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# **Community Engagement Panel Public Meeting**

## **Transcript of Proceedings**

**Date: 09/15/2016**

**Job #: 601525**

Court Reporting – Videoconferencing – Trial Presentation – Nationwide Networking

**Hermosa Beach - Irvine - Riverside - San Diego - Las Vegas**

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SAN ONOFRE DECOMMISSIONING  
COMMUNITY ENGAGEMENT PANEL MEETING  
STATE OF CALIFORNIA, COUNTY OF ORANGE

TRANSCRIPT OF PROCEEDINGS  
OCEANSIDE, CALIFORNIA  
THURSDAY, SEPTEMBER 15, 2016

Reported by:  
CARLOS R. HICHO  
CSR No. 13111  
Job No. 601525

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SAN ONOFRE DECOMMISSIONING  
COMMUNITY ENGAGEMENT PANEL MEETING  
STATE OF CALIFORNIA, COUNTY OF ORANGE

Transcript of proceedings, taken at  
1938 Avenida Del Oro, Oceanside, California  
92056, commencing at the hour of 5:47 P.M.,  
THURSDAY, SEPTEMBER 15, 2016, before  
CARLOS R. HICHO, Certified Shorthand  
Reporter.

1 COMMUNITY ENGAGEMENT PANEL MEMBERS PRESENT:

2 DR. DAVID G. VICTOR  
3 CEP CHAIRMAN  
4 UNIVERSITY OF CALIFORNIA, SAN DIEGO

5 DAN STETSON  
6 CEP SECRETARY  
7 OCEAN INSTITUTE

8 TED QUINN  
9 AMERICAN NUCLEAR SOCIETY  
10 SAN DIEGO CHAPTER

11 GLENN PASCALL  
12 SIERRA CLUB

13 SAM JAMAL,  
14 CAMP PENDLETON

15 PAM PATTERSON  
16 SAN JUAN CAPISTRANO  
17 MAYOR PRO TEM

18 GARRY BROWN  
19 ORANGE COUNTY COASTKEEPER

20 BOB BAKER  
21 SAN CLEMENTE MAYOR PRO TEM

22 HON. JOHN ALPAY  
23 CAPISTRANO UNIFIED SCHOOL DISTRICT  
24 BOARD OF TRUSTEES

25 MICHELLE ANDERSON  
ORANGE COUNTY SHERIFF'S DEPARTMENT

JEROME M. "JERRY" KERN  
OCEANSIDE CITY COUNCILMEMBER

25 (Continued.)

1 GUEST SPEAKERS PRESENT:

2 LINDA ANABTAWI  
3 SENIOR ATTORNEY  
4 SCE LICENSING & ENVIRONMENTAL LAW

5 STEVE SCHROETER  
6 UC SANTA BARBARA  
7 MARINE SCIENCE INSTITUTE

8 ALSO PRESENT:

9 TOM PALMISANO  
10 VICE PRESIDENT, DECOMMISSIONING AND CHIEF  
11 NUCLEAR OFFICER

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1 THURSDAY, SEPTEMBER 15, 2016

2 OCEANSIDE, CALIFORNIA

3 5:47 P.M.

4 \* \* \*

5 CHAIRMAN DR. VICTOR: I'm not going to take it  
6 personally that the only mic that seems to be  
7 inoperative is in front of me.

8 Welcome to the regular meeting of the  
9 Community Engagement Panel. My name is David Victor  
10 and I Chair the panel. Tim Brown is not with us  
11 tonight; he's vice chairman. And Dan Stetson, here to  
12 my left, secretary.

13 I'm mindful that the 5 is a parking lot in all  
14 directions and so many of you had difficulty getting  
15 here, so we're starting about 15 minutes late and I  
16 think we need to get it started, and some other folks,  
17 I'm sure, will be arriving as the meeting unfolds.

18 I just want to remind folks that, in case of  
19 emergency, if you need to leave the building, the  
20 primary exit is the way that you came in. It's marked  
21 "Exit" here. You go back out there and down the  
22 hallway. The restrooms are down there as well. If  
23 there's an emergency, please don't stop at the restroom  
24 along the way.

25 We have two officers from the Oceanside Police

1 Department. I want to thank them for being here for  
2 our safety tonight. And thanks to the people of  
3 Oceanside for hosting us again in this facility.

4 I just want to remind people that the  
5 Community Engagement Panel is not a decision-making  
6 body. It's designed to open a conduit, which means  
7 Edison, as the operator of the San Onofre facility, and  
8 the public -- the public that are affected in various  
9 ways by the decommissioning process, it's designed to  
10 open a two-way conduit so Edison can understand better  
11 the concerns that the communities have about the  
12 process and so the communities can understand better  
13 what's happening in the process here and so they can --  
14 (inaudible).

15 There's a website: [www.SONGScommunity.com](http://www.SONGScommunity.com),  
16 where you can sign up for email blasts. Something  
17 about that term, there's a little bit -- in case you  
18 can be blasted by email if you sign up on that site.  
19 There were blasts sent out on the 17th of August and  
20 the 8th of September, reminders about this meeting, and  
21 it's a good way to stay informed.

22 You'll also find on that site that you'll find  
23 all the materials that are shared with CEP, including  
24 slide decks for tonight's meetings and all other  
25 meetings, a public transport -- transportation

1 resources and livestreaming and archival, video copies,  
2 of all of our prior meetings.

3 If there's anything in the slides that's going  
4 to be hard to see up in the screen, Tom Palmisano  
5 always has a slide that is the winner every time, and  
6 so we have copies on your chairs of those slides that  
7 that are difficult to see.

8 A reminder that there are walking tours of  
9 the -- of the sites coming up: One on October 15th and  
10 one on November 19th, and you can sign up on  
11 SONGScommunity.com.

12 I'll introduce our guest later tonight. Steve  
13 Schroeter, when he -- when he arrives, he'll be  
14 speaking later on some of the marine impacts.

15 Let me just mention that we have several  
16 alternates sitting in for members of the CEP: Mayor  
17 Bob Baker, who is not here, I guess, yet; Michelle  
18 Anderson as well, who is sitting in for Donna Boston;  
19 and Sam Jamal, who is sitting here for Tom Caughlan  
20 from Camp -- Camp Pendleton.

21 We're going to have a discussion toward the  
22 end of the meeting about future CEP meetings and Dan  
23 will be taking -- Dan Stetson will be taking some input  
24 on possible topics for future CEP meetings, so we'll  
25 talk about that later in the evening.

1           There are, as many of you have seen already, a  
2 number of booths over -- over there that Edison has  
3 organized on all kinds of interesting issues related to  
4 the decommissioning process. And so I urge you, during  
5 our break today, to go over and visit -- visit one of  
6 the booths and find out more and talk with the  
7 Edison -- the Edison staff.

8           There is a lot of activity going on outside  
9 the Community Engagement Panel process that relates  
10 broadly to decommissioning.

11           (Whereupon, Mr. Schroeter joins the CEP  
12 meeting.)

13           MR. SCHROETER: How are you?

14           CHAIRMAN DR. VICTOR: Very nice to meet you.

15           MR. SCHROETER: Nice to meet you.

16           CHAIRMAN DR. VICTOR: Steve Schroeter from UC  
17 Santa Barbara Marine Science Institute.

18           And Steve will be talking later tonight about  
19 some of the marine impacts related to the conduits and  
20 decommissioning.

21           Steve, thank you very much for joining us  
22 here. And apologies for the traffic that we've  
23 delivered that is -- that is horrible.

24           We're going to -- the topic tonight: The  
25 long-term stewardship of spent nuclear fuel at the site

1 along with a variety of other topics, and the topic  
2 that we've discussed in this panel many times around  
3 how do we raise the odds of a serious consolidated  
4 interim storage facility or facilities I view as the  
5 most important topics related to the decommissioning  
6 process.

7 We've got to find some solution to how you get  
8 the -- how do you make sure the spent fuel is being  
9 stored safely for as long as it absolutely needs to be  
10 there and how do you get it out of there as promptly as  
11 possible, looking at real options not fantasy options,  
12 but real things that could happen.

13 And I think, as we've discussed many times in  
14 this group, the options surrounding consolidated  
15 interim storage are looking very attractive. They're  
16 far from a done deal and we will continue to focus on  
17 this topic in the Community Engagement Panel.

18 I just want to mention that today, or just  
19 earlier today, the Department of Energy hosted a  
20 meeting in Washington to summarize the input that it  
21 has received from the five or six or seven meetings  
22 that it has been hosting around the country, around  
23 consent-based siting:

24 What does that mean? How does it work? What  
25 should we expect for the future?

1           And it has also issued a document that  
2 summarizes what it's learned from those meetings. We  
3 have circulated that document to the CEP and,  
4 therefore, also posted it on SONGScommunity.com.

5           If anybody can't easily get a copy of it, let  
6 me know and I'll make sure I point you to it. That  
7 document is a document open for public comment. And so  
8 they're soliciting public comments about the process  
9 through the 30th of October.

10           As you know, as many of you know who have been  
11 watching this process for a long time, the whole  
12 business of community of consent-based siting is  
13 unfolding I think, frankly, a little slowly but, in any  
14 case, it's moving in the right direction.

15           There's all kinds -- also all kinds of related  
16 work on the regulatory side, on the design, and  
17 approval of, for example, transport casks, rail  
18 options, for moving spent fuel around and so on.

19           And so over the course of the evening, we'll  
20 talk a little bit more about what's happening there and  
21 I think we need, as a panel, to come back and look at  
22 these issues in more detail later on.

23           Just a couple more announcements and then we  
24 will get started with tonight's meeting:

25           If you want to make a comment during the

1 public comment period, please sign up at the  
2 registration table over there.

3           And as is our normal process, during the  
4 public comment period, Dan Stetson tonight, assisted by  
5 Glenn Pascall, because Tim is away, Dan and Tim -- Dan  
6 and Glenn will collect the comments and organize them  
7 so that we get some feedback immediately tonight on  
8 important questions and then make sure that those  
9 questions are not lost and that they're responded to in  
10 a timely way after that.

11           If you don't want to stand up and ask a  
12 question or make a comment, but you still want your  
13 question or comment to be part of the record, you can  
14 send it to new -- to this email address that's up on  
15 the -- up on the screen and we'll make sure that those  
16 become part of the public record and get engaged with.

17           And just a last reminder:

18           Because of the livestream and the archive,  
19 video archive, please state your name and so that  
20 people know who you are, those of you, the millions of  
21 you at home watching livestream, and I'll call out  
22 various actions for the public record.

23           Okay. So we have a very busy agenda tonight.  
24 As is our custom, we are going to start the meeting  
25 with an up -- a decommissioning update from Tom

1 Palmisano.

2 But let me first pause and see if there are  
3 any other items that members of the CEP want to put on  
4 the agenda for tonight's meeting or comments that they  
5 want to make. (Brief pause.)

6 So, Tom, the floor is yours, and help us  
7 understand the progress that's been made since the last  
8 time this Panel met.

9 MR. PALMISANO: Okay. Excuse me. Thank you  
10 very much. The mic on? Okay. Thank you.

11 What I'll do, we've got a lot of topics on the  
12 agenda tonight that are pretty important. Toward --  
13 before the break, I will talk in more detail about dry  
14 fuel storage and Defense-in-Depth and some of the  
15 activities.

16 So on the first part, I'm going to touch on  
17 that a bit lightly, knowing that we're going to get  
18 into a little more depth in a minute.

19 So let me give an overview of the  
20 decommissioning update, first, our decommissioning  
21 principals:

22 Safety, Stewardship, and Engagement.

23 We talk about these continuously, internally,  
24 and I'd like to continue to reiterate them to the Panel  
25 and the public. We take decommissioning very

1 seriously. We take stewardship and spent fuel very  
2 seriously as well as management of the trust fund,  
3 which is really customer money.

4 This is the chart that I always win the award  
5 for the eye test, so this is -- there is a copy on your  
6 table. The important thing here, to the left of my  
7 vertical bold line, is in quarters and, to the right,  
8 is in years.

9 This shows you the first 20 years of  
10 decommissioning. The important thing to see here is,  
11 everything shaded in green is basically complete. And  
12 I'm going to give you a little more detail in a minute.

13 What I've shaded in yellow is what you would  
14 consider the critical path, if you will, for those of  
15 you who are project managers.

16 And the three critical path elements are the  
17 expansion of the independent spent fuel storage  
18 installation or the dry fuel storage system. The  
19 selection and award of the decommissioning contractor,  
20 which is scheduled for later this year, and then the  
21 CEQA permitting, which Linda is going to talk about in  
22 some depth.

23 Those are the three things to stay on a  
24 20-year plan and within the cost estimate are the three  
25 critical path elements right now.

1           A little more detail, let me first give you  
2 the status of the NRC reviews, and we've completed a  
3 lot of activity here, so there's just a couple of  
4 things that are still in progress right now.

5           What's is shaded in blue is complete and what  
6 is -- what is in white here is still pending for this  
7 fourth quarter of 2017. We've got a couple of  
8 insurance requests -- exemption requests.

9           The NRC's rules, as we've all learned, are  
10 really written for operating plants. We've learned  
11 that about lots of things in decommissioning and these  
12 are insurance requirements that apply to operating  
13 plants what are not necessarily appropriate for  
14 decommissioning plants. So we've requested appropriate  
15 changes to that. The NRC has to approve that, that is  
16 what is being reviewed.

17           The next one is particularly important and  
18 this relates to a question that Marni brought up and I  
19 want to make sure we're clear on, so this is dry cask  
20 storage: The first two lines are the current dry cask  
21 storage system. We have 50 canisters loaded today with  
22 spent fuel from Unit 1 completely and units 2 and 3.  
23 Those canisters are approved for both storage and  
24 transportation and that's what the first two lines show  
25 you.

1           The bottom line is, the new system that we're  
2 in the process of fabricating and building. This is  
3 the Holtec UMAX system, the subterranean or underground  
4 system. This system today is licensed for storage.

5           Okay? It is about to get its license issued  
6 in the first quarter for transportation. So where I  
7 want to be clear, the basket, the canister that holds  
8 the fuel is designed for both storage and  
9 transportation. It's designed -- designed that way,  
10 analyzed that way.

11           Holtec gets two separate licenses: The first  
12 one for storage, which they have, for SONGS fuel and  
13 SONGS seismic environment; the second one for  
14 transportation, which, you know, we just usually  
15 sequence later; that was submitted in the summer of  
16 2015. It's about an 18-month review process. They're  
17 in the final six months of the NRC review process and  
18 answering questions. I fully expect that that license  
19 to be issued by the end of the first quarter of 2017.

20           So I want to reassure you, first of all, this  
21 is a dual purpose system, storage and transport.  
22 Storage license is done, transportation license has  
23 been submitted over a year ago. It's in the final  
24 stages of review and I fully expect it'll be licensed.

25           Holtec and the other vendors have been very

1 successful licensing the transportation aspect, so I'm  
2 very confident that this will be done on this schedule.

3 So I wanted to make that clear. Okay?

4 Dan, did you have a question?

5 SECRETARY STETSON: I do, Tom. So the  
6 contract with Holtec stipulates that you will not  
7 purchase them unless they are certified?

8 MR. PALMISANO: Yeah, they are liable. They  
9 are required to deliver a system that's licensed for  
10 storage and transportation.

11 SECRETARY STETSON: Great. Thank you.

12 MR. PALMISANO: And this will be done before  
13 we load any of those canisters. Okay?

14 So, thank you for that question.

15 CHAIRMAN DR. VICTOR: Sorry. Sorry.

16 One more question, which is: There are two  
17 facilities now taking shape for this consolidated  
18 interim storage.

19 MR. PALMISANO: Right.

20 CHAIRMAN DR. VICTOR: One in West Texas, one  
21 in Eastern New Mexico. They're like 5 miles apart from  
22 each other.

23 MR. PALMISANO: Yes.

24 CHAIRMAN DR. VICTOR: One of them would be run  
25 by AREVA and one of them would be run by Holtec.

1 MR. PALMISANO: Correct.

2 CHAIRMAN DR. VICTOR: Suppose that, you know,  
3 only the AREVA facility survives and the Holtec  
4 facility, in New Mexico, has regulatory problems or  
5 whatever or the other way around, are all of these  
6 canisters viable at either of those sites?

7 MR. PALMISANO: It's a good question.

8 In fact, I was going to come to that in a  
9 minute. So if you just hold that thought.

10 CHAIRMAN DR. VICTOR: Okay.

11 MR. PALMISANO: But I should point out, Holtec  
12 is actually ahead of the game.

13 I should back up. The West Texas facility is  
14 already undergoing the initial license review, and I'll  
15 reiterate that in a minute. Holtec will submit their  
16 license in March of 2017 for the New Mexico facility.

17 Where Holtec is a bit ahead: Holtec's new  
18 system, the one we're putting in at SONGS, is designed  
19 to be a universal system to accept any canister.

20 So they've already submitted to modify their  
21 license to -- to accept, first, our Unit 1 AREVA  
22 canisters. So Holtec is already heading down the path  
23 of getting their license updated for all of our  
24 canisters and more canisters.

25 The AREVA system, in west Texas, initially has

1 two vendors working with them and, eventually, they'll  
2 get to where they would accept the Holtec canister.

3 So they both have those plans in the longer  
4 term.

5 CHAIRMAN DR. VICTOR: Thank you.

6 MR. PALMISANO: Step one is, they've got to  
7 get licensed fundamentally.

8 CHAIRMAN DR. VICTOR: Yeah. Thank you.

9 MR. PALMISANO: Site Activities Update:  
10 So we've wrapped up a lot of work on site.  
11 When I showed you that chart with all the green shading  
12 and told you all that's complete, this is about the  
13 last time I'm going to talk about things like Cold and  
14 Dark and System Retirements.

15 We permanently closed the plant in June of  
16 2013 and for the first year really just defueled the  
17 reactors and made some initial preparations.

18 In the last two and a half years, we have  
19 systematically retired all the systems related to the  
20 reactors, the main generators, all the power generating  
21 systems. What remains today is only systems related to  
22 the spent fuel pools, the dry cask storage system, and  
23 the security systems and emergency plant systems.

24 So when I say "system retirement is complete,"  
25 we had to both systematically drain systems, remove

1 gases and acids and other chemicals and lead storage  
2 batteries that weren't needed.

3 So we've completed all that system retirement  
4 work, so the plant is now in a very stable condition,  
5 ready, in a couple of years, for the contractor to  
6 actually start the dismantlement of the plant.

7 The spent fuel pool cooling island: We put in  
8 systems designed specifically to cool the spent fuel  
9 pools with the lower heat load that we have today,  
10 which are much more appropriate for the currents --  
11 current heat load as part of system retirement. We  
12 reported on that before. And the good thing here is,  
13 we no longer use ocean water cooling to remove heat  
14 from the spent fuel pools.

15 We have an air chiller system which, again,  
16 we're on an effort to reduce the demands for any ocean  
17 water cooling. We're down to about 2 percent of what  
18 the plant would've had during operation now with all  
19 the system retirements.

20 MR. QUINN: Tom, can I -- can I ask you a  
21 question?

22 MR. PALMISANO: Yeah.

23 MR. QUINN: Tom, it's Ted Quinn.

24 I wanted to ask you about the management  
25 systems that are -- that are in place now that Edison

1 oversees and two in particular: One is safety, it's  
2 radiation safety and personal safety; and the second is  
3 the Corrective Action Program.

4 Right now, Edison is responsible. Are you  
5 transferring those responsibilities to the contractor?

6 MR. PALMISANO: So, first of all, we are still  
7 an NRC licensee and we will be for the entire period of  
8 time of decommissioning. So we have a required quality  
9 assurance program and two key elements are corrective  
10 action program and then a radiation protection,  
11 radiation safety program, and a non-NRC issue is an  
12 industrial safety program.

13 So we will still be responsible for the site.  
14 When we bring in the contractor, we will assign some  
15 responsibilities to them and delegate some things, but  
16 we will ultimately remain responsible.

17 So the contractor will work under our  
18 oversight. So, what I fully expect is, in two years,  
19 when our workforce is down to a smaller size and the  
20 contractor has a majority of the people, it's largely  
21 their industrial safety program under our oversight.  
22 But in terms of accountability to the NRC, we're  
23 accountable.

