



800-843-7348 - **SOUSA.COM** - 877-843-8443

# **Community Engagement Panel Public Meeting**

## **Transcript of Proceedings**

**Date: 10/09/2014**

**Job #: 594353**

Court Reporting – Videoconferencing – Trial Presentation – Nationwide Networking

**Calabasas - Hermosa Beach - Santa Ana - Riverside - San Diego - Las Vegas**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

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

TRANSCRIPT OF PROCEEDINGS  
SAN JUAN CAPISTRANO, CALIFORNIA  
THURSDAY, OCTOBER 9, 2014

Reported by:  
CARLOS R. HICHO  
CSR No. 13111  
Job No. 594353

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

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

Transcript of proceedings, taken at  
25925 Camino Del Avion, San Juan  
Capistrano, California 92675, commencing at  
the hour of 6:08 P.M., THURSDAY, OCTOBER 9,  
2014, before CARLOS R. HICHO,  
CSR No. 13111.

1 PANEL APPEARANCES:

2 CEP MEMBERS:

3 DAVID G. VICTOR, CHAIRMAN  
4 MAYOR TIM BROWN, VICE CHAIRMAN  
5 DAN STETSON, SECRETARY

6 EDWARD "TED" QUINN  
7 AMERICAN NUCLEAR SOCIETY, SAN DIEGO  
8 CHAPTER

9 PRESIDENT JOHN ALPAY  
10 CAPISTRANO UNIFIED SCHOOL DISTRICT BOARD  
11 OF TRUSTEES

12 LARRY RANNALS  
13 CAMP PENDLETON

14 VALENTINE "VAL" MACEDO  
15 LABORERS INTERNATIONAL UNION OF NORTH  
16 AMERICA LOCAL 89

17 JEROME M. "JERRY" KERN  
18 OCEANSIDE CITY COUNCIL MEMBER

19 GARRY BROWN  
20 ORANGE COUNTY COASTKEEPER

21 DONNA BOSTON  
22 ORANGE COUNTY SHERIFF'S DEPARTMENT

23 GENE STONE  
24 RESIDENTS ORGANIZED FOR A SAFE  
25 ENVIRONMENT

JIM LEACH  
SOUTH ORANGE COUNTY ECONOMIC COALITION

DR. WILLIAM PARKER  
UNIVERSITY OF CALIFORNIA, IRVINE

MAYOR PRO TERM LARRY KRAMER  
SAN JUAN CAPISTRANO

1 THURSDAY, OCTOBER 9, 2014

2 SAN JUAN CAPISTRANO, CALIFORNIA

3 6:08 P.M.

4 \* \* \*

5

6 CHAIRMAN VICTOR: Great. Thank you very much.

7 Welcome to the regular meeting of the San Onofre  
8 Community Engagement Panel. My name is David Victor,  
9 chairman of the panel, and Dan Stetson, sitting next to  
10 me, Secretary, and Tim Brown, the vice-chairman, and  
11 most of the members of the Community Engagement Panel  
12 here -- here tonight today.

13 I want to thank all of you for spending your  
14 evening with us and all of you at home, who are  
15 watching. This meeting today is about emergency  
16 planning and about the processes around emergency  
17 planning and, in particular, on the substance of what  
18 to expect with the plant.

19 And on that theme, let me just remind you if  
20 an emergency occurs in this room, the exits are over  
21 here, marked "exit," or through the door that you came  
22 in there (indicating).

23 I want to remind everybody that the Community  
24 Engagement Panel, by design, is not a decision-making  
25 body, it is designed to open a conduit both directions

1 between the communities that are affected by the  
2 San Onofre plant and the co-owners, in particular,  
3 Edison, which operates the plant and, back in the other  
4 direction, between Edison and the other co-owners and  
5 the communities that are affected by the plant, so we  
6 have a two-way flow of information.

7           And so the purposes of these meetings include  
8 hearing from Edison and other critical folks, including  
9 on a regulatory community, about what's happening at  
10 the plant and could be happening at the plant and  
11 hearing from you about what you're interested in, what  
12 you're worried about, what you'd like to know more  
13 information about, and we will be responsive to that.

14           Let me just remind you that --  
15 SONGScommunity.com is up and running and I believe  
16 we've just been through an overhaul to make it even  
17 easier to get information from that -- from that site.

18           And you can sign up there for the next walking  
19 tour of the San Onofre facility, which is on Saturday  
20 the 18th of October. Materials from this meeting and  
21 every meeting, including all background materials,  
22 everything that's sent from -- that's sent to the  
23 members of the CEP is up on that site, along with  
24 eventually transcripts from meetings like this and this  
25 meeting and all prior meetings have been live-streamed

1 on that site, as well.

