

UNITED STATES OF AMERICA
U.S. NUCLEAR REGULATORY COMMISSION

PUBLIC SCOPING MEETING FOR THE ENVIRONMENTAL
IMPACT STATEMENT TO SUPPORT AN UPDATED
WASTE CONFIDENCE DECISION AND RULE

NOVEMBER 14, 2012

9:00 P.M. EST (6:00 P.M. PST)

TRANSCRIPT OF PROCEEDINGS

Public Meeting

APPEARANCES

NRC Staff:

Chip Cameron, Facilitator

Dr. Keith McConnell, Director
Waste Confidence Directorate
Office of Nuclear Material Safety and Safeguards

Tison Campbell, Attorney
Office of the General Counsel

Paul Michalak, Branch Chief
Environmental Impact Statement Branch
Office of Nuclear Material Safety and Safeguards

Andy Imboden, Branch Chief
Communications, Planning and Rulemaking Branch
Office of Nuclear Material Safety and Safeguards

1 PROCEEDINGS

2 [begin evening session]

3 CHIP CAMERON: Good evening, everyone. My name is Chip

4 Cameron, and I'd like to welcome you and also thank you for participating in this

5 webcast meeting on the scope of the Nuclear Regulatory Commission, the NRC's

6 Environmental Impact Statement on Waste Confidence. And it's my pleasure to

7 serve as your facilitator tonight, and in that role, I'll try to help all of you to have a

8 productive meeting. I wanted to spend a few minutes on meeting process issues

9 so you know what to expect tonight, and I'd like to tell you about the objectives of

10 the meeting, the format for the meeting, the agenda for the meeting, and to

11 introduce the NRC staff who will do presentations for you tonight, and also go

12 over some simple ground rules that will allow us to have a productive meeting.

13 You may know that we did a similar meeting this afternoon from

14 1:00 to about 4:30 Eastern Standard Time, with a live audience here in the

15 Commission Hearing Room, and also people on a webcast, and phoning in. We

16 don't have a live audience participating tonight, but we have all of you on the --

17 on the webcast. And in terms of objectives for the meeting, first objective is for

18 the NRC staff to clearly explain to you what process they're going to use to

19 develop the environmental impact statement, and what organization, and what

20 plans are going to be used to develop the environmental impact statement. The

21 second objective is to give all of you an opportunity to give the NRC staff your

1 recommendations, your advice, your concerns about the scope of the
2 environmental impact statement and the NRC plans. And you'll hear from the
3 staff that they're also taking written comments on these scoping issues, but I
4 want to assure you that whatever you say here tonight over the phones will carry
5 as much weight as the written comments.

6 In terms of the format, it's a very simple format. We're going to
7 have some brief NRC staff presentations for you, then we're going to go for
8 question and answers, and then we're going to go for comment from any of you
9 who want to make comments on the line. And I should tell you that there will be
10 other ways to present comments to the NRC staff. One, of course, is written
11 comment. If you want to elaborate on anything that you've said tonight, you can
12 submit a written comment. There's also going to be two what are called
13 webinars, one on December 5 from 1:00 to 4:00 PM Eastern Standard Time, and
14 you'll get some information later on how to participate in these webinars. And
15 the other one will be on December 6 from 9:00 to 12:00 Eastern Standard Time.
16 There'll be presentations, again, by the NRC staff at those webinars. And you
17 will be able to call in your questions and comments, and you will also be able to
18 use instant messaging to give those questions and comments to the NRC staff.
19 There was a transcript taken at this afternoon's meeting, and that transcript will
20 be available -- publically available at some point. We're also taking a transcript of
21 tonight's meeting, and that will also be available to you. It's the NRC's record
22 and your record of what transpired tonight. And we have Sawyer Smith, who is
23 our court reporter, who's taking the transcript tonight.

24 Let me go over the agenda. We have four presentations, and the
25 first presentation is going to be done by Keith McConnell. And he is the director

1 of the new Waste Confidence Directorate here at the NRC who is charged with
2 developing the environmental impact statement and possible rulemaking. And
3 Keith is going to give you an overview of the Waste Confidence Directorate,
4 including its mission. After we hear from Keith, we're going to go to Tison
5 Campbell, who is from our Office of General Counsel. He's going to give you
6 background on waste confidence, what happened with the court decision and
7 related events. Then we're going to go to Paul Michalak. Now, Paul is the
8 branch chief within the Waste Confidence Directorate for the environmental
9 impact statement, and Paul is going to talk about the approach that the NRC is
10 thinking about taking in regard to the environmental impact statement. And then,
11 finally and importantly, we're going to hear about public participation, and we're
12 going to hear that from Andy Imboden, who is the branch chief in the directorate
13 for communications, and planning, and rulemaking. And what I'd like to do now
14 before we go to the presentations is to just tell you a little bit more about the
15 expertise that we have just at the table, and Keith will be talking generally about
16 the expertise that's in the Waste Confidence Directorate.

17 Now, Keith McConnell joined the NRC as a geologist in 1986, and
18 since then, he's been on the staff of several of the chairmen of the NRC, I believe
19 Diaz, Chairman Selin, Chairman Meserve. He also has served as the director of
20 the Commission's Adjudicatory Technical Support Program that is in the Office of
21 General Counsel. His most recent position before he took the director of the
22 [Waste Confidence] Directorate was as the deputy director of the
23 Decommissioning and Uranium Recovery Directorate. That's in the NRC's Office
24 of Federal and State Materials and Environmental Management, known usually
25 as FSME or F-S-M-E. In terms of his education, he got a bachelor's degree in

1 geology from Clemson University. His master's degree in geological sciences is
2 from Virginia Polytech. And he has a Ph.D. in geological sciences from the
3 University of South Carolina.

4 Now, Tison Campbell came to the NRC in 2006 as part of the
5 NRC's honor law graduate program, where the top students in the graduating
6 classes from law schools around the nation are brought in to the NRC. And he's
7 worked on a lot of waste related issues, waste confidence, low-level waste
8 disposal, West Valley. And Tison got a degree in physics from the University of
9 Virginia, bachelor's degree, and he also went to the University of Virginia Law
10 School. And he has done special studies in international environmental law and
11 human rights law at the University of Nottingham in England.

12 Paul Michalak is a hydrologist, and he came to the NRC in 2005 to
13 work in the NRC's Uranium Recovery Program as a hydrologist. He later worked
14 in our Office of New Reactors, working on the environmental impact statements
15 that the NRC does in connection with any license application to build and operate
16 a new reactor. And he was an environmental consultant before he came to the
17 NRC, and his previous position before the directorate, he was a branch chief
18 supervisor of the directorate -- the Decommissioning and Uranium Recovery
19 Directorate over in FSME. Again, his educational background, he got a
20 bachelor's degree in education from Temple University, and then he got his
21 masters in hydrology from the New Mexico Institute of Mining and Technology.

22 And finally, with Andy Imboden, he began his career at the NRC in
23 2004. He has been on the staff of the executive director for operations, and also
24 was on Chairman Jaczko's staff, former chairman of the NRC, and he also was a
25 branch chief on the Environmental Reviews for License Renewal, the renewal of

1 reactor licenses in the Office of Nuclear Reactor Regulation. And before he
2 came to the Directorate, he was the policy advisor to Chairman -- now-Chairman
3 Macfarlane's on materials policy issues.

4 So we're going to hear from these four staffers, and then we'll go
5 for questions and comments, and then we'll go for public comment from you. In
6 terms of ground rules, just very simple tonight. Hold your questions until all of
7 the NRC presentations are done. I usually ask people to be brief in their
8 questions and comments. I don't know if we're going to have to have any
9 guidelines on speaking time tonight because I don't know how many people
10 we're going to have. But at any rate if we do need to move on to the next person,
11 I apologize in advance that -- if I have to ask you to wrap up tonight. The way
12 that you get in the queue to ask a question or make a comment is you hit star
13 one on your phone. That'll connect you with the operator, and she'll put you in
14 the queue, and she'll tell us who's on the phone. And then we're going to look
15 forward to listening to whatever you have to say. And with that, I think I'll just go
16 to Keith for the first presentation. Keith?

17 KEITH MCCONNELL: Thank you, Chip, and good evening to those
18 of you out in web land. I, too, would like to welcome you to this public scoping
19 meeting on the generic environmental impact statement to support the revised
20 waste confidence decision and rule. I'll be providing some introductory remarks
21 about the purposes for the meeting, the mission of the NRC, and the mission of
22 the newly formed Waste Confidence Directorate, which was tasked to develop
23 this generic environmental impact statement. Next slide. Are the slides up?
24 Maybe we'll wait for the slides a minute. Experience a little bit of technical
25 difficulties here, we'll just be a minute. Okay, there we go.

1 So we'll talk about the meeting purposes. There are four. First is
2 the variety -- and this is something of a reiteration of what Chip mentioned -- first
3 is to provide some background on the waste confidence decision to help you
4 formulate your questions and comments, and Tison's going to do that. We'll
5 move on and then talk about the environmental impact statement, and the
6 process that we're undertaking to develop that, and some of the initial proposals
7 we have for proceeding with that generic environmental impact statement. And
8 then we'll move on and talk about the opportunities for public comment. And I
9 would say at the outset that we have a very robust program in the Waste
10 Confidence Directorate to have an outreach to the public and involve parties in
11 our development of the generic environmental impact statement. The bottom line
12 is we do want to hear your comments and questions about our efforts here on the
13 waste confidence decision. Next slide.

14 Before talking about the development of the generic environmental
15 impact statement, it's important to understand two considerations that we're
16 working under. First, as you may know, back in July of this year, the U.S. Court
17 of Appeals in the District of Columbia vacated the most recent version of the
18 waste confidence decision, the 2010 version, and remanded the effort back to
19 the NRC, noting that there were three deficiencies. Tison will talk in more
20 specific terms about those deficiencies, but one of our main activities in
21 developing the GEIS is to address the deficiencies that the court identified. The
22 second consideration is that the NRC Commission, shortly after the court ruled
23 and published its decision, also decided that licenses for facilities that are
24 dependent on the waste confidence decision would not be issued -- the final

1 licenses would not be issued until we completed our analyses and completed
2 addressing the court's remand.

3 Next slide. The NRC's mission, there are four elements to our
4 mission. The first is the protection of public health and safety. We implement
5 that through the licensing and inspection of nuclear power plants and the use of
6 nuclear materials. Second element of our mission is to promote the common
7 defense and security. We do that through the implementation of proper security
8 measures that reflect the current threat environment in the U.S. and around the
9 plant vicinities. The final element of our mission is to protect the environment,
10 and we implement that through the identification and consideration of
11 environmental impacts that relate to our licensing action. I would note that we at
12 the NRC have over 30 years of experience in regulating the safe operation of
13 nuclear power plants and the use of nuclear materials. Next slide.

14 Now, talking specifically about the Waste Confidence Directorate,
15 again, it was formed approximately two months ago to take on this task of the
16 development of a generic environmental impact statement to provide a revised
17 waste confidence decision. It's housed in the Office of Nuclear Materials Safety
18 and Safeguards. We went out across the agency and looked for some of the
19 most highly experienced experts in the National Environmental Policy Act
20 activities that we here -- we have here at the NRC, and we brought those
21 individuals into the Waste Confidence Directorate to help us develop this generic
22 environmental impact statement. We also went out and looked for some of the
23 most experienced communication experts, and experts in rulemaking, and the
24 law. So we have a combined effort of people that are experiencing
25 environmental matters, communications, rulemaking, and law within the

1 directorate. We are also supported by the Center for Nuclear Waste Regulatory
2 Analysis in San Antonio, Texas. Next slide.

3 Terms of the directorate's mission, these were the -- the mission
4 was defined by the Commission in a staff requirements memorandum. Our
5 mission is to develop a generic environmental impact statement, again, to
6 support the revised waste confidence decision and rule. The second direction
7 that the Commission gave us was to allow for ample public participation in our
8 process. To achieve that, we have taken the approach of -- within the directorate
9 of having a focused communication team. This is four or five members of the
10 directorate that are focused solely on communication aspect of our effort to
11 ensure that members of the public and other parties that are interested in what
12 we do have the opportunity to participate and that we're facilitating that effort.
13 We intend to use multiple lines of communication including blogs and the
14 website, and we've actually established a formal website for waste confidence on
15 the NRC's home site. And the web address is listed up in the view graph. Next
16 slide.

17 In summary, again, the Commission's determined that licenses that
18 are dependent on the waste confidence decision will not be issued in final form
19 until our analyses are complete and a revised waste confidence decision is also
20 completed. The Waste Confidence Directorate is formed and houses some of
21 the most experienced NEPA experts in the NRC to develop this generic
22 environmental impact statement. We have a very strong and robust effort to
23 focus on communication to involve the public and to facilitate that involvement.
24 And we will allow for ample public participation. So, Chip, thank you.

1 CHIP CAMERON: Thank you, Keith. Next, we're going to hear
2 from Tison Campbell, who is going to give you some background on waste
3 confidence. Tison?

4 TISON CAMPBELL: Thanks, Chip. So this evening I would like to
5 give everybody sort of a high-level introduction to waste confidence, provide
6 some background so that for our discussions tonight we can all operate from a
7 common framework and make sure that everyone has a similar understanding of
8 what waste confidence is and how it affects our licensing process.

9 So moving on to my first slide -- I'll talk, and we'll wait for the slide
10 to come up -- so waste confidence -- it's -- it does two things. It's a generic
11 environmental analysis that feeds into the environmental analysis that the
12 commission conducts as part of our reactor licensing. And it's a generic
13 determination that fuel can be stored safely until a repository for disposal
14 becomes available. It's also important to consider what waste confidence does
15 not do. It doesn't license a particular site or facility. There's a separate NRC
16 action that would have to occur before that could happen, and it does not allow
17 for the long-term storage of spent fuel at any site. Again, a separate NRC action
18 would have to occur before this post-license-life long-term storage could occur.

