank you.

20 And thank you for letting me read Leslie's
21 statement, also.

22 MR. CAMERON: And that's fine. Thank you,
23 Alisa. Is Joan here, Joan Seeman? And how about
24 Jennifer? And Bob, I know Bob Kinsey's back there.

25 MR. KINSEY: My name is Bob Kinsey. I live

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1 in Colorado Springs currently. I've been a Colorado
2 resident for a long time and I thank Janet Johnson for
3 her comments, very well thought out and very detailed
4 about the nuclear industry in Colorado and how it's
5 messed this up and cost us a lot of money, money that is
6 not included in the cost per kilowatt hour for nuclear
7 power when it said that nuclear power can provide power
8 cheaper than renewable sources like wind and solar.

9 The waste confidence, I shuttered when I
10 heard that word, confidence, waste confidence, it sounds
11 like a con game. It sounds like what you're trying to
12 do is create some kind of techno legalese babble to get
13 around the Court trying to enforce the protections that
14 we put in place by law to protect us from nuclear dangers.

15 It says here, you know, it's feasible to
16 safely store spent nuclear fuel, follow license life of
17 the operator of the reactor. You know, the DOE said it
18 was feasible to build an advanced nitrous filtration
19 plant at Hanford.

20 And they approved a plan to build that plant
21 that was going to cost somewhere between \$3 billion and
22 \$4 billion, that was about ten years ago. That plant by
23 Bechtel is, Bechtel has just turned that into a cash cow.
24 They are currently not completed.

25 They were supposed to be completed by 2014.

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1 The completion date has, you know, been moved up to about
2 2016 at this point and the cost of the thing is \$14.4
3 billion currently, you know, you can see what's happened
4 there.

5 You know, it's feasible perhaps to build the
6 plant, but it didn't happen, you know. It didn't happen
7 and DOE couldn't make it happen and that cost is
8 incredibly high. That was a way of dealing with nuclear
9 waste.

10 It's feasible perhaps to handle nuclear
11 waste, but the fact of the matter is that a lot of nuclear
12 waste has been made into depleted uranium shells that
13 have been used by the United States military and have
14 poisoned the land and the air in Southern Iraq and in
15 Serbia battles and has caused all kinds of birth defects
16 and deaths in the process.

17 So it wasn't in fact safely handled, the
18 nuclear waste, that the so-called depleted uranium was
19 allowed to get out. Right now the waste tanks for
20 nuclear at the Savannah River site are raging into the
21 Savannah River.

22 Oh, right, I forgot to mention that as a
23 member of the Colorado Coalition for Prevention of a
24 Nuclear War, I work with the Alliance for Nuclear
25 Accountability and we know and we documented that leak.

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1 The tanks in Hanford are leaking into the Columbia Reach
2 and are impacting the roe of the salmon that is spawn
3 there.

4 And nuclear plutonium has been found in the
5 salmon off the Coast of the Columbia River in the Pacific
6 Ocean. And now, of course, we've got the nuclear
7 pollution that is infesting the entire Northern Pacific
8 Ocean fish and has been found already from Fukushima.

9 It's feasible, yes, it's technically
10 feasible just like, you know, you can, it's feasible to
11 write a way around the ruling of the Court, but it won't
12 happen. It's, what is this? A way to grease the
13 so-called nuclear renaissance so that the nuclear
14 industry can move ahead and build more nuclear plants and
15 create the whole fuel cycle that endangers the planet.

16 And as a clergy man I have to say it's
17 immoral to do that, to take those kinds of risks. If I
18 were a medical person I would say that the precautionary
19 principle says why take the risk? Why reduce the cost?
20 Why reduce the cost to license nuclear plants and not
21 include the costs that it will take to in any way
22 responsibly handle the waste?

23 I don't have any confidence that that can
24 be done politically or humanly in a capitalist system
25 that will bend all kinds of corners to make a buck rather

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1 than be responsible if they can get away with it.
2 There's no way that you can create waste confidence in
3 my mind given the long-term dangers of nuclear waste.
4 Thank you.