2 I would like to acknowledge several guests  
3 that are with us tonight, two from the Nuclear  
4 Regulatory Commission; Joe Anderson, who is sitting  
5 down here at the end of the table, from the NRC Office  
6 of Nuclear Security and Incident Response and he's  
7 going to -- we're going to hear a little more from Joe  
8 later about the NRC process surrounding emergency  
9 planning;

10 And Mary Woollen, who is not here right now,  
11 but she will be back here. Mary is policy advisor for  
12 external engagement to the chairperson of the Nuclear  
13 Regulatory Commission, Allison Macfarlane, and I know  
14 Allison and Mary have been very keen to learn more  
15 about what we're doing here in San Onofre, concerning  
16 community engagement and we've spent some time with her  
17 this afternoon. She visited the plant earlier today.

18 And a third guest I'd like to acknowledge is  
19 Jeremy Kirchner, who is -- there's Jeremy. He's down  
20 next to Joe. He is chairman of the San Onofre  
21 Inter-jurisdictional Planning Committee and we'll hear  
22 more from Jeremy about emergency preparedness later in  
23 tonight's program.

24 Let me remind the members of the public that  
25 if you would like to make a comment, we have a public

1 comment period, as is the norm, at all of our regular  
2 meetings, that you please sign up for that and the  
3 first people to sign up are the first people to ask  
4 questions and we will get through as much of the list  
5 as possible.

6 In all prior meetings we've -- we've been able  
7 just to get through the entire list. And so, please,  
8 do sign up if you would like to tell us something  
9 that's on your mind or ask questions and -- and so on.

10 When panel members speak tonight, please do  
11 identify yourselves so the live-stream captures that  
12 information, makes it easier for the transcript, as  
13 well. I have a couple of announcements, then I want to  
14 pause for moment and see if any other members of the  
15 panel have announcements.

16 And in particular, I'd like to announce that  
17 we have a special meeting next week on the 14th of  
18 October at ten o'clock to 12:30 in this same room.

19 And the meeting is with -- is that correct?

20 Okay. And the meeting is with the two cask  
21 vendors, who are competing currently for the contract  
22 to supply the casks. We're not going to ask them about  
23 the competition, we are instead going to ask them  
24 questions about what long-term aging management  
25 defense-in-depth means for their different technologies

1 that they're working on. We had a group of CEP members  
2 working intensely on this issue over the last several  
3 months.

4 Now, this is an area where the CEP has already  
5 had a very, very large impact on how Edison has been  
6 thinking about these issues, the amount of information  
7 that Edison and the cask vendors have about what the  
8 community cares about here, and you will see a lot more  
9 impact in the coming months as we try to articulate  
10 what long-term aging management strategy really look  
11 like and what we, in the community, need to expect,  
12 look for, and ask for.

13 Let me pause for just a moment and see if  
14 there are any other announcements directly relevant to  
15 our -- to our materials from other members of the  
16 Community Engagement Panel.

17 (Brief pause.)

18 CHAIRMAN VICTOR: Okay. Great. Thank you very  
19 much. Let me go now to Chris Thompson, who is going to  
20 remind us of the decommissioning principles, which  
21 animate this panel, and then I'll turn the floor over  
22 to Tom Palmisano. Chris?

23 MR. THOMPSON: Thank you, David. Good evening.  
24 I'd like to open this meeting by reminding everybody of  
25 the three core principles at Southern California Edison

1 and the co-owners of the San Onofre facility are guided  
2 by through this decommissioning process through safety,  
3 stewardship, and engagement.

4 I think, at least two of those principles are  
5 inviting the subject matter of tonight's meeting are  
6 emergency planning, safety and engagement. This  
7 Community Engagement Panel is one of the main --

8 MR. QUINN: Chris, I don't think folks in the back  
9 can hear you very well.

10 MR. THOMPSON: Okay.

11 MR. QUINN: Can you folks hear?

12 COMMUNITY MEMBER: Bring it up a tad bit.

13 MR. THOMPSON: Thank you.

14 MR. QUINN: There we go.

15 MR. THOMPSON: I was just saying that tonight --  
16 the subject of tonight's meeting is -- reflects, at  
17 least, two of our core principles: Safety and  
18 engagement. The subject being our emergency planning  
19 procedures going forward as a defuel and  
20 decommissioning plan, and the Community Engagement  
21 Panel is one of our main conduits for engaging with the  
22 communities and the public, at large. It is -- as  
23 David mentioned, it's intended to be a two-way flow of  
24 information.

25 So I look forward to sharing with you what our

1 plans are and hearing the comments from the people in  
2 attendance and anyone who submits comments on  
3 SONGScommunity.com.

4 CHAIRMAN VICTOR: Great. Thank you very much. You  
5 know, we've had a grand total of one question submitted  
6 on SONGScommunity.com and I would love to answer a  
7 question via that site. So, please ask a question  
8 because we want to get that up and running properly.

9 I will, as it has been the practice in the  
10 past, call out action items and areas for additional  
11 information as they come up during the course of  
12 tonight's meeting so we can make sure we capture items  
13 where the CEP and where Edison can be responsive to the  
14 questions that arise.