19 Now, moving on to the next slide, this is a graph that should
20 illustrate a little bit better how waste confidence fits in to the overall
21 environmental analysis that the Commission conducts as part of our reactor
22 licensing. The first portion of the graph represents the life -- the license life for
23 operations of a reactor. That's a site-specific analysis. If you hear about, you
24 know, a 40-year operating license, that's what's represented here. The second
25 thing you see is waste confidence, and that's our generic look at post-license-life

1 storage, what we we're doing here. This is the analysis that we're going to
2 conduct as part of this EIS. And then the third piece you see is disposal. So
3 we're looking at the entire lifecycle of the fuel from the time it enters the reactor
4 and until it's placed in a disposal site. And we're making sure that our
5 environmental analysis considers all of those aspects, whether in a site-specific
6 manner or whether it's -- we do it generically as part of this or another
7 rulemaking.

8 So moving on to the next slide, I just wanted to make sure that
9 everyone has some sense of the history of waste confidence. Waste confidence
10 comes out of a 1979 court decision, and in response to that decision, the
11 commission adopted the initial Waste Confidence Rule in 1984. It was updated a
12 number of times since then and most recently in 2010. In response to the 2010
13 rule, the NRC was sued by a number of environmental organizations and some
14 states. And the Court of Appeals for the D.C. Circuit vacated and remanded.
15 Basically, it threw out the rule and returned it to the NRC -- that rule in June
16 2012.

17 So on the next slide, I'm going to talk a little bit about what exactly
18 the court did and what it means for what we're doing here. The court had three
19 basic conclusions. They found that the NRC's analysis did not evaluate the
20 environmental effects of failing to secure permanent disposal. This is the no-
21 repository scenario you may hear Paul or others talk about later tonight, and
22 that's going to be a key component of the analysis that the directorate's going to
23 conduct over the next two years. They also -- the court also directed the
24 commission to update our assessments of spent fuel pool leaks and spent fuel
25 pool fires. And again, that's something Paul's going to talk about as he talks

1 about, you know, some of the things we're thinking about, including in our
2 environmental analysis.

3 Another key point from the decision is that the court did say that a
4 generic environmental assessment with a finding of no significant impacts or a
5 generic environmental impact statement, which is what we've decided to do here,
6 is an acceptable method to address waste confidence. So we're going ahead
7 with this generic environmental impact statement, and we're here tonight to get
8 your comments on what the scope of that should be.

9 So there are two things you should remember as we have our
10 discussion this evening. The first is that waste confidence is only a small part of
11 the environmental analysis for reactor licensing. If you think back to that slide we
12 had up with the timeline, it fits into the site-specific analysis for the impacts of
13 spent fuel storage during the operating life of the reactor and the generic analysis
14 we've done for disposal. So it fills that gap there. And the second thing to
15 remember is that waste confidence does not license any facility or authorize
16 storage after the expiration of a facility's license. There would be a separate
17 NRC action that would have to occur before that could happen and there would
18 be an opportunity for public involvement prior to that occurring. Thanks, Chip.

19 CHIP CAMERON: Great, thank you. Thank you very much, Tison.
20 Next, we're going to hear from Paul Michalak, who's going to talk about the
21 approach.

22 PAUL MICHALAK: Exactly.

23 CHIP CAMERON: Thank you.

24 PAUL MICHALAK: Thanks, Chip. My presentation addresses the
25 environmental impact statement and our current ideas on how we would

1 approach developing that EIS or environmental impact statement. As previously
2 discussed, we are developing an update to the waste confidence rule. As part of
3 that effort, we will develop an environmental impact statement. The analyses
4 and conclusions in that environmental impact statement will inform our update of
5 the waste confidence rule. Presently, we're working on defining the scope of the
6 environmental impact statement. Today's meetings are part of that scoping
7 process, and we are here to get your comments and feedback. Why develop an
8 EIS? As presently mentioned -- as previously mentioned, earlier this year, the
9 Court of Appeals vacated and remanded the 2010 Waste Confidence Rule. Our
10 mission is to revise that waste confidence rule, addressing the deficiencies
11 identified in the court. When developing the rule, the Commission must comply
12 with the National Environmental Policy Act, also known as NEPA. The
13 environmental impact statement under development will contain our analyses of
14 the environmental impacts of the updated waste confidence rule.

15 I think it is important to note that the Commission has determined
16 that waste confidence should be evaluated with an environmental impact
17 statement due to public and stakeholder interest. The EIS or environmental
18 impact statement is an integral component of the NRC's proposed action, which
19 is to revise the waste confidence decision and rule to account for the safety and
20 environmental impacts of continued spent fuel storage for some period beyond
21 the license life for reactor operations.

22 We have developed several potential scenarios as part of our
23 internal scoping. The scenarios are based on different timelines for spent fuel
24 storage beyond the license life of reactor operation. Currently, we will evaluate
25 spent fuel storage until a repository becomes available at the middle of the

1 century. We'll also evaluate when storage -- until storage becomes available at
2 the end of the century and continued storage in the event a repository is not
3 available. The environmental impact statement under development will contain a
4 generic analysis of impacts. We will not focus on capturing site specific technical
5 issues. Our current strategy is to take the -- an affected environment, for
6 example, air or water, and develop a set of general characteristics and
7 associated ranges to bound the conditions of spent fuel storage throughout the
8 United States. Our analyses will also contain an assessment of spent fuel pool
9 leaks and fires. We are at the beginning of this scoping process, and we
10 welcome your comments.

11 CHIP CAMERON: Thank you, thank you very much, Paul. And our
12 final presentation is going to be on public participation, and Andy Imboden.

13 ANDY IMBODEN: Thank you, my name is Andy Imboden. I'm the
14 chief of the Communications, Planning, and Rulemaking Branch, and before we
15 get to question and answer, I wanted to take a quick minute to share NRC's
16 plans for participation opportunities right now and over the two years. This slide
17 is our preliminary schedule. There's three main phases: the scoping period,
18 followed by a draft environmental impact statement and proposed rule, and
19 there'll be a public comment period on those documents, followed by a final
20 environmental impact statement and rule. We're currently in the scoping period.
21 Next slide, please.

22 Scoping is -- goes until January 2nd, 2013. It's a 70-day public
23 comment period during which we are receiving written comments at any time,
24 and we believe this time frame is adequate and consistent with other agency
25 efforts. Today, at this evening's public meeting, and during webinars on

1 December 5th and 6th, there are other opportunities to put your comments on the
2 record. After the scoping period closes, the NRC will collect all the comments,
3 no matter how they were submitted, and the NRC will take these comments into
4 consideration as we develop the draft environmental impact statement.

5 One of the questions we're particularly asking for during the
6 scoping period is we intend to have regional meetings on the draft documents,
7 and would like your feedback and input on where those meetings might be held.
8 At the conclusion of the scoping period, we will prepare a summary of the
9 comments we received, including the significant issues that have been identified,
10 and will make this publically available, probably in the spring. The next slide
11 shows when we estimate the draft environmental impact statement and proposed
12 rule. They'll be available in fall 2013, and there will be another opportunity for
13 public involvement then. At that point, we'll be looking for feedback and
14 comments on the NRC's analysis and preliminary conclusions. During that time,
15 we will receive written comments again, and we'll have public meetings and
16 webinars to get your comments on the record. Final stage of the project will be
17 the Final Environmental Impact Statement and Rule, and we estimate in August
18 2014, and at that time we'll also have the comments we've received on the draft
19 and the NRC's consideration of those comments.

20 This next slide has details on how to submit scoping comments. I
21 won't speak to the details, but if you're just calling in and don't have Internet
22 access, grab a pen. You could call us at 1-800-368-5642, extension 492-3425,
23 and we'll get you the details and information you need. On this next slide, the
24 December webinars that are coming up, Wednesday, December 5th, from 1:00
25 p.m. Eastern to 4:00 p.m. Eastern, and Thursday, December 6th, 9:00 p.m.

1 Eastern to 12:00 a.m. Eastern, and the important thing to note is that
2 preregistration is required, so that way you could get the access code needed to
3 participate in those meetings. The agenda at those webinars will be the same as
4 today. And on the final slide are just some of the other ways you could get
5 information on this project, track our progress, and how you could stay in touch
6 with our activities. Thank you for your consideration. Chip?

7 CHIP CAMERON: Great. Thank you, Andy, and thank you all.
8 And now we're going to have some time for questions, and as I mentioned
9 before, if you hit star one, you will be in touch with the operator. And please
10 introduce yourself to us when we have you online, here, and ask your question.
11 Operator, do we have anybody who has a question?

12 OPERATOR: No, I'm showing no questions right now at this time,
13 but as he did say, if you would like to ask a question, please unmute your phone
14 and press star one now.

15 CHIP CAMERON: And we'll just give this a few minutes, operator,
16 to see if anybody decides that they have a question for the staff.

17 OPERATOR: No problem.

18 CHIP CAMERON: A comment, I don't think that we have to just
19 rigidly follow a division between questions and comments. So can you see if
20 anybody has a comment, and, again, if you want to make a comment, if you want
21 to talk to the NRC staff, you hit star one. Is that correct, operator?

22 OPERATOR: Yes, that is correct. And we did actually have a line
23 come into queue to ask a question or they may have a comment as well, if you
24 would like to take that now?

25 CHIP CAMERON: Yes.

1 OPERATOR: Okay, that comes from Norman Meadow with
2 Maryland Conservation Council. Your line is now open.

3 NORMAN MEADOW: Thank you. First of all, Chip, I'd like to thank
4 the NRC for allowing us to make comments on this issue. It's obviously very
5 important to get public input. As was mentioned, I'm a member of the Maryland
6 Conservation Council, which is one of the few mainline environmental
7 organizations to endorse the use of nuclear power, and one of the reasons for
8 this is that we're intensely concerned about climate change and its impact on
9 both the natural world and on the continued stability of a highly technological
10 society. And one of the things that I would like to see dealt with in the draft
11 environmental impact statement is the fact that this discussion, like so many
12 others, ignores a critical topic that sort of underlies the treatment in this case of
13 spent nuclear fuel. But it -- the issue is really much broader than how the spent
14 fuel is treated, and, in fact, that I think it would be good if you got rid of the term
15 "waste" -- [laughs] -- and started using "spent fuel" or "used fuel." But at any
16 rate, what I want to see that you take into consideration are the conclusions from
17 a set of nine volumes that were published under the auspices of the National
18 Academy of Sciences, the National Academy of Engineering, and the National
19 Research Council.

20 There are five volumes that have appeared within the last two
21 years, five of them called "America's Climate Choices," and the -- four of them
22 "America's Energy Future." And what these books state in a number of places --
23 and I intend to submit written comments that have this laid out in some detail like
24 exactly where these statements are found -- but the thing that needs to be
25 emphasized here is that -- and this is a direct quote from one of these books -- it

1 says, "Nuclear power is one of the key options for meeting large-scale electricity
2 demand without producing greenhouse gasses." Two other conclusions which
3 are very critical are that the books show very clearly that unless there is
4 development of a method for carbon capture and storage or -- and/or actually a
5 method for storing electrical energy, nuclear power -- and both of those things
6 are still in an investigational stage, there's no real certain [audio interference] will
7 be developed -- that nuclear power is the only method to make electricity without
8 producing greenhouse [audio interference] am I at the end of my time, Chip?

9 CHIP CAMERON: No, please continue, Norman.

10 NORMAN MEADOW: Oh, okay, thank you. I'm hearing this
11 beeping in the phone. So what we would like to see in the draft environmental
12 impact statement is the conclusions from these three very authoritative scientific
13 sources that nuclear power is going to play a critical role in eliminating
14 greenhouse gas production and [audio interference] that they get into in some
15 detail is how much time do we have to accomplish this elimination of greenhouse
16 gasses, and that's a question [audio interference] is very -- has a very uncertain
17 answer.

18 The most prudent conclusion would be that these things -- that
19 greenhouse gas emissions be ended as quickly as possible, which now leads me
20 to this waste confidence rule. I think the decision by the court was an
21 unfortunate one, and this is something that we have to live with, however, but in
22 trying to get through this process of coming up with what would seem to be an
23 acceptable waste confidence rule, a couple of years are going to be wasted,
24 perhaps, assuming that this has some delay in getting reactors either licensed or
25 licenses extended. That may not be the case, but if it is, the effect of this court's

1 decision is going to be perhaps some widespread environmental damage and
2 damage to our society. If you assume that this last hurricane is somehow the
3 result of global warming, I think a prudent person would say, "We don't have any
4 time to delay."

5 So -- which brings me to one last topic which I would also like to
6 see included in a draft statement, which deals with the question of how serious is
7 the threat from low doses of ionizing radiation, and what I will include in my
8 written comments is a quotation from a paper that comes from the lifespan study
9 on the survivors of the atomic bombings in Japan, which are a dataset that's
10 considered the most reliable and most significant one that we have and will
11 probably ever have. And in the most recent paper from that study, which was
12 published in 2007, the statement is made that an analysis of cancer incidence
13 data up to the time that -- the cutoff date for that study, statistical analysis of
14 those data showed that there may be a threshold for cancer incidence at 40
15 millisieverts. If that happens to be confirmed, and right now it's a very tentative
16 conclusion -- but if it happens to be confirmed, it would mean that the health
17 harm from Chernobyl, for instance, is going to be far less than anyone's estimate.
18 So what I would like the staff to do, since there are going to be a couple of years
19 before this environmental impact statement gets finalized, is to keep track of the
20 papers coming out of Radiation Effects Research Foundation and look for the
21 next study on cancer incidence, solid cancer incidence, because that will either
22 continue to support this 40-milligrays threshold or will not support it, but it's very
23 important that, that attention be paid to those studies.