24 MR. QUINN: Okay. Thanks.

25 MR. PALMISANO: Okay. Used Fuel Management

1 Strategy: And again, we're going to talk much more  
2 about spent fuel storage towards -- in the next segment  
3 of the presentation.

4 But our strategy here, and this is important  
5 to continue to reiterate this: No. 1, we will safely  
6 manage and store used nuclear fuel until it's removed  
7 from site. We have done that ever since we started  
8 operating the plants; that is our responsibility. We  
9 fully understand that. The NRC holds us to that; you  
10 hold us to that. So that is our responsibility and we  
11 will continue to do that.

12 No. 2, and this is particularly important for  
13 a decommissioning plant, we think it is very important  
14 to get the spent fuel out of the two spent fuel pools  
15 into dry cask storage as soon as we practically can.

16 It needs to be done safely. And I know we can  
17 debate the choice of canisters versus cask, but we  
18 think, in a condition where the plant no longer  
19 operates and you have no need for an operating spent  
20 fuel pool, it is much more appropriate to store spent  
21 fuel in the dry cask storage system than leave it in  
22 these large pools.

23 The pools are safe and they're appropriate for  
24 operation. We no longer need them and it makes -- it  
25 is much more appropriate for the spent fuel to be in

1 dry storage canisters.

2 We've talked to many people across the  
3 industry, including folks like Union of Concerned  
4 Scientists, and there is pretty much universal  
5 agreement that spent fuel is better off in dry cask  
6 storage at a decommissioned site than in the spent fuel  
7 pools. That's an important part of our strategy.

8 Third piece is: Recover used fuel storage  
9 costs from the Department of Energy. I talked about  
10 this a bit at the last meeting. We have now had two  
11 lawsuits, one we settled recently.

12 So the cost to build and operate dry cask  
13 storage systems and inspect canisters, et cetera, is  
14 all being reimbursed from the Department of Energy.  
15 There's a judgement fund set up a number of years ago.  
16 This is because of their failure, under the Nuclear  
17 Waste Policy Act, to take spent fuel off site and ship  
18 it to a permanent geological repository.

19 So we and a number of utilities has been  
20 successful and we have that mechanism placed. So  
21 although I have all the money in the decommissioning  
22 cost estimate, we get reimbursed from the government to  
23 help offset that cost.

24 CHAIRMAN DR. VICTOR: Do we need to worry,  
25 Tom, that now that the Department of Energy is

1 reimbursing the cost, that there's another layer of  
2 oversight and uncertainty as to what they consider a  
3 reasonable cost?

4           And there could be some drama with the  
5 Department of Energy where you want to, for example, in  
6 this panel we've discussed many times the need to  
7 really go out and demonstrate best practices and do an  
8 R&D program and monitor these casks and really do it  
9 well.

10           Do we need to worry that the Department of  
11 Energy is going to be interested in doing it lowest  
12 cost and, therefore, we're going to be at odds with  
13 them?

14           MR. PALMISANO: Well, you know, I would tell  
15 you, in my experience, I've been through a lawsuit here  
16 at this company and lawsuits at other companies, we  
17 have generally come to very reasonable settlements with  
18 the Department of Energy and it's really the Department  
19 of Justice who manages the litigation for the  
20 government. So we've been very successful, and their  
21 settlements have been reasonable.

22           Now, we're all taxpayers, so that's our money.  
23 So, on the flip side, we would expect them to be  
24 thorough and critical in looking at our claim. But,  
25 generally, I've not seen something that is appropriate

1 that they have not agreed to.

2 CHAIRMAN DR. VICTOR: So all the things that  
3 you're proposing to do, the extra monitoring programs,  
4 the empty canisters for monitoring and so on, all of  
5 that is within the scope of what you think they're  
6 willing to do?

7 MR. PALMISANO: Yeah, that I am very confident  
8 that is recoverable from DOE.

9 CHAIRMAN DR. VICTOR: Okay. Okay. Thank you.

10 MR. PALMISANO: If I -- if I went off on a  
11 research project, that would probably get questioned.  
12 But everything we're proposing to do is very  
13 reasonable.

14 CHAIRMAN DR. VICTOR: I'm in academics, so I  
15 can imagine all of the research projects.

16 Garry Brown?

17 MR. BROWN: I have a question on this: As far  
18 as -- this is relatively new money to help solve the  
19 problem and it came because of litigation; correct?

20 MR. PALMISANO: Right. Right.

21 MR. BROWN: Okay. So, now that this new money  
22 comes to help offset some of the costs, does that in  
23 any way change what -- what the financial burden is  
24 going to be for ratepayers through the PUC? I'd like  
25 to think less for them and more --

1           MR. PALMISANO: Well, so the way it works,  
2 realize this was set up when the plant was operating,  
3 so let me kind of give you just a real quick summary  
4 here.

5           So the money for decommissioning that was  
6 collected through the life of the plant from the  
7 customers, and we collected money for spent fuel  
8 storage, as we started suing and recovering from the  
9 DOE, given that the customers paid for those capital  
10 projects --

11          MR. BROWN: Right.

12          MR. PALMISANO: -- or for the decommissioning  
13 fund, the money gets refunded to the ratepayers through  
14 a reconciliation mechanism by the Public Utility  
15 Commission, so the money we recover today, the Public  
16 Utility Commission directs us to refund to the  
17 customers who contributed.

18          So I don't offset my decommissioning fund, but  
19 it does go back to the customers who paid for it.

20          MR. BROWN: Okay. Is there -- is there any  
21 anticipation there will actually be money back to the  
22 ratepayers?

23          MR. PALMISANO: Oh, there has been. Yeah,  
24 there has been.

25          MR. BROWN: Okay.

1 MR. PALMISANO: I'm not a rate expert, but we  
2 can if --

3 Manuel, if we take that as a question, we can  
4 explain how that has been refunded to customers.

5 MR. BROWN: I think it's important to know  
6 that because it comes up in questions we get.

7 MR. PALMISANO: Yeah, we'll be glad to provide  
8 that. That's an easy question to answer.

9 MR. BROWN: Thank you.

10 MR. VICTOR: Why don't we do that? And we  
11 should let you go on.

12 MR. PALMISANO: And then the bottom one is  
13 kind of what we just touched on. We support all safe  
14 and reasonable options to remove nuclear fuel from the  
15 San Onofre site.

16 One of the things that we are all aligned on  
17 is, we've got to get the fuel off of this site to a  
18 more suitable location. So, you know, hear me loud and  
19 clear, and I've said this publicly in many venues, this  
20 is not the right place to keep fuel for decades. Okay?  
21 We all need to work together on this and we truly  
22 appreciate the support on that.

23 This slide is a little busy. I'm not going to  
24 spend a lot of time on it. I just always like to  
25 keep -- you know, we like to be very transparent and

1 open. This shows you the fuel and the spent fuel  
2 pools. Down here is what's already in the 50 canisters  
3 on the existing dry fuel storage situation or pad.

4 This is the new system we're building, and  
5 I'll show you a schedule in a minute. Ultimately, it  
6 all goes to the Department of Energy. And then we also  
7 have 270 old fuel assemblies stored in Morris,  
8 Illinois.

9 A little known fact: We used to ship fuel out  
10 of San Onofre commercially by truck to a reprocessing  
11 facility in Morris, Illinois. So this country has  
12 shipped commercial spent fuel before.

13 This is an important slide. This relates to a  
14 document.

15 In fact, Pam, at the end of the last meeting,  
16 you passed out a certificate of compliance for a cask  
17 plate, I think, that somebody had provided you.

18 So I had the staff pull up this slide. It's a  
19 little busy. I'm not going to take you through all of  
20 it. These are the thick-walled casks, not canisters  
21 like we use. These are the thick-walled casks in use  
22 in this country.

23 So the question came up, why can't we use the  
24 one at the bottom, this TN-32? Because it has a  
25 general license. Everything else has a site-specific

1 license. In fact, lines 8A and 8B, I managed the  
2 facility Prairie Island and I'm very familiar with  
3 those two casks because I loaded them. Okay?

4 So let me give you the bottom line: None of  
5 these casks, even the one with the general license,  
6 works for SONGS fuel. Our fuel is longer. None of  
7 these casks are tall enough to put SONGS fuel in. So  
8 even if I bought this tomorrow, I can't put the fuel  
9 in. It's physically not big enough.

10 Secondly, we have a very robust seismic  
11 requirement. None of these are designed for our  
12 seismic requirement. So our fuel doesn't fit, it  
13 doesn't meet our seismic requirement. And the one at  
14 the bottom, that certificate of compliance that was  
15 passed out, is not licensed for transport.

16 So we did a lot of research as we looked at  
17 canister types over the last decade. And, again, I'm  
18 very familiar with thick-walled casks and I understand  
19 them very well. None of them fit our fuel, none of  
20 them meet our seismic requirements. They simply were  
21 not an option. The vendors don't even offer these  
22 anymore other than to the current customers, so.

23 I'll be sensitive to time here. Let me see if  
24 I can get this to advance.

25 We went over this before. I want to keep the

1 transportation picture in front of us. Today, I have  
2 canisters that could ship today. With what's in the  
3 Unit 2 and 3 dry fuel storage today, I have canisters  
4 that I can ship today and, by the end of 2019, all 33  
5 meet the requirement to ship, the decay time to ship.

6 The Unit 1 fuel is a little different because  
7 it's old fuel and it actually used stainless steel  
8 materials which need a much longer decay time to meet  
9 the shipping requirements. So it's a bit of an  
10 anomaly.

11 And the new canisters, this preliminary  
12 timing, once the transportation license is approved,  
13 the way it is currently written and under review, all  
14 73 of those canisters will be shippable by 2020.

15 So from our perspective in terms of getting  
16 the momentum to get an off-site facility ready, we have  
17 fuel we could ship today and in five years we'll have a  
18 lot of fuel we could ship. That's where we need to put  
19 our emphasis on, getting a solution off site so we have  
20 a place to ship it to.

21 This is just a graphic of the current system  
22 with the 50 canisters loaded today and where the new  
23 system is that's under construction.

24 And this is the schedule. And what I'll tell  
25 you here is, construction is in progress, fabrication

1 is in progress. My goal is actually to start loading  
2 fuel in the new system by fourth quarter 2017/first  
3 quarter of 2018, and it's going to be about a year to a  
4 year and a half period to empty both spent fuel pools  
5 into the new dry cask storage system.

6 Real quickly. The consolidated interim  
7 storage facility, West Texas and New Mexico, two  
8 things: West Texas already submitted for their license  
9 application. The NRC has done an initial review, has  
10 asked for more information before they start the  
11 thorough review process.

12 So the vendor, Waste Control Specialist, is  
13 busy answering those questions. Holtec intends to  
14 submit first quarter of next year, and then we've  
15 already mentioned the Consent-Based Siting meeting, so  
16 I won't reiterate that.

17 And I've already mentioned Holtec is already  
18 licensing their system to accept other canisters not  
19 just their own. So they truly want to have a universal  
20 consolidated interim storage system.

21 And with that, questions before I turn it over  
22 to Linda.

23 CHAIRMAN DR. VICTOR: Let me see if there are  
24 any questions. Pam Patterson?

25 MS. PATTERSON: Thank you.

1           So I'm just wondering, why you would ever do  
2 business with a company that, in 2010, Holtec lost  
3 status as a U.S. contractor and was fined 2 million  
4 dollars due to being involved in a bribe?

5           So, in 2007, Tennessee Valley Authority  
6 Nuclear Power Plant Operators plead guilty to accepting  
7 a bribe from Holtec.

8           And so if this company is so fabulous, why --  
9 why do they even need to resort to bribery?

10           Dr. Ross Landsman, NRC Dry Cask Storage  
11 Inspector Statement: "As far as I am concerned, Holtec  
12 has no quality insurance. This is the same kind of  
13 thinking that led to the NASA space shuttle disaster."

14           Dr. Landsman and, whistleblower, Oscar  
15 Shirante's statements: "Holtec nuclear spent fuel dry  
16 casks are nothing except garbage cans with design  
17 flaws, welding flaws, and manufacturing flaws and are  
18 dangerous to public safety in our backyards."

19           So we're talking about -- about 1632 tons of  
20 dangerous nuclear waste that is here in our  
21 neighborhood. And I think you're being very, very  
22 cavalier, on the one hand. And I just can't even  
23 imagine why anyone would be doing business with a  
24 corrupt company?

25           So Holtec International became the first

1 contractor to be debarred, and this is Tennessee Valley  
2 Authority History. So, with respect to -- on the  
3 Department of Justice, I mean, they did the  
4 investigation and the guy that took the bribes,  
5 Simmons, was an employee of the Tennessee Valley  
6 Authority and he was involved with getting the contract  
7 for Holtec.

8 So, if they had such great quality assurance  
9 programs going on, why would they be resorting to  
10 bribes?

11 CHAIRMAN DR. VICTOR: Let me just ask --

12 MS. PATTERSON: So -- excuse me. I'm not  
13 done. Thank you.

14 So this is a summary of Oscar Shirani's  
15 allegations of quality assurance violations against  
16 Holtec storage and their transport casks:

17 "Holtec casks could very well become among the  
18 most used shipping containers for highly radioactive  
19 waste, which is -- should be a concern for everybody.  
20 Exelon, the largest nuclear utility in the United  
21 States, uses Holtec casks for irradiated fuel storage  
22 at its reactor sites.'

23 "In 1999 and 2000, Oscar Shirani, as a lead  
24 quality assurance auditor for Exelon, identified  
25 numerous major design and fabrication issues during a

1 quality assurance inspection of Holtec International,  
2 the cask designer, Omni Fabrication and U.S. Tool &  
3 Die, the subcontractors responsible for manufacturing  
4 the casks."

5 "In fact, he identified a major breakdown in  
6 the quality assurance, so QA program itself, the  
7 problems were so severe, that Shirani sought a "stop  
8 work order" against the manufacturer of the casks until  
9 the problems were addressed. Instead, he was run out  
10 of Exelon."

11 "According to Shirani, these design and  
12 manufacturing flaws mean that the structural integrity  
13 of the Holtec casks is indeterminate and unreliable,  
14 especially under heat-related stress, such as during a  
15 severe transportation accident."

16 "The Nuclear Regulatory, Region 3, Chicago  
17 Office, Dry Cask Inspector Ross Landsman refused to  
18 sign and approve the NRC's resolution of Shirani's  
19 concerns concluding that this same kind of thinking led  
20 to NASA's space shuttle disasters."

21 He stated in September 2003, "Holtec, as far  
22 as I'm concerned, has a non-effective QA program, and  
23 U.S. Tool & Die has no QA program whatsoever."

24 CHAIRMAN DR. VICTOR: Can you just give us an  
25 estimate for how long you need? Because there's a very

1 big agenda tonight and I think the point -- you made  
2 the point, so maybe we could ask Tom Palmisano to  
3 respond to the point?

4 MS. PATTERSON: Give me about two to three  
5 more minutes.

6 "Shirani alleges that all existing Holtec  
7 casks, some of which are already loaded with highly  
8 radioactive waste, as well as the casks under  
9 construction now still flagrantly violate engineering  
10 codes, such as those of the American Society of  
11 Mechanical Engineers and American National Standards  
12 Institute as well as NRC regulations."

13 "He concludes that the Holtec casks are  
14 nothing but garbage cans," as I stated earlier. "They  
15 have -- here are examples of the QA violations and  
16 related problems that he identified: Welding problems,  
17 such as improper fast cooling of hot cask welds,  
18 risk -- which risks tearing and cracking of the  
19 unevenly cooling weld to metal in order to meet  
20 production goals."

21 So they're -- they're skimming on the  
22 production, on the manufacturing.

23 "Welds on the casks were also performed by  
24 unqualified welders. Even NRC has acknowledged that  
25 weld quality records are not in agreement with the code

1 requirements. Inadequate controls on the quality of  
2 materials used in the manufacturing process risking  
3 brittleness and weakness in the casks."

4 "Holtec's failure to report holes in neutron  
5 shielding material. Neutrons are especially hazardous  
6 emissions from highly radioactive waste. U.S. Tool &  
7 Die's failure to use -- in violation of the codes that  
8 were part of the license agreement with the NRC."

9 CHAIRMAN DR. VICTOR: Could you please submit  
10 this? Maybe you could submit this to the Panel,  
11 because we can all read, and then we can have a chance  
12 to look at the document? And, ideally, actually do  
13 this in advance so that people have a chance to  
14 actually respond to the question.

15 MS. PATTERSON: Right. But, you know, since  
16 you're in control of the agenda and you've picked out  
17 the agenda for the full year. I mean, that was what my  
18 question was at the last meeting, so --

19 CHAIRMAN DR. VICTOR: Yeah, but we'll respond  
20 to all these questions. So why don't -- would you --  
21 would you let --

22 MS. PATTERSON: Well, actually, I think this  
23 is key, because most of the people that have been  
24 coming in and complaining about this situation are  
25 concerned about the storage.

1           CHAIRMAN DR. VICTOR: I understand. I'm  
2 asking, maybe you can let Tom Palmisano respond to the  
3 points you're raising which --

4           MS. PATTERSON: Well, but I'm not through with  
5 my points.

6           CHAIRMAN DR. VICTOR: Okay. But you need  
7 to -- you've used more air time than the entire CEP  
8 combined.

9           MS. PATTERSON: No, that's actually not true.  
10 Mr. Palmisano has been up there for quite a while.

11           CHAIRMAN DR. VICTOR: I said the entire CEP  
12 combined. Mr. Palmisano is not on the CEP. The  
13 purpose of this is to allow the entirety of the CEP to  
14 have a chance to ask questions and a feedback in a time  
15 efficient way that's informative to the public.

16           And I think it would be much more informative  
17 if you could just share with us this document that  
18 you're reading from so that we would have all the  
19 chance to look at it and people would have a chance to  
20 respond to it. The document you're reading from, these  
21 allegations have been raised last time when Chris --  
22 when Kris Singh came to speak with us.

23           MS. PATTERSON: So then maybe at the next  
24 meeting we should have a presentation on this  
25 specifically.

1           CHAIRMAN DR. VICTOR:  There's actually been a  
2 detailed email exchange, including all of the CEP  
3 members.

4           MS. PATTERSON:  But that's different than  
5 having it be a part of the meeting.

6           CHAIRMAN DR. VICTOR:  Okay.  But why don't we  
7 allow Mr. Palmisano to respond?

8           MR. PALMISANO:  Sure.  Sure.

9           CHAIRMAN DR. VICTOR:  Is that okay?

10          MR. PALMISANO:  Let me suggest --

11          MS. PATTERSON:  Okay.  But I'm actually not  
12 saying that I'm not going to continue after the fact.

13                   Okay?

14          CHAIRMAN DR. VICTOR:  Okay.  But --

15          MR. PALMISANO:  Okay.  So --

16          CHAIRMAN DR. VICTOR:  Why don't you respond  
17 briefly, Tom?  And then I do -- because we now are 15  
18 minutes over the agenda.  We need to move on.

19          MR. PALMISANO:  Yeah.  So some of these issues  
20 were voiced a year, year and a half ago when we had  
21 Holtec and AREVA here.

22                   I'll be glad to take an action to come back in  
23 and explain how we vet Holtec, how the industry vets  
24 Holtec, how the NRC inspects them.

25                   You're quoting some dates jumping 2010 to

1 2003. I personally know Dr. Ross Landsman from my time  
2 in Region 3, so I understand his thinking on, not  
3 Holtec so much, but other systems.

4 So I'll be glad, with a little preparation  
5 time, to come in and talk about why we are confident in  
6 Holtec. I'll be glad to do that.

7 CHAIRMAN DR. VICTOR: I think this is a  
8 case --

9 MS. PATTERSON: Okay. Thank you.

10 But, actually, at the last meeting, we also,  
11 or at least, I voiced the position that we should be  
12 able to have an exchange where basically we're not  
13 having to sit here and listen to these and we're not  
14 getting the full story.

15 And that's what, quite frankly -- I mean, when  
16 you're talking about community engagement, this is like  
17 a candy-coating, you know, process. And so, the people  
18 who -- we have -- the people that live in these  
19 communities have valid concerns.