15 Next on our agenda is, we have a brief segment  
16 to get an update on the San Onofre permanently defueled  
17 emergency plan from Tom Palmisano, Chief of Nuclear  
18 Operation at Edison. Tom, the floor is yours.

19 MR. PALMISANO: Okay. Mic? Thank you. Let's see  
20 if this will -- the slide. There we go. Excuse me.

21 Good evening. Tonight's discussion is about  
22 the defueled emergency plan. As a backdrop, San Onofre  
23 currently is utilizing the operating plan emergency  
24 plan, which is designed for a full-scale emergency with  
25 an operating reactor.

1           Both reactors were defueled in 2012 and 2013  
2           and we certified they're permanently defueled. So,  
3           many elements of the plan that we are under today are  
4           no longer applicable.

5           In order to change the plan and design and  
6           propose a plan that's more appropriate to a defueled  
7           decommissioning facility, which is basically the spent  
8           fuel pool and some related systems, we had to prepare a  
9           plan, which took most of 2013 into early 2014 and, most  
10          importantly, we have to submit the plan for review and  
11          approval by the NRC, so we submitted the plan on  
12          March 31st of 2014.

13          This was actually a complicated submittal.  
14          There were actually two license amendment requests:

15                 One that changes the plan, one that changes  
16                 what's called "emergency action levels," which are the  
17                 trigger points in the plan, and the third set of  
18                 exemptions from the emergency planning requirements.

19          Joe Anderson, in a few minutes, is going to  
20          talk about the NRC structure and regulation, but  
21          today's NRC regulations are designed and written for  
22          operating plants without a specific allowance for  
23          decommissioning plants, so the exemption process is a  
24          necessary part of the regulatory protocol to have our  
25          plan approved.

1           Again, we're under the operating plan today.  
2           It's typically a "12 to 18 month" time frame for the  
3           NRC to approve a defueled emergency plan, so we're in the  
4           middle of that time frame.

5           The approval will be in a couple of stages.  
6           We're currently in the review process with the NRC  
7           responding to what are called "Request for Additional  
8           Information," questions the NRC has of us that they  
9           formalize, put in writing, that we respond to.

10           We're about a third of the way responding to  
11           those and, by the end of the month, we will have sent  
12           in all the initial responses for review.

13           And then the bottom bullet, estimated  
14           approval, March 2015, that's simply a year after we  
15           submitted, so somewhere March 2015 or shortly  
16           thereafter I would expect the plan to be approved.

17           The exemption requests are handled somewhat  
18           separately and Joe will explain this, I'm sure. They  
19           go to the Commission and they may go as early as  
20           mid-December, but I cannot implement those until I have  
21           the entire approval package in the spring of 2015.

22           So I just want to open tonight's session,  
23           giving you a status of where we are: We are under the  
24           operating plant emergency plan today, we proposed the  
25           defueled plan, which is in the middle of the NRC's review

1 and approval process, so this is a very timely session.

2 Later I'll talk in a little more detail about  
3 the plant, so at this point I have a key hand-off to  
4 give the --

5 CHAIRMAN VICTOR: Great. Thank you very much, Tom.

6 So we're going to hear now from Joe Anderson  
7 of the Nuclear Regulatory Commission. You'll hear a  
8 little bit later this evening about what's actually  
9 going on with the emergency plan at San Onofre and with  
10 some of the inter-jurisdictional issues of working with  
11 different groups that are relevant to this plan.

12 I think it's very important that we understand  
13 the role of the NRC in all of this and, in  
14 particularly, the exemption process of the NRC because  
15 it's a little complicated initially, but it's crucial  
16 to understand the NRC's role in this and I'm enormously  
17 grateful of Joe for you coming out and spending  
18 sometime with us.

19 So, Joe, the floor is yours.

20 MR. ANDERSON: Thank you. Good evening and thank  
21 you for the opportunity to speak this evening. Again,  
22 my name is Joe Anderson. I'm the chief for the  
23 Operating Reactor Licensing and Outreach Branch.

24 And I have had the opportunity to be at the  
25 SONGS site and at a number of the Inter-jurisdictional

1 Planning Committee meetings and I'm going to say that  
2 has served as a model on how to engage the various  
3 local emergency response and safe response agencies and  
4 it has been something that we have, at least, shown as  
5 an example for other sites to emulate as far as  
6 effectively communicating with our local responders.

7 And I'm pleased to see a panel like this where  
8 it shows, again, the continued engagement not only the  
9 local and state officials, but also of the community.

10 A lot of what we do at the NRC besides process  
11 regulations is outreach, trying to explain what our  
12 processes are and why we do what we do, which is a  
13 primary of why I'm here tonight, and the forums like  
14 this serves a great opportunity to help us with that  
15 mission. So, again, I applaud you for this panel.

16 Perception is very important. It's a very  
17 personal issue. My goal tonight is not to convince  
18 anyone that their concerns are unfounded regarding EP  
19 issues, but rather to inform you and provide insight on  
20 the current NRC process for the technical review of  
21 exemptions to emergency preparedness required related  
22 to decommission.