24 Let me just say finally that I think it's indicative of the
25 misunderstanding about safety and the word, "ionizing radiation" -- or two words -

1 - "ionizing radiation" is that if you look at the Yucca Mountain environmental
2 impact statement, there was a lot of mention made this afternoon about a million-
3 year ruling on exposure. Figure 5-4 in that study shows that the exposure to the
4 maximally exposed individual 400,000 years from now will be about -- at about
5 30 percent to the natural background radiation in that region of the country, and
6 that increase in dose is entirely insignificant. And what makes it seem even
7 worse is that we are determining today's energy policy on an event that's forecast
8 to occur not until a period of twice as long as humanity has existed. And even if
9 you go to the 95 percent confidence limit on that dose, it does not even double
10 background for the region that Yucca Mountain exists in. And I think it's very
11 important that, that graph and those conclusions are very, very infrequently
12 mentioned. In fact, I didn't come across them till I began to look through the
13 environmental impact statement for Yucca Mountain. And not disseminating that
14 information I think is really treating the issue very superficially. So that's all I
15 have to say. I hope I made sense. If I didn't, I'll try to make more sense in
16 written comments, but, again, let me thank you for the opportunity to express
17 these views.

18 CHIP CAMERON: And thank you, Norman, I think that was clear,
19 and thank you for the information and the suggestions.

20 NORMAN MEADOW: You're welcome.

21 CHIP CAMERON: Operator, do we have any more star one?

22 OPERATOR: At this time, there are no additional questions.

23 CHIP CAMERON: Okay, operator, we -- for your information, we
24 advertise this meeting from 9:00 to midnight Eastern, and we feel that we have
25 an obligation to remain on the line here in case someone comes in later in the

1 program. So while we're waiting for anyone to show up, we're just going to be
2 silent here, but is there someone else?

3 OPERATOR: We do have Erica on the line. Your line is opened.

4 ERICA GRAY: Hello?

5 CHIP CAMERON: Hi, Erica, could you just give us your last name,
6 too, so that we could put it on the transcript?

7 ERICA GRAY: Yeah, it's Gray, G-R-A-Y.

8 CHIP CAMERON: Great, thank you, Erica. We're all listening
9 here.

10 ERICA GRAY: Well, I mean, curiosity is why is the webinar
11 different than what's on the telephone?

12 CHIP CAMERON: And I'm not sure that I understand --

13 ERICA GRAY: Well, I'm saying I've got the webinar on --

14 CHIP CAMERON: Yes.

15 ERICA GRAY: -- that's supposed to be the live meeting --

16 CHIP CAMERON: Yes.

17 ERICA GRAY: -- and I'm on the phone, and it's different. I'm not
18 really sure why. Say they're still asking on the line right now.

19 CHIP CAMERON: Oh, well, there's a --

20 ERICA GRAY: Oh, now I can -- I guess it's delayed.

21 CHIP CAMERON: Yeah, yeah, we had that this afternoon, there
22 was a slight delay, so if --

23 ERICA GRAY: Okay, well, actually, I just have a comment.

24 CHIP CAMERON: Okay.

1 ERICA GRAY: I mean, I would like to know -- I mean, as we're
2 going through the scoping process, and since we don't really have an idea
3 exactly where we're going to store waste, why are we fast tracking new reactors,
4 new nuclear power plants? I mean, I'm a little concerned that we for many
5 decades have not had a place to store it and yet we're going forward with these
6 environmental impact statements, but at the same time we're planning to build
7 more nuclear power plants. And so, I mean, frankly, I think that we should
8 probably pause until we have an idea what we're going to do with all the waste
9 that we already have made. So why are we going forward with the new nuclear
10 power plants? And plus, I'd like to say that doesn't seem like there's much public
11 participation in having these power plants built.

12 CHIP CAMERON: Well, Erica --

13 ERICA GRAY: I don't know if anyone has a -- anything they'd like
14 to say about, you know, why are we going forward with new nuclear power plants
15 when right now we're talking about mid-century or something being able to figure
16 out what we're going to do with all the waste we already have.

17 CHIP CAMERON: Erica, I can give you one partial answer
18 because I was listening to the presentations. One of the things the Commission
19 did in its order on waste confidence is to say that there would be no final
20 decisions made on any reactor license renewal or new reactor license application
21 until this effort on waste confidence is completed. And I don't know -- let me see
22 if anybody at the table or other staff in the room can just give you some idea of
23 what is happening with new reactor licensing now. There's a few applications
24 that are still being evaluated by the NRC, and there's been a couple of decisions
25 made on new reactors. But I'm not sure that that shows that this is a stampede

1 of any type to -- on new reactors, but does anybody at the table have any sort of
2 at least ballpark figures for Erica on new reactor licenses or respond in any way
3 you want to, to Erica's concern? Keith?

4 KEITH MCCONNELL: I think you're correct that the Commission
5 has identified that it won't issue final licenses for those facilities that are impacted
6 by the waste confidence decision, and there are approximately 11 applications
7 for combined operating licenses and early site permits that are involved in this
8 particular aspect that are dependent on the waste confidence decision. So I
9 think the Commission has taken a fairly strong view of the importance of this
10 waste confidence decision in terms of moving forward with each particular
11 license application.

12 CHIP CAMERON: Okay, thank you. Thank you, Keith, 11 were
13 identified.

14 KEITH MCCONNELL: On the order of 11, I can't remember the
15 exact number.

16 CHIP CAMERON: Yeah, okay, around that. All right, Erica,
17 besides that question, I think the staff has clearly heard the concern that you
18 expressed. So we would just thank you for that comment and question.

19 ERICA GRAY: So does that mean -- I'm sorry -- does that mean
20 that the licenses will not go forward until there's a determination on the scoping
21 and where we're going to be putting the waste?

22 KEITH MCCONNELL: The final decision on the license won't be
23 made until the waste confidence decision is revisited and complete. The actual
24 reviews of the license applications and the formal adjudication of those

1 applications will continue during this two-year period as we develop a revised
2 waste confidence decision.

3 ERICA GRAY: Does that mean that they'll be able to actually build
4 them and -- as you all are deciding?

5 KEITH MCCONNELL: They won't be able to operate those
6 facilities or build them to the extent that they're allowed to under our regulations.
7 Again, the final decision has to be made before those licenses can be moved --
8 can move forward, with the facilities, if that's clear.

9 ERICA GRAY: And -- well, I mean, sort of, I mean, it sounds like
10 it's kind of twofold. It sounds like you used the word "operate" first. So I'm
11 assuming that, that means that the construction will take place but they won't be
12 allowed to operate until there's a final decision. Is that what I'm hearing?

13 KEITH MCCONNELL: Well, let me clarify. There are two types --
14 there's preconstruction activities that are allowed under our regulations to
15 actually occur before a license is issued, but there are other activities that are
16 considered to be construction that are safety-related issues that would not be
17 allowed until a license is issued.

18 ERICA GRAY: Okay, and so with the latest reports from the NRC,
19 from your department, and from the United States geological survey, had
20 mentioned that the earthquakes on the east coast had been stronger than had
21 originally been reported, are the considerations going to be in place too with the
22 earthquakes, and ground movement, and that sort of thing, too, along with these
23 proposals for nuclear waste confidence and storage?

24 KEITH MCCONNELL: Natural events like seismic hazards and
25 other issues like flooding will be addressed both in terms of our effort to look at

1 the impacts on a generic basis, but also those types of events would be looked at
2 site specifically in the licensing proceedings that would be associated with each
3 of the individual facilities.

4 CHIP CAMERON: Okay, Erica, do you have any final words for
5 us?

6 ERICA GRAY: Well, I guess my concern is I'm about 35 miles from
7 North Anna in Virginia, and I know that the plant's design was exceeded by our
8 5.8 earthquake back in 2011. And looking at documents and papers, it looks like
9 they want to do -- Dominion wants to do a combined license for a third reactor,
10 and my concerns obviously are with the recent reports about landslides
11 happening 150 miles away from the epicenter, which the epicenter was about 11
12 miles from North Anna, and we had 450 aftershocks. So, I mean, are we actually
13 -- or should I rephrase that -- is the NRC going to allow Dominion to place a third
14 reactor on a fault line?

15 CHIP CAMERON: Yeah, Erica, that's sort of outside of the subject
16 that we're discussing and perhaps outside of the immediate expertise of the staff
17 here in this room. So I don't think that we're going to venture to answer that, but
18 we appreciate your concerns, and if you could submit your contact information,
19 we may be able to give you some information from the NRC that generally
20 addresses the types of concerns that you have.

21 ERICA GRAY: Okay, that's sounds like a good idea.

22 CHIP CAMERON: Okay, thanks, Erica.

23 ERICA GRAY: You're welcome, bye-bye.

24 CHIP CAMERON: All right, bye-bye. Operator, do we have
25 anybody else?

1 OPERATOR: Not at this time.

2 CHIP CAMERON: Okay, well, if you don't mind waiting with us,
3 we're just going to wait and see if anybody else shows up. We're about one hour
4 into the meeting now, and what we'll do is we'll tune back in with you in about 15
5 minutes or so to see how we're going to proceed here, okay?

6 OPERATOR: And at this time it looks like we have Norman
7 Meadow standing by.

8 CHIP CAMERON: Okay, so we -- Norman is on the line again.

9 NORMAN MEADOW: Yeah, hi, Chip. I'm really kind of surprised
10 that you're getting as few calls as you are, because this meeting was timed for
11 people on the West Coast, but if you're not tired of listening to me, I'd like to
12 elaborate on one of the points that I made when I called the first time, which is a
13 very serious factor I think, that unless we develop nuclear power, we're going to
14 get global warming. And I have actually another source to make a comment on.

15 This is a book from the U.S. Department of Energy, which involved
16 research by the National Renewable Energy Lab, and the book is entitled, "Wind
17 Power in America's Future: 20 Percent Wind Energy by 2030." And what it says,
18 this is on Page 78, that "Wind generation penetration may affect the mix and
19 dispatch of other generation on the system over time since non-wind generation
20 is needed to maintain system reliability when winds are low." And to translate
21 that into plain English, what it means is that unless you've got an energy storage
22 method, you're going to have to burn natural gas in actually simple gas turbines
23 to compensate for when the wind fails. And going back to the National Research
24 Council again, one of these nine volumes that I mentioned is entitled, "Limiting
25 the Magnitude of Future Climate Change," which is, of course, I think one of our

1 most critical goals. And it says in this book on Page 64, "There is a need not
2 only for greater transmission capacity" -- this is talking about renewables -- "not
3 only is there a need for greater transmission capacity but also for increased
4 installation of fast-responding generation to provide electricity when renewables
5 are not available."

6 So both of those things point very clearly to the use of gas turbines,
7 and I think there are other statements in these books that actually specifically
8 mention gas turbines. And this, of course, is what is going to happen unless we
9 develop some sort of energy storage method, which is just -- it's not in sight. We
10 don't know how long we have to wait, but as I keep saying, we really ought to get
11 serious and try to stop carbon dioxide emissions as soon as we can.

12 There are also a number of papers that I think I'd cite in my written
13 comments to the Waste Management Directorate which show that the proportion
14 of -- if you look at massively interlinked wind farms, they're called, I don't like that
15 term, they're probably better called "wind mines" than "wind farms" -- but if you
16 look at data from large linkages of these, what you find is that a very small
17 proportion of their total capacity is available with the reliability of electricity from
18 nuclear plants which is very high, actually, it's about 98 percent -- or coal plants,
19 which -- fossil fuel plants, which we do need to get rid of, so it means that the --
20 and one of the things that is constantly claimed by supporters of wind power is
21 that if you massively interconnect wind turbines, you'll get a very reliable
22 electricity supply. And there are actually three studies of real data from
23 massively interconnected wind turbine systems in Texas in the Bonneville Power
24 Authority's region that show that the fraction of their electricity that's available

1 with the same reliability as nuclear electricity is less than 3 percent of their total
2 capacity.

3 CHIP CAMERON: And, Norman, excuse me for interrupting you
4 now, because this is the type of data and information that may prove useful to the
5 staff -- we do have a new caller --

6 NORMAN MEADOW: Yeah, oh, sure. I'm sorry --

7 CHIP CAMERON: -- that has come in, so --

8 NORMAN MEADOW: -- to take up your time. [laughs] I'm just --

9 CHIP CAMERON: Well, no, I mean, that's why we're --

10 NORMAN MEADOW: [inaudible]

11 CHIP CAMERON: -- why we're here is to hear from the public. So
12 don't be sorry at all, but we just want to move on to the next caller, and then we'll
13 see what happens after that.

14 NORMAN MEADOW: Of course, thanks for listening again. Bye-
15 bye.

16 CHIP CAMERON: Okay, bye. Operator, who do we have on the
17 line now?

18 OPERATOR: We have Kevin Kamps. Your line is open, sir.

19 CHIP CAMERON: Welcome, Kevin.

20 KEVIN KAMPS: Thanks, Chip. Yeah, is it comment time? I've had
21 trouble with the line tonight. So I'm not clear.

22 CHIP CAMERON: Yes, absolutely, it is comment time.

23 KEVIN KAMPS: Very good, very good. Well, I spoke earlier. So I
24 wanted to make comments on a different subject matter this evening, and that is
25 within scope, and that has to do with leaks from both pools and from dry casks.

1 And it goes back to what I called for earlier today at headquarters in Rockville,
2 and that was that site-specific hearings be held to look at site-specific matters
3 across the country.