20 CHAIRMAN DR. VICTOR: I agree. So let's have  
21 an exchange. Glenn Pascall, you'd like the floor?

22 Glenn Pascall.

23 MR. PASCALL: Thank you.

24 Recently, the Sierra Club took a look at the  
25 decommissioning of nuclear plants all over the country,

1 and I can tell you that few, if any, other locations  
2 have a Community Engagement Panel.

3 And Chairman Victor has described the purpose  
4 of this panel as a two-way conduit. We are almost the  
5 only place in the country where there's a setting like  
6 this. Others who are living near a plant that is being  
7 decommissioned have no convening forum to raise any  
8 kind of issues. And I think in that regard we should  
9 feel fortunate.

10 Secondly, I am attempted to propose that just  
11 as members of the public are held to three minutes when  
12 they speak, members of the Panel should be held to  
13 three minutes only because of excess by one person.

14 And I have to note that I was watching Pam  
15 Patterson tonight as Tom Palmisano was making his  
16 presentation, she listened to none of it. She was  
17 going through --

18 MS. PATTERSON: Oh, that's absolutely not  
19 true.

20 MR. PASCALL: Pam, please. Pam, please.

21 MS. PATTERSON: Now, you cannot make  
22 allegations about me --

23 MR. PASCALL: No, wait. She was -- she was --

24 MS. PATTERSON: -- that are completely  
25 unfounded.

1 MR. PASCALL: She was -- she was marking up --  
2 she was marking up the document from which she just  
3 spoke with a yellow marker. She just now in the last  
4 half hour prepared.

5 MS. PATTERSON: Right. I actually have the  
6 ability to multitask. You might not, but I do.

7 CHAIRMAN DR. VICTOR: Okay. Folks? Folks?  
8 Folks?

9 MR. PASCALL: Well, now, David, hold on a  
10 second. Civility is really important.

11 MS. PATTERSON: Right. So I think it should  
12 start with you because you're the one that's pointing  
13 fingers right now.

14 CHAIRMAN DR. VICTOR: You know what --

15 MR. PASCALL: Oh, you've got to be kidding me.

16 CHAIRMAN DR. VICTOR: Folks? Folks? Folks?

17 I need you both to stop for a second, please.  
18 I need you both to stop.

19 These are complicated issues, the technical  
20 details matter, the legal details matter. I've looked  
21 at these documents that you're talking from in some  
22 detail when the allegations were originally raised  
23 against Mr. Singh when he spoke to this Panel.

24 I spent a lot of time on this and had an email  
25 exchange with many members of the public about this

1 very issue, all of which is part of the public record  
2 now and on SONGScommunity.com. I will go obtain all  
3 that and share it again.

4 And I would really appreciate, Pam, if you  
5 would share with this panel or via me all these  
6 documents so we have a chance to look at them.

7 It's hard in a setting like this -- I  
8 appreciate this. It is difficult in a setting like  
9 this to adequately work through all the details and  
10 figure out kind of what's truth and what's not, and "He  
11 said" and "She said" and so on. And that's just the  
12 nature of this process.

13 So I really need now to move on to the  
14 Environmental Update. I appreciate the passion and the  
15 intensity of this. And I appreciate -- what we're  
16 trying to do is have a "back and forth," and nothing  
17 like this exists in the country. We should not screw  
18 it up because if we screw it up, it will not exist at  
19 other plants, including at this plant. Okay?

20 MR. PALMISANO: So assign me an action that's  
21 appropriate, and we --

22 CHAIRMAN DR. VICTOR: Yes. I'd like to see  
23 these documents. I'd like to see a refreshed -- I'd  
24 like to see all of the email traffic that was related  
25 to this back when Mr. Singh came and offered his famous

1 2 million dollar check or whatever it was.

2 MR. PALMISANO: Yeah.

3 CHAIRMAN DR. VICTOR: We've had a lot of "back  
4 and forth" with the community and there is a lot of  
5 email traffic on this. And let's just take a look at  
6 all of that together and I will write a note to the CEP  
7 about this.

8 Are there other pressing questions to Tom, now  
9 that we're 20 minutes over, on the segment of the  
10 meeting?

11 MR. KERN: Just -- just on quick question.

12 CHAIRMAN DR. VICTOR: Jerry Kern? And then --

13 MR. KERN: These 17 canisters in Unit 1, that  
14 means they don't go until 2030? We have to wait?

15 MR. PALMISANO: Can we go back to that slide,  
16 please, folks?

17 Yeah, the Unit 1 canisters have a -- I think  
18 it's a 38-year decay time -- okay? -- because of the  
19 stainless steel material in the fuel assemblies.

20 So, yeah, if you look at that --

21 It went a little too fast there.

22 So if you look at that, those canisters go  
23 from early in Unit 1 operation the last set from 1992.

24 It takes you all the way out that far.

25 MR. KERN: Okay. Is it logistically or

1 technically possible to transfer that fuel into the new  
2 canisters to ship them sooner?

3 MR. PALMISANO: No. They're already in  
4 canisters. It's a matter of the shipping system design  
5 and license. You would have to design and license a  
6 new shipping overpack. You would leave in the current  
7 canisters. The reality is, by the time consolidated  
8 storage is ready and we start moving all of the other  
9 fuel, this problem won't be that limiting.

10 MR. KERN: Okay. Thank you.

11 MR. PALMISANO: And there was another  
12 question?

13 CHAIRMAN DR. VICTOR: Yeah, John.

14 MR. PASCALL: Yeah, my question's been  
15 addressed.

16 CHAIRMAN DR. VICTOR: And I just want to say  
17 that if we push on all cylinders on consolidated  
18 interim storage, we're looking at the early 2020s to  
19 start shipments. We've got to figure out how to get  
20 plants like SONGS first in line. We've got to figure  
21 out all those things.

22 If we're worried about the 17 canisters left  
23 until 2030, I will be, if I'm alive, thrilled. And if  
24 I'm not alive, I'm not sure what state I'll be in. But  
25 I do want -- if there's time at some point today, I do

1 want to put Ted Quinn on the spot to give a little bit  
2 of an update on what's hap -- what he sees is happening  
3 with consolidated storage with the transports.

4 Steven Harris, Ed Patel has been keeping us  
5 informed with a lot of important developments there, so  
6 it's all looking very encouraging.

7 Any other urgent questions or comments?

8 Okay. Let's move on now to -- to Linda.

9 How do you pronounce your last name?

10 MS. ANABTAWI: Anabtawi.

11 CHAIRMAN DR. VICTOR: Anabtawi. Linda  
12 Anabtawi, who has been the key person on the licensing  
13 and environmental law side of things. As you know,  
14 there's a process underway under CEQA, State Lands  
15 Commission is managing that, to deal with the  
16 environmental compliance and regulatory issues and  
17 Linda will give us a brief update on that.

18 MS. ANABTAWI: Okay. Thank you very much.

19 Again, my name is Linda Anabtawi. I'm an  
20 environmental attorney with the Southern California  
21 Edison Law Department, working on the environmental  
22 review and permitting of the SONGS decommissioning  
23 project.

24 Last time I spoke to the Panel was in March  
25 and that was to provide an overview of the

1 environmental review and permitting plan and the CEP  
2 has requested an update on a few specific topics.

3 So, what we're covering today is the current  
4 state of the CEQA process, a little bit more  
5 information on offshore conduit disposition, and Steve  
6 Schroeter is actually going to speak about the third  
7 topic which is the SONGS marine mitigation.

8 So with that on the CEQA updates, since the  
9 meeting in March, the State Lands Commission has  
10 selected its consultant for preparation of the EIR and  
11 that is Aspen Environmental Group.

12 The State Lands Commission also has issued its  
13 notice of preparation of the EIR; that was done back in  
14 July, that triggered a 30-day public comment period  
15 where the public was invited to submit written comments  
16 on the scope of the EIR.

17 The commentary closed on August 15th. During  
18 that period of commentary, the State Lands Commission  
19 also held two public scoping meetings: One was held in  
20 Oceanside and the following day there was a meeting in  
21 San Clemente.

22 And again, the purpose of the scoping meeting  
23 was just to solicit input from the public as to what  
24 issues or areas of concern they would like to see  
25 addressed in the EIR.

1           So those have been the recent developments.  
2           And then I will share with you on the next slide an  
3           overview of the EIR process. This is the time line  
4           that the State Lands Commission presented during the  
5           scoping meetings.

6           So as you will see here --

7           I hope I am using the right button. There we  
8           go. The first two milestones here have already been  
9           met, starting with the issuance of the NOP in July,  
10          followed by the scoping period, the 30-day scoping  
11          period. Down below the blue boxes show the opportunity  
12          for public participation during the CEQA process.

13          So at this point in time, we are here at the  
14          third box from the left and that is the draft EIR  
15          preparation. So, Aspen, the consultant for the State  
16          Lands Commission, it's working on preparing the draft  
17          EIR. During that process, they're coming to SCE to  
18          seek additional information that they need or any  
19          technical reports or studies.

20          So that process will continue through about  
21          the second or third quarter of 2017 when the State  
22          Lands Commission anticipates issuing the draft EIR.  
23          This will be the next major opportunity for public  
24          participation.

25          Once the draft EIR is issued, it will be

1 circulated for public comment. There will be a minimum  
2 45-day public comment period. And so at this point in  
3 time, there will be an opportunity to provide further  
4 input on the analysis and alternatives that are  
5 analyzed in the EIR.

6 And then after that, the consultant will go  
7 into the final EIR preparation. So the final EIR  
8 involves essentially responding to all of the comments  
9 that the agency receives during the draft EIR public  
10 comment period.

11 And at this point in time, the State Lands  
12 Commission anticipates issuing a final EIR in the third  
13 or fourth quarter of 2017. At that time there will be  
14 a public hearing during which the State Lands  
15 Commission will certify the final EIR and also make its  
16 decision on SCE's lease application.

17 So just as a reminder, what's triggered this  
18 whole CEQA process here is an application that SCE and  
19 the co-participants filed with the State Lands  
20 Commission back in November, requesting a decision on  
21 how the offshore conduits will be dispositioned. And  
22 I'll talk about the conduits more specifically just in  
23 a second here.

24 Are there any questions about the CEQA  
25 process?

1           CHAIRMAN DR. VICTOR: Just two questions: One  
2 is, so basically this is almost all about the conduits?

3           MS. ANABTAWI: The CEQA process?

4           CHAIRMAN DR. VICTOR: Yeah.

5           MS. ANABTAWI: No. So, very good question.  
6 To clarify, because the State Lands Commission here is  
7 the first one to act on the decommissioning project,  
8 they are the lead agency and, as the lead agency, the  
9 State Lands Commission is tasked with evaluating the  
10 entirety of the decommissioning project.

11           So although their jurisdiction relates  
12 specifically to the conduits and the decision the  
13 agency will make specific -- will make is specific to  
14 the conduits. As the lead agency, they're obligated to  
15 look at both the onshore and offshore activities  
16 associated with decommissioning.

17           So this EIR will be comprehensive in  
18 evaluating a range of activities and will then serve as  
19 a document that the Coastal Commission acting down the  
20 road can provide.

21           CHAIRMAN DR. VICTOR: Okay. I guess my  
22 question was more of an interpretive one, which may be  
23 an unfair question to ask the legal department, which  
24 is -- no. No. But you may not want to.

25           Does it look like the conduits are the hard

1 part of all this? And that everything else -- I mean,  
2 you're dealing with a disturbed site, so there's dust  
3 and noise and things like that. But it's a disturbed  
4 site whereas the pivotal question really is the  
5 conduit. Just to help us understand, what matters and  
6 what matters less.

7 MS. ANABTAWI: Okay. I see why you prefaced  
8 it the way you did. So, from our perspective and from  
9 the NRC's perspective, so as you know the NRC has  
10 already completed its generic EIS, which evaluates  
11 decommissioning of nuclear plants across the country.

12 From the NRC perspective, the environmental  
13 impacts occurred when you constructed the plant and  
14 essentially deconstructing the plant is, in the  
15 long-term, an environmental benefit.

16 So in a sense, yes, the onshore portion of it,  
17 I think, would involve less sort of a controversial  
18 outcome. But in terms of the offshore portion and the  
19 conduits, there are more options there with how to  
20 disposition.

21 CHAIRMAN DR. VICTOR: And I guess the other  
22 question I had is: The next big opportunity for public  
23 engagement and comment and involvement is these draft  
24 EIR meetings then second and third quarter of 20 -- and  
25 I assume State Lands Commission will run those and we

1 expect that there will be some of them in this area;  
2 right?

3 MS. ANABTAWI: They typically like -- with the  
4 scoping meetings like to hold the public meetings in  
5 the vicinity of the projects and that the stakeholder  
6 is most interested and are able to.

7 CHAIRMAN DR. VICTOR: Because I think we  
8 need -- we, in the Community Engagement Panel, need to  
9 figure out if there is something useful we can do and  
10 maybe that we think we can't because State Lands  
11 Commission is all over this.

12 Or if there are things we can do that are  
13 useful we need to get a heads up so we get that on the  
14 agenda for potential meetings, it looks like, 2017,  
15 second and third quarter of 2017.

16 MS. ANABTAWI: Right. And we'll definitely  
17 know more about the time line for the issuance of the  
18 draft EIR towards the end of this year. So we'll be  
19 able to give you a better estimate of the time line.

20 CHAIRMAN DR. VICTOR: Okay. Yeah. Sorry to  
21 ask so many questions. Anything else? Jerry Kern?

22 MS. PATTERSON: And who's drafting the EIR?

23 MR. KERN: I just have one quick --

24 CHAIRMAN DR. VICTOR: Sorry. Pam Patterson  
25 and then Jerry Kern.

1 MR. KERN: Go ahead.

2 MS. ANABTAWI: It's Aspen Environmental Group,  
3 which is the consultant that was retained by the State  
4 Lands Commission, so they are representing the agency.

5 MS. PATTERSON: And where are they located?  
6 Aspen?

7 MS. ANABTAWI: I don't know where they're  
8 geographically located, but I know that they're working  
9 very closely with the State Lands Commission.

10 MS. PATTERSON: And -- I'm sorry. What's the  
11 full name, Aspen what?

12 MS. ANABTAWI: Environmental Group.

13 MS. PATTERSON: Thank you.

14 CHAIRMAN DR. VICTOR: Jerry Kern.

15 MR. KERN: Just a quick question: The final  
16 public hearing, where will that be? Will that be in  
17 Sacramento or will that be down here someplace?

18 MS. ANABTAWI: I believe the State Lands  
19 Commission -- I will have to get back to you on that.  
20 I know the Coastal Commission alternates locations for  
21 its meetings. I'm not sure how the State Lands  
22 Commission does those.

23 David, do you know?

24 DAVID: No, I don't.

25 MS. ANABTAWI: Okay. We'll have to get back

1 to you on that.

2 MR. PALMISANO: Can I make one comment?

3 CHAIRMAN DR. VICTOR: Very briefly, and then I  
4 want to move on.

5 MR. PALMISANO: We previously had the State  
6 Lands Commission come in and speak to the CEP, so we  
7 can ask them to come back, say, three quarters away  
8 through the process and give us their update on their  
9 process? Because Linda's relaying the process, but  
10 really they are running it, so we'd be glad to put that  
11 on our list.

12 CHAIRMAN DR. VICTOR: And I spoke after that  
13 with the gentleman who spoke with us and the head of  
14 their staff and they've offered to do that again.

15 MR. PALMISANO: Right.

16 CHAIRMAN DR. VICTOR: So we just need to be  
17 helpful not duplicative.

18 MR. PALMISANO: Right.

19 CHAIRMAN DR. VICTOR: Anything else? Dan, did  
20 you want to --

21 SECRETARY STETSON: Not at this time. Thanks.

22 CHAIRMAN DR. VICTOR: Okay. Great. Linda?

23 MS. ANABTAWI: So that takes us to the Conduit  
24 Disposition topic. You've seen this figure before,  
25 which shows you just the location of the offshore

1 conduits. Last time there was question from the CEP as  
2 to where the Unit 1 conduits are located in relation to  
3 the Unit 2 and Unit 3 conduits.

4 So we have now added to this figure the white  
5 sort of dashed line here, it shows the approximate  
6 location of the Unit 1 conduits, which as you know,  
7 have already been dispositioned. But that just gives  
8 you an idea where they are relative to the Unit 2 and  
9 Unit 3 conduits.

10 Any questions? You looked like you had a  
11 question?

12 SECRETARY STETSON: I did, thank you.

13 Just to be clear, disposition means that the  
14 diffusers have been removed, but the rest of it has  
15 been abandoned and is covered with sand; is that  
16 correct?

17 MS. ANABTAWI: Almost.

18 SECRETARY STETSON: Almost?

19 MS. ANABTAWI: The Unit 1 conduit did not have  
20 diffusers.

21 SECRETARY STETSON: Okay.

22 MS. ANABTAWI: It's a slightly different  
23 design, but disposition refers to kind of the  
24 decommissioning of the conduit, so to speak, so it's  
25 the state that it's been left in.

1           So for the Unit 1 conduit, what we did was we  
2 removed all of the vertical risers sitting in the  
3 structure, manhole access ports, et cetera, and placed  
4 these marine mammal barriers, which are large steel  
5 plates with openings in them over the resulting  
6 openings and the idea was that overtime sand and  
7 sediment would fill the horizontal pipeline which will  
8 remain buried.

9           SECRETARY STETSON: Thank you.

10           MS. ANABTAWI: So, again, this is the same  
11 figure that was presented last time and just shows you  
12 the relative length of the conduits. The numbers are  
13 stated at the bottom there.

14           But just to summarize, the intake structures  
15 on both conduits are located at approximately 3200 feet  
16 offshore, the Unit 3 outfall is located at 6,000 feet  
17 offshore, and the Unit 2 outfall is longer and that  
18 goes out to 8400 feet offshore. Both units have 63  
19 diffusers on each outfall conduit for a total of 126.

20           So this figure here just shows you a little  
21 bit of a closer view of the design of the Unit 2 and  
22 Unit 3 conduits. You will see there this is the intake  
23 structure and then the diffuser ports that are all  
24 along the outfall.

25           This figure is slightly misleading in that

1 what it doesn't show you is that the horizontal  
2 pipeline is actually buried beneath the sea floor, so  
3 all you see above the sea floor is a portion of the  
4 vertical structures, so the horizontal pipe itself is  
5 actually buried under 6 feet of sand and sediment.

6 SECRETARY STETSON: About how high are -- do  
7 they rise once they come up from the surface, the  
8 diffuser ports?

9 MS. ANABTAWI: Okay. So the diffuser ports  
10 are about 7 feet above the sea floor.

11 SECRETARY STETSON: Okay.

12 MS. ANABTAWI: That's the portion of it that  
13 you see above the sea floor.

14 SECRETARY STETSON: Right.

15 MS. ANABTAWI: And for the intake structure,  
16 it's about 16 feet that you see above the sea floor.

17 SECRETARY STETSON: Thank you.

18 MS. ANABTAWI: So on the next slide here what  
19 we've described in more detail is what we have proposed  
20 to the State Lands Commission as the disposition option  
21 for the Unit 2 and 3 conduits.

22 What we are proposing is to remove all the  
23 vertical risers on the intake structures. So when we  
24 say vertical risers here, that would include the  
25 primary intake structure, auxiliary intake structure,

1 and the manhole access ports; those are all on the  
2 intake.

3 And then on the outfall, we're proposing to  
4 remove only a portion of the diffuser ports, so the  
5 proposal currently is to remove approximately 12  
6 diffuser ports of the 127 that are located along  
7 outfall conduits.

8 And as with Unit 1, we are proposing to  
9 abandon the horizontal conduit in place that is, again,  
10 buried under 6 feet of sand and sediment, so we believe  
11 that this is the best disposition alternative.

12 There are several benefits to this approach:  
13 For one, it minimizes the amount of sea floor  
14 disturbance. If you can imagine trenching out about  
15 6,000 or 8400 feet of pipeline essentially would cause  
16 a lot of disturbance to the existing habitat there. So  
17 we believe, from an environmental perspective, this is  
18 a preferable alternative.