23 My discussion will focus on the overall NRC  
24 process for emergency preparedness exemption request.  
25 Mr. Palmisano, from Southern California Edison, will

1 discuss the specifics related to the SONGS's exemption  
2 request.

3           Also, the evaluation of exemptions,  
4 specifically an emergency preparedness, involves  
5 numbers of NRC technical disciplines, including health,  
6 physics, spent fuel storage, probability analysis,  
7 et cetera.

8           I will, again, focus us on how we plan to  
9 apply the inputs from these groups to our evaluation of  
10 the exemptions. However, I did want to point out that  
11 a panel of various NRC subject matter experts will be  
12 available to answer questions at the October 27th.  
13 There is a public meeting on the permanently -- excuse  
14 me -- permanently decommissioned shutdown activities  
15 report, and so that would be a tremendous opportunity  
16 to ask a broad range of questions to NRC staff members  
17 that will be here.

18           As you're aware, part 50 of the NRC regulation  
19 provides specific requirements for operating power  
20 reactors. Also, Title 10, Section 7232 of the Code of  
21 Federal Regulations provides emergency preparedness  
22 requirements for the independent spent fuel storage  
23 installations.

24           However, NRC regulations for emergency  
25 preparedness do not distinguish between an operating

1 power reactor and one that is permanently shut down and  
2 defueled, specifically, the wet storage of fuel and the  
3 spent fuel pool.

4 After shutdown, the risks associated with  
5 potential accidents are significantly reduced. Again,  
6 the term "risk," like safety, can be a very personal  
7 issue. For the technical review of regulatory changes,  
8 the NRC defines risk as probability time consequences  
9 in evaluating impact on public health and safety.

10 However, the NRC looks for public outreach  
11 activities, again, such as this forum, to help to  
12 better inform our decisions. Historically exemptions  
13 have been granted to seek regulatory relief on a  
14 case-to-case basis; again, they're site specific.

15 The exemption process is not unique to  
16 decommissioning, it's a well-established part of the  
17 NRC regulatory process that allows licensees to address  
18 site specific situations or implement alternate  
19 approaches for circumstances not contemplated during  
20 the rulemaking itself.

21 The key point, though, is until an exemption  
22 is actually issued in the area of EP, all on-site and  
23 off-site regulatory requirements remain in place, so at  
24 this time the requirements on the on-site emergency  
25 planning and off-site emergency plans remain in place.

1           The exemption process applies to licensees  
2 seeking relief or as I'd like to say in more plain  
3 terms, the need to comply with their meet of specific  
4 regulatory requirements.

5           Exemptions are used in cases where applicable  
6 regulations may not necessarily achieve the underlying  
7 purpose either entirely or partially part of that  
8 regulation. Again, as Mr. Palmisano mentioned,  
9 exemption request to emergency planning regulations  
10 must be approved by the commission.

11           Again, Mr. Palmisano took some of my thunder  
12 here. Two important documents supporting the exemption  
13 request are "The Permanently Defueled Emergency Plan"  
14 and "The Emergency Action Level Schemes: How You Would  
15 Classify An Event." They're important elements that go  
16 into how you're actually going to implement these  
17 exemptions.

18           The key and, and as Tom has mentioned,  
19 San Onofre has already submitted these documents for  
20 formal NRC review. The key here, again, though, is we  
21 may review these documents to help us get a better  
22 understanding and, form -- foremost, know more about  
23 the exemptions being requested, but we do not take  
24 actions on approving these plans until the Commission  
25 has actually ruled on the exemption themselves, so the

1 exemption comes first before approving defuel emergency  
2 plan and the EAL Scheme.

3 As indicated earlier, the risk associated with  
4 the spent fuel pool accident versus an operating power  
5 reactor are affected by different accident conditions.  
6 Once permanently defueled, the risk to the public is  
7 permanently associated with the spent fuel stored in  
8 the spent fuel pool.

9 After a power reactor has defueled,  
10 traditional accidents that dominate risk are no longer  
11 applicable. Operating reactors are defined by specific  
12 design basis accidents. These are postulated events  
13 that a nuclear facility must be designed and built to  
14 to withstand without losing systems and structures and  
15 components required to protect public health and  
16 safety.

17 For an operating reactor, these generally  
18 involve elevated temperatures and pressures regarding  
19 the operation of the reactor, which would no longer be  
20 applicable. As such, the consequences of the spent  
21 fuel -- fuel event -- spent pool fuel event, excuse me,  
22 do not equate directly to a core damage accident or a  
23 large release its model for an operating reactor,  
24 specifically in regards to accident timing in driving  
25 force for a possible release; those are two important

1 factors.

2 Also short-lived isotopes, such as  
3 radio-iodides, which are prominent in a core-melt  
4 accident, are not present after several days regarding  
5 spent fuel. So there is not the need for the potassium  
6 iodide distribution, which is a key element. The  
7 elements of concern are still along with isotopes,  
8 however.