4 And so I would just like to go through a number of pools that have
5 leaked in this country. I'll list them and the body of water into which they leak.
6 So Indian Point, Units 1 and 2, both pools in New York State there have leaked
7 into groundwater, which then flows into the Hudson River. Salem Unit 1, which is
8 in New Jersey, very close to Delaware, and that pool has also leaked, and the
9 body of water -- the surface water that it flows into is the Delaware River. Also at
10 Connecticut Yankee in Connecticut there has been pool leakage, and that is into
11 the Connecticut River, which then flows into Long Island Sound. And another
12 pool leak in the United States was in Lynchburg, Virginia, at BWXT
13 Technologies, and that leak was into the James River. These are all NRC
14 licensed facilities.

15 And a couple more leaks from NRC licensed pools in the United
16 States, the Hatch Nuclear Power Plant, that leakage into the Altamaha River in
17 Georgia, and most recently -- to me, learning about it anyway -- little known, is
18 pool leakage from the Davis-Besse Nuclear Power Plant in Ohio. Again, many of
19 these leaks first go into groundwater, but that groundwater then flows into the
20 nearest surface waters, and in Davis-Besse's case, that's Lake Erie in the Great
21 Lakes. And I wanted to mention one more pool leak even though it's not an NRC
22 licensed facility to the best of my knowledge, it's a Department of Energy facility,
23 and that is Brookhaven's high flux beam reactor at Brookhaven National Lab on
24 Long Island. And the leakage there is into the aquifer that underlies Long Island,
25 source of drinking water for more than a million people. And even though it is not

1 NRC licensed, I think NRC could learn lessons from the leaks at that Brookhaven
2 pool. And so the reason I listed all those is you can see that we have quite an
3 epidemic of pool leaks in the United States. I think that as these facilities age
4 with age degraded degradation that those pool leaks will become more
5 widespread and spread to other facilities.

6 So I do hope that the court's concern to the NRC will be taken
7 seriously and that pool leaks will be included in the scope. And I'd like to move
8 on to another form of leakage, and that is leakage from dry cask storage, which
9 fortunately so far has not involved radioactive particle leakage into the
10 environment, but I think there are some worrisome indications that that may not
11 be too far off into the distant future. Specifically at the Surry Nuclear Power Plant
12 in Virginia there have been leaks from internal seals, so multiple seals have
13 actually failed, fortunately not all the way through to the outside air, but I think,
14 again, that's a matter of time. And so eventually dry casks themselves, which are
15 after all only made from materials like steel, and then radiation shielding made of
16 concrete in some instances, these materials are going to fail over time. After all,
17 they are out in the open elements. They are exposed to the rain, to freeze and
18 thaw cycles, and such. And so the eventual degradation and failure of dry casks
19 should also be in scope for this environmental impact statement. And I would like
20 to point to a document that I hope that NRC will give ample time to, that is a
21 General Accounting Office report from September 2009, if I'm not mistaken,
22 which looked at that very question of degradation of dry casks and actually made
23 the assumption -- I may have to turn my computer off here, I'm getting feedback -
24 - that actually made the assumption that casks would have to be replaced about
25 once a generation. I don't remember the exact time figure used. So that should

1 also be in the scoping of this environmental impact statement, that dry casks will
2 eventually fail and need to be replaced.

3 And I think along with that scope there, the question needs to be
4 addressed, "How will that be done?" because at places like Big Rock Point in
5 Michigan, other permanently shut down and even fully dismantled atomic
6 reactors, there is no pool left now. All that's left is the dry casks. So where will
7 that transfer take place from the failing dry casks into replacement dry casks? It,
8 of course, has to be done with radiation shielding because the gamma doses
9 coming off the internal canisters, the inner canisters, could deliver fatal doses to
10 workers in as little as a few minutes' time. They are not radiation shielded.
11 There will have to be either pools built, or else dry cells will have to be built at
12 those facilities. And actually the GAO report, September 2009, looked at that.
13 And I believe in the draft of that report, the cost of building pools for that transfer
14 operation was estimated to be \$300 million per site. So I hope that the NRC will
15 look at that as well. I guess, Chip, if I have more time I'll keep going.

16 CHIP CAMERON: Well, why don't you go -- keep going, Kevin.

17 KEVIN KAMPS: Yep, okay, thank you. So I've addressed leaks
18 from both pools and from dry casks. I did want to address fires in pools as well.
19 I had mentioned it earlier, but I hope that the NCR staff will give ample attention
20 to a document from January 2003. It's a report by Alvarez and others. There's
21 about a dozen authors, one of which is the NRC chairwoman, Allison Macfarlane,
22 and that was a extensive comprehensive report on the risks of pool fires. And I
23 don't have the figures memorized for square miles of land that could be
24 contaminated to dangerous levels due to radioactive cesium-137 fallout from a
25 pool fire. I don't know that casualty figures were included in that report, but I

1 think that's a good starting place to look at the dangers of pool fires. And, in fact,
2 it's fully referenced and actually references NRC reports that also looked at pool
3 fires. So there's a solid basis for these warnings. That would be another
4 important document to be looked at.

5 Another one that I hope NRC will look at is the National Academy of
6 Sciences report from 2005 which was -- I don't think "classified" is the right word,
7 but it was not released. There is an unredacted report that would be accessible I
8 imagine to the NRC, already has been. There was a redacted version published
9 for public consumption the next year over the objections of the NRC, actually.
10 And really what that NAS report documented and verified is that the warnings,
11 the fears that Alvarez and others reported on in 2003 were to be believed, and
12 they called -- the NAS called for further studies into the risks of pool accidents
13 but also intentional attacks upon pools.

14 And I think that Fukushima Daiichi Unit 4, which was an earthquake
15 and a tsunami that caused that catastrophe, shows that Unit 4 -- that pools, in
16 that case a Mark I General Electric boiling water reactor, are vulnerable to such
17 things as explosions. The Unit 4 reactor was not operating on March 11th, 2011,
18 when catastrophe struck, but, in fact, an explosion took place there. And that
19 building -- the entire reactor building and the pool that it contains are at risk of
20 total collapse to this day if a big enough earthquake hits that site. An earthquake
21 of magnitude 7.0 perhaps would be enough to collapse that building. The pool
22 water would be lost, and the waste would catch on fire and release its contents
23 directly into the environment, and the radioactive cesium-137 contents of that
24 pool are 10 times the amount of cesium-137 that was released by the Chernobyl
25 catastrophe. So it's a very serious matter, so certainly natural disasters could

1 unleash such catastrophes.

2 So could reactor accidents. After all, the hydrogen that float over to
3 Unit 4 supposedly came from Unit 3. That was a reactor accident. So that's
4 another issue that should be in the scope of this proceeding, reactor accidents
5 leading to pool accidents. And there are a couple different versions of that.
6 There's the fast drain down, and then there's the slower but just as catastrophic if
7 allowed to proceed full course boil down scenario. So those are catastrophic fire
8 risks in pools that should be within scope. And I'll conclude for now with
9 something I mentioned earlier today as well, which is hardened onsite storage.
10 It's something that 200 environmental groups have been calling for for a decade
11 at this point. We have repeatedly, in various hearings, meetings, town hall
12 meetings with the NRC, called for this, and not just at NRC but other decision
13 making bodies. What hardened onsite storage calls for is for the pools to be
14 emptied into dry cask storage onsite that is designed well and built well, and that
15 is not happening in this country.

16 The dry casks currently used, I'll just focus on a couple models that
17 I'm most familiar with. The ventilated storage casks, the VSC-24s, at places like
18 Palisades in Michigan, Point Beach in Wisconsin, Arkansas Nuclear One, have
19 little to no quality assurance upon them. And, in fact, those casks are so badly
20 designed and fabricated that they are no longer ordered. They are fully deployed
21 at those reactors I've mentioned. They are fully loaded and sitting on the
22 shorelines of Lake Michigan, for example, in Michigan and Wisconsin. But they
23 have not been ordered in 15 years in this country for good reason, because they
24 are shoddy. So those very casks showed the dangers of such things as
25 explosions at Point Beach in May 1996 as it was being loaded, due to hydrogen

1 gas generation, which was then ignited by the welding torch. That's how badly
2 designed and manufactured those casks are.

3 Another cask that is widely used in the United States is the Holtec
4 cask family, used, according to Holtec's own website, at 33 different reactors in
5 the United States. And whistleblowers both from industry, namely, Oscar Shirani
6 from Exelon, Commonwealth Edison, and even from NRC, itself, namely, Dr.
7 Ross Landsman, the now-retired dry cask storage inspector for Region III in the
8 Midwest, questioned -- seriously questioned the design and manufacture of the
9 Holtecs, which are currently deployed across the United States. They are also --
10 by the way, it's not within the scope of onsite storage, but they are also certified
11 by NRC for transportation. But both of those gentlemen, both of those whistle
12 blowers question the structural integrity of the Holtecs not going 60 miles per
13 hour on the roads or rails, but sitting still at zero miles per hour at reactor sites.
14 So certainly the quality of the casks is very much appropriately within the scope
15 of this proceeding. It has to do with the safety and the security of dry cask
16 storage.

17 And I'll close with the security question of dry cask storage. There
18 was a test carried out at Aberdeen Proving Grounds in Maryland, it's a U.S. Army
19 facility. In June 1998 a TOW antitank missile was used against a German
20 CASTOR cask, which was actually in use at the Surry Virginia Nuclear Power
21 Plant, one of the smorgasbord of cask designs used at that facility. So the first
22 TOW missile was fired at a concrete flak jacket, which would also serve as
23 radiation shielding. But in this case it served as a missile absorber, and that
24 TOW antitank missile turned that concrete flak jacket into dust, and it blew away.
25 And the second TOW antitank missile blew a hole clean through the wall dry cask

1 itself, 15 inches of die cast iron, about as big around as a grapefruit. And that
2 was the pathway now that the irradiated fuel or what's left of it after the explosion
3 and fire could then escape into the environment. Disastrous amounts of such
4 volatile ingredients as cesium-137 could now escape directly into the
5 environment.

6 So certainly the security vulnerabilities of dry casks should be
7 within the scope of the environmental impact statement. That's another aspect of
8 hardened onsite storage is empty the pools into quality dry casks that are fortified
9 against terrorist attacks, that are safeguarded against accidents, and that are
10 built well enough to last for at least the many decades into the future if not the
11 centuries into the future that these forever deadly wastes will be stuck at the
12 reactor sites. Thank you.

13 CHIP CAMERON: Thank you very much, Kevin. Operator, do we
14 have someone else on the line?

15 OPERATOR: Not at this time.

16 CHIP CAMERON: Okay, well, we'll just wait, and be patient, and
17 someone will show up sooner or later. I think we have some more people on the
18 line, operator, if you could just put them in the queue and introduce the first one.
19 Patch the first one through to us.

20 OPERATOR: And the first -- the name is listed as Libbe HaLevy.
21 Her line is open.

22 LIBBE HALEVY: Hi, I live in southern California, and we have
23 tremendous concerns here about the San Onofre Nuclear Power Plant, about the
24 wear that has taken place in the tubes of the steam generators, and the danger
25 that, that poses in any kind of a restart before the changes -- before the fixing of

1 that problem takes place. Right now there seems to be a movement underfoot to
2 allow Southern California Electric to restart the plant at 70 percent power. This is
3 what they are proposing, and we have not been able to have -- I forget the exact
4 name of it, but it is an adjudicated hearing -- to find out exactly what is wrong and
5 what needs to be done to fix it before they are allowed to restart. If there is any
6 kind of restart allowed, it is going to lead to the potential for leakage. We -- the
7 last time the unit was shut down, there had been radioactive steam that leaked
8 on January 31, and since that time the repairs have not -- they have not been
9 done to be able to provide any kind of safety.

10 Southern California had -- is -- well, California is home to such
11 economic dependence -- excuse me, I'm not saying this correctly, let me start this
12 again. Southern California has got one of the largest agricultural economies in --
13 certainly in the country, if not in the world. If there is any kind of radioactive
14 release -- substantial radioactive release from San Onofre, it has the potential
15 because of offshore winds that blow onshore -- that's always the direction it goes
16 in, we've got charts that show where the radiation would go, it would destroy the
17 agricultural economy of this state to say nothing of what it would do to the land,
18 to the people, and all this here. You can't take risks with the restart of San
19 Onofre. It cannot be done until and unless the repairs are made, and they must
20 be made first. You can't allow Southern California Electric to restart.

21 CHIP CAMERON: Okay, Libbe, thank you. That's a extremely
22 important issue, not really right on target to what the NRC is doing with the waste
23 confidence evaluation, but very important, and I know that --

24 LIBBE HALEVY: Well, who am I speaking to, by the way? I just
25 joined the call, so I'm just jumping in with both feet.

1 CHIP CAMERON: My name is Chip Cameron, and I'm the
2 facilitator for this meeting, and I just wanted to --

3 LIBBE HALEVY: And are you with the NRC?

4 CHIP CAMERON: I'm a contractor for the NRC, and I just wanted
5 to thank you for your comment, and watch for announcements of a meeting
6 between the NRC and Edison on that restart issue.

7 LIBBE HALEVY: Will the public be allowed in on that meeting?
8 That is the question. There was already supposed to be a public meeting this
9 Friday, and it has been cancelled.

10 CHIP CAMERON: Right, and, Libby, we're off the topic of this
11 meeting, but I can tell you that although that meeting is between the NRC staff
12 and the licensee, it will be open to the public, and there will be an opportunity for
13 the public to ask questions and make comments about the subject of the
14 meeting, okay? But thank you, thank you very much for calling in.