5 MR. CAMERON: Okay. Thank you, Bob. Is
6 Rick Allen here?

7 MR. ALLEN: Yes.

8 MR. CAMERON: Okay. We're going to go to
9 Rick and then we have a duet, I guess, from Chris
10 Frankland and Theann Sandos. And this is Rick Allen.

11 MR. ALLEN: Hi. My name is Rick Allen and
12 I'm representing the United Association of Plumbers and
13 Pipefitters here tonight. I'd like to say, first off I'd
14 like to talk a little bit about the storage of nuclear
15 fuel. The fuel pools are large robust structures, some
16 40-feet deep with reinforced concrete walls several feet
17 thick and steel liners.

18 The water offers superb cooling for
19 radiation and the fuel pools offer 25 to 30-feet of water
20 shielding and fuel cooling. The volume of water in these
21 pools is so large that any evaporative process associated
22 with loss of cooling system would provide time for
23 operators to establish backup water supply.

24 All used fuel pools are designed to seismic
25 standards consistent with other important safety related

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1 structures on the plant sites. The dry storage
2 containers are robust, concrete steel structures with no
3 moving parts.

4 Multiple barriers provide an in-depth
5 protection. More than 100 tons of concrete and steel
6 forms precisely engineered structures to protect 10 tons
7 of used fuel. Over the past 30 years the nuclear
8 industry has safely loaded more than 1700 dry storage
9 systems.

10 All of these systems are in service today
11 and there has been zero release with their radioactive
12 contents. Dry storage systems have withstood several
13 earthquakes, hurricanes, and other natural disasters.

14 At the Japan, Fukushima Dai-ichi site, used
15 fuel was stored in seven pools and nine dry storage
16 containers when the earthquake and tsunami and
17 subsequent explosions occurred in March 2011. All of
18 this fuel was protected and remains in safe storage
19 today.

20 So I'd like to get on to a little bit of the
21 economic impacts of this. Nuclear energy generates 63
22 percent of the carbon free electricity produced in the
23 United States according to the U.S. Energy Information
24 Administration. The operation of a nuclear plant
25 requires hundreds of people to perform numerous and

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1 various responsibilities.

2 The closing of San Onofre Nuclear Power
3 Plant means 1100 workers will lose their jobs. The
4 closing of the Vermont Yankee Nuclear plant will cost
5 more than 600 workers their jobs. These numbers include
6 only direct full-time jobs at these plants.

7 Also lost will be hundreds of jobs involving
8 maintenance completed during outages and hundreds of
9 more for suppliers and vendor companies who rely on these
10 plants for their survival.

11 The Boston Globe newspaper reported on
12 September 18 that 17 years since the Maine Yankee Nuclear
13 Power Plant closed and 600 workers lost their jobs,
14 property taxes have spiked more than ten times for the
15 town of 3700 residents.

16 The number living in poverty has more than
17 doubled as many professionals left and the town's
18 services and jobs have been cut. The town of Wiscasset
19 lacks money to repair leaky windows and roofs in school
20 buildings and the high school has fewer than half the
21 students it had two decades ago and about 50 percent of
22 them rely on subsidized lunches.

23 On average a nuclear energy facility
24 generates \$470 million dollars in sales of goods and
25 services the local community and nearly \$40 million in

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1 total labor income annually. Each year it pays out about
2 \$67 million in federal taxes and almost \$16 million in
3 state and local taxes.

4 That's all I have to say. I just wanted to
5 talk about the economics of it. Thank you.

6 MR. CAMERON: Thank you, Rick. If anybody
7 else wants to make a comment, if you want to sign up Miriam
8 has some blue cards if anybody wants to do that.

9 But we have Chris Frankland and we have
10 Theann Sandos, both from ConverDyn and do you guys want
11 to use two mikes?

12 MR. FRANKLAND: Yes, that's great.

13 MS. SANDOS: Sure.

14 MR. CAMERON: Okay.

15 MR. FRANKLAND: Thank you. Good evening
16 and thanks to our hosts here today and for everybody
17 contributing. My name is Chris Frankland. I'm Vice
18 President with ConverDyn and this is my colleague, Theann
19 Sandos, and we've got a joint statement to make and keep
20 our time efficient.