19 The vertical structure, such as the diffuser  
20 ports, actually also support a marine habitat. So we  
21 believe that leaving certain vertical structures in  
22 place provide them environmental benefit and that's why  
23 we are proposing we only remove 12 of the 126 diffuser  
24 ports.

25 In addition, the construction time line is

1 significantly reduced under this option as compared to  
2 if we were to remove all of the vertical structures, so  
3 it gets us in and out of the water faster -- (sound  
4 fades away) -- then would otherwise be necessary, if we  
5 did remove all of the vertical structures.

6 MR. SCHROETER: I had a question: What was  
7 the rationale for the number of vertical structures  
8 that you removed 12, 12 out of 126?

9 MS. ANABTAWI: For the diffuser ports?

10 MR. SCHROETER: Yes.

11 MS. ANABTAWI: The rationale for that is that  
12 that is a spacing of approximately 500 feet between  
13 each port. So, what that does is, it allows the sand  
14 and sediment to infill at a rate that mimics the same  
15 rate that is occurring for Unit 1. So there was an  
16 engineering report that was done for Unit 1, and so  
17 we're proposing a similar infill rate.

18 MR. SCHROETER: Thank you.

19 MS. ANABTAWI: Is there another question?

20 MR. BROWN: Yes.

21 CHAIRMAN DR. VICTOR: Garry Brown?

22 MR. BROWN: Yes, I have a question on this,  
23 and kind of just for transparency: The one thing that  
24 the slides and the presentation doesn't show is in the  
25 original agreement. Edison agreed to totally remove

1 these structures and leave the bottom to its natural  
2 state and, basically, on the initial outfall that that  
3 was allowed to remain. You're trying to continue that.

4 We -- we express concern in the scoping and  
5 we've written comment letters to State Lands Commission  
6 that basically, you know, when you have a concrete  
7 structure or a block in the ocean, something is going  
8 to grow on it. But there is high-value reefs and there  
9 is little- or no-value reefs.

10 And when you cut these structures off, the  
11 vertical structures, and, basically, just let them fall  
12 and leave them there, then call them a reef, at best,  
13 it would be a very low-value reef. We would call it  
14 marine debris.

15 And so, you know, what we want is those fallen  
16 vertical units to be removed, not left and call them a  
17 reef, because we don't think they're really legitimate  
18 reefs.

19 The second aspect that we believe and we were  
20 involved in writing the state law that basically allows  
21 oil platforms to be cut off 80 feet below the surface  
22 and remain as reefs.

23 In the case of that, the actuaries are brought  
24 in, they determine how much the oil the owners are  
25 saving by not having to take out that structure and 50

1 percent of that they have to write a check to the State  
2 of California to go to coastal restoration projects.

3 And so I've seen nothing in the discussion  
4 about Edison paying a mitigation fee for saving 100  
5 million dollars and not taking these structures out. I  
6 think that's legitimate. And so from that, just to be  
7 transparent, we will lobby for that through this  
8 process.

9 MS. ANABTAWI: So just a few points of  
10 clarification: The lease does not say that these  
11 structures have to be moved. What the lease says is  
12 that the State Lands Commission retains the discretion  
13 to determine --

14 MR. BROWN: To determine.

15 MS. ANABTAWI: -- including potentially for  
16 removal. So, what we're asking for really is a  
17 clarification of that provision.

18 MR. BROWN: Right.

19 MS. ANABTAWI: And then a second point to  
20 clarify: We're not proposing to remove the vertical  
21 structures and leave them there. The ones that we  
22 remove, we will -- we will actually remove from the  
23 water. The ones that we are proposing to leave there  
24 would still remain attached.

25 MR. BROWN: Okay. Well, that's different than

1 we understood.

2 MS. ANABTAWI: Okay. And I'll show you a  
3 photograph in a second here of what the habitat looks  
4 like.

5 MR. BROWN: Yeah.

6 MS. ANABTAWI: It's also a little bit of  
7 apples to oranges to compare these conduits to the oil  
8 platform. I think Garry talked about some of the  
9 differences before. Just the structural material, the  
10 construction of them, et cetera, is quite different.

11 And, finally, unlike with the oil companies,  
12 any savings that we achieve here would benefit our  
13 ratepayers.

14 So, Tom, do you want to clarify that for me?

15 MR. PALMISANO: Let me interject. We are  
16 stewards of the Decommissioning Fund, which was  
17 contributed to by the customers. At the end of the  
18 project, what is not spent gets refunded to the  
19 customers. So if there's a savings to this  
20 disposition, it ultimately goes back to the customer,  
21 so just for clarity.

22 MR. BROWN: In theory, I agree.

23 MR. PALMISANO: In theory, yeah.

24 MR. BROWN: But whether that happens or not,  
25 we'll --

1 CHAIRMAN DR. VICTOR: Okay. Very briefly  
2 here, and then we do need to move on.

3 SECRETARY STETSON: With reference to that,  
4 with the disposition of Unit 1, I know you couldn't do  
5 it now but maybe someone could come back and quantify  
6 us what the -- what amount came back to the ratepayer  
7 from the disposition from abandoning Unit 1.

8 CHAIRMAN DR. VICTOR: John Alpay.

9 MR. PALMISANO: If you can get that.

10 SECRETARY STETSON: Thank you.

11 MR. ALPAY: If you could just clarify, I mean,  
12 you were talking about the vertical components, so  
13 you're not advocating for the removal of the horizontal  
14 component, are you?

15 MR. SCHROETER: No, I'm not.

16 MR. ALPAY: Okay.

17 CHAIRMAN DR. VICTOR: But it sounds like what  
18 you are advocating for is whatever amount of money  
19 saved by not removing the horizontal components, some  
20 fraction of it ought to go back to the -- ought to go  
21 to the state. Although, in this case it's difference  
22 because it's already the state ratepayers money.

23 MR. PALMISANO: Right. Right.

24 MR. BROWN: Of the Utility Commission.

25 CHAIRMAN DR. VICTOR: Okay. Okay. Good.

1           This has been an extremely helpful exchange.  
2 I have to say that these issues have been very cloudy  
3 in my brain -- my brain's cloudy about lots of  
4 things -- and this exchange has clarified a lot.

5           Thank you very much.

6           MS. ANABTAWI: Okay. Just one more slide to  
7 share with you here on the conduits.

8           So I know, Garry, you've raised questions  
9 about the value of the marine habitat that surround these  
10 conduits.

11          MR. BROWN: Right.

12          MS. ANABTAWI: This is an image taken around  
13 the Unit 1 conduits. So, as you can see, there is, in  
14 fact, a very rich habitat that surrounds these  
15 conduits. You'll see specifically in this photo  
16 there's kelp bass, which is a very important  
17 recreational fishing resource as well as Garibaldi,  
18 which is the small orange fish right there, which is  
19 actually a protected species here in California.

20          So these are very important species. There  
21 are many other species of fish that live around the  
22 conduits. And this is one of the issues that the State  
23 Lands Commission will evaluate in their EIR.

24          So they will look at the value of the habitat  
25 if we're proposing to leave structures in place and the

1 justification that it supports habitat. There will  
2 certainly be biological assessments that validate that.

3 So the final slide here is just a recap of our  
4 overall permitting time line. This is something I  
5 shared with you back in March, but just a reminder.

6 We are now here in the CEQA process, which we  
7 expect to continue through the end of 2017. At that  
8 point at the end of the CEQA process, the State Lands  
9 Commission will make a decision on the lease and then  
10 the California Coastal Commission will be making a  
11 decision on a coastal development permit that will  
12 allow us to begin with the decommissioning activities.

13 And during that time, the U.S. Department of  
14 Navy will be evaluating the easement that governs the  
15 onshore site to determine what the required end state  
16 will be and that will involve its own NEPA review,  
17 which is expected to start sometime in 2017.

18 CHAIRMAN DR. VICTOR: Okay. Thank you very  
19 much. Any last questions or comments for Linda?

20 Okay. Thank you very much for bearing with  
21 all of our questions. On the Navy part of this, if  
22 anyone is listening, I am very keen that we help the  
23 Navy and the community understand what the Navy is  
24 thinking about and vice versa, because I've heard radio  
25 sounds from the Navy and yet they're critically

1 important actor here. So, whenever the time is right  
2 to engage the Navy, I would love to do that through the  
3 Community Engagement Panel.

4 I want to introduce Steve Schroeter, who's an  
5 ecologist from UC Santa Barbara's Science Institute, a  
6 terrific institution.

7 When there are marine impacts, they must be  
8 mitigated in California and one of the means of  
9 mitigating them is through reefs and artificial reefs.

10 And we've had many questions over the years in  
11 the Community Engagement Panel about the experience  
12 with that and notably on Wheeler North, and so we got  
13 Steve to come and talk with us a little bit briefly  
14 about what that experience has been.

15 Steve, the floor is yours.

16 MR. SCHROETER: Thank you. Thank you, David.

17 So this is an update on the status of the  
18 Wheeler North Reef biological status and it is part of  
19 the mitigation project for SONGS.

20 Next slide.

21 Okay. So, the California Coastal Commiss --  
22 Coastal Act requires mitigation for marine impacts and  
23 as mitigation for the impacts to the San Onofre kelp  
24 forest caused by the operation of SONGS, the Coastal  
25 Commission required SCE to construct an artificial reef

1 that creates a minimum of 150 acres of kelp forest  
2 habitat to compensate for losses of kelp, kelp bed  
3 fishes, and other invertebrates.

4 To provide funding for the scientific  
5 oversight and monitoring of the mitigation project that  
6 is independent of Southern California Edison.

7 And this monitoring entails evaluation of 15  
8 performance standards, four of these are absolute  
9 performance standards that must be met at the Wheeler  
10 North Reef and 11 of these standards are relative  
11 standards that are gauged in comparison to two natural  
12 reference reefs.

13 Okay. So here's a summary of where we are  
14 with the four absolutely performance standards. These  
15 performance standards are hard substrate, so the amount  
16 of hard substrate on the Wheeler North Reef has to be  
17 maintained at, at least, 90 percent of the as-built  
18 condition.

19 Giant kelp: There has to be a minimum of 150  
20 acres of medium to high density adult giant kelp. Fish  
21 standing stock pertains to the standing stalk of kelp  
22 bed fish that is required to be 28 U.S. tons. And  
23 there is a standard for invasive species to ensure that  
24 invasive species do not have adverse effects on the  
25 kelp forest environment.

1           So this little table up here that has green  
2 dots and red dots, green dots mean that the standard  
3 has been met, red dots mean that they have not.

4           So for all of the standards, with the  
5 exception of giant kelp in the first year because kelp  
6 requires some time to colonize, all of the absolute  
7 standards have been met for the seven years that we've  
8 been monitoring the reef. The one standard that has  
9 not been met and doesn't look like it's going to be met  
10 any time soon without some remedial action is the fish  
11 standing stock.

12           Next slide looks at the eleven relative  
13 performance standards. So these performance standards  
14 pertain to fish, things like fish abundance and  
15 richness, their reproductive rates, their production  
16 and to the benthic community, which includes  
17 invertebrates both mobile and sessile, and algal  
18 species that are the understory of the kelp forest.

19           And so you see a lot of just concentrate on  
20 the low, low row 1, the all relative standards, but you  
21 can see that there is a lot of green, there are some  
22 red.

23           And the way we evaluate this standard is that  
24 the Wheeler North Reef meets the relative performance  
25 standard, a particular relative performance standard,

1 if it meets as many of the relative performance  
2 standards as the lower performing of the two natural  
3 reefs, which are the barn kelp just north of Oceanside  
4 and the San Mateo kelp which is just south the reef.

5 So for the seven years that we've been  
6 monitoring the reef, Wheeler North Reef meets all 11  
7 performance standards. So, what this says is that it's  
8 basically performing as well in relation to these  
9 natural reefs.

10 In the next slide, so this is the current  
11 status of compliance with the project. So, basically,  
12 everything is being met except for the fish standing  
13 stock and as a result of this, the reef has not yet met  
14 compliance.

15 There's still some question as to the exact  
16 number of years, but basically the permit says that the  
17 reef -- the mitigation reef has to meet the compliance  
18 -- performance standards for the amount of time equal  
19 to the operating life of SONGS units 2 and 3.

20 And so it's at this point about 33 years, but  
21 that hasn't -- the exact number hasn't been decided.  
22 It has to do with how you count the operating life  
23 after the plant was shut down.

24 And I guess the important point is that -- the  
25 issue of compliance with the mitigation requirements is

1 independent really of the decommissioning process. So,  
2 basically SCE is obligated to meet these mitigation  
3 requirements for the operating life of the power plant.

4 Thanks.

5 CHAIRMAN DR. VICTOR: Well, thank you. That  
6 was an enormously efficient description of information  
7 that I knew almost nothing about except that there were  
8 problems. And so thank you very much. I'm sure there  
9 are going to be some questions and I have some.

10 But let me first ask Garry Brown and then ask,  
11 it looks like, Ted Quinn would like the floor.

12 Garry, the floor is yours.

13 MR. BROWN: Well, no, just a quick question.  
14 I saw a letter from Edison to the Coastal Commission  
15 that basically is saying that you would prefer not to  
16 or Edison is requesting the standard of 28 tons to be  
17 changed rather than having to add more reef to generate  
18 more fish. Is that pretty much kind of the plan at  
19 this point?

20 MR. SCHROETER: That is -- two things. I want  
21 to say two things: Firstly, sort of to maintain  
22 independence -- I mean, I'm a scientist, so we do the  
23 science.

24 MR. BROWN: Right.

25 MR. SCHROETER: Kate Hucklebridge at Coastal

1 Commission is, you know, deals with the policy.

2 But, yes, Edison did propose a change -- one  
3 of these absolutes stand -- actually, both of them, I  
4 think, the kelp and the fish, to a relative standard.  
5 And my understanding at this point, there is still  
6 letters going back and forth that that's not going to  
7 fly.

8 MR. BROWN: Right. Okay.

9 CHAIRMAN DR. VICTOR: But can you just say, as  
10 an ecologist, what would you do to increase the  
11 standing? Like, where are we? Are -- they weigh at  
12 27.5 tons and you just need a half a ton?

13 MR. BROWN: Make the reef --

14 CHAIRMAN DR. VICTOR: Sorry. That may be a  
15 very naive question. But what would you do in order to  
16 comply?

17 MR. SCHROETER: Okay. That's a really good  
18 question. Originally, when plans for the mitigation  
19 reef were put forward, the idea was there would be a  
20 300 acre reef. Okay. And we have been -- we have done  
21 exhaustive studies. I mean, we basically have from --  
22 there was phase 1, so we've got 13 years of monitoring.

23 And the reason it hasn't met the performance  
24 standard is because it's too small. And so the way you  
25 address that is you increase the size of the reef.

1           CHAIRMAN DR. VICTOR:  And that would also  
2  presently address algal diversity and some other things  
3  like that?

4           MR. SCHROETER:  Probably not algal diversity,  
5  but what it would do by the by -- I mean, this reef has  
6  been fantastically well performing with regard to giant  
7  kelp.  But, you know, there are good years and bad  
8  years.

9           I mean, for all these -- for six out of the  
10 seven years, it's done actually better than some of the  
11 reference reefs.  But, you know, you have downturns and  
12 so if you increase the acreage, say if you increase it  
13 to 300, let's say, I'm not sure exactly what the number  
14 is going to be, but you would actually give yourself a  
15 buffer for the kelp as well.

16          CHAIRMAN DR. VICTOR:  Ted Quinn?

17          MR. QUINN:  Yes.  Ted Quinn.

18          Very quickly I wanted to ask on your  
19 acceptance criteria for this fish standing stock, as  
20 you go up and down the coast, like for Salt Creek is  
21 one example of a kelp bed, is this achievable, your  
22 criteria for -- because I see we didn't meet it there.

23          But have we met it at other places along the  
24 coast?

25          MR. SCHROETER:  Let me see if I can -- what --

1 what Wheeler North Reef is doing, it met the relative  
2 standards. And if you -- we actually have a standard  
3 for fish abundance. And it is performing similarly to  
4 the reference reefs as a relative standard.

5 But the reference reefs are a lot bigger. So  
6 they -- so, yeah, it's really a size issue. So for a  
7 given -- for its size, it's going great, but it's just  
8 not big enough.

9 MR. QUINN: Okay. Thank you.

10 CHAIRMAN DR. VICTOR: Jerry Kern?

11 MR. KERN: Well, just to follow up on this  
12 line of questioning, how close are they to achieving  
13 the standard? And I guess the follow up question, they  
14 will never achieve the standard because of the size of  
15 the reef?

16 MR. SCHROETER: They -- they are about half  
17 and -- and we evaluate the standard, the absolute  
18 standards. It passes if it meets it in a given year or  
19 with a 4-year running average to account for sort of a  
20 environmental variability.

21 And it's just -- what happened, last year when  
22 we had the blob and it was really warm, we're  
23 speculating, but probably some of these larger southern  
24 fishes became more abundant, there was a spike but then  
25 the year after that, it went down.

1           And it looks like it's -- you know, for this  
2 year, we're not quite done, but it looks like it's  
3 going with the long-term average.

4           MR. KERN: Well, so has there been any  
5 movement in this or is it pretty steady at that half  
6 mark?

7           MR. SCHROETER: It's pretty steady at that  
8 half, or a little more than half, 60 percent something  
9 like that.

10          CHAIRMAN DR. VICTOR: It sounds like this is  
11 not an ecological surprise to you?

12          MR. SCHROETER: No. We -- we sort of -- we  
13 predicted this, you know, going in, yeah.

14          CHAIRMAN DR. VICTOR: That's wonderful when  
15 science makes predictions and they turn out to be  
16 right.

17          MR. BROWN: Thank you. Thank you for being  
18 here.

19          CHAIRMAN DR. VICTOR: Dan Stetson?

20          SECRETARY STETSON: Steve, first of all, I  
21 want to thank you for the many presentations you and  
22 Dan have done at the Ocean Institute over the many  
23 years, and I assume that you're going to continue to do  
24 those if the general public wants to stay up on this  
25 topic.

1           Secondly, are we to understand then that  
2 there's a negotiation going on between Southern  
3 California Edison and the Coastal Commission about if  
4 they need to expand the reef, what the structure would  
5 be? And if that's the case, are those discussions open  
6 to the public? How do we stay on top of that?

7           Or maybe that's a question for Tom.

8           MR. SCHROETER: We're talking to Edison.  
9 We've actually, you know, exchanged information on this  
10 process over the last, you know, when it look -- when  
11 it looked like it wasn't making it after say a  
12 three-year time series or something like that.

13           So -- and negotiations, I mean, it's an --  
14 it's ongoing with the Coastal Commission. And SCE, my  
15 understanding is, they're working diligently on this.

16           CHAIRMAN DR. VICTOR: Let me ask a question  
17 maybe to close and, unless there's other questions to  
18 Steve, I want to ask one to Tom and Linda.

19           So, clearly there's an ongoing compliance  
20 issue about the mitigation credits for the operation of  
21 SONGS and that's an important question. This is one of  
22 the really important areas of environmental stewardship  
23 and so that process is underway.

24           Do you expect that there will be similar  
25 questions about mitigation related to the

1 decommissioning process or do we think that the  
2 decommissioning process will largely unfold with  
3 leaving the conduits in place and the other things that  
4 Linda talked about and that there won't be additional  
5 mitigation?

6           Because it seems like for this panel, in  
7 particular about the decommissioning process, the  
8 question of whether we should be looking closely at  
9 Wheeler North and sons and daughters of Wheeler North  
10 because there will be additional mitigation  
11 requirements would be an important one. But it sounds  
12 like -- but we just need to know whether you see the  
13 additional need for those kinds of credits.

14           MR. PALMISANO: Well, with respect to Wheeler  
15 North, this is related to the plant operating period,  
16 not related to decommissioning. The process that Linda  
17 just covered in the State Lands Commission covered, the  
18 CEQA process, we'll look at mitigation for activities  
19 related to decommissioning.