15 LIBBE HALEVY: You're welcome.

16 CHIP CAMERON: And, operator, do we have someone else?

17 OPERATOR: Yes, we have Kevin Kamps again on the line. You're
18 line is open, sir.

19 KEVIN KAMPS: Hey, Chip, I don't want to monopolize, but if there
20 is the opportunity, I would take it. I have other points to make.

21 CHIP CAMERON: Oh, is this -- this is Kevin?

22 KEVIN KAMPS: Yeah.

23 CHIP CAMERON: Okay.

24 KEVIN KAMPS: I just thought if there's no one else, that I'd be
25 happy to keep going. I've got more points to make.

1 CHIP CAMERON: Yeah, I think that, that's fine. You've given us
2 some good information, and let's hear some more, and we'll hear from you for a
3 while, and then we're going to go and see if anybody else is on the phone. If
4 someone comes on, I may have to ask you to just stop for the moment and then
5 we'll try to get back to you, but go ahead, Kevin.

6 KEVIN KAMPS: Sure, yeah, please feel free to interrupt me if need
7 be. Another area of scoping that I think is appropriate here is rising sea levels.
8 So, you know, we've seen flooding at nuclear power plants in recent times, Fort
9 Calhoun in summer 2011, that was historic floods on the Missouri River, that
10 came very close to the dry cask storage, that did implicate the pools. There was
11 a fire that workers strangely ignored for days on end, and NRC appropriately
12 issued a red finding for their careless attitude towards the fire in their facility. The
13 reactor was shut down, but, of course, the pool needs to maintain cooling at all
14 times. So there were risks to the irradiated nuclear fuel at Fort Calhoun in
15 summer 2011, both in the dry casks, which had to be bermed against the flood,
16 and also the pool cooling maintained, in a very dicey situation. More recently at
17 Oyster Creek, again, there are dry casks and a pool at Oyster Creek that have to
18 be protected against floodwaters and their ravages upon system structures and
19 components. And yet again, it was precariously close to a very dicey situation at
20 Oyster Creek with mere inches between the floodwaters and the service water
21 pumps that could implicate the cooling in the pool.

22 So those are lessons to be learned across the country regarding
23 floods, but I think that with the climate crisis, with rising sea levels, coastal
24 reactors, varied location should be taken into account with worsening hurricanes,
25 worsening storm surges that could implicate not just the dry casks but also the

1 pool cooling mechanisms. I think seismic risks should be seriously considered
2 within the scoping of this proceeding because we saw in August 2011 significant
3 damage to the dry cask storage at North Anna Nuclear Power Plant just 11 miles
4 from the epicenter of the earthquake. There was concrete damage on the
5 surface to the dry casks. There was movement of the vertically oriented dry
6 casks several inches in the earthquake. There was movement of the panels on
7 top of the horizontally oriented dry casks. That damage, that movement of the
8 concrete is very safety significant because that concrete serves as radiation
9 shielding for the gamma radiation that is streaming off the inner canisters at
10 lethal levels. So the seismic risks, the flooding risks, the risks of rising sea levels
11 should be within the scope of this proceeding.

12 I wanted to touch on something that the Blue Ribbon Commission
13 on America's Nuclear Future has advocated in its final report, and that is a
14 consent based approach to interactions with the public, and I think this is
15 appropriate for onsite storage as well, which is the grand scope of this
16 proceeding. And I think that what I'll say is that the limitation of these public
17 comment opportunities to one physical meeting and three webinars is a start, but
18 far from what is necessary. So I called for it earlier today, I'll call for it again, that
19 hearing should be held across the country in the vicinity of nuclear power plants,
20 and their high level radioactive waste storage pools, and their dry cast storage
21 facilities. These hearings should be held across the country. I think that the
22 rushed nature of this process flies in the face of any notion of consent-based
23 interactions with the public, 20 days notice on the meetings today, just 70 days
24 for the public to comment before the January 2nd deadline. I think that deadline
25 on January 2 needs to be significantly extended into the future. Really what

1 we're seeing is NRC going from one extreme to the other, the first extreme being
2 decades of not addressing this issue in an environmental impact statement of
3 any description and now the other extreme being this process just being absurdly
4 rushed. So --

5 CHIP CAMERON: Okay, and, Kevin, I think we have some other
6 callers on the phone.

7 KEVIN KAMPS: Okay.

8 CHIP CAMERON: And I think you completed your last point to the
9 NRC.

10 KEVIN KAMPS: Thank you, Chip.

11 CHIP CAMERON: Thank you, Kevin. Callers, anybody who wants
12 to comment, if you press star one on your phone, then you'll be connected to the
13 operator, and she will patch you in to us. And, operator, if you could just tell us
14 when someone is ready to talk to us?

15 OPERATOR: And, again, that is star one to make a comment.
16 And our next comment comes from Andrea Lieberman. Your line is open.

17 ANDREA LIEBERMAN: Hi, there.

18 CHIP CAMERON: Hi.

19 ANDREA LIEBERMAN: I'm coming on late to this conference call,
20 so I don't know what was said before me, but we've had all these years to figure
21 out a waste solution, and you guys continue to make waste. And I don't think
22 anybody would buy a house where there was no way to remove the garbage
23 from the house that was made on a daily basis. Why would we continue to buy
24 into a system that continues to make waste with no way of getting rid of it, where
25 it's deadly for 240,000 years? So it needs to stop, and you need to consider the

1 health and welfare of the planet, and the people, and humanity, and living things
2 that are on it, and the terrible danger that it poses to us as a civilization as
3 witnessed by what's going on in Fukushima now. How in good conscience can
4 you possibly continue to make more waste, more deadly waste when you can't
5 figure out a way of in, what, 60 years of getting rid of what you've already made?
6 And that's all I have to say now. Thank you.

7 CHIP CAMERON: Well, thank you, Andrea. And our next
8 commenter, operator?

9 OPERATOR: And again, if you'd like to make a comment, that is
10 star one. And at this time, there are no additional comments.

11 CHIP CAMERON: Okay, well, we'll just hold tight, and wait, and
12 see who comes on.

13 OPERATOR: And again, at this time, we do have Kevin Kamps on
14 the line.

15 CHIP CAMERON: Kevin?

16 KEVIN KAMPS: Yeah. Yep, I would just take the opportunity to
17 finish that last point I was making.

18 CHIP CAMERON: Go ahead.

19 KEVIN KAMPS: The consent base, good faith interaction with the
20 public, I just will speak from personal experience here. The NRC has had
21 previous proceedings that many of us have taken part in, in good faith, very time-
22 consuming proceedings. One of them -- and I know that the NRC in this latest
23 go-round with the nuclear waste confidence proceeding here has said that those
24 comments will be incorporated, which is good, but this was the effort in 2010 and
25 I guess 2011 to -- 2010 more like -- to consider the 200 to 300 years of onsite

1 storage in its nuclear waste confidence decision. So please do. I very much ask
2 that you include those comments from the previous proceeding into this one.

3 But I -- another proceeding that was carried out for more than a
4 year was called the packaging performance study, and this goes back a ways in
5 time, the better part of a decade ago I would say, and to the best of my
6 knowledge that, that study has just fallen by the wayside. So I think that a good
7 faith proceeding needs to take place. A part of that on NRC's part would be to
8 give ample time to this proceeding. And it was mentioned by Lou Zeller earlier
9 today and others at the previous session that in 2011 the NRC said that a
10 revision to the nuclear waste confidence decision and rule would take a full eight
11 years to implement. And all of a sudden, after the court ruling in this matter,
12 NRC is now saying that it will take only two years. And I did hear NRC say
13 earlier today that it's because so many personnel, so many staff are being
14 assigned to this subject. But it's a rush job, and to carry out hearings across the
15 country, to educate the public in the first place so that the public can make
16 intelligent comments on the subject matter would be time consuming.

17 And it should be carried out in this way. The wastes are deadly
18 forevermore into the future, so what's the rush? I think the rush is pressure from
19 industry. We heard it in the earlier session today from the top lawyer at NEI,
20 from other industry spokespeople, that this proceeding needs to be expedited.
21 And we would push back and say quite the opposite. These wastes are very
22 deadly. Their risks need to be considered fully, and that would take time to do.
23 NRC acknowledged just last year that it would take eight years for it to fully
24 comprehensively consider its revision to the nuclear waste confidence decision
25 and rule, and so that's what we call for.

1 CHIP CAMERON: Okay, thank you. Thank you once again, Kevin.
2 And, operator, any -- anybody else, can you tell them what they have to do to
3 make a comment?

4 OPERATOR: And again, to make a comment, please press star
5 one. And at this time it looks like we have Norman Meadows on the line. Your
6 line is open, sir.

7 NORMAN MEADOW: Right, hey, Chip?

8 CHIP CAMERON: Hey, Norman.

9 NORMAN MEADOW: Hi. Look, as long as everybody's quiet, I'm
10 having trouble finding the current rule on the NRC's website.

11 CHIP CAMERON: The current waste confidence rule?

12 NORMAN MEADOW: Yeah. I know it's a compilation. You know,
13 it's been revised a couple of times. I find the NRC's website a real bear to
14 navigate. On the new website for the Waste Confidence Directorate there's a link
15 to NRC documents related to waste confidence, but the first one of them is a
16 Federal Register notice that was published in 2010, Update and Final Revision
17 Of Waste Confidence Decision. It's a long document. It's 40 pages long. Is that
18 the final existing word on the --

19 CHIP CAMERON: Norman, we're going to go to Tison Campbell
20 from our Office of General Counsel --

21 NORMAN MEADOW: Oh, okay.

22 CHIP CAMERON: -- right now, who can explain whether there is
23 indeed a rule and where it was located, I suppose.

1 TISON CAMPBELL: Yes, sir, you're correct. The document you're
2 looking at is the 2010 Waste Confidence Decision, and that was published in the
3 Federal Register on December 23rd, 2010.

4 NORMAN MEADOW: Yeah.

5 TISON CAMPBELL: And I believe that the rule text itself is on the
6 first page of the document you are looking at.

7 NORMAN MEADOW: Oh, oh, oh, okay, all right, not a problem.

8 TISON CAMPBELL: That --

9 NORMAN MEADOW: I mean, that's 40 pages long. It seemed to
10 me like it was the -- you know, the current rule, but I didn't realize things like that
11 were published in the Federal Register.

12 TISON CAMPBELL: Yes, in this case it was. It's a little bit different
13 than we handled most of -- handle most of our rulemakings in that we had a
14 separate policy document called the Waste Confidence Decision in that case.
15 And this is the document that was vacated and remanded by the Court of
16 Appeals in 2012.

17 NORMAN MEADOW: So that's the -- that's what we're dealing with
18 now -- at the moment?

19 TISON CAMPBELL: Yes.

20 NORMAN MEADOW: Oh, okay, great. Thanks very much.

21 [laughs]

22 TISON CAMPBELL: No problem.

23 NORMAN MEADOWS: All right, bye-bye.

24 CHIP CAMERON: Thank you, Tison. See you, Norman.

25 NORMAN MEADOWS: Huh?

1 CHIP CAMERON: We'll see you later.

2 NORMAN MEADOWS: Yeah -- [laughs] -- thanks, Chip.

3 CHIP CAMERON: All right.

4 NORMAN MEADOW: Bye-bye.

5 CHIP CAMERON: Bye. Anybody else, operator?

6 OPERATOR: And once again, if you'd like to make a comment,
7 please press star one. And again, if you'd like to ask a question or make a
8 comment, please press star one. And at this time we have Christine Strickland.
9 Your line is open.

10 CHIP CAMERON: Hi, Christine.

11 CHRISTINE STRICKLAND: Hi. I'm calling about the problem of
12 the nuclear waste, the spent fuel confidence -- the confidence in the storage of
13 this waste from the nuclear industry.

14 CHIP CAMERON: Yes.

15 CHRISTINE STRICKLAND: And our trust is shaken due to the fact
16 of the Fukushima nuclear disaster, A, but, you know, them delving into it deeply,
17 you see that we have no plan for this waste long term over the course of time,
18 and this stuff has to sit in those pools, you know, for five years just to get full
19 enough to go in the dry cask. And most of what we've ever made is still sitting in
20 the fuel pools at the -- you know, the originating plants. And this is, you know,
21 dangerous for our population, and to our health, and to our children, and we are
22 very, very concerned about that.

23 CHIP CAMERON: Well, thanks for telling us about that concern,
24 Christine.

1 CHRISTINE STRICKLAND: You're very -- [laughs] -- very most
2 welcome. I appreciate you taking the time to hear it.

3 CHIP CAMERON: Well, great. Well, thank you again.

4 CHRISTINE STRICKLAND: Thank you, good evening.

5 CHIP CAMERON: Good evening. Operator, anybody else?

6 OPERATOR: At this time, we have no additional comments.

7 CHIP CAMERON: Okay, thank you.

8 OPERATOR: And again, to make a comment over the phone,
9 please press star one. Okay, looks like we have Priscilla Star. Your line is open.

10 PRISCILLA STAR: Yes, hello.

11 CHIP CAMERON: Hi, Priscilla.

12 PRISCILLA STAR: Hello. Yes, I'd like to make a few comments
13 here. I believe the public needs to know what the NRC and its affiliated agencies
14 intend to do about the hazards of spent nuclear fuel storage, and the complete
15 scope of possible environmental impacts to land, water, air, and most importantly
16 to our bodies and to the health of the citizens in the United States. Without being
17 fully informed, without true transparency, the facts become complete guesswork.
18 The NRC needs to sit down with ordinary citizens and really hear their concerns,
19 and the NRC needs to listen. We all are in agreement that a long-term solution
20 to storing radioactive waste must be found, but if the NRC excludes the ideas
21 and voices of the creatives, visionaries, innovators, and even the dissenters, then
22 we're not truly having an open forum, are we? If the range of possible
23 alternatives is not fully being explored and discussed, then we, the American
24 public, are not adequately being drawn into the process. From what I
25 understand, an abbreviated scope of alternatives has been presented for dealing

1 with spent fuel rods and radioactive waste. As learned from past radiological
2 contaminations, safe operation, remediation, and disposal are imperative to the
3 mission of the NRC.