9 What also distinguishes the spent fuel pool  
10 accident resulting in a loss of water inventory from a  
11 core damage accident at an operating power reactor is  
12 its slow progression and, therefore, the period of time  
13 available to initiate mitigative actions and, if  
14 needed, take protective actions off site as off-site  
15 officials may deem appropriate.

16 CHAIRMAN VICTOR: Can I just interrupt quickly?

17 MR. ANDERSON: Sure.

18 CHAIRMAN VICTOR: So, SONGS is going to -- is  
19 applying for these exemptions, and we'll talk about  
20 what they are and so on, and then they'll proceed and  
21 resume the footprint of the plant and what needs to be  
22 protected shrinks, but they still have the spent fuel  
23 pool there and that seems to be the thing that you're  
24 most worried about.

25 So, once the spent fuel pool -- once the fuel

1 is moved out of the spent fuel pool and the spent fuel  
2 pool is then removed, do they come back and ask you  
3 then for another round of exemptions?

4 MR. ANDERSON: At this point they would have to,  
5 yes.

6 CHAIRMAN VICTOR: Okay. Or maybe by then NRC will  
7 actually have a procedure.

8 MR. ANDERSON: Yes. What you'll normally see, at  
9 least initially, is the licensee will keep, at least,  
10 our generic part 50 license and so they will -- they'll  
11 be a transition over from part 50 requirements into  
12 part 72 for the ISFSI's themselves. They will come in  
13 back to the NRC for that authority.

14 CHAIRMAN VICTOR: Okay. We should let you continue  
15 on. Thank you.

16 MR. ANDERSON: Okay. All right. In considering  
17 how to proceed with the technical reviews for current  
18 exemption request, the staff considered, first, past  
19 emergency preparedness exemptions that were approved by  
20 the NRC for decommissioned reactors and we use this as a  
21 precedent.

22 The four latest that we did look at to see how  
23 the exemptions were granted and what criteria were used  
24 were Zion, Big Rock, Maine Yankee, and Haddem Neck,  
25 Connecticut Yankee, all in the '98-'99 time frame.

1           The next step is, we looked at a proposed  
2 integrated rulemaking, which came out in the year 2000.  
3 It was developed by the staff based on the lessons  
4 learned from these exemptions. Again, needing to  
5 capture the knowledge and establish a regulatory  
6 framework for exemptions.

7           At that time it was informed by NUREG-1738,  
8 which was undertaken to develop a risk informed  
9 technical basis and counted the framework for an  
10 integrated rulemaking. Unfortunately, right at that  
11 time, the events of 911 occurred.

12           At that point, in order to allow the NRC to  
13 respond to the events of 911, the staff requested from  
14 the Commission to withdraw that rulemaking to allow us  
15 to refocus our resources, so that rulemaking was not  
16 pursued. It was actually withdrawn at that time.

17           The last step we looked at was to look at what  
18 we had done recently and that was the consequence study  
19 for spent fuel pool. It was really done in response to  
20 Fukushima and some of the issues that subsequently had  
21 been published as NUREG-2131, and it had quite a bit of  
22 significance. The analysis went into greater detail,  
23 but they helped reinforce to get a better understanding  
24 of the results from the earlier study.

25           The key areas, though, is although the spent

1 fuel pools and used fuel assembly stored in the pools  
2 determined to have remained intact following the March 11,  
3 2001 event at Fukushima Dai-ichi, the event led to  
4 questions about safe storage of fuel.

5 This report, the NUREG-2131, documents the  
6 consequence study that continues to examine the NRC,  
7 the risk and consequences associated with a postulated  
8 spent fuel pool accident. The study evaluated whether  
9 a severe, though unlikely, beyond design basis  
10 earthquake would damage spent fuel to the point of  
11 leaking. What was chosen was a General Electric type-4  
12 BWR Mark Point containment reactor. Again, that  
13 reactor type similar to what was at Fukushima Dai-ichi.

14 In a nutshell, the overall study showed that  
15 for specific reference plants, again, the study was done  
16 for that plant and the earthquake that was analyzed it  
17 showed a spent fuel pool is likely to withstand severe  
18 earthquakes without leaking and the likelihood of a  
19 radiological release from the spent fuel for the  
20 analyzed earthquake in accident plant, again, is to be  
21 about 1 in 10 million years or lower, so a very low  
22 probability event.

23 MR. BROWN: Mr. Anderson?

24 MR. ANDERSON: Yes.

25 MR. BROWN: A question regarding exemptions: You

1 know, you put in here some past exemptions that had  
2 been provided. How strongly does precedence weigh in  
3 on, if it's something you provided in the past, can an  
4 operator pretty much expect that it would also be  
5 something there? Does each plant stand alone in its  
6 deliberations regardless of what's been weighed in on  
7 or decided in the past?