20           CHAIRMAN DR. VICTOR: So there might be  
21 mitigation requirements?

22           MR. PALMISANO: Yeah, but it likely has  
23 nothing to do with the reef. You know, it's focused on  
24 the intake and outfall conduits or the onshore  
25 activities potentially. But there's certainly going to

1 be discussion of mitigation activities in the CEQA  
2 process for decommissioning.

3 CHAIRMAN DR. VICTOR: Linda, do you want to  
4 say anything?

5 MS. ANABTAWI: Just to clarify, so the way  
6 mitigation works under CEQA is the mitigation we  
7 require has to be related to the impact that you're  
8 trying to mitigate for.

9 So the State Lands Commission wouldn't just  
10 randomly select additional reefs as a mitigation unless  
11 there was an actual impact it found in the EIR that  
12 called for that as an appropriate mitigation.

13 So it's hard to tell at this point in the  
14 absence of the EIR analysis and the conclusion on  
15 impact what type of mitigation would be required for  
16 decommissioning, but that will definitely be part of  
17 the CEQA process.

18 CHAIRMAN DR. VICTOR: Okay. Great. Thank  
19 you. Thank you very much, Steve, for your  
20 contributions and all of the great science that you're  
21 doing.

22 So we're now going to move on to the last main  
23 segment before the break. We have on the agenda 45  
24 minutes for this segment. We have in reality 15. So,  
25 there's -- somewhere between reality and the agenda, a

1 miracle will occur. And I think we're going to spend  
2 about 25, 20 minutes, something like that, probably 25  
3 minutes on this.

4 We have asked Tom, and also Holtec and others  
5 but through Tom, to periodically report back to us and  
6 to the communities on what's going on in the creation  
7 of Defense-and-Depth around the long-term monitoring  
8 and stewardship of these -- of the dry cask storage  
9 system because that's crucial even as we work on  
10 consolidated interim storage.

11 So this is the first big kind of update on  
12 what's happening, and so we'll get some slides from Tom  
13 about this, have a chance for a little comment and  
14 question, probably not much, and then we'll go to the  
15 break.

16 MR. PALMISANO: And I have a lot of material  
17 so I will focus on what is really currently active.

18 And my comments really relate to both systems,  
19 the 50 loaded canisters which are the AREVA  
20 transnuclear NUHOMS system as well as the future Holtec  
21 system.

22 So, my slide is labeled Dry Cask Storage  
23 Initiatives. So the principle of Defense-and-Depth:

24 For many years in the nuclear business, we've  
25 talked about Defense-in-Depth related to designing and

1 operating reactors. Well, we no longer operate  
2 reactors. But the concept of Defense-in-Depth  
3 certainly applies to dry cask storage because,  
4 fundamentally, we're protecting the public and our  
5 employees from the release of radioactivity.

6 That's really what the dry storage canister is  
7 all about in storage or in transportation. So the  
8 philosophy is to protect public health and safety,  
9 multiple independent and reinforcing layers of defense.

10 And when we talk layers of defense, we're  
11 talking about what do we do in the design stage, the  
12 fabrication stage, the long-term monitoring and then  
13 remediation.

14 So I'm going to talk mostly probably about  
15 design, fabrication, monitoring and remediation. We  
16 have more work to do on that, admittedly, and we'll  
17 talk more in future meetings because I think we'll be  
18 in probably every other meeting with this topic to keep  
19 you well informed.

20 So I'm going to try to stay on task here for  
21 time. So, fundamentally, what we're trying to do with  
22 Defense-in-Depth is contain radioactive materials by  
23 assuring the long-term integrity of the canisters both  
24 in storage and in transportation. So think of it that  
25 way at a high level.

1           This is a very technical slide out of some NRC  
2 materials. Three principal functions of any dry  
3 storage canister or cask. This statement would apply  
4 to thick-walled casks, thin-walled canisters.

5           And I'm not going to get too technical, but  
6 there's three principal functions: One, maintaining  
7 sub criticality. So this is nuclear fuel that in the  
8 reactor used to undergo the fission process to generate  
9 heat.

10           So, in storage, you've got to make sure it  
11 doesn't go critical again and create a fission  
12 reaction, that's what we maintain by maintaining  
13 sub-criticality.

14           The second principal function is preventing  
15 radiation exposure from exceeding limits. This isn't  
16 in the event of a crack, this is just it's got to be  
17 designed and built and shielded such that I can stand  
18 next to it without getting overexposed to radiation or  
19 when it's shipped over the highway.

20           And third, preventing the release of  
21 radioactivity -- radioactive materials from exceeding  
22 regulatory limits, so the robustness of the canister.

23           Again, I'm not going to try to read every word  
24 here. But, fundamentally, we have things we do to  
25 prevent these problems and things we do to detect if

1     there is a problem.  So you'll see a lot about robust  
2     design, canister integrity, shielding.

3             In this case, I said the UMAX structure.  I  
4     could easily have said the NUHOMS structure.  The  
5     concrete modules that we put these canisters in provide  
6     physical protection and radiation shielding.

7             And, then, how do we detect problems with  
8     that?  We inspect, we survey both, you know, during  
9     fabrication, during operation, during shipment.

10            So our goal is to meet and, quite frankly,  
11    exceed regulatory requirements in the design, the  
12    fabrication, the long-term monitoring and the  
13    remediation.

14            So I've listed SCE Holtec initiatives and I  
15    could easily have also put AREVA TN Initiatives because  
16    we've already done some of these things for the 50  
17    loaded canisters.

18            First thing we did for SONGS, and this goes  
19    back to 2001, we increased the seismic criteria.  These  
20    canisters and this cask system is designed for a higher  
21    seismic requirement than the power plants were.  So  
22    they're designed for virtually twice the seismic event  
23    than the reactors were designed for.  That was one of  
24    the first things we did with the current system and the  
25    new system.

1           We upgraded the material 316L, very simply a  
2 higher grade of stainless steel, which is stronger and  
3 more corrosion resistant. We went for thicker  
4 material. The standard canister around the country is  
5 a half inch thick; ours are 8/8-inch thick. It gives  
6 it a stronger canister, more resistance to seismic  
7 events and other events.

8           Advanced basket composite materials for  
9 durability over the -- we've used dry storage canisters  
10 in this country since the late 1980s. We have  
11 consistently improved the materials. The basket is  
12 inside the canister where the fuel assembly is actually  
13 placed. Advanced materials that are more durable and  
14 that have better heat transfer capabilities.

15           We can damage fuel assemblies, that's pretty  
16 standard, and we've talked about damaging fuel  
17 assemblies before. These are small pinhole leaks or  
18 something that we very conservatively put in another  
19 container before we put it in the canister.

20           Some of the things we're working on for the  
21 future: Removable Test Coupons. We've talked a lot  
22 about a legitimate problem with potential cracking of  
23 canisters. We're in an environment, in a marine  
24 environment where chloride stress corrosion cracking is  
25 a possibility, East Coast and West Coast. Okay?

1           So we have a plan for test coupons which we'll  
2 use next to the canisters that I can pull out  
3 periodically and look at a test coupon of identical  
4 material to see if it's being affected. So think of  
5 the canary and the coal mine concept, some things we  
6 can do to enhance our monitoring capability.

7           CHAIRMAN DR. VICTOR: And will this -- sorry.  
8 And that's -- those test coupons will be kept at the  
9 same temp -- same temperature or all of the same  
10 conditions so that they are reliable?

11           MR. PALMISANO: Yes, as much as I can make  
12 them in identical condition. They won't have fuel in  
13 them, obviously.

14           CHAIRMAN DR. VICTOR: Yeah.

15           MR. PALMISANO: But it's really designed to  
16 look for the atmospheric deposition of any salts  
17 exposed to the same humidity environment so I can  
18 monitor how the material is performing.

19           A spare canister for inspection tool  
20 development. We've talked before about one of the  
21 challenges of inspecting a loaded canister, and I'm  
22 going to talk more about inspection, is it has a high  
23 radiation level because of spent fuel.

24           So we will have an empty canister that we can  
25 develop our tooling and practice on so I don't have a

1 radiation issue so I can refine the tooling, so when I  
2 go to inspect a loaded canister, the tooling works  
3 effectively.

4 And we'll have a spare enclosure container for  
5 future use where I can put an empty canister or a  
6 loaded canister.

7 So we are doing a number of things above  
8 regulatory requirements to assure that we have the  
9 capability to monitor these, to inspect these, and a  
10 good bit of this has yet to be developed. But these  
11 are active activities going on today. It's part of the  
12 Defense-in-Depth.

13 I don't want to get too technical here. We're  
14 working -- we have an opportunity with these new  
15 canisters that have not been fabricated yet. The 50  
16 canisters that are loaded that were designed in the  
17 1990s and fabricated in the '90s and through the 2000s,  
18 they're done, they're loaded. I've got to start  
19 inspecting those.

20 I have an opportunity with the new ones to  
21 make some improvements on how these are fabricated to  
22 make them more resistant to cracking. So we're working  
23 with the manufacturer to improvement the weld design,  
24 improve the welding methods, to improve how we inspect  
25 the welds, all with the concept that we are going to

1 put more effort and time and money, quite frankly, in  
2 building in more robust canister, more resistant to  
3 these types of phenomenon.

4 Inspection Methods: So this is the key.  
5 We've talked quite a bit about, you know, today, under  
6 the current licenses, I'm not required to inspect the  
7 canisters during the first 20 years of operation.

8 With the current 50 loaded canisters, we will  
9 have to renew the NRC license in 2022, I believe. And  
10 we will have to start inspecting them initially and  
11 then on an every 5-year basis. So we're already  
12 developing the inspection methods and we're doing this  
13 across the country, not just for SONGS.

14 So this is a long list of 10 criteria the NRC  
15 has and what they call an Aging Management Program.  
16 I'm not going to take you through this list, but these  
17 are elements of the program that must be submitted and  
18 approved by the NRC to re-license the canisters.

19 So we'll be doing this initially on the AREVA  
20 system over in five years and then ultimately we'll do  
21 it on the Holtec system, and we're actually developing  
22 these for the Holtec system in parallel. We're not  
23 going to wait for the license renewal. Okay?

24 So for AREVA, we're already developing that.  
25 The good news is, we have a sister plant, the Calvert

1 Cliff Plant on the East Coast, that is in a similar  
2 environment, uses the exact same system we do. Theirs  
3 is not as thick as ours, doesn't have the seismic  
4 criteria, but it's fundamentally the same canister and  
5 materials.

6 They have just re-licensed their system for 20  
7 years. We know what the NRC requirements are for their  
8 inspection program. So we are working with them and  
9 we're following them as they do their initial rounds of  
10 inspections.

11 For the Holtec system, again, our system 2023  
12 is our date. I'm sorry. I said 2022. So we have to  
13 have our inspection program ready in 2023. In  
14 parallel, we're developing the system, the inspection  
15 program for the new system at the same time.

16 We're not going to wait 20 years until we have  
17 to re-license it. Theoretically, we could, but that is  
18 not appropriate. That's not consistent with our  
19 philosophy, to really meet and exceed regulatory  
20 requirements.

21 We also committed to the Coastal Commission  
22 that we would develop that in this time frame when they  
23 permitted the ISFSI expansion.

24 So, what are we doing very specifically?  
25 We're active in many technical groups across the

1 country, and a number of our people are in leadership  
2 roles. I would particularly call out we're working  
3 with the Department of Energy and NRC in terms of their  
4 rules and their requirements.

5 On a more technical level, when you see the  
6 word EPRI, this is the Electric Power Research  
7 Institute, these are the people who really help develop  
8 the tooling, the inspection equipment, whether it's  
9 visual inspection or quantitative inspection equipment.

10 As you can see, we're working on NDE,  
11 nondestructive examination; that is inspection  
12 methodology. We're working on chloride stress  
13 corrosion cracking analysis. We're working on rules  
14 for inspection. In other words, if I inspect, what is  
15 the criteria that I have to meet?

16 We're working on repair methods. I was  
17 talking to a member of the public beforehand. "Okay.  
18 So you can inspect. But what do you do when you find  
19 something?" And that's where you get into repair  
20 remediation.

21 We're actively working on what's going to be  
22 required. And we work with both our vendors, Holtec  
23 and AREVA. We have users group. All of us who share  
24 similar systems meet regularly to collaborate, to share  
25 experiences and to share our development of these

1 activities.

2 MS. PATTERSON: Can you, before you move on --

3 MR. PALMISANO: Sure.

4 MS. PATTERSON: -- NDE is Non-Destructive --

5 MR. PALMISANO: -- Examination.

6 MS. PATTERSON: Examination. CISCC?

7 MR. PALMISANO: Chloride stress corrosion  
8 cracking.

9 CHAIRMAN DR. VICTOR: CL.

10 MR. PALMISANO: CL for chloride, SCC, stress  
11 corrosion cracking. Chloride stress corrosion  
12 cracking.

13 MS. PATTERSON: Chloride stress -- chloride  
14 induced --

15 MR. PALMISANO: "I" is induced in that case.  
16 Yeah, Induced, yeah.

17 MS. PATTERSON: I'm sorry. Chloride induced  
18 stress --

19 MR. PALMISANO: -- corrosion cracking, yeah.

20 MS. PATTERSON: Corrosion cracking.

21 MR. PALMISANO: What we'll do, we use a lot of  
22 acronyms, and I apologize. We'll put a list of what  
23 these acronyms are.

24 MS. PATTERSON: Thank you.

25 MR. PALMISANO: Thank you for the question.

1 MS. PATTERSON: And NEI?

2 MR. PALMISANO: Nuclear Energy Institute.

3 MS. PATTERSON: Okay.

4 MR. PALMISANO: That's an industry group that  
5 works with the NRC and works with Congress on policy  
6 and regulatory matters.

7 MS. PATTERSON: Thank you.

8 MR. PALMISANO: Okay. So let's get a little  
9 more specific. And this is important because the first  
10 step is you got to be able to inspect. Okay?

11 We're not required to inspect today, but we  
12 will in the near future and other plants are beginning  
13 to inspect now. So we're developing robotic capability  
14 to get inside the concrete enclosure and run a robot  
15 over the circumference and the outside of the steel  
16 canister. And I'm going to show you a picture in a  
17 minute.

18 We've done with this to get a camera view or a  
19 visual view of the canister surface, so we can see are  
20 there deposits of salt or are there potentially pits  
21 starting. Okay? We're testing robot deployed, Eddy  
22 Current Array and electromagnetic acoustic transducer  
23 probes. Fancy terms, but basically the ability to put  
24 a probe on a robot that can actually examine the  
25 surface of the metal beyond just looking at it.

1                   Okay?

2                   MS. PATTERSON:   Excuse me.   EPRI?

3                   MR. PALMISANO:   EPRI, Electric Power Research  
4   Institute.

5                   MS. PATTERSON:   Thank you.

6                   MR. PALMISANO:   You're welcome.

7                   Okay.   So the first application on a canister  
8   loaded with fuel is targeted for 2018, so we're just  
9   under 2 years away from that.   Okay.

10                  So I should mention, we've done this test at  
11   three plants now:   Palo Verde in Arizona, the Maine  
12   Yankee Decommissioned site in Maine, the McGuire Plant.  
13   We've had our people at each of these demonstrations  
14   with the EPRI team and the other utilities.

15                  So, what I'm showing you here, and it's a  
16   little hard to see, this is the type of canister  
17   concrete overpack system that is used at a plant like  
18   Diablo Canyon.   This is used in many places across the  
19   country.

20                  These are standalone vertical concrete  
21   overpacks with the steel canister inside it.   Our  
22   current system is a horizontal system so, think of the  
23   same thing only stored horizontally.   And our new  
24   system will be very similar only in the -- the  
25   underground system.

1           So, what I'm showing you here in the cutaway  
2 is, this is the concrete overpack. This is the edge of  
3 the steel canister. This is the robot we've been able  
4 to bring in through the vents and run up and down along  
5 the surface of the steel canister to do the visual or  
6 the nondestructive examination.

7           So we've successfully done this now by being  
8 able to insert the robot remotely so we keep the worker  
9 away from the radiation and navigate the outside of the  
10 canister to the accessible areas, so the test has been  
11 fairly successful so far. We've got more tests coming.

12           Again, the goal is, in 2018, to do this on a  
13 canister loaded with fuel. So that's --

14           SECRETARY STETSON: Now that's --

15           MR. PALMISANO: -- a development work that is  
16 actively going on today and we are heavily involved in.

17           CHAIRMAN DR. VICTOR: Dan Stetson?

18           SECRETARY STETSON: Tom, and this is  
19 applicable for both the AREVA and the Holtec?

20           MR. PALMISANO: Yeah.

21           SECRETARY STETSON: Okay.

22           MR. PALMISANO: This will be.

23           Obviously, we're dealing with -- most of the  
24 system -- I shouldn't say "most." Probably more  
25 systems in the country are vertical systems. AREVA has

1 a fair number of horizontal systems, so we're doing it  
2 with a vertical system first and it allows us to have  
3 an easy cutaway so we can watch the robot and how --  
4 how it performs, but it will be applicable to both  
5 systems eventually.

6 SECRETARY STETSON: Thank you.

7 CHAIRMAN DR. VICTOR: But this is an R&D  
8 program right now. Do you have a sense of when it  
9 would be operational and -- (Simultaneous colloquy.)

10 MR. PALMISANO: 2018.

11 CHAIRMAN DR. VICTOR: -- certifiable?

12 2018 will be --

13 MR. PALMISANO: 2018.

14 CHAIRMAN DR. VICTOR: -- operational and  
15 certifiable.

16 MR. PALMISANO: The industry, there's a group  
17 working with intents to demonstrate it on a canister  
18 loaded with fuel in 2018.

19 CHAIRMAN DR. VICTOR: Ted.

20 MR. PALMISANO: And so, think operational, you  
21 know, after that.

22 CHAIRMAN DR. VICTOR: Ted Quinn.

23 MR. QUINN: Tom, does -- Tom, does NRC monitor  
24 or participate in this at all?

25 MR. PALMISANO: The NRC is aware of these

1 activities. I think they attend some of these  
2 demonstration tests.

3 MR. QUINN: Okay.

4 MR. PALMISANO: So, yes. So the NRC is paying  
5 close attention, you know. As you know, the NRC sets  
6 the rules and sets the requirements. It's up to us to  
7 demonstrate to them how we're going to meet the  
8 requirements and this is where EPRI comes in with  
9 development, American Society of Mechanical Engineers  
10 will approve the standards we're going to apply and we,  
11 the industry, develop the tooling, so it's a combined  
12 effort. But the NRC is heavily involved.

13 CHAIRMAN DR. VICTOR: Can I? I just want to  
14 say that I spent now a lot of time trying to get to the  
15 bottom of what the standards are and so on. And one of  
16 the things that has really struck me in that process is  
17 that while the NRC sets the rules, most of the  
18 innovation and the development of best standards and so  
19 on is happening inside the industry, the Aging  
20 Management --

21 MR. PALMISANO: Right.

22 CHAIRMAN DR. VICTOR: -- Program and so on,  
23 which were -- NEI has really been centrally active and,  
24 so, I think, somehow over the next few years we need to  
25 take all this kind of material and turn it into like a

1 plain English document that would change overtime,  
2 obviously, as the technologies improve, so that anybody  
3 can take it off the shelf and understand what's  
4 happening.

5 MR. PALMISANO: Right.

6 CHAIRMAN DR. VICTOR: I think that's going to  
7 be very important. And, obviously, lots is changing  
8 here. But I've been really struck that there's much  
9 less going on on the regulatory side than on the  
10 industry-led side because the industry has this covered  
11 -- it has a self -- it has a strong incentive to get  
12 this one right.

13 MR. PALMISANO: Right. That's correct.

14 On this slide I want to mention, as we're  
15 looking now, remediation repair: Right now our  
16 activities are fundamentally focused on the ability to  
17 inspect -- to inspect visually, to take samples of any  
18 salt deposits on the outside of the canisters and then  
19 using the non-destructive examination methods, eddy  
20 current or ultrasound, to get an understanding of  
21 what's going on with the surface of the metal.

22 The next step is to say, "Okay. What do I do  
23 with what I find? So, how -- how do I repair or  
24 remediate this?" So we're early on in the work. We --  
25 we understand basically the degradation mechanisms. We

1 understand chloride-induced stress corrosion cracking.