4 The risk to human health is too great to gamble on nebulous
5 notifications, opaque proposals, and truncated solutions to the countrywide
6 problem of waste. The American people know that the industry has a track
7 record of hazardous operations, although most of us don't like to think that fact,
8 but we know that hundreds of incidents have occurred at sites where radioactive
9 materials not recognized as waste got managed like trash. Pallets of waste
10 containers were stacked and unstable. Configurations containers were
11 improperly labeled. Shipping records were never retained. Containments were
12 breached. Personnel were not properly trained, result in their own exposure to
13 toxic amounts of radiation. There were failures to perform required radiological
14 screenings or to implement corrective actions. This issue is one of trust. So we
15 do not have confidence. The impact of radioactive pollution of water can be
16 catastrophic. Surface water and deep aquifer resources have been
17 contaminated at sites throughout the United States. These plumes of
18 contamination travel quickly, and there's no method to clean up aquifers.

19 Water is a precious resource that sustains life. We need to ensure
20 that these resources will sustain life for many generations to come. Internal
21 exposures of radioactive materials are even more hazardous than external
22 exposures, and these particles lodge in our structures, our organs, the tissues of
23 our bodies, our lungs, our stomachs, our kidneys, our bladders. Contaminated
24 water is not only consumed by human beings, the fish swim in it, and it's used for
25 livestock, to irrigate food crops. Municipal water systems are currently not

1 constructed to filter out radionuclides in their purification process. So as a
2 concerned citizen, I ask that you carefully consider the wisdom of your action and
3 decisions. Be honest in the language that you use, honorable about the methods
4 for distributing information. We need to be more fairly included in this process.
5 After 60 or more years of producing radioactive waste, we still don't have a plan
6 for safe disposal. That's three generations. We're collectively flying by the seat
7 of our pants or hems of our skirts trying to solve a possibly unsolvable problem.
8 We know these materials are dangerous for millions of years. So we need to
9 stop making the waste. We need to stop issuing licenses for aging reactors,
10 develop a sustainable energy plan in sync with the systems of the earth, water,
11 weather, seismic activity, and with all life forms inhabiting our planet. Thank you.

12 CHIP CAMERON: Well, Priscilla, we're glad we heard from you.
13 Thank you very much.

14 PRISCILLA STAR: You're welcome.

15 OPERATOR: And again, as a reminder, anyone that would like to
16 make a comment, that is star one.

17 CHIP CAMERON: Operator?

18 OPERATOR: Yes.

19 CHIP CAMERON: We're just going to take a 10-minute break here
20 to let people just stretch their legs, and then we're going to be back in 10
21 minutes, okay?

22 OPERATOR: All right, sounds good, thank you.

23 CHIP CAMERON: Okay. Thank you, Barry [spelled phonetically].

24 [break]

1 CHIP CAMERON: Operator, I think we're going to go back online
2 here in Rockville, and we're going to be ready for -- to hear from new
3 commenters. I think the operator --

4 OPERATOR: Yes, I'm here.

5 CHIP CAMERON: Well, thank you, operator. We're ready for new
6 commenters if you have any.

7 OPERATOR: We do have Eve Laramee. I'll join her in.

8 CHIP CAMERON: Hi.

9 EVE LARAMEE: Hi.

10 CHIP CAMERON: And could you just introduce yourself to us,
11 please?

12 EVE LARAMEE: Sure, I'm a concerned private citizen, and I
13 wanted to place my response to the NRC's public hearing on nuclear waste
14 confidence.

15 CHIP CAMERON: And your name is?

16 EVE LARAMEE: Eve Laramee.

17 CHIP CAMERON: Okay, hi.

18 EVE LARAMEE: Hi. To whom am I speaking?

19 CHIP CAMERON: My name is Chip Cameron. I'm the facilitator for
20 the meeting here, and we have the NRC staff from the Waste Confidence
21 Directorate, and they're eager to hear what you have to say.

22 EVE LARAMEE: Great. All right, well, I know that the NRC is
23 striving for transparency and including public response. And as a member of the
24 public, it's very difficult actually to feel any kind of entry into the response
25 process. So I wanted to say that I think that the processes and procedures that

1 you have in place aren't really allowing for a true public dialogue. It's difficult to
2 get information. It's kind of difficult even to connect with this call. So I'm -- what
3 I'm calling for is more transparency with the NRC. I think that the issue of what
4 happens with our nuclear waste is an enormous, enormous issue that affects all
5 Americans, their health, and their safety, the environment, the land, the water,
6 future generations. And from what I understand, there is a environmental impact
7 study that is planned. And yet from what I can tell, there's a lack of clarity in it,
8 that we're not really being told what the description of the proposed actions are,
9 what the available possible alternatives for long-term storage of nuclear waste
10 may be. And I feel that we need to know. As the public, we need to know.

11 These are materials that the future is going to inherit, our children,
12 and our grandchildren, and their grandchildren, and that the public really needs
13 to be better informed by your agency. And I believe that -- I believe that really all
14 of us, no matter what our positions are, whether we're for nuclear energy, or not
15 for nuclear energy, for the next generation of nuclear energy, whatever, that we
16 need to really sit around the table in a horizontal fashion, where people who may
17 have new, creative, and visionary ideas can put them out on the table, and that it
18 truly is an open discussion. And I believe that our -- you know, that -- and with
19 the -- you know, the administration of -- the Obama administration coming in now
20 for a second term that there is a possibility for that kind of open discussion, to it --
21 occur.

22 And I believe that it's imperative because human health in the
23 future is just -- you know, we cannot gamble on any of this being nebulous, or
24 based on promises, or based on best case scenarios. We have to take a lesson
25 from Fukushima, and from Chernobyl, and from Three Mile Island, and all of the

1 various, you know, little accidents that have happened across the country. You
2 know, the citizens know that the industry isn't perfect, and what really has to
3 happen is that we have to stop making this waste and trust needs to be
4 developed, because you can't -- you will never have the public's confidence or
5 anyone's confidence if the trust continues to be broken.

6 CHIP CAMERON: And thank you for that, Ivy. Do you know how
7 to get information about this process that the NRC is doing now? We put a slide
8 up for you that we had on before, but we don't know whether you were -- you got
9 a chance to catch any of the staff presentations, but --

10 EVE LARAMEE: I don't know how to do that. I'm pretty computer
11 savvy, but I don't know how to get onto that part of the interface.

12 CHIP CAMERON: Well, I'll [inaudible] --

13 EVE LARAMEE: I mean, I'm on the phone with you now, but I'm
14 not seeing anything visual.

15 CHIP CAMERON: Oh, you're not --

16 EVE LARAMEE: I guess I'm not logged in to that part of the
17 conference, or webinar, or hearing.

18 CHIP CAMERON: Hold on one second. Sarah, is this something
19 that offline, not now, you might be able to help Ivy with? Ivy, I'm going to give
20 you a name of one of the communication staff here --

21 EVE LARAMEE: Who's Ivy? Are you -- my name is Eve.

22 CHIP CAMERON: Oh, Edie? That's what I thought.

23 EVE LARAMEE: Eve, Eve, like "Adam and Eve."

24 CHIP CAMERON: Oh, I've heard of those two, so now I know,
25 Eve.

1 EVE LARAMEE: [laughs]

2 CHIP CAMERON: Okay, Eve, if you call Sarah Lopas, Lopas, L-O-

3 P-A-S --

4 EVE LARAMEE: [affirmative]

5 CHIP CAMERON: -- okay --

6 EVE LARAMEE: Yeah.

7 CHIP CAMERON: -- at 301-492-3425 --

8 EVE LARAMEE: Yeah.

9 CHIP CAMERON: -- if you call Sarah, she's a big communications
10 guru for the Waste Confidence Directorate, she may be able to help you get
11 some information so that you can understand more about this process, okay?

12 EVE LARAMEE: Right, okay. I will do that.

13 CHIP CAMERON: And I'll make sure I tell her that your name is
14 Eve.

15 EVE LARAMEE: Yes.

16 CHIP CAMERON: Okay.

17 EVE LARAMEE: All right.

18 CHIP CAMERON: All right, thanks, Eve.

19 EVE LARAMEE: Thank you.

20 OPERATOR: Thank you. Again, if you do have any questions or
21 comments, please hit star one and record your name when prompted. We do
22 have Pamela Shoop from Hope Island 1 Plateau Foundation. Your line is open.

23 PAMELA SHOOP: Thank you. Hello.

24 CHIP CAMERON: Hi, Pamela.

25 PAMELA SHOOP: Hi, I just heard your conversation with Eve that -

1 - she was very good. She's -- really said a lot of things. Okay, my situation is I'm
2 58 and a year ago I had my entire thyroid removed, okay? And then the doctor
3 would ask me, "Well, were you radiated? Were you -- had -- did you have
4 exposure? Did you have too much radiation?" And I'm -- so what I told him was
5 that during -- before I was born, during the war, my father tested the nuclear
6 missiles in the Nevada desert. And my dad, he lived to be, you know, almost --
7 he I think made it to almost 88 and he passed away from colon cancer. Well,
8 nobody seems to know that they are both connected. The thyroid is also
9 connected to colon cancer, and it is from, you know, this horrible, horrible waste.
10 Stuff is awful. And we need to just -- we need to let the scientists do what they're
11 doing right now with laser technology. I know they're trying to laser it. I mean, I
12 know it's like in its infantile stage, all these new things that scientists are doing.
13 But the foundation that I'm starting is I'm trying to have Nobel laureates in all
14 these different subjects come up with solutions instead of complaining and, you
15 know, sort of protesting. And I -- we just need solutions. We really need
16 solutions to everything, and, you know, especially our -- we have so many other
17 energy ways to get energy with the sun and everything else. We really need to
18 do away with it, period.

19 CHIP CAMERON: And, Pamela, could I -- I just want to make sure
20 that everybody here and others on the web cast know the name of your
21 foundation. It's Mount Hope?

22 PAMELA SHOOP: It's Hope Island.

23 CHIP CAMERON: Oh, Hope Island.

24 PAMELA SHOOP: Hope Island, it's for the earth being -- you know,
25 the earth is an island. So it's going to be "Hope Island." And "One Plateau"

1 means a lot of different things. It -- you know, it's sort of putting the wealthy --
2 you know, we're -- we want to bring out altruism. We want to just have attitudes
3 that are more altruistic. And the consensus will grow as all these benevolent
4 factors are common and possible to connect in spite of cultural, intellectual -- you
5 know, all these riches of the world. It's like about time, you know. And "One
6 Plateau" does stand for other things as well, but I can't get into it right now
7 because I did write a book. I wrote a book, and I dissected everything. And we
8 just need to get rid of all the nuclear waste. We need to find a way. And, I mean,
9 to dig a cave, and bury it in a cave, and -- I just don't think that's going to work. I
10 think it should be our number one priority, number one, and just all the science,
11 you know, get together. And I just think science is very quiet. I don't think they're
12 letting anybody know anything. You know, we've been in the dark. You have to
13 admit as a layperson that we have all been in the dark as far as science. And
14 they know cancer, they know environmental cancer, smoking causes cancer, you
15 know, and so we're just going along with it, you know, we're just -- just go to the
16 pharmacy or go to a doctor and get surgery. It's -- but, you know, it's -- we're
17 really serious, you know. And I just hope nobody else in my family comes down
18 with cancer before they're even born or thought of. You know, this is in the
19 genetics, in the line, it's in the bloodline. It's very scary that things can happen
20 like this right now. And so --

21 CHIP CAMERON: Well --

22 PAMELA SHOOP: -- that's basically -- you know, "One Plateau"
23 means that we can still -- well, it's -- I can't really tell you because you -- it'll just
24 be way out there, you'll think I'm way out there, so I'm not going to do that.
25 [laughs] But, yeah, thank you for mentioning my -- this "One Plateau" -- this

1 Hope Island One Plateau Foundation.

2 CHIP CAMERON: Okay, for the record, Hope Island One Plateau
3 Foundation.

4 PAMELA SHOOP: Yes, yes, yes, yeah.

5 CHIP CAMERON: All right.

6 PAMELA SHOOP: Thank you.

7 CHIP CAMERON: Thank you, Pamela.

8 PAMELA SHOOP: Okay, thank you.

9 CHIP CAMERON: Take care.

10 PAMELA SHOOP: Have a good one, bye.

11 CHIP CAMERON: Bye-bye.

12 PAMELA SHOOP: Oh, my God.

13 OPERATOR: Thank you. Next we have Cathy Iwane. Your line is
14 open.

15 CATHY IWANE: Hi, I'm here, and I'm here to, let's see, represent
16 Japan a little bit. I lived there for 25 years, and I lived quite far away from the
17 Fukushima reactors. However, I'd like to, if I could, just share a little bit about
18 what went on. And I'm also here to represent a great organization called
19 Coalition Against Nukes, and just sort of raising my children, and having been
20 married into the culture in Japan, my husband's Japanese, and I can say that,
21 you know, there is quite an information gap as to what's going on right now in
22 Japan. There is so much -- and I was never an antinuclear activist until I, you
23 know, personally lived the tragedy. And you think 380 miles away from the
24 reactors is quite a large -- a long buffer zone, but really it's no more than San
25 Francisco to San Diego.