21 We are a Denver headquartered company which
22 is a partnership between Honeywell International and
23 General Atomics. We sell a component of the nuclear fuel
24 cycle produced at the Metropolis Works Plant in
25 Metropolis, Illinois. They employ about 300 employees

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1 there at the site and we have about ten or 15 folks here
2 in our Denver office.

3 Our statement today focuses on encouraging
4 the NRC to complete the Waste Confidence Environmental
5 Impact Statement and Rulemaking in a timely fashion.
6 Nuclear energy is an important part of America's energy
7 security providing two-thirds of the Nation's
8 emission-free electricity 24 hours a day.

9 Given these stakes, prompt completion of
10 the Rulemaking is critical to ending the current
11 moratoria on a wide range of final nuclear energy
12 licensing, including issuance of operating licenses for
13 new plants, license renewals for operating nuclear
14 plants, and extension of licenses for independent spent
15 fuel storage facilities.

16 In short, ConverDyn supports the NRCs
17 fundamental Waste Confidence conclusion that used fuel
18 can be safely stored at reactor sites or at off-site
19 locations and the time interval between reactor shut down
20 and the ultimate recycling or disposal of the fuel.

21 This conclusion is supported by many
22 decades of safe, secure, on-site storage of used fuel in
23 spent fuel pools and in dry storage systems both in the
24 United States and abroad.

25 MS. SANDOS: While long-term storage of

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1 used fuel is safe and feasible for extended periods it
2 is not a permanent solution. Ultimately, the United
3 States must dispose of used fuel for its recycling
4 byproducts. Fortunately, there is an international
5 scientific consensus that geological disposal of used
6 fuel is feasible and safe.

7 I visited the Onkalo spent fuel repository,
8 the world's first deep geological repository located in
9 Finland, and have high confidence in the multiple release
10 barriers at minimal impacts to humans and the
11 environment.

12 To this end, consistent with federal law and
13 in light of recent decisions by the U.S. Court of Appeals,
14 it is our hope that the Department of Energy and the NRC
15 will proceed expeditiously with the safety review of the
16 pending Yucca Mountain construction authorization
17 application and consummation of the nearly completed
18 safety evaluation reports.

19 Since 1982 the Government has accumulated
20 a nuclear waste fund of \$30 billion from money collected
21 from customers of nuclear electricity. It is time to use
22 that money for its purposes, progress towards a national
23 repository.

24 The Nation has already spent upwards of \$10
25 billion on Yucca Mountain and the American people deserve

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1 to see the results of an independent, objective safety
2 review performed by the NRC. As President Obama himself
3 pointed out at the beginning of his first term in office,
4 regulatory decisions should be based on sound science not
5 politics.

6 Thank you for the opportunity to make these
7 comments on the Waste Confidence Rulemaking and related
8 issues. Again, encourage the NRC to proceed promptly
9 with this Rulemaking.

10 MR. FRANKLAND: Thank you.

11 MR. CAMERON: Thank you, Theann. Thank
12 you, Chris. Well that's the end of the commenters for
13 tonight and you've been a wonderful audience and we
14 really appreciate that.

15 We usually close out with one of the Senior
16 NRC Officials here and I was going to ask Carrie Safford
17 to close out for us and the NRC staff is going to be here
18 after the meeting if you want to talk, if there's anything
19 your mind, talk about it.

20 If anybody has a badge like this, anything
21 you want to talk about just talk to them and, Carrie.

22 MS. SAFFORD: Thank you all for coming in
23 tonight and for staying and listening to all of the
24 comments that were provided. And, again, like Chip
25 said, we are around after the meeting so if you do have

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1 some questions, please come talk to us.

2 Thank you very much.

3 MR. CAMERON: Thank you.

4 (Whereupon, the meeting in the
5 above-entitled matter was concluded at 9:09 p.m.)
6

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