2           There has been some work done by DOE and their  
3 contractors on crack growth rates and flaw evaluations  
4 and, you know, very technical work. Obviously, we're  
5 working on remote tool delivery; that's a lot of what  
6 we're focused on now, which will then go into okayed  
7 repair methods.

8           So, what do you do when you see something? Do  
9 you repair it? Well, really, it depends on what you  
10 see and how significant it is. We have many years of  
11 experience in reactor plant systems and in the reactors  
12 and the piping systems, you know, to -- how to evaluate  
13 something: Is it a significant indication? Is it a  
14 crack? Is it a pit? And then if it is, what do you do  
15 about it.

16           So we'll apply that experience and that  
17 understanding to what do we need to do here. Now,  
18 admittedly, there's more work to do here. Right now  
19 the focus is on how do we inspect, how do we  
20 characterize what we see, but then we'll get into "How  
21 do we monitor? How do we track? How do we repair  
22 something?" and, potentially, "How do we remediate?"

23           And this could get -- you know, if I see a  
24 little indication on the surface, I may take a remote  
25 tool and just buff it out and watch it. If I see

1 something that really looks like a crack, as you heard  
2 us talk over the last year or two, I may take the  
3 canister out and put it in an overpack, a slightly  
4 larger canister to give it another boundary.

5 So there are options out there. These have  
6 yet really to be fully developed. Okay? The focus at  
7 this point is really inspection technology and then we  
8 will move into repair and remediation technology.

9 In the interest to being transparent, I'd love  
10 to tell you "Here's the answer today," but it is a work  
11 in progress and we will always tell you where we are  
12 and what's being developed versus what is developed.

13 And then -- then shifting a bit. Again, we're  
14 back to the bigger picture: Defense-in-depth.

15 So I talked just briefly about what we do in  
16 the canister fabrication and with the 73 new canisters,  
17 we have some great things we can do today that weren't  
18 possible 10 and 15 years ago with the existing  
19 canisters.

20 I've talked about how we're developing the  
21 inspection capability and I've talked about how we will  
22 be working on repair and remediation capability.

23 But what do we do to monitor? So -- so, today  
24 I've got 50 canisters loaded with fuel. So, what you  
25 need to understand is, part of Defense-in-Depth is not

1 just all the technical stuff. It's what's done on a  
2 daily basis.

3 The operators monitor the temperatures around  
4 the cask system to see "Are they removing heat  
5 properly?" We have temperature indications to tell us  
6 the air is flowing, we watch the temperatures that  
7 tells us the canister are functioning to remove the  
8 heat from the casks.

9 We inspect inlet and outlet vents to make sure  
10 nothing is blocked so there's proper air flow. From a  
11 maintenance standpoint, we do periodic inspections on  
12 the outside of the concrete modules to make sure  
13 they're not degrading.

14 Radiological environmental program: We  
15 monitor radiation levels around the canisters. We know  
16 what they are. Properly loaded, properly shielded, we  
17 monitor in case there's a change.

18 We also monitor contamination levels. Is  
19 anything leaking? So we monitor that periodically.  
20 Radiation -- so we do this both environmentally  
21 around -- we also do surveys with meters around the  
22 system.

23 And then security continuously monitors the  
24 installation, No. 1, to make sure that no -- you know,  
25 fundamentally to make sure that nobody is attempting to

1 tamper with the system, if you will, that will cause a  
2 potential problem. So it's continuously monitored by  
3 security and responded to.

4 So when you think about Defense-in-Depths,  
5 back to the big picture, there's things I do in design,  
6 there's things I do in fabrication, there's things I  
7 will do in inspection and repair space, there's things  
8 I do in daily, weekly, quarterly monitoring to ensure  
9 the systems are both functioning as designed and  
10 protected as designed.

11 So that's kind of a holistic picture of  
12 Defense-in-Depth.

13 CHAIRMAN DR. VICTOR: Excellent. Thank you  
14 very much.

15 Comments? Questions?

16 MR. SCHROETER: I had a question. So I had --  
17 I really -- I don't know very much about this. But is  
18 the cooling process a passive one? Or are there --  
19 yeah, are there fans?

20 MR. PALMISANO: No, it's passive. One of  
21 the -- you may have heard me earlier talking about the  
22 need to offload the spent fuel pools, that are  
23 water-filled pools, to dry cask. The dry casks are  
24 passive. It's simply air convection around the steel  
25 canister inside the concrete enclosure that just

1 removes heat, so you got radiative heat transfer out of  
2 the fuel and then convected heat head transfer around  
3 it. Yeah, you know, no electric power required, no  
4 water required; it's truly a passive system.

5 MR. SCHROETER: Thank you.

6 CHAIRMAN DR. VICTOR: Other comments or  
7 questions? Garry Brown?

8 MR. BROWN: Tom, thank you this session.

9 MR. PALMISANO: Yeah.

10 MR. BROWN: I guess my question would be one  
11 of -- you've laid out all the things you're going to  
12 have to do going forward and we're talking about having  
13 some of the spent fuel here for potentially, even  
14 interim basis, a long time.

15 MR. PALMISANO: Yes, sir.

16 MR. BROWN: And I'm interested in maybe having  
17 a presentation to the CEP on the finances of that.  
18 How, basically, 10 years out are we going to have --  
19 you made the comment that, you know, you may need to  
20 get another or you decide to put a concrete overcoat  
21 on. I would like to see the assurance or how we're  
22 going to always make sure that if you need that in the  
23 relatively near future, you'll always have a budget and  
24 the money and where is it coming from --

25 MR. PALMISANO: Sure.

1 MR. BROWN: -- to ensure.

2 MR. PALMISANO: Why don't you assign us an  
3 action? I'll be glad to --

4 CHAIRMAN DR. VICTOR: Okay.

5 MR. PALMISANO: -- come in and talk about the  
6 financial side of that rather than just give you a  
7 30-second answer.

8 MR. BROWN: Thank you.

9 MR. PALMISANO: Yeah.

10 CHAIRMAN DR. VICTOR: Let's also -- this is an  
11 ongoing process and we're going to learn more as this  
12 unfolds, but then also we're going to create some kind  
13 of a plain English articulation of what's actually  
14 going on, what's known, what's unknown. Let's include  
15 the financing part of that as well.

16 MR. PALMISANO: Thank you.

17 CHAIRMAN DR. VICTOR: I think that's -- I've  
18 heard that question from many people. I think it's an  
19 important one, yeah.

20 Other comments or questions people have?

21 Okay. Thank you very much for this time.

22 So here's our game plan: The miracle has  
23 occurred. We were in Tom's efficient hands. We're  
24 going to take a five-minute break right now and then  
25 we're going to come back and have a couple of brief

1 updates from the CEP and, in particular, about the  
2 topics for 2017 and the process for those topics and  
3 then we'll have public comment.

4 If you want to make a public comment, please  
5 get on the list. There are now eight people on the  
6 list and so our public comment period may be briefer  
7 than normal, but I certainly look forward to that, to  
8 the comments.

9 (Break taken from 7:28 p.m. to 7:36 p.m.)

10 This segment of the meeting, this first seg --  
11 this first segment before the public comment period is  
12 called CEP General Updates, which is an underwhelming  
13 title for an important topic, which in particular  
14 relates to what are we going to talk about in the  
15 future.

16 And so if we can put the next slide up.

17 I wanted to say that all the CEP members have  
18 a copy of this slide in front of them, in your deck, so  
19 if you wouldn't mind ripping it out --

20 SECRETARY STETSON: And voting.

21 CHAIRMAN DR. VICTOR: And writing down any  
22 comments you have on these topics, that would be  
23 helpful, including whether there are other topics that  
24 you want us to -- you want us, with Edison, to address  
25 in 2017. There are nine or so topics on this list

1 already. We have four meetings, so we won't cover  
2 everything and there may be other topics people want to  
3 put on the list, but we need a full discussion, which  
4 we can't have in the meeting, but we need to have a  
5 full discussion of what are the -- what are the major  
6 topics and what are people's views on them and so on.

7 I -- I, in particular, as you know, I'm very  
8 keen that we have a fresh meeting about where we are  
9 with consolidated interim storage. Sometimes, probably  
10 middle of next year, well after the election, once we  
11 have a better sense of what's happening on the  
12 legislative front and, of course, on the regulatory  
13 front with both of these facilities in New Mexico and  
14 Texas, and there should be advances at that point also  
15 on the transport side, at least on the engineering of  
16 the transport options.

17 Are there other comments people want to make  
18 about C -- potential future CEP topics, not on the  
19 spirit of having a full conversation about them right  
20 now but getting them on the agenda and having any  
21 initial reactions?

22 Pam Patterson?

23 MS. PATTERSON: Yes. Thank you. Is that --  
24 is my mic -- okay. Thank you.

25 Well, I have a concern about, I mean, at the

1 last meeting you said that three people make up the  
2 agenda for the entire year, so I would like to be one  
3 of the three that puts together the agenda, because I  
4 think it's important that you get -- that we get sort  
5 of both sides of the situation and we represent not  
6 just the nuclear industry, but the residents that live  
7 around here. So that's my suggestion.

8 CHAIRMAN DR. VICTOR: Okay. And just -- just  
9 to clarify, I believe formal responsibility for the  
10 agenda lies in our -- via our charter with Edison,  
11 actually, and not with the leadership of the Community  
12 Engagement Panel.

13 I'm a resident of San Diego County. Dan  
14 Stetson is from Orange County and Tim Brown is involved  
15 in the leadership of a very important town adjacent  
16 to -- to the plant.

17 So I think it's not the case -- and I  
18 understand the spirit of your comment. But I think it  
19 is not the case that we're some alien group that's  
20 making an agenda on behalf of the industry; that would  
21 seem to be an inappropriate assertion.

22 MS. PATTERSON: Well, I can just tell by the  
23 comments that take place up here that there's really  
24 only one that's pretty vocal about the concerns of the  
25 community and so that's me.

1 CHAIRMAN DR. VICTOR: I think --

2 MS. PATTERSON: And I think that somebody  
3 that's participating and making up the agenda needs to  
4 represent the concerns of the community.

5 CHAIRMAN DR. VICTOR: Okay. We're --

6 MS. PATTERSON: So that's why I believe I  
7 should be on that committee.

8 CHAIRMAN DR. VICTOR: Okay. Understood.  
9 Thank you for your comment.

10 MS. PATTERSON: You're welcome.

11 CHAIRMAN DR. VICTOR: We are going to send a  
12 note around, more than a note, detailing the range of  
13 views and topics and then the plan for the future so  
14 that that entire process is transparent.

15 I think, just out of respect to the rest of  
16 the committee members here, I do think when you look  
17 around the table here, you got a lot of folks from a  
18 lot of different points of view who are representing a  
19 lot of different communities and that's why whenever I  
20 talk about this as a community process, I actually use  
21 communities in the plural, so I just think just to kind  
22 of be fair to the rest of the folks who are  
23 volunteering as -- as you are.

24 Other comments people want to make?

25 GLENN PASCALL: Other topics?

1           CHAIRMAN DR. VICTOR: On substantive topics,  
2 it would be great?

3           GLENN PASCALL: Yes, substantive topics.

4           Representing the Sierra Club, we are viewed by  
5 the National Sierra Club, our chapter right here,  
6 because of the CEP, as the leader in exploring remote  
7 storage alternatives short of a geologic repository,  
8 which really is the Sierra Club position, and the  
9 National Sierra Club is very heartened that Chairman  
10 Victor and other officers and members of the CEP  
11 frequently link the long-term repository with  
12 consolidated interim storage.

13           And so we are here to be at the table as these  
14 alternatives are developed to urge for high  
15 environmental standards to maintain the connection  
16 between the repository and CIS.

17           And I put my vote on topic No. 2. I think we  
18 absolutely ought to stay in touch with it. And I can  
19 tell you, the National Sierra Club views are dialogued  
20 here on San Onofre as a national model with regard to  
21 responsible exploration of the full range of off-site  
22 storage.

23           CHAIRMAN DR. VICTOR: Okay. Thank you.

24           But I think one -- one of the implications of  
25 your point is that we, for optical and substantive

1 purposes, need to make sure that we don't just talk  
2 about consolidated interim storage.

3 GLENN PASCALL: Right.

4 CHAIRMAN DR. VICTOR: We need to talk about  
5 the state of play with the long-term.

6 GLENN PASCALL: Yes.

7 CHAIRMAN DR. VICTOR: And maybe not every  
8 single time because the long term is long and it  
9 doesn't always change.

10 Okay. Jerry Kern?

11 MR. KERN: Just a lot of questions I get --  
12 because of, obviously, the Fukushima incident -- is the  
13 seismic stability off the coast. So I know, I think  
14 the preliminary studies have been done and so --  
15 actually, from one of your colleagues, Dr. Driscoll  
16 from UCSD.

17 I don't know where they're at as far as  
18 presenting, so when they're ready to go, I'd like to  
19 hear that. So I don't particularly care what order it  
20 comes in, it's just when they're ready to go, because  
21 that's something that we can relay to the public about  
22 what seismic stability is out there.

23 CHAIRMAN DR. VICTOR: Yeah, that's --

24 MR. KERN: Or if there isn't any.

25 CHAIRMAN DR. VICTOR: Yeah, that's -- in fact,

1 that was the agenda topic for this meeting and then I  
2 think they weren't ready to go. Is that correct?

3 MR. PALMISANO: Yes, my understanding, I  
4 think, is first quarter 2017.

5 CHAIRMAN DR. VICTOR: Okay.

6 MR. PALMISANO: When I'll be ready to come in  
7 and present to the panel.

8 CHAIRMAN DR. VICTOR: We'll do that. And  
9 we'll find out how much time they need, whether is a  
10 whole meeting or part of a meeting or something like  
11 that. Bob Baker?

12 MR. BAKER: Yeah, and when you're talking  
13 about seismic studies, will there be some mention of  
14 the geologic record and tsunami events at San --  
15 San Onofre? Is that part of that?

16 CHAIRMAN DR. VICTOR: Yeah, my understanding  
17 is, we're going to get the full range of coverage,  
18 knowing something about the study, we're going to have  
19 very important robust answers on a handful of narrower  
20 questions and then we'll make sure that, with Edison's  
21 help, that we get the full picture, including Tsunami  
22 risk. I think it's very important.

23 Ted Quinn?

24 MR. QUINN: Yeah, David, very quick. You  
25 mentioned the transportation issue. So, I don't see it

1 on here, so I'd just it be added. I think the Navy  
2 issue is really important one to our interface with the  
3 Navy. And I just ask, the SCE oversight of the  
4 contractors, Holtec, and also the decommissioning  
5 contractor, the coming year would be great if we could  
6 understand that better.

7 CHAIRMAN DR. VICTOR: Yeah, maybe, Tom, you  
8 mentioned we are close to having an award for the  
9 decommissioning general contractor. I'm sure folks are  
10 keen to meet this organization. When can we say "hi"?

11 MR. PALMISANO: Well, what my plan is, we  
12 expect to award by the end of the year. You know, it's  
13 a lengthy process. It's a 10-year contract and, you  
14 know, many dollars. My intent would be in the first  
15 quarter to bring in the selected contractor once we've  
16 made all the public announcements and introduce them to  
17 the CEP and the public.

18 CHAIRMAN DR. VICTOR: Okay. And I think back,  
19 Ted, your point about transportation. We need to find  
20 a way of -- when we talk about consolidated interim  
21 storage, we need to figure out if we're going to deal  
22 with all the different dimensions at the same time or  
23 that's too big.

24 Several people have suggested via email that  
25 we invite people who are managing the New Mexico and

1 West Texas sites. I think that's a good idea and it  
2 might be that that's something that's done in a  
3 workshop prior to a CEP meeting and then the CEP  
4 meeting, both. But, yeah. Thank you very much.

5 MR. ALPAY: Just along the theme about the  
6 transportation. I mean --

7 CHAIRMAN DR. VICTOR: That mic here for John.

8 MR. ALPAY: Is it on?

9 CHAIRMAN DR. VICTOR: Yeah.

10 MR. ALPAY: Well, just a subtle point, but I  
11 mean, maybe a discussion, if it's even possible. Maybe  
12 I'm being overly optimistic about the infrastructure in  
13 place regarding transportation efforts and consolidated  
14 storage.

15 CHAIRMAN DR. VICTOR: Yes.

16 MR. ALPAY: You know, there's a rail head  
17 there. I just don't know what it is. Maybe we haven't  
18 considered that. I -- I don't know. But we've talked  
19 about the safety standards of transportation. I know  
20 the focus on that. I just want to know what kind of  
21 infrastructures there are.

22 CHAIRMAN DR. VICTOR: Okay. That, much of  
23 that information -- let's take it as an action item to  
24 get back to you and the whole CEP, what has already  
25 been done by the Department of Transportation and the

1 Department of Energy.

2           When they visited here a year or so ago, and  
3 they issued the report almost exactly a year ago, and  
4 there's some information, including photographs of the  
5 different transport options, it's still preliminary.  
6 But let's get that to you and let's figure out when we  
7 talk about consolidated storage how we talk about the  
8 transport part of this.

9           MR. ALPAY: Fair enough.

10           CHAIRMAN DR. VICTOR: You know, I have to say  
11 that I'm really concerned about the transport side of  
12 things. I'm really worried that the Department of  
13 Energy is thinking about this as "How do we get the  
14 sites in place where the spent fuel can go?" And that's  
15 important.

16           But if they don't think strategically and  
17 politically about the transport side of things, then it  
18 doesn't matter how many sites you have. You've got to  
19 have a way to get it there, so I think it's very  
20 important points.

21           Other comments, substantive comments?

22           Garry?

23           MR. BROWN: Are you asking to turn these in  
24 with the exhibitions?

25           CHAIRMAN DR. VICTOR: And then I'm going to

1 grade them and hand them back, yes.

2 Yes, if you can give them to Dan, that'd be  
3 great. Because, I think, Dan, Tim, and I need to have  
4 a process that's transparent so people see what's being  
5 discussed and then also -- also make a decision, so we  
6 can get on with things.

7 Last comment on this. Pam Patterson.

8 MS. PATTERSON: Thank you.

9 I think that we should have a cancer analysis  
10 done with respect to the types of cancer that are,  
11 basically, in concentric circles from the power plant  
12 and the percentages and the population that's impacted.  
13 I think that's really important information for the  
14 community.

15 CHAIRMAN DR. VICTOR: So I think I -- this is  
16 a very, very important topic. The epidemiology is  
17 really hard and so the National Academy of Scientists  
18 has been asked to look at this and then finally had to,  
19 basically, end up with non-answers because the  
20 epidemiology is very hard.

21 And I don't know if anybody who has been  
22 following what happened with the academy wants to talk  
23 about this. I -- I spent a little time just trying to  
24 understand why we don't have better information and I  
25 gather it's just epidemiologically very, very difficult

1 to figure out the signal inside what is otherwise a  
2 noisy environment.

3 So it's a very important point. Let me follow  
4 up and see if there's more going on related to the  
5 Academy study, but I believe that that ended because  
6 they couldn't get to firmer answers.

7 Ted Quinn.

8 MR. QUINN: I just think there's -- there's  
9 more research that's being planned and they're in the  
10 evaluation now by NRC and DOE of what funding that  
11 should go. But it's just like David said, it's at the  
12 cell level and then there's the wider things, that's  
13 not very accurate, is to do it at the regional level  
14 because of all the other sources, so at the cell level  
15 is the one that's the most important.

16 The differences between adults and children  
17 and all the effects, that's the key that's being done  
18 right now and still in -- and still in medical research  
19 because, as you know, radiation is used in medicine  
20 every day.

21 CHAIRMAN DR. VICTOR: Okay.

22 MR. QUINN: That's a good subject. Sorry.

23 CHAIRMAN DR. VICTOR: Okay. Thank you very  
24 much.

25 MS. PATTERSON: One more point, actually,

1 which I requested this back in 2003, is to have an  
2 independent third party that has the background to do  
3 the analysis to go in and -- and inspect the plant and  
4 come back and give us an independent third-party report  
5 on exactly what's going on there and what the situation  
6 is.