1 And here I am, I've evacuated as of April of this year with my two
2 daughters. My husband, although he remains in Japan, we're very lucky to have
3 him here at this time with us for a month to spend some time with his kids. But
4 what's happening is that you have a situation where the government has called
5 cold shut down, and there is no way that they -- that any scientist on our planet
6 right now has the technology to go in and actually make these spent fuel pools
7 safe for humanity. You have three continuing meltdowns in Fukushima, northeast
8 Japan, and it's continuously -- they have timed releases at least every two weeks
9 because this -- the core unit is hot, it continues to melt down, and they are letting
10 this steam into the atmosphere as well as continuously into the Pacific Ocean.
11 We're having consequences because of that in California.

12 So when it comes down to thinking, "Why do we invest our money
13 into the nuclear energy realm?" it really -- what you really have to get down to is I
14 think in a sense, when we talk about waste, it's -- we really need to rethink our
15 policy vis-à-vis the American military industrial complex, because this is a
16 situation where it's not just ridding -- it's not putting all these 104 reactors in the
17 United States offline or taking care of the Fukushima situation, we are then
18 dealing with these spent fuel pools all over our planet, namely, the United States,
19 where a lot of the same reactors, the General -- what is it, the GE Mark 1 reactor,
20 apparently we have 23 of those in the United States, those are the same ones
21 that have melted down in Fukushima. And we also have these spent fuel pools
22 that are very close to fault lines.

23 And it's just -- it's not a -- and sadly we're at a stage -- we're --
24 luckily we're at a paradigm where a lot of people are becoming aware of the
25 important -- the knowledge, just the knowledge that this radioactive waste has

1 isotopes that we cannot ever see neutral in our lifetimes, or our children's
2 lifetimes, or their children, or their children. We're talking about some isotopes
3 lasting hundreds of thousands of years. And what we're creating is a society
4 where you have babysitters to create safety zones for the waste that we have
5 created for several generations on the planet. And knowing what's happened to
6 my family -- I've been married for [inaudible], his relatives live in Japan, all of my
7 friends, we had a situation where it's just completely, completely ludicrous to
8 even think of such a -- an energy source, you know. And we have the same thing
9 going on in this country.

10 So I don't -- in a way, I don't think that Americans especially -- we
11 were hands involved, completely complicit in the -- you know, the occupation of
12 Japan after bombing the living daylight out of Hiroshima, Nagasaki. And then
13 we go several years into the occupation, and we say, "Here, Japan, we would
14 like you to take on this fabulous nuclear program even though you live in the ring
15 of fire and your country has earthquakes left and right just like California." So I
16 think as Americans, if I could just say one thing, it's really time to wake up to think
17 about what sort of a situation we're promoting in our military industrial base. And
18 that's sort of what it gets down to, because once you create all these nuclear
19 power plants, they then feed into reprocessing the fuel again and to nuclear
20 warfare. And I don't think that, that's something that our general public has really
21 caught onto.

22 So if I could share anything, I've taken my children out of their
23 birthplace, I've brought them, you know, away to -- luckily I'm an American, and
24 we're slowly getting into a safety zone. But it is -- we really have to wake up to
25 the problem of creating uninhabitable spaces around this globe. Number one,

1 Fukushima, they don't envision -- Senator -- not "Senator" -- Commissioner
2 Magwood of the NRC said, himself, "We have no technology to go in, even with
3 the robots or whatever, to stabilize these spent fuel pools in reactor -- in the
4 reactors in Japan." And that's something that we really need to take a look at
5 before we go ahead and open, you know, with public funding, more and more
6 waste coming from more and more reactors. So that's my piece, and I'm really
7 pleased to be following Pamela and Eve on tonight's conference. And thank you
8 for hearing me out.

9 CHIP CAMERON: And, Cathy, I think you were on the panel at the
10 last San Onofre meeting.

11 CATHY IWANE: Yes, I was. Thank you so much for having me
12 join and be a part of that. It was a very educational -- [laughs] -- process.

13 CHIP CAMERON: Well, good, well, thank you for phoning in
14 tonight.

15 CATHY IWANE: You're very welcome, thank you.

16 CHIP CAMERON: And, operator, who do we have next on the
17 phone?

18 OPERATOR: Next, we have Michael Leonardi from the Toledo
19 Coalition. Your line is open.

20 CHIP CAMERON: Okay, Michael.

21 MICHAEL LEONARDI: Hey, how are you doing, guys? I'm really
22 tired, and I'm about to go to bed, and I was convinced into exercising this futility
23 tonight. And I'll just say we need to stop producing nuclear waste, and there's no
24 solution that's been proven so far. That's all I want to say. Have a nice night.
25 Thanks.

1 CHIP CAMERON: Thank you, Michael.

2 MICHAEL LEONARDI: Bye.

3 CHIP CAMERON: Bye-bye.

4 OPERATOR: Thank you. Again, if anyone does have any
5 questions or comments, please hit star one. We have Eve again. Your line is
6 open.

7 EVE LARAMEE: Hi, I'm not sure whether I got through the last
8 time.

9 CHIP CAMERON: We did hear you, Eve.

10 EVE LARAMEE: Oh, okay, all right, great. I'm now on a web
11 interface, so I wasn't sure whether my comments were recorded.

12 CHIP CAMERON: No, they were, and --

13 EVE LARAMEE: Thank you.

14 CHIP CAMERON: -- call in to Sarah if you need more information.

15 EVE LARAMEE: All right, thank you so much. Bye-bye.

16 CHIP CAMERON: Bye-bye.

17 OPERATOR: Again, if you do have any questions or comments,
18 please use star one. Again, if you do have any questions or comments, please
19 hit star one. Again, if you do have a question or comment, please hit star one.
20 Again, if anyone does have a question or a comment, please hit star one. Again,
21 that's star one if you do have a question or a comment. Next we have Christine
22 Strickland, your line is open.

23 CHRISTINE STRICKLAND: Hi, thank you. That was Christine
24 Strickland [laughs].

25 OPERATOR: Again, if anyone does have a question or a comment,

1 please --

2 CHIP CAMERON: Okay, and this is --

3 OPERATOR: -- star one if you do have a question.

4 CHIP CAMERON: Did we get your name right?

5 CHRISTINE STRICKLAND: Thanks a lot. I didn't want you to sit
6 there with all that open space when we still had time and we still had things that
7 we need to say. So I thought I'd call you again. The spent fuel in all of these
8 nuclear power plants is a huge problem. It's been addressed in law, and the
9 requirements have not been met to, you know, make any kind of progress toward
10 making this fuel problem go away, because we can't make it go away, because
11 we don't possess the technology to store this fuel. So we need to stop making it
12 until we can figure out what we're going to do safely with what we've already
13 made.

14 And the cost is increasing exponentially, not only economically in
15 dollar signs, but also the health of the people is being affected. And it isn't just
16 cancer, it's heart disease, A, blood disorders, immune deficiencies. All of these
17 diseases that are on the increase are due to this radiation, these particles that
18 are coming out of this spent fuel. And we have no solutions for even safely
19 storing it. And we're very concerned because the Nuclear Regulatory
20 Commission's mandate is to protect us, the citizens. That's why they were split
21 apart from the Atomic Energy Agency long ago. And now, you know, that's DOE
22 handling the promotion and NRC handling the protection. And we're very
23 concerned that, you know, protection isn't necessarily job A these days, and
24 that's all I wanted to say.

25 CHIP CAMERON: Well, thank you. Thank you, Christine.

1 CHRISTINE STRICKLAND: Appreciate it, Christine.

2 CHIP CAMERON: Christine? Thank you, Christine. Do we have
3 anybody else, operator?

4 OPERATOR: Next we have Michael. Your line is open.

5 MICHAEL JOCHUM: Oh, thank you. My question was is it
6 possible to inject the waste into like a subduction zone and allow it to be carried
7 back towards the center of the earth, where from what I understand there's a
8 radioactivity found there which is causing some of the heat at the center of the
9 earth?

10 CHIP CAMERON: Michael, could you just tell us your last name for
11 the record? And then we'll try to answer your question.

12 MICHAEL JOCHUM: [inaudible]

13 CHIP CAMERON: I'm sorry?

14 MICHAEL JOCHUM: It's Jochum, J-O-C-H-U-M.

15 CHIP CAMERON: Okay, thank you very much. Keith, do you want
16 to say something just about Michael's question?

17 KEITH MCCONNELL: Yeah, this Keith McConnell. Disposal in
18 subduction zones actually occurred a number of years ago, but --

19 CHIP CAMERON: Michael, you might have to put your phone on
20 mute, because we're hearing Keith here and over your phone. Oh, I guess mute
21 your computer speakers if you can.

22 MICHAEL JOCHUM: I should be on mute now.

23 KEITH MCCONNELL: Okay, yeah, back maybe 50 years ago,
24 disposal in the sea of radioactive waste did occur. I believe, if my recollection -- if
25 my recollection is correct, that some of that occurred in either subduction zone or

1 certainly the deep trenches in the ocean. But that is no longer the policy of the
2 United States for various reasons. And now the policy is for this disposition of
3 spent fuel to be in a geological depository on the earth's surface.

4 CHIP CAMERON: So thank you for that question. Does that give
5 you an answer?

6 MICHAEL JOCHUM: Yes. That answers me. Thanks a lot.

7 CHIP CAMERON: Okay. Anybody else, operator?

8 OPERATOR: Again, if you do have a question or a comment,
9 please use star one. Next we have Eve. Your line is open.

10 EVE LARAMEE: Thank you. I'm calling again because I'm still
11 learning the interface here, and now I can see an image, and I was able to hear
12 some other voices. And I just wanted to complete my statements.

13 CHIP CAMERON: Okay, Eve, it sounds like we're making
14 progress.

15 EVE LARAMEE: Great. [laughs]

16 CHIP CAMERON: Okay.

17 EVE LARAMEE: Yeah, I can see you.

18 CHIP CAMERON: Great. Well, go ahead.

19 EVE LARAMEE: All right, thank you. I -- first, I just wanted to
20 follow up on what -- the comment that was just made about the subduction zones
21 and processes like vitrification and geological repositories that -- that doesn't
22 sound very CO2 neutral to me. And we -- I feel that we really need to know what
23 the NRC and its affiliated agencies intend to do with this waste, and whether that
24 notion of CO2 neutral is factored into the back end of the fuel cycle. And we
25 need to really be informed as citizens, the complete scope of possible

1 environmental impacts to land, to water, and most importantly to our bodies and
2 to the health of citizens of this country.

3 Without being fully informed and without true transparency, the
4 facts seem like guesswork. I think that the NRC needs to sit down with the
5 ordinary citizens more frequently and really listen to and hear our concerns. If
6 you would exclude these ideas, then we're not really having an open forum, or if
7 the interface is so difficult then we're not really having an open forum. If the
8 range of possible alternatives for waste disposal are not being fully explored or
9 they're not being fully discussed with us, then we're not really adequately being
10 drawn into the process. And from what I understand, an abbreviated scope of
11 alternatives has been presented, dealing with the spent fuel rods and dry cask
12 storage of waste, but as we've learned from past radiological contaminations,
13 and certainly what we've learned from Hurricane Sandy and, you know, several
14 plants being at risk, that all this is imperative to your very mission -- to the very
15 mission of the Nuclear Regulatory Commission.

16 And, you know, we know that the industry does have a track record
17 of mistakes in the past. But we don't like to think about that. We like to sort of
18 not think about that in our daily lives. But we do know that hundreds of incidents
19 have occurred at sites where radioactive materials were not recognized as waste
20 and got managed like trash, where pallets of waste containers were stacked in
21 unstable configurations, where containers were improperly labeled, where
22 shipping records were never retained, containments were breached, personnel
23 were not properly trained resulting in their own exposure to toxic amounts of
24 radiation. There were failures to perform required radiological screenings or to
25 implement corrective actions.

1 So, again, I just want to bring up the incredibly important issue of
2 trust. It's hard for us to trust. We don't have confidence because we feel that too
3 many of these mistakes are just kind of, you know, business as usual. The
4 impact of radioactive pollution on water can be catastrophic. Surface water and
5 deep aquifer reef sources have been contaminated at various sites throughout
6 the United States, and these plumes of contamination can travel quickly. And as
7 far as I am aware, there's no method to clean up aquifers.

8 Water is our most precious resource on this planet, and we need to
9 ensure that these resources will sustain life for many generations to come. And
10 whatever internal exposures people and other animals have from consuming
11 water that has radiotoxins in it, that's even more hazardous than the external
12 exposures, and that those particles can lodge in the kidneys, and the stomach,
13 and lungs, and bladders, creating disease clusters. Municipal water systems to
14 my knowledge are currently not constructed and set up for that kind of
15 purification apparatus, or if they are, it's not on a widespread basis.

16 So just, again, as a concerned citizen, I ask that you carefully
17 consider the wisdom of your actions and the wisdom of your decisions, and to be
18 as honest with -- as you can with the American public. Be more transparent,
19 reach out to us more, do the honorable things in distributing information. Don't
20 bury it so much on your website or in the interface of these opportunities for us
21 to, you know, interact with you. We need to really be thoroughly included in the
22 process, that we know that after 60 or more years of producing this waste, we
23 still don't have a safe plan for disposal, and this should be the number one
24 agenda item on the next -- you know, in this next administration. We can't keep
25 flying by the seat of our pants. We have to deal with this now, especially with

1 weather changes, the global warming climatory [sic] change. We really must
2 secure a safe future.