8 MR. ANDERSON: Each plant has to provide  
9 justification for what they're exempting and why. A  
10 good example is simply saying "I want the exemption  
11 because Haddem Neck in 1998 you granted it to them," it's  
12 not acceptable. So within the exemption requests,  
13 there needs to be site-specific justification for each.

14 CHAIRMAN VICTOR: Ted Quinn.

15 MR. QUINN: Yes, Mr. Quinn. Have you reviewed the  
16 Kewaunee? Did you receive a Kewaunee exemption  
17 request?

18 MR. ANDERSON: Yes, the Kewaunee exemption request  
19 was already received. What we received to as SECY  
20 paper, which it refers to the office -- the offices of  
21 the secretary to the commission. We provided a paper  
22 for the Commission's decision.

23 The Commission already has voted to approve  
24 the staff's recommendation to move forward with those  
25 exemptions. Currently, the staff is developing the

1 safety evaluations support granting those exemptions  
2 for Kewaunee, so they haven't been formally granted but  
3 the commission has ruled in favor.

4 MR. QUINN: So, while these are a little bit older,  
5 the Kewaunee provides a very -- very current basis?

6 MR. ANDERSON: Correct.

7 MR. QUINN: Okay.

8 MR. ANDERSON: Yes. While it's site-specific, a  
9 lot of the logic is identical behind it as far as some  
10 of the technical rational behind it. I'll talk later  
11 where we're really specifically looking at some of the  
12 site-specific natures regarding our mitigation and  
13 staffing that may be very specific to the plant design  
14 or how they're going to manage that. Okay?

15 CHAIRMAN VICTOR: Okay.

16 MR. ANDERSON: In evaluating emergency preparedness  
17 exemptions requested, the NRC requires a licensee to  
18 provide site-specific spent -- spent fuel pool analysis  
19 that demonstrate: One, look at the traditional  
20 design-based accidents that support the planning basis  
21 for the existing 10-mile emergency planning zone.

22 Again, the basis behind that is looking at  
23 design-basis accidents and also what's referred to as  
24 Class-9 core melt-type events, which no longer are in  
25 place now that we have no fuel on the core.

1           Specifically, the licensee must demonstrate,  
2 when remaining applicable design basic accidents, will  
3 not resolve in a projected dose to the public that  
4 exceeds the U.S. Environmental Protective Agency  
5 Protective Action guides at the site boundary. The  
6 No. 1 criteria they have to meet the site basis.

7           The second criteria: A licensee must consider  
8 a spent fuel pool accident resulting in a loss of spent  
9 fuel pool water inventory from the beyond design bases  
10 event. Again, based on the studies we looked at, the  
11 only events that would result in this would be one  
12 beyond what the plan would be designed for. Excuse me.

13           Specifically, looking at a zirconium cladding  
14 fire. Again, looking at the public a lot of questions,  
15 what is a zirconium cladding fire? Zirconium is what  
16 makes up the cladding around the fuel. The zirconium  
17 fire may occur as the fuel heats up.

18           Zirconium cladding may reach a point of rapid  
19 oxidation with air, producing heat, or exothermic  
20 reaction. The energy released from this reaction is  
21 sustained, could get hot enough to cause a  
22 self-sustaining reaction igniting the cladding, in  
23 other words, a metal fire.

24           While the risk from a possible zirconium fire  
25 scenario is considered low through the probability are

1 very or highly unlikely as indicated by recent studies.  
2 The staff considered it prudent to establish reasonable  
3 measures in responding to this unlikely scenario and  
4 that's what we're going to discuss in some detail.

5           Due to the slowly evolving nature of the  
6 event, the NRC requires a licensee to demonstrate that  
7 spent fuel is either not susceptible to a zirconium  
8 fire or sufficient time would be available to take  
9 mitigative measures and, if needed, implement off-site  
10 protective actions, and we'll talk about what those  
11 measures and timing are.

12           Okay. Some examples of what I talked about:

13           What would be applicable designed basis  
14 accidents now for a reactor which has been permanently  
15 shut down and defueled?

16           What we're seeing is radioactive waste leaks  
17 and failures from rad waste tanks or liquid tanks from  
18 demineralizers or ion exchangers, drain line resins.  
19 We see these over a period of time.

20           This will go off the table as the systems are  
21 decommissioned, resins removed, systems drained,  
22 et cetera. Other events we see are spent fuel cask  
23 drops and this is very site specific, depending on the  
24 design of the plant, how they would handle lifting the  
25 fuel in and out of the various casks.

1           But a lot of plants have within their design  
2 criteria casks that will sit on an upper shelf and for  
3 a severe earthquake the potential that it could drop  
4 lower in the pool and result in damage to the fuel. So  
5 that's something specifically looked at in the  
6 design-basis phase.

7           Also, we see continued our fuel handling  
8 actions, specially with new fuels, still looking at the  
9 movement of fuel. So for those type of accidents, they  
10 have to demonstrate to us either at this time or at  
11 what point if an event would occur as analyzed here  
12 would not result in exceeding the EPA protective action  
13 guidelines at the site boundary.