7 CHAIRMAN DR. VICTOR: So --

8 SECRETARY STETSON: I'll put it in our list.

9 CHAIRMAN DR. VICTOR: Our time is tight.

10 Can you just -- what will they inspect?

11 Because there is an entire Nuclear Regulatory  
12 Commission with periodic on-site inspections, no longer  
13 a permanent representative, but periodic on-site  
14 inspections --

15 MS. PATTERSON: Right, but the Nuclear --

16 CHAIRMAN DR. VICTOR: -- to other sites.

17 MS. PATTERSON: -- Regulatory Commission is  
18 not an independent third party, so we need to --

19 CHAIRMAN DR. VICTOR: So you want to create a  
20 new government agency?

21 MS. PATTERSON: -- an independent third --

22 No. Just a person that's qualified or however  
23 many you need that's qualified to do an independent  
24 inspection and come back out and give us a report as to  
25 exactly what's going on there.

1           CHAIRMAN DR. VICTOR: Okay. I'm not entirely  
2 sure what they would inspect. Because it's not a  
3 trivial matter to just go around and find something. I  
4 don't know if this issue has arisen, Tom, or if there's  
5 any comment that you want to make about this.

6           MR. PALMISANO: Well, Pam, you mentioned 2003,  
7 so I'm not familiar at all with what the request might  
8 have been then. We would have to really talk to better  
9 understand what your thinking is because the NRC is the  
10 independent regulator. And if you have an issue with  
11 what the NRC does, it's probably best we invite them to  
12 come and talk about what they do.

13          MS. PATTERSON: Well, I mean, we can do that.  
14 But I'm -- I don't find them to be independent and  
15 so -- and I'm sure -- I believe that actually a lot of  
16 people feel that way. So, I mean, basically, our  
17 health, our safety, and our children are at risk here  
18 and we are, in the end, the ones that are funding all  
19 of this, so we, as the communities that live around  
20 this power plant, have the right to get somebody that  
21 they feel confident with to go in and do an inspection  
22 and come out and report back to us as to the safety  
23 that's going.

24          CHAIRMAN DR. VICTOR: Okay. Point made. And  
25 let's follow up off-line to find out what the 2003

1 request is. My guess is that an actual complete,  
2 independent inspection of a plant like this, given its  
3 complexity, is a 200-300 million dollar enterprise.

4 So, I mean, just think about, ballpark, of how  
5 one inspect facilities like this, so if the proposal is  
6 to spend two-or three-hundred million dollars of  
7 ratepayer money to inspect a process that is already  
8 being aggressively inspected by an independent,  
9 credible government agency, that may be an excessive  
10 expenditure of public funds.

11 But let's take a look -- take a look at that  
12 off-line. We are now moving to the public. Thank you.

13 Any other comments for the CEP update?

14 We need to go to the public comment period  
15 now. Let's go to the public comment period. First is  
16 Vinod Arora and then Donna Gilmore. And is custom and  
17 written into our bylaws, each public comment is three  
18 minutes in length.

19 Vinod, the floor is yours.

20 MR. ARORA: Good evening. My name is Vinod  
21 Arora. We're all here together discussing this project  
22 because of the unit 3 fuel leak, which shut down both  
23 the reactors, and that created a wise thing by shutting  
24 down both reactors, so I have to say thanks to him.

25 Okay. Now I will come to the fuel leak, why

1 the fuel leak happened. I just recently received 6200  
2 pages of internal NRC and DOE notes on their analysis  
3 and I also found several confidential Mitsubishi  
4 reports and I also looked at some of the largest  
5 reactor designs, including Palo Verde.

6 I had the help of two Ph.D. chemical  
7 engineers, two reactor engineers, one NSSS reactor  
8 engineer, and one California mechanical engineer.

9 Based on the findings from the NRC internal  
10 notes and calculations, the consensus is that the  
11 Unit 3 had 40 million Btu's per hour more energy than  
12 Unit 2, which caused it to produce dry steam. Dry  
13 steam has never been produced in any steam generator in  
14 the world. This is the fourth time dry steam was being  
15 produced.

16 And it is attributed to an operational letter  
17 by Edison, that's why Edison is refusing to disclose  
18 the units 2 and 3 operational data. My attorneys have  
19 been talking to Edison attorneys for a year. They  
20 refused it. Tom and his lost correspondence to me,  
21 they refused to disclose the data.

22 Here's the discrepancy: In the Unit 2 and 3  
23 cause analysis, they showed both steam generators  
24 running at the same primary temperatures. Then what  
25 they did was, in the SONGS community library they

1 blocked that data. That means there is something to  
2 hide. Edison does not want people to see what they did  
3 and what caused the problem, so once they release the  
4 data, people will know what the truth is, why the plant  
5 was shut down. That's all I have to say, sir.

6 CHAIRMAN DR. VICTOR: Okay. Thank you very  
7 much for your comment.

8 Next is Donna Gilmore and then Judy Jones.

9 Donna, the floor is yours.

10 MS. GILMORE: Okay. Hi. I'd like you to  
11 remember four, four years. Okay? This is how long we  
12 have where one of those existing canisters can start  
13 leaking. I say this because the Nuclear Regulatory  
14 Commission identified a nuclear plant, the Koeberg  
15 Nuclear Plant, had a -- had a container in the same  
16 environment as San Onofre, salty, onshore, winds, fog,  
17 frequent fog, it leaked in 17 years.

18 Our canisters have been there since 2003, add  
19 17 to that, and we've got four years before one of  
20 those will leak, and Edison needs to have a plan for  
21 what they're going to do if that happens. They do not  
22 have a plan for that, and that's critical.

23 All the information I have, all what you saw  
24 up there is what -- what in the IT field we call vapor  
25 wear, is promises of future solutions.

1           If Edison had selected a thick cask, like the  
2 rest of the world uses, 10 to 20 inches thick, the NRC  
3 says that they will approve, even a brand-new cask,  
4 within 18 months. They beefed up their management. So  
5 this idea that we couldn't have -- we couldn't have a  
6 thick cask solution is -- is not true based on what  
7 Mark Lombard, from the NRC, told me.

8           Both -- AREVA makes thick casks. That's what  
9 they use in their country. They won't use the  
10 ones -- the thin ones we use. But, you know, they  
11 can't sell them here if the utility companies continue  
12 to buy inferior technology.

13           You want a container that can be inspected,  
14 repaired, and maintained continuously monitored before  
15 a leak. The thick cask already has those solutions.  
16 There is no good reason that Edison didn't choose a  
17 thick cask.

18           This is a mismanagement that the --  
19 unfortunately, the NRC allows inferior standards, so  
20 the utilities don't buy the better quality product. So  
21 we've got four years where we could potential have a  
22 through-wall crack in these containers with absolutely  
23 no solution in pay -- place.

24           To make matters worst, Edison wants to destroy  
25 the pools. The pools are the only NRC-approved method

1 to return a canister so it can be unloaded and they  
2 want to destroy that. We should not allow them to  
3 destroy that pool until they have another -- another  
4 solution.

5 And regard -- something I've learned. I met  
6 Kote -- John Kotek and Former Chairman Macfarlane when  
7 they were here for the last meeting. They did not know  
8 that these thing canisters can't even be inspected on  
9 the outside. They didn't even know that. So the  
10 info -- so this information isn't getting to the  
11 decision-makers, so we need to get the information to  
12 the decision-makers. Okay?

13 CHAIRMAN DR. VICTOR: Okay. Thank you very  
14 much for your -- for your comment.

15 THE WITNESS: Now, I have some documents and I  
16 will share with anybody here that wants more  
17 information and I'll give them to panel.

18 CHAIRMAN DR. VICTOR: That's great. Thank you  
19 very much.

20 Judy Jones and then Marni Magda.

21 MS. JONES: Yes, my name is Judy Jones. I'm  
22 from San Clemente. So glad to see you guys here. Bob  
23 and John.

24 So my biggest concern is somewhat piggybacking  
25 on what Donna said too, that we make sure that when any

1 of those storage sites are ready that our canisters can  
2 still be moved. So, whatever that takes and whatever  
3 that takes in terms of inspecting, monitoring, and  
4 repairing, you know, why did we want to go with the  
5 decision with the canisters that that is still in  
6 development. So that's my biggest concern here.

7 And I had -- had this discussion somewhat what  
8 Donna too, that I've been a person in software  
9 development and software selection for a lot of major  
10 corporations and I heard always vendors talk about what  
11 they did and what they didn't do with the software, and  
12 it always sounds really great until you know how much  
13 is vaporware and still in development, so that's what  
14 makes me reluctant to feel comfortable with what's here  
15 and I would really hope we get lots of updates on this  
16 topic in your agenda for next year.

17 Just as another note, I appreciate the update  
18 on the reef. Back in April, I believe, I attended the  
19 meeting that was a report at Ocean Institute, kind of a  
20 different crowd there, more of the environmentalist,  
21 and I did hear from someone, I think, that the Coastal  
22 Commission, they were making a proposal in the next few  
23 weeks after that to give to Southern California Edison,  
24 so it's rather disappointing to -- for me to hear this  
25 evening that Southern California Edison wants to reduce

1 the requirements instead of, you know, working on that  
2 proposal that -- that had been sent to them.

3 So that was -- but I appreciate you being here  
4 again and -- and giving us that. Thank you.

5 CHAIRMAN DR. VICTOR: Okay. Thank you very  
6 much for your comment. Marni Magda and then David  
7 Eis -- Eisenstein.

8 MS. MAGDA: Thank you very much. Marni Magda  
9 of the Sierra Club Task Force and I wanted to first  
10 ask, if I may, on topics that we -- if you're doing  
11 seismic of Scripps, I hope you will bring back in Rob  
12 Ogleby's presentation. It had some very devastating  
13 statistics ahead that would certainly make us question  
14 that the Nuclear Regulatory Commission still says that  
15 seismic problems at either San Onofre or Diablo are  
16 just small in nature. So I really think that's an  
17 important issue.

18 The other one I would hope, that we would have  
19 a workshop just as soon as the election is over and we  
20 know who the players will be in January, I would love  
21 to see us in November, have a workshop on the standard  
22 contract because if we're going to -- I have it. It's  
23 this thick -- I haven't even began to tackle it, but if  
24 we're going to have consolidated interim storage, it  
25 has to legally be approved by our federal government

1 and there are many things that we have to make sure are  
2 in there.

3 None of the laws that are in there right now  
4 are enough. We have to make sure that it -- that it  
5 protects stranded fuel of environmentally hazardous  
6 areas and areas where there are people, stranded fuel  
7 first and not oldest fuel.

8 So, with that in mind, there many, many others  
9 things in that standard contract we all need to  
10 understand, so that we can begin to work on that  
11 together.

12 For those of you who are wondering, Watchdogs,  
13 Pam Peterson, if you would go to the Nuclear Waste  
14 Technical Review Board, they are an organization that's  
15 outside, looking in, and they had a meeting August 24th  
16 and it was a very powerful 10 presentations.

17 And, yes, corrosion cracking is something even  
18 the U.S. Navy that has 10-inch thick stainless steel of  
19 the highest alloy for their canisters, because they  
20 have such a dangerous fuel in those canisters, even  
21 their representative stopped for a second and said,  
22 "Well, we don't -- in Idaho, where we have those, we  
23 don't have the ocean to worry about, but we have to  
24 continue research where corrosion cracking has the  
25 possibility with the ocean environment.

1           So I recommend all of you to go to that site.  
2       Those of you that were talking about transportation,  
3       Mike Wrangler, at the DOE, was talking about "Right now  
4       we transport this stuff across the country from  
5       Washington to Virginia. We transfer it from Illinois  
6       down to South of America and we -- the United States.  
7       We do this 18,000 shipments a year."

8           So we certainly are sending this everywhere.  
9       I'm not saying radioactive of the high-grade level we  
10      will have, but we certainly have -- we also were  
11      guaranteed that even the Navy's most power --

12           Oh, shoot. I'm out of time.

13           MR. PALMISANO: Thank you very much.

14           MS. MAGDA: So much I can --

15           MS. PETERSON: Excuse me though. Can you  
16      repeat it? Nuclear Waste Technological?

17           MS. MAGDA: It's the NWTRB, Nuclear Waste  
18      Technical Review Board.

19           CHAIRMAN DR. VICTOR: All right.

20           MS. MAGDA: And I just hope everyone stays  
21      involved.

22           CHAIRMAN DR. VICTOR: And believe we actually  
23      circulated to the CEP the link to the presentations  
24      from that meeting and Rod Ewing has been involved with  
25      that and he's running a very helpful process, along

1 with Allison Macfarlane. We will circulate that again.

2 Thank you very much, Marni Magda.

3 David Eisenstein is next and then Patricia  
4 Borchmann.

5 MR. EISENSTEIN: Hi, I'm David Eisenstein.  
6 I'm a resident of Carlsbad Village, just a few miles  
7 from here. I have a law office in Oceanside, a few  
8 miles from here. I'm a practicing attorney and have  
9 been for many years in private practice.

10 I'm also the founder of MONSTAH PAC, a  
11 grassroots political action committee. And with full  
12 disclosure, we've opposed Darrell Issa's reelection the  
13 last three cycles.

14 But one thing that I found interesting  
15 recently was, Mr. Issa was interviewed by these  
16 San Clemente Times and he was asked the question "What  
17 role do you have in getting the spent fuel out?"

18 And he answered, "I have a big role because  
19 it's the federal government who is letting you down.  
20 There are spent rods that could be moved today if we  
21 had a facility."

22 I'd like to hear more in the future about how  
23 many spent rods and how many canisters are actually in  
24 position to be moved and to hear from the federal  
25 government as to why some representative of maybe

1 Congressman Issa's office or perhaps, better yet,  
2 again, the NRC or the Department of Energy.

3 Well, we would like to have a federal  
4 representative here in Oceanside next time, that would  
5 be great, and get some answers about what they are  
6 actually doing to find us a site for these canisters.

7 It's important that we know that they're on  
8 the job, and we haven't really heard that tonight. And  
9 then I feel like we've missed something else that's  
10 very important and that is, we appreciate the plans  
11 that are in effect on behalf of the company, Edison,  
12 for safety and for making sure that this is waste  
13 that's safely deposited of.

14 But we don't hear anything -- I haven't heard  
15 anything tonight about emergency planning. Again, with  
16 respect to the federal government, what would FEMA's  
17 role be if we had an emergency that I'm sure that  
18 Edison would, at all cost, try to avoid.

19 But we have possibility, as we've discussed,  
20 of earthquake, of tsunamis, home-grown terrorist  
21 attacks, attacks from foreign government hostiles,  
22 there's a foreign government that's across the Pacific  
23 that is hostile to the United States. What happens if  
24 they attack us? And then there's human error and  
25 there's even robot error.

1           So we would like to know what are the  
2 protocols in effect for evacuation.

3           CHAIRMAN DR. VICTOR: Okay.

4           MR. EISENSTEIN: Thank you.

5           CHAIRMAN DR. VICTOR: Thank you very much for  
6 your comment. And when we get to the response period,  
7 I'll point to some things where we've started to  
8 address those topics and what we might do in the  
9 future.

10           Patricia Borchmann and then David Golman.

11           MS. BORCHMANN: I'll give you my cell phone  
12 number.

13           Hello. Thank you. My name is Patricia  
14 Borchmann. I live in Escondido, which is in San Diego  
15 County. I wanted to address the panel with the  
16 question about the material that was presented by Linda  
17 who was selected -- who was performing the CEQA review  
18 for the State Lands Commission.

19           In her presentation, it led me to ask why if  
20 the State Lands Commission has -- is requiring, you  
21 know, the CEQA review, why wasn't the Coastal  
22 Commission required to do the equivalent CEQA review?

23           And so why is it just now at this point in  
24 time being brought up as a necessity when last October  
25 the Coastal Commission already approved the permit?

1           And during the break, we had a chance to talk  
2 and she said that, basically, CEQA provisions, they  
3 have allowances for certified -- qualified, certified  
4 consultants to address what would normally be disclosed  
5 in the EIR, could be disclosed in what they consider an  
6 equivalent document, and that's what they said the  
7 Coastal Commission staff report was.

8           And I want to disagree with that because I  
9 think that there's a large question about whether or  
10 not that could be accepted as an equivalent. I don't  
11 think it could.

12           And another question is, the -- the  
13 inspections and the aging management plan, the methods  
14 that have been described with -- you know, what you  
15 expect the industry to be able to do with these robots  
16 to insert a camera robotic camera through the vent,  
17 from the descriptions that I could tell, even though  
18 that they can do a visual surface examination to try to  
19 detect if there's any indication of corrosion or  
20 irregularity, it's not going to be quantitative and  
21 nowhere do these inspections get to the depth of  
22 penetration, like how close are we to a through-wall  
23 penetration.

24           The NRC regulations allow these canisters to  
25 be penetrated by 70 percent of a 5/8th inch thick

1 penetration. And to me, this future ability to have a  
2 robot, you know, examine the surface, that's nowhere  
3 close to an equivalent of having a two -- a  
4 quantitative method to diagnose and determine what's  
5 the depth penetration of some of these through-wall.

6 CHAIRMAN DR. VICTOR: Thank you.

7 MS. BORCHMANN: Thank you.

8 CHAIRMAN DR. VICTOR: Thank you very much for  
9 your -- for your comment.

10 David Golman and then Carlos Meneses.

11 DR. GOLMAN: My name is Dr. David Golman. I'm  
12 a resident of Encinitas. First question will be for  
13 Tom Palmisano, it would be: How long is SC -- SCE  
14 planning for the on-site San Onofre storage of the  
15 Holtec casks? 10 years? 15 years? 20 years? You  
16 must have a number where you want them gone by.

17 And then how does that square with the  
18 uncertain life span of the Holtec casks? Because  
19 there's not a hard number that I've seen in print and  
20 in consideration that these will be containing the  
21 high -- the high burn-up spent fuel, the corrosive CR  
22 and the concrete vault design.

23 Question for Glenn Pascall. As a Sierra Club  
24 representative, you're the man or you're the person who  
25 represents the strongest environmental committee

1 here -- organization here.

2 In '07, 2007, the International Commission on  
3 Radiological Protection issued a number of guidelines,  
4 which tightened exposure, meaning less exposure, no  
5 exposure is good exposure. So the less exposure is  
6 better.

7 Since that time, the EPA, the DOE, and the  
8 NRC, you know, keeping in mind these are all  
9 independent regulatory bodies, they don't necessarily,  
10 you know, work together, but they've come out with a  
11 number of regulations which are chipping away at  
12 nuclear -- at citizen nuclear exposure, radiological  
13 exposure.

14 Case in point, recently the EPA and the water  
15 toxicity, if there is any contamination, it's okay now  
16 for anyone in that environment to have their water  
17 equivalent to 250 chest X-rays a year every year.

18 The other issue was, the NRC and the DOE  
19 canceling the National Academy of Sciences, a study  
20 that was -- cancelled the 11th hour in September of  
21 '15, and I don't believe it was because of anything  
22 other than what they claim was a budget shortfall,  
23 which is a pretty weak statement considering how  
24 critical we need that epidemiological data.

25 And for Linda Anatob -- okay. Linda. Tom

1 talked about being -- SCE being active on site until  
2 it's all done, and does that include, to use the term,  
3 until removed from site? I presume that's not just the  
4 radiological waste, that's also jackhammering out the  
5 huge concrete vault if and when these casks get to be  
6 removed, I presume.

7 And then, also, is there any likelihood that  
8 the SLC or the Coastal Commission may actually stop or  
9 slow the process for cause or concern going forward?

10 David Victor, my comments for you would be for  
11 the agenda, yes, emergency preparedness and evacuation,  
12 I think that is what is on the mind of the citizens  
13 and, also, it would be very nice if at the beginning of  
14 your meeting you would ask if there are any  
15 representatives of an elective federal officials in the  
16 audience just so we know who is coming to our meetings  
17 and who is listening.

18 CHAIRMAN DR. VICTOR: Okay. Thank you very  
19 much for your comment -- comments.

20 Carlos Meneses. Am I pronouncing your last  
21 name correctly?

22 MR. MENESES: Yes, it is correct. Thank you.

23 Yeah, we -- in the decommission of San Onofre  
24 nuclear generating station, we -- finally we're  
25 touching the topics that were not mentioned. And I

1 will stress it a little more, about any potential  
2 threat from any terrorism because in any major  
3 important events that we have, that's when they usually  
4 attack. And we cannot lower our defense.