3 CHIP CAMERON: Well, Eve, thank you. We hope that this may
4 have been a small step, at least tonight, for the NRC to have interaction with an
5 ordinary citizen such as yourself. And there's one thing that I think that the NRC
6 needs to make clear about its mission, that was brought up by one of your
7 remarks, and that has to do with the NRC's role in regulating the disposal of
8 nuclear waste, but it's not in charge of actually disposing of it. And, Keith, do you
9 want to say anything more about that? You don't need to, but --

10 EVE LARAMEE: Oh, I guess that would be Department of Energy.
11 Would that be Department of Energy?

12 CHIP CAMERON: Go ahead Keith.

13 KEITH MCCONNELL: Yeah, this is Keith McConnell. That, too --
14 Department of Energy had the responsibility for siting and constructing a geologic
15 repository in the past. And that was the Yucca Mountain site. So under our
16 scheme of things, we would have licensed the Department of Energy at Yucca
17 Mountain, had that project proceeded. But I think what Chip wanted to do is to --
18 just to make clear that our role is just to license the facility, it's not to build it,
19 construct it, or even for that matter set the policy, which is done by Congress and
20 the president.

21 CHIP CAMERON: Okay, thank you.

22 KEITH MCCONNELL: I would -- this is Keith again. I would ask --

23 EVE LARAMEE: Hi, Keith.

24 KEITH MCCONNELL: Yeah, one question. I think Chip mentioned
25 that we are trying to reach out to the public through mechanisms like this and our

1 website, and perhaps you can give us some information how -- what other tools
2 we should use to make that connection.

3 EVE LARAMEE: I will definitely think about that, and I -- well, I
4 can't -- I'm -- suddenly you've gone mute, but I will think about that. I will
5 communicate that either by email or by contacting the NRC by telephone.

6 CHIP CAMERON: Great. Thank you very much, Eve.

7 EVE LARAMEE: Thank you.

8 CHIP CAMERON: And now --

9 EVE LARAMEE: Thank you for the opportunity to, you know,
10 provide my commentary.

11 CHIP CAMERON: You're welcome. We have one more, operator?

12 OPERATOR: Yes, it looks like we have Cathy. Your line is open.

13 CHIP CAMERON: Hi, Cathy.

14 CATHY IWANE: Hi, hi, I'm back. Thank you so much for opening
15 this forum and allowing this exchange of communication to go on. I just have
16 one quick question, and I wanted to sort of get Elmo's opinion if I may? I realize
17 that there is -- that the NRC has announced a study on cancer statistics to be
18 held ongoing, quite a in-depth investigation into the actual statistics within a, if I'm
19 correct, 35-mile radius of seven nuclear power plants in the United States, one
20 being the San Onofre -- San Onofre Nuclear Power Station, generator power
21 station, and I was wondering if you could just off the cuff -- what is your opinion
22 on -- I'm more than happy that such research will be -- will be, you know, taken.
23 It's a big undertaking. How do you feel that this is going to differ, or what do you
24 feel that the -- do you feel that there will be any remarkable data in comparison to
25 what we already have coming out of Chernobyl, all the years after Chernobyl, all

1 the data we have?

2 Of course, it's very, very different, based on what sort of an
3 accident you have. You know, you look at Three Mile Island, that's completely
4 different from Fukushima, and, again, the spent fuel pools -- spent fuel pools of
5 Chernobyl, were blasted into the atmosphere, it's a completely different situation,
6 but what do you think that you will -- what is the -- what is your commentary on
7 the actual study to be undertaken?

8 CHIP CAMERON: Okay. This is -- and, Cathy, just to be clear, did
9 you think that Elmo Collins was here?

10 CATHY IWANE: Yes, I did.

11 CHIP CAMERON: Well, no --

12 CATHY IWANE: You totally sound like him. [laughs]

13 CHIP CAMERON: Okay. Well, no, Elmo is in -- Elmo is in NRC
14 Region IV in --

15 CATHY IWANE: Region IV in Texas?

16 CHIP CAMERON: -- in Texas, and I think that's where Elmo is
17 tonight.

18 CATHY IWANE: That's right, you sound exactly like him, so
19 anyway --

20 CHIP CAMERON: Okay.

21 CATHY IWANE: -- if could get any commentary on that.

22 CHIP CAMERON: But, you --

23 CATHY IWANE: You don't have to stand in for Elmo, but --

24 CHIP CAMERON: Okay.

25 CATHY IWANE: The moderator, so is it Chip I'm speaking with?

1 CHIP CAMERON: Yes, that's right.

2 CATHY IWANE: Okay.

3 CHIP CAMERON: That's right, Cathy.

4 CATHY IWANE: Thank you.

5 CHIP CAMERON: But to get to your question, I don't know if
6 anybody - -- you're correct about the study that's going to be done by I guess the
7 National Academy of Sciences.

8 CATHY IWANE: Right.

9 CHIP CAMERON: And I don't know if we have anyone here who
10 can talk to what the status is of that study, much less give an opinion about what
11 the result is, but if we could, Sarah, Dave McIntyre, public affairs, maybe he
12 could tell Cathy where on the website there is a description of that study or
13 something.

14 CATHY IWANE: No, I've read the description. I've read the entire
15 description. That's fabulous, and I really appreciate that description. But if I
16 could get some human commentary on your own personal -- and you don't --
17 obviously you're on the record, this is a public affair, but perhaps you could get
18 some communication from the side of the one sponsoring this open forum, you
19 know, some communication, because we all have children, and we all know that -
20 - let's be really honest here, we all know that those of us who live downwind of a
21 nuclear power plant -- my goodness, I can -- I evacuated from Japan. I now live
22 35 miles south of San Onofre. I know exactly what we're dealing with when we
23 have a plant in January that has radioactive releases, and that's to then shut it
24 down. The rate payers are paying \$54 million a month due to this. We now have
25 an OII, you know, an order of investigation, instituted with the California Public

1 Utilities Commission, and we know, we know all of the risks associated.

2 Even if you're on the regulatory agency's side, if you are a parent
3 who has evacuated the children due to fears of contamination in the foods, we all
4 know how this plays out. We've seen Chernobyl. We've seen what goes on in
5 this planet. We're worried about the exponential amount of spent fuel rods
6 hovering over San Onofre. I was even comparing that to Fukushima. It really,
7 really dwarfs the amount of fuel we have in Fukushima. So my question is I've
8 read all the data and I've attended many -- you know, and I'm certainly not by any
9 means going to be -- I'm just a mother who is trying to educate myself like in any
10 form possible, that, truth be known, from Fukushima because the truth is very,
11 very important. What is -- what are the opinions based on the data that we have
12 on the NRC's website and the American Academy of the Sciences website.
13 That's my final question I guess, if I could get a little opinion or --

14 CHIP CAMERON: Okay.

15 CATHY IWANE: -- [inaudible] human take on this. We all have
16 children, right?

17 CHIP CAMERON: I'm sure some people here have children.

18 CATHY IWANE: Yeah?

19 CHIP CAMERON: So that's about the strongest statement I want
20 to make, but, yeah, people here have children. And, Cathy, I think -- is this may
21 not be what you're looking for, but Andy Imboden from the Waste Confidence
22 Directorate is going to -- is going to try and respond.

23 ANDY IMBODEN: Yes, you know, we're not the experts on this
24 exact project, but as I understand it, the National Academies of Science will be
25 conducting this, and the NRC is awaiting their results. I believe that their phase

1 one of their study will be sent in a report to us in the fall. And, you know, we're
2 awaiting those results as well. And I -- the other thing I'd like to say is I think it's
3 an attempt to update a similar study that was done in 1990, it's sponsored by the
4 NRC, where we contracted with a independent organization to do that
5 assessment. So I don't think the NRC has any results yet, and -- but we look
6 forward to them, too, and I have children.

7 CATHY IWANE: No, no, no, and I totally -- I understand your point.
8 They're on the results, and I'm fully, fully looking forward to the results. We have
9 the results of many of these studies, whether they're peer-reviewed by the MIT,
10 institutes that align themselves with the nuclear industry or not. We all have
11 many -- much, much data that can be proven and is proven depending on what
12 side you're looking for. My opinion -- my question is very simple. What might
13 your opinion be, Sarah, based on the studies to be carried out here? We're
14 spending \$2 million of much-needed, you know, resources to find out a very
15 important -- very important results of this study.

16 But what do you feel is the -- what -- if the NRC could make a
17 comment or not -- of course, the moderators can't make a comment. That's a
18 real and fair thing to say, because I'm a human being, and we all have jobs, and
19 we all have people we love, but in terms of how are we going to -- how are we
20 going to spin another study and say that the results of the cancer -- we already
21 have results coming out of Orange County and Scripps Institute that tell us that
22 the level of cancers of the downwinders are raised exponentially, so what are we
23 going to learn from this study, is I guess my question.

24 CHIP CAMERON: Yeah, and, Cathy, I don't think that anybody
25 here is prepared to --

1 CATHY IWANE: Yeah.

2 CHIP CAMERON: -- address that any more than they have
3 already, although --

4 CATHY IWANE: Right.

5 CHIP CAMERON: -- I think we know how to get in touch with you
6 to at least perhaps tell you what the status --

7 CATHY IWANE: Thank you.

8 CHIP CAMERON: -- of the study is --

9 CATHY IWANE: Great.

10 CHIP CAMERON: -- and just thank you for calling in, again.

11 CATHY IWANE: Thank you for having me. Let's all think about
12 where we're taking this. Thank you so much, bye.

13 CHIP CAMERON: Okay. And I think we have one more -- we have
14 one more caller, and I think that we've reached the end of our time tonight, but
15 we are going to go to Priscilla. Operator, can you patch Priscilla through to us?

16 OPERATOR: Priscilla, your line's open.

17 PRISCILLA STAR: Yes, I just had one question. I know this is the
18 end of the meeting, but I think that when we all get off the phone, we'll still have
19 this one word on our minds, which is "meltdown." And I don't know that the NRC
20 is providing enough comfort for the society at large anymore that you can save
21 us from that, that you can prevent one, and human error alone has proved that to
22 be another reason there could be one. So I know this was set up for a waste
23 call, but is there some one way you could, you know, end this meeting and give
24 us some kind of comfort that you're prepared to avoid a meltdown at any cost in
25 the United States?

1 And, I mean, what will we have to do if there is one? Where will we
2 be able to go? What will we have left? Where will we go? This is -- we look to
3 you for safety, and yet all of us are scrambling for answers. After every meeting
4 is over, we don't feel any closer to the truth because we're not sure you have the
5 answers. So I think we're all feeling very lost with the Nuclear Regulatory
6 Commission, and we know that you're in place to oversee safety issues for
7 plants, but it seems as if every single day there are more incidents than ever
8 before because they're all old and falling apart.

9 So why should we believe anything that we're being told, that these
10 meetings are even supposed to be helping the situation when it seems like it's
11 getting worse, worse by the day? I see the reports lined up on the NRC. There
12 are more than I've ever seen. So, I mean, they're falling apart. They're cracking.
13 They're falling apart. They're -- you know, they're flooded. I mean, what good
14 thing could you say at this point to the crowd that got on the phone tonight to
15 support that the NRC is watching over us? That's the question.

16 CHIP CAMERON: Sure, and I think that we can go to the
17 regulatory experience and framework of the NRC, and Keith McConnell is going
18 to talk to that to ensure that --

19 PRISCILLA STAR: I mean, it's generally --

20 CHIP CAMERON: Okay --

21 PRISCILLA STAR: -- it's generally with quotes, "There is no
22 danger."

23 CHIP CAMERON: Priscilla, we're going to give you an answer,
24 okay, right now. Keith?

25 KEITH MCCONNELL: Yeah, we're sorry you feel the way you do.

1 Our response is that our single goal and what we do here at the NRC is the
2 protection of public health and safety. And I think you have a very committed
3 group of people not only at this table but in the agency itself to make sure that
4 happens. And so we do everything we can in terms of our regulatory
5 responsibility to make sure that all uses of nuclear material are done in a safe
6 and protective way.

7 PRISCILLA STAR: Well, that sounds like a pretty standard answer,
8 and I don't think that people feel comfortable with those answers anymore.
9 Generally, when we see that there's a fire at a nuclear power plant, the
10 comments are generally made by the NRC, "But there was no danger." How
11 much longer can that comment hold up? It doesn't make anyone believe in you
12 when we see that there was no danger. I mean, mostly people don't believe it.
13 So you should come up with some new lines like, "There was danger."

14 CHIP CAMERON: Well --

15 PRISCILLA STAR: "And we have to admit it."

16 CHIP CAMERON: Priscilla.

17 PRISCILLA STAR: That's all I have to say.

18 CHIP CAMERON: Okay, good, and, you know, it's a standard
19 answer because I think it's a true answer.

20 PRISCILLA STAR: There was never any danger?

21 CHIP CAMERON: So --

22 PRISCILLA STAR: I highly doubt that.

23 CHIP CAMERON: That's not what I was talking about.

24 PRISCILLA STAR: Well, I don't mean to sound snarky --

25 CHIP CAMERON: But thank you --

1 PRISCILLA STAR: -- but we need to feel safe. We don't.

2 CHIP CAMERON: Okay, thank you, Priscilla.

3 PRISCILLA STAR: You're welcome.

4 CHIP CAMERON: Good night. And I think that's the end of our
5 meeting, and I just want to thank -- from the facilitators, thank everybody who
6 participated. And also thank you, operator, for helping us out tonight. And, Keith,
7 do you want to close out the meeting for us?

8 KEITH MCCONNELL: Like the first meeting, we do appreciate
9 everybody's participation in this meeting to scope the generic environmental
10 impact statement. Again, the comments I thought were well focused, timely, and
11 helpful to us, so thanks to everyone.

12 CHIP CAMERON: Good night.

13 OPERATOR: Thank you all for participating in today's conference.
14 You may disconnect your line, and have a great day or a great evening.

15 [whereupon, the proceedings were concluded]