14           In regards to the zirc fire scenario, some of  
15 the spent fuel pool accidents being considered would be  
16 the complete loss of spent fuel pool water inventory  
17 and I'll use the term "with air cooling." What this is  
18 referring to is a complete drain-down of the spent fuel  
19 pool due to a liner failure.

20           In the most recent study that was done in  
21 looking at a severe earthquake was looking at from a  
22 structural analysis perspective how would a spent fuel  
23 pool fail. If it were a catastrophic fail, it would  
24 likely fail where the pool walls connect with the  
25 floor.

1           So this looked at if there were a significant  
2   breach within the pool that water would completely  
3   drain slowly over a period of time out of the pool,  
4   leaving the spent fuel pool open to air. So this is  
5   looking at credit for simply the air cooling that would  
6   occur through natural circulation within the fuel.

7           The most recent study I referred to,  
8   NUREG-2131, showed that for the scenarios and  
9   referenced plant study, again, spent fuel is only  
10   susceptible to a radiologic release within a few months  
11   after fuel is moved from the reactor into the spent  
12   fuel pool. After that time spent fuel is coolable for at  
13   least 72 hours, so that's a significant finding.

14          The other spent fuel pool accident that's  
15   looked at is basically the loss of normal cooling.  
16   Means are maintained to keep that pool cool. For  
17   whatever reason, power systems are lost where they lose  
18   the ability to cool that pool, that's what was looked  
19   at here.

20          The earlier study, NUREG-1738, showed that  
21   where spent fuel had decayed at least 60 days the time  
22   available to take action before fuel is uncovered due  
23   to boil-off, that's really where inventory is going to  
24   be lost, it's going to be sitting there, heating up and  
25   evaporating, there would be at least 100 hours or

1 greater than 4 days for a BWR and greater than 145  
2 hours or greater than 6 days for PWR before they get  
3 down to 3 feet above the fuel itself.

4           Again, another significant finding of what do  
5 we really need to focus at. The last accident that was  
6 looked at from the spent fuel perspective was the  
7 complete loss of spent fuel pool water inventory with  
8 no air cooling.

9           This is a little more of a complicated  
10 scenario, we're assuming blocked airflow from a partially  
11 drain-down event. In other words, where I talked  
12 before where the break would occur, water would drain  
13 completely from the pool either slowly or rapidly, this  
14 would be some type of an event that would cause a  
15 severe puncture to the wall itself that would be at an  
16 area that would be slightly above the bottom of the  
17 pool.

18           So you would have a drain-down to lower  
19 regions of the pool. It would create what amounts to  
20 is a water and a steam mixture or possible physical  
21 damage to the fuel that would block the channels going  
22 up between the fuel.

23           So we looked at that even though it was an  
24 unlikely scenario as far as the complete loss of  
25 cooling water and we selected this scenario as the most

1 limiting for evaluation of exemptions. So, of those  
2 three, we felt this was the most, even though it was  
3 most highly unlikely, it was most limiting and could  
4 lead to the most significant consequences. Excuse me.  
5 So that's what we used moving forward.

6 CHAIRMAN VICTOR: Ted -- Ted Quinn.

7 MR. QUINN: This is Ted Quinn, again. Clearly, the  
8 San Onofre fuel has already passed the 60 days, you  
9 would agree with that; right?

10 MR. ANDERSON: Yes.

11 MR. QUINN: Okay. No. 2, just the design of the  
12 San Onofre fuel pool is such that the top of the active  
13 fuel is below grade. Do they get credit for that?

14 MR. ANDERSON: The way we try to look at the pool  
15 in these accidents is, they would have to justify that  
16 within their specific analysis itself. If they can't  
17 demonstrate, because of the specifics in plant design,  
18 that would be something we would take into  
19 consideration.

20 MR. QUINN: Okay.

21 MR. ANDERSON: Again, that is one of the factors in  
22 looking at the potential for this event. Every plant  
23 may be slightly different.

24 MR. QUINN: Right.

25 MR. ANDERSON: Different configurations, different

1 fuel loads. There is a number of different variables,  
2 so this is one of the areas that we require specific  
3 analysis by the site and that would include the design  
4 features we spoke about.

5 MR. QUINN: Okay. Thank you.

6 CHAIRMAN VICTOR: Gene Stone. And then we're going  
7 to let you continue on because we're going to be tight  
8 on time. Gene.

9 MR. STONE: Could you define what slow draining is,  
10 how many gallons per minute?

11 MR. ANDERSON: I can't give you an exact. This  
12 could vary. What we try to look at more is from the  
13 accident analysis perspective is a sudden rapid drain.  
14 We try to capture the slow drains under things like the  
15 slow boiling.

16 In normal emergency planning specially, but  
17 overall accident and analysis it tends to default to  
18 the more conservative, so we tend to look at a rapid  
19 drain-down where water is lost quickly, that would be  
20 the most conservative to look at for accident analysis  
21 purposes.

22 CHAIRMAN VICTOR: Can I just ask, Tom, when you  
23 give your presentation in a little bit, are you going  
24 to be talking about the actual temperature calculations  
25 that you've done on the fuel in the pools? Because it

1 seems there a lot of issues and contingencies here, but  
2 we ought to stay as focused on San Onofre as possible.  
3 It seems like San Onofre is now quite far beyond this  
4 point where we should be concerned about this.

5 MR. PALMISANO: David, I'm going to talk about the  
6 specifics. I won't necessarily quote the temperature, but  
7 I'll quote the time frame we're talking about.

8 CHAIRMAN VICTOR: Okay. Great. Thank you. Why  
9 don't you continue on, Joe?

10 MR. ANDERSON: Okay. What is considered as  
11 sufficient time to take mitigated measures to remove  
12 heat from the spent fuel pool? Precedent has and the  
13 staff has used a minimum of 10 hours and it's the point  
14 that needs to be clarified: What does this 10 hours  
15 mean?

16 We're looking at -- as far as the total loss  
17 of all cooling scenario, we're looking at the time when  
18 all cooling is lost. All right? We're not  
19 specifically looking at the initiating event or how  
20 long it takes to get to the point where I lose both  
21 water and air cooling.

22 We're being very conservative on how we look.  
23 It may take a number of hours to a number of days,  
24 depending on the scenario, to get to the point where  
25 you lose all cooling. We're looking at or assuming

1 it's immediate, and there's a least 10 hours that would  
2 be in place before you reach the point where there's a  
3 potential ignition point for the zirconium, which is  
4 around 900 degrees centigrade.

5 Historically, what we've seen in the  
6 exemptions that we have on our plate right now and in  
7 the past is normally 15 to 20 months after the plant  
8 shuts down.

9 All right. The next step is, what must a  
10 licensee demonstrate to support exemption request?

11 They must demonstrate the capability of take  
12 prompt spent fuel pool mitigation measures, identify  
13 specific spent fuel mitigation strategies, which the  
14 staff will then analyze; they also must demonstrate the  
15 availability that they have sufficient and trained  
16 on-shift staffing, not augmented staffing, staffing on  
17 shift to respond to the event, and equipment to  
18 promptly initiate.

19 Again, we're looking at a beyond design bases  
20 accident that could affect the local community around  
21 there. People need to be on site to be able to respond  
22 with the right equipment. The focus on the initial  
23 mitigative actions is to cool the spent fuel pool;  
24 that's to either provide some means of refilling,  
25 spraying on the actual fuel bundle themselves to remove

1 heat. The intent in this initial action is not repair  
2 and refuel the pool, it's to keep it cool.

3 The next slide is a real basic, but provides a  
4 good crossover of emergency planning requirements from  
5 an operating reactor, which is focused on response to a  
6 variety of emergencies that are related with an  
7 operating reactor itself versus the decommissioning  
8 site, which is real focused on the spent fuel pool  
9 event.

10 The biggest one, of course, is for an  
11 operating reactor. There is a requirement for a formal  
12 radiological emergency plan with the emergency planning  
13 zone alert notification systems. Under the  
14 decommissioning sites what's currently in place and  
15 what's being proposed is they would rely on the  
16 comprehensive for all hazards planning currently in  
17 place at the state and locals. There would not be a  
18 separate REP annex that a comprehensive plan required.

19 Classification is still an important part.  
20 The licensee has to be able to demonstrate the ability  
21 for timely classification and have dedicated personnel  
22 on shift that's classified. However, instead of  
23 classification from a notification of unusual event  
24 through a general emergency, the classifications are  
25 limited to a notification unusual event and an alert to

1 support mobilization of staff and notifications.

2           Also, the licensee must clearly demonstrate  
3 they have staff and a means in place to notify  
4 designated off-site agencies. All right. Currently,  
5 the requirement is 15 minutes. Under the exemption  
6 request, the licensee can try to make an attempt to  
7 justify an alternate or more lengthy time because of  
8 the nature of spent fuel pool event which, again, I  
9 said it's a long lead time in developing, but that  
10 needs to be site specific.

11           We do look for some agreement with off-site  
12 agencies when it comes to notification timeliness, who  
13 is notified, and content of the message. Difference  
14 also is in the dedicated on-site and off-site emergency  
15 facilities from the licensee's perspective.

16           Again, they're not responding to an operating  
17 reactor, they're dealing with the spent fuel pool, so  
18 the organization itself is much smaller. What  
19 precedent is and what's being recommended is that the  
20 emergency response organization is concentrated in  
21 what's called the command center.

22           Some refer to the command center as their  
23 control room and they maintain it as such, some have  
24 other -- a second facility other than the control room.  
25 It may vary, depending on what the exemption is

1 requesting.

2 As far as exercises, instead of