5 Now, my recommendation would be -- because we  
6 have seen it before.

7 Like, FEMA, how promptly are they going to --  
8 going to respond? Do we know this? Like, do you have  
9 a liaison already in mind? Same for the other  
10 authorities, other agencies, the Navy, the U.S. Coast  
11 Guards, we know that they used to patrol time ago on  
12 this area of San Onofre, but not anymore.

13 I mean, in spite of our President Obama  
14 mentioning about terrorism, we -- we do not see these  
15 safety concerns as I would like them to be seen.

16 My -- my suggestion would be, because we've --  
17 we've seen the reaction from the red tape 911, how  
18 promptly did they respond? They hit us and we didn't  
19 see it coming. They took their time because they did  
20 not how to respond quickly.

21 Benghazi: The same situation with the  
22 embassy. For whatever reason, we've seen that the  
23 response is not immediate.

24 So my suggestion would be: Reconnect, find a  
25 great liaison through all these agencies that can give

1 you support now. And God forbid, if it ever happens.

2 Thank you.

3 CHAIRMAN DR. VICTOR: Thank you very much.

4 So there's been a large number of very  
5 important comments and we have sometime before we end  
6 at 8:30 to get some answers to the questions that are  
7 posed, there's questions that could be answered, and  
8 then there are also a number of comments that are  
9 comments and we're taking close note of those.

10 So, maybe I'll ask Dan Stetson and Glenn --  
11 Glenn Pascall to start allocating the questions for  
12 responses.

13 SECRETARY STETSON: Well, first of all, thank  
14 you.

15 And thank you for those comments about  
16 suggestions for the agenda for next year, certainly  
17 very important to us, and we'll gather all of those.  
18 And if there's more coming, we're certainly anxious to  
19 receive those so we can start working on the agendas  
20 for next year.

21 Tom, early on there was a question about the  
22 release for operational data for Units 2 and 3.

23 Could you please tell us what data might be  
24 available and how that might be reviewed?

25 MR. PALMISANO: So, you know, our focus here

1 decommissioning, not steam generator issues. So, quite  
2 frankly, I'm not going to address steam generator  
3 issues other than to say all the data has been provided  
4 to the NRC. They've done their investigative work.  
5 They've closed the matter and it's all public record.

6 SECRETARY STETSON: So then you could -- one  
7 could go to the NRC and --

8 MR. PALMISANO: Correct. Correct. Yeah.

9 SECRETARY STETSON: Thank you.

10 MR. ARORA: The NRC has told me that they --  
11 (Unintelligible.)

12 CHAIRMAN DR. VICTOR: Please. Please.  
13 Please. Vinod, please.

14 MR. ARORA: No, I'm just -- the question and  
15 Edison says no.

16 CHAIRMAN DR. VICTOR: Please.

17 MR. ARORA: Edison says no.

18 CHAIRMAN DR. VICTOR: Vinod, please.  
19 Dan.

20 MR. ARORA: It's the facts of the record.

21 MR. PASCALL: A question for David Victor: On  
22 federal law and the so-called standard contract where  
23 each decommissioned plant has a relationship with the  
24 federal government regarding eventual disposition of  
25 waste, and at the last meeting came out very clearly

1 that San Onofre doesn't have any particular standing in  
2 that process right now. These are the other factors.

3 David, how do you see the policy and political  
4 road map for those of us concerned about San Onofre to  
5 get ourselves on the radar screen on this issue?

6 CHAIRMAN DR. VICTOR: So -- so I think Marni's  
7 comment there is -- points to the next level of work  
8 one has to do in this process. My own view has been,  
9 it's still too early because the legislative stars are  
10 not close -- even close to aligning for actual changes  
11 in law.

12 This is one of the reasons I've had some  
13 comments about Darrell Issa's office and so on, it's  
14 one of the reasons why I view an important role of this  
15 panel is to have good relations with all relevant  
16 legislators in this area because we don't know who's  
17 going to be in power. We don't know what they're going  
18 to do, what legislation they're going to cosponsor.

19 We have a meeting in a couple of weeks with  
20 several members of this panel to -- to try and figure  
21 out what a DC strategy might look like after the  
22 election and I think we should put on the agenda for  
23 the next meeting that we have about consolidated  
24 storage. When and how do we start looking closely at  
25 getting higher enough priority in the other elements of

1 the standard contract about liability. So this is a  
2 very, very important point.

3 SECRETARY STETSON: This is a question that  
4 was submitted in writing to me so I'll go ahead and  
5 read it. It's either for Linda or for Tom and there's  
6 a couple of parts to it: If there is a failure of the  
7 canisters, who is liable, number one, for the repair  
8 cost? Two, if there is any damage to the property or  
9 personal injury caused by potential radioactive leak?  
10 And then, if SCE is responsible, is it paid for by the  
11 ratepayers, number one, or the bond holders and/or the  
12 shareholders?

13 MR. PALMISANO: Complicated question, and I  
14 don't know that I have all the answers. But  
15 fundamentally, Edison is responsible. So if there is a  
16 problem with the canister or there's an issue that a  
17 canister causes Edison is principally responsible.

18 SECRETARY STETSON: Question for Tom --

19 MR. PALMISANO: So to the remainder --

20 SECRETARY STETSON: Oh, pardon me. I don't  
21 want to interrupt.

22 MR. PALMISANO: -- questions, Dan.

23 SECRETARY STETSON: Go ahead.

24 MR. PALMISANO: I would have to take that off  
25 line and consult with our financial and legal people.

1 I cannot answer that off the top of my head.

2 SECRETARY STETSON: Okay. That'd be great.

3 Maybe next -- at the next meeting.

4 MR. PALMISANO: Right.

5 SECRETARY STETSON: We -- or --

6 MR. PALMISANO: Yeah, so just give us that in  
7 writing. We'll go research that. Okay.

8 MR. PASCALL: Another question for Tom, that  
9 he can probably answer from memory, because he's  
10 presented this to us many times. One of the public  
11 comments was, "How soon could you move spent fuel if  
12 you had a place to -- to send it?"

13 MR. PALMISANO: So that was a comment  
14 mentioned. In one of the previous meetings, you may  
15 not have been at, we had a much more detailed chart to  
16 take virtually all 50 existing canisters. We have some  
17 canisters that can be shipped today.

18 I have the detail on the SONGS website. What  
19 I showed you in that high-level bar graph there's 33  
20 canisters that'll all be transportable some today and  
21 all by, I think, 2020, the 73 new canisters all by  
22 2020, and the 17 Unit 1 canisters run out to about  
23 2030. But we've got for virtually ever canister a date  
24 it's eligible to ship. So we have that data and we've  
25 shared that data.

1           SECRETARY STETSON: And here's another couple  
2 part question: First, probably for you, Linda, with  
3 the State Lands, they're going through a whole  
4 environmental impact study, but apparently the Coastal  
5 Commission did not require the same process.

6           Could you make any comments on why that was  
7 so?

8           MS. ANABTAWI: Yeah, that's actually a really  
9 good question that I think a lot of people have had,  
10 but let me clarify. I'm actually employed by Southern  
11 California Edison, not the State Lands Commission, so I  
12 just wanted to address that point that Patricia made.

13           But as to her question, so I think what most  
14 people may not be aware of is that the Coastal  
15 Commission along with other agencies, including the Air  
16 Resources Board and the Water Board are authorized as  
17 certified regulatory programs.

18           What that means is that they are exempt from  
19 certain CEQA requirements such as the requirement to  
20 prepare an EIR, but they have what the state has  
21 approved as functional equivalence.

22           So the Coastal Commission, for example, their  
23 functionally equivalent program is the Coastal Act.

24           SECRETARY STETSON: Oh.

25           MS. ANABTAWI: So they still comply with CEQA.

1 They -- like every other agency in the state, it's  
2 required to comply with CEQA any time they make a  
3 discretionary decision. But the way they comply with  
4 CEQA is different than the traditional route, which  
5 would be preparation of an EIR.

6 So, what the Coastal Commission does is, it  
7 does its analysis based on the Coastal Act and that  
8 analysis is documented in a staff report, which is  
9 their environmental document, and they still remain  
10 subject to certain CEQA requirements otherwise.

11 So I think there's a misconception that there  
12 was no CEQA review done of the ISFSI, but there was, in  
13 fact, a CEQA compliant process that took place at the  
14 Coastal Commission.

15 SECRETARY STETSON: Okay. Great. And maybe  
16 I'll just follow up with Patricia's other question.  
17 And, Tom, this is more for you. With reference for the  
18 inspection part of it and her question was, it had to  
19 deal with, "Well, we know that we're looking at it  
20 visually."

21 But you had actually started to --

22 MR. PALMISANO: Yeah.

23 SECRETARY STETSON: -- talk about some of the  
24 other ways that is inspected.

25 MR. PALMISANO: And because -- it will be

1 inspected. Because my time was shortened because we  
2 had run over earlier in the meeting. When I talked  
3 about the robotic tools, the first thing we're doing is  
4 the visual with cameras attached to the robot.

5 If you remember, on the slides I had the  
6 letters NDE, Non-Destructive Evaluation. We talked  
7 about Eddy current testing, in that is some ultrasonic  
8 testing. Those testings are mechanisms or more  
9 quantitative, designed to characterize a potential  
10 crack, including size or measure the depth.

11 So that is in a development. The first thing  
12 we're doing is developing the visual material equipment  
13 first. We use these techniques on other systems in the  
14 power plant and we have for years, so it's a matter of  
15 adapting the tooling to the canister system. So that  
16 is coming. That is coming.

17 MR. PASCALL: Question for David: Two of the  
18 public commentators noted emergency planning for  
19 earthquake, tsunami, domestic and foreign terrorist,  
20 human error and robotic error, which the list is --

21 CHAIRMAN DR. VICTOR: Yeah.

22 MR. PASCALL: -- is growing, and that was a  
23 major focus a long time ago for us here at the CEP.

24 And the question for David would be: What  
25 aspects of that do you think we adequately addressed

1 and which ones need to be revisited and, possibly, in  
2 greater depth?

3 CHAIRMAN DR. VICTOR: So I think the CEP a  
4 year and a half ago, roughly, did a big session.

5 MR. PASCALL: Right.

6 CHAIRMAN DR. VICTOR: I think even workshops  
7 on the emergency plan and there was a lot of follow up  
8 because there were a lot of implications of the  
9 emergency plan and the shrinking of the emergency plan  
10 for local first responders. There's just been periodic  
11 updates since then.

12 I think we should put the question of whether  
13 there is something new to do and say about the  
14 emergency plan and emergency preparedness more  
15 generally on the candidate list of topics and then  
16 let's talk with Edison and others and find out if  
17 there's, in fact, something new to do.

18 But meanwhile, let's -- let's point -- I  
19 forget exactly who asked that question. But let's  
20 point them to that actual meeting of the CEP because  
21 there was a tremendous amount of information on exactly  
22 that topic.

23 SECRETARY STETSON: Tom, there was a question,  
24 I know we've talked about it in some of our previous  
25 meetings about the life expectancy of the Holtec

1 canisters and how long we might expect them to be on  
2 site.

3 MR. PALMISANO: Yeah. So, first, our  
4 assumption for how long they're going to be site and  
5 this is always an assumption because several speakers  
6 have noted we're dependant on the federal government to  
7 take action at this point or hopefully to support  
8 private initiatives.

9 Our current assumption is spent fuel will be  
10 on site until 2049. Okay? So with the current  
11 Department of Energy plans and, quite frankly, it's an  
12 assumption, okay, it'll be there until 2049 until all  
13 the canisters are removed from the site and then the  
14 ISFSI, the dry fuel structure will then be demolished  
15 and decommissioned.

16 The canisters, the Holtec system has a 60-year  
17 design life. Okay? The -- it's licensed in 20-year  
18 increments, the AREVA system has similar design  
19 license. It has to be re-licensed. So, the key here  
20 is, it's got to be re-licensed, inspected, and it's got  
21 to be obviously maintained to last that long.

22 So that -- that's on open issue in the  
23 industry, to ensure that these canisters are viable and  
24 in service and properly monitored until they're removed  
25 from site, whether interim storage or permanent

1 repository.

2           So this is one. We're going to be talking  
3 about this regularly through the course of the next  
4 couple of years. I think we need to probably come back  
5 to it with a more specific discussion.

6           MR. PASCALL: Tom, there's a related question  
7 here for you and Linda, if she wishes to: Is there  
8 specific environmental disruption concern when casks  
9 are removed from the ISFSI? Does that event create any  
10 particular environmental challenges in itself?

11           MR. PALMISANO: Was the question, when a  
12 canister is removed for the shipping or --

13           MR. PASCALL: A canister. Pardon me. Yeah.

14           MR. PALMISANO: So, you know, the removal of  
15 the canister to, you know, to package it for shipping  
16 and transport it off site is not an environmental  
17 disruption. The system is designed for that.

18           I thought the question I heard posed was more  
19 when all the fuel is gone and we actually demolish the  
20 ISFSI structure, that's --

21           CHAIRMAN DR. VICTOR: Who is responsible for  
22 that?

23           MR. PALMISANO: -- that certainly will be  
24 subject to environmental reviews.

25           MR. PASCALL: Right. Right.

1 MR. PALMISANO: Yeah.

2 MR. PASCALL: And I gather that the demolition  
3 of structures is less sensitive than dealing with the  
4 spent fuel. So do you want to comment on the degree of  
5 radioactivity in the existing structure and the ISFSI  
6 as it's being vacated?

7 MR. PALMISANO: When you say the existing  
8 structure, are you talking about the power plant  
9 structure?

10 MR. PASCALL: Yes. Yes.

11 MR. PALMISANO: So the power plant, although  
12 the reactors have been defueled, there are components  
13 in the buildings that are still radioactive. They are  
14 not highly radioactive like spent fuel, but they're  
15 still radioactive.

16 So the plan will be, in the decommissioning  
17 process, will be, decontaminated, the radiological  
18 material will be removed, properly packaged, shipped  
19 off site. It's considered low-level waste. And then  
20 the structures will be demolished.

21 So that's subject first to the NRC's NEPA  
22 review for decommissioning, which has drawn its  
23 conclusions, and then, obviously, the CEQA review, that  
24 Linda talked about, looking at the decommissioning  
25 project itself.

1           With the ISFSI, once all the fuel is removed,  
2           the high-level radioactivity is gone, then your  
3           demolishing a structure will be have -- have to be  
4           properly surveyed to identify any remaining residual  
5           radioactivity, properly decontaminated, if there is  
6           any, and demolished.

7           CHAIRMAN DR. VICTOR: We should -- we have  
8           just a couple of more minutes, so --

9           MR. PASCALL: Could I answer the question that  
10          was put to Glenn Pascall of the Sierra Club?

11          CHAIRMAN DR. VICTOR: If you can do it  
12          briefly.

13          MR. PASCALL: I sure can.

14          It was about the decline of rigor in  
15          environmental standards and a couple of examples were  
16          given. We are constantly watching this and I'll give  
17          you two local examples: The South Coast Air Quality  
18          Management District, the Board Changed Philosophically.  
19          We are very concerned that essentially they've become  
20          more lenient about contributions to air pollution. We  
21          definitely have not prevailed in that situation and  
22          it's of great concern and we've been outspoken.

23          With the California Coastal Commission, the  
24          same concern arose when they got rid of a progressive  
25          executive director, their recent decision on the

1 Banning Ranch shows they are sensitive to the  
2 perception that they are no longer guardians of the  
3 environment. So this is an ongoing struggle and the  
4 situation is different with every agency.

5 CHAIRMAN DR. VICTOR: Thank you. Dan?

6 SECRETARY STETSON: No.

7 CHAIRMAN DR. VICTOR: I just want to just pick  
8 up on a couple of other items. First, when we get to  
9 the seismic presentation, somebody suggested that we  
10 refresh ourselves with Rob -- Rob Ogleby's presentation  
11 on some of the seismic risks.

12 Let's be sure to share that with the folks  
13 from Scripps when they make their presentation so we  
14 can get their views on the larger -- on the larger  
15 picture.

16 And a couple of comments about vaporware, and  
17 it's one of my favorite words in the English language,  
18 if it is now a word in the English language:

19 I think one of the reasons why we need to  
20 do -- we need to regularly look at what  
21 Defense-in-Depth means in practice, is that this hinges  
22 on some technologies that have not been developed and  
23 some practices that have not been developed.

24 And we need to make sure we understand that  
25 this is not vaporware, that this is actually happening,

1 and the robots are actually, you know, doing what the  
2 robots do and seeing what they're supposed to see and  
3 so on.

4 And that's been done in other parts of the  
5 industry extensively and it needs to be done here and I  
6 think we need -- I think we have the beginnings of  
7 confidence that that's actually happening as we saw in  
8 Tom's presentation tonight, but constant vigilance.

9 I just had a couple of action items maybe for  
10 Donna Gilmore, if she wouldn't mind them. You  
11 mentioned four years left before potential cracking  
12 event, referencing that lifetime of, I believe, the  
13 Koeberg cooling water tank in South Africa, and maybe  
14 you could send me -- if you could just send me a short  
15 email with how the calculation gets made because I  
16 think we need to make sure that there are comparables  
17 and that Koeberg, in fact, is the right comparable.

18 And I heard this number now many times, and  
19 one of the things I learned in the current election  
20 campaign is that repeating something many times,  
21 doesn't make it true, but it makes it more visible.

22 And I want to understand the number and I want  
23 to understand where the numbers are coming from and how  
24 the comparables are calculated and then I'll get back  
25 to you with some help from the Edison people because I

1 think this has now been in the press and people are  
2 talking about this. I want to really understand it.

3 MS. GILMORE: It's in -- it's in the NRC  
4 document. I'll provide it to you.

5 CHAIRMAN DR. VICTOR: If you could do that,  
6 that would be -- that would be great.

7 And the other thing is that you mentioned, in  
8 passing, that senior people in the government were  
9 unaware of vitally important things. If you could send  
10 me a short note of what you think they were unaware of.

11 John Kotek and Allison Macfarlane, who were  
12 speakers at our last meeting, John Kotek is the most  
13 senior federal government official responsible for this  
14 topic and Allison Macfarlane is recently the chairwoman  
15 of the Nuclear Regulatory Commission. It's hard to  
16 imagine two people better informed or more sympathetic  
17 to the wide range of interest necessary to make this  
18 process work properly.

19 MS. GILMORE: I spoke to her in the bathroom  
20 after her presentation.

21 CHAIRMAN DR. VICTOR: If you could -- if you  
22 could just send me a note, saying what you think the  
23 failure is here, I'd like to share it with John and  
24 Allison.

25 MS. GILMORE: I will email you and --

1           CHAIRMAN DR. VICTOR: Because our  
2 relationship -- this panel's -- this panel's  
3 relationship with the people who are actually getting  
4 things done in Washington is vitally important to our  
5 effectiveness, and so I want to understand what's being  
6 said and not being said and not known so that we can  
7 really, you know, focus on the constructive things, so  
8 that'd be great.

9           Any other comments that we need to address?  
10 Let me ask members of the CEP if there are another  
11 comments they want to raise. That'd be great.

12          MR. QUINN: Can I just say?

13          CHAIRMAN DR. VICTOR: Ted Quinn.

14          MR. QUINN: I recommend to everyone that you  
15 read the -- just published today, the Consent Based  
16 Siting Report from Department of Energy on their  
17 website, comprising the over 10,000 pages of comments  
18 received from large and small in the 31 meetings held.

19          CHAIRMAN DR. VICTOR: Okay. And that link to  
20 that report as well as the public comment option is in  
21 the email circular that we sent to the CEP, which is  
22 now also on [SONGS.community.com](http://SONGS.community.com)

23                 It's not a short document, so the world's  
24 trees are trembling at the arrival of this document,  
25 but it is a very important part of the process.

1           Great. Thank you all for spending time the  
2 time with us and for everyone's constructive approach  
3 to this. Thank you.

4           (CEP meeting adjourned at 8:32 p.m.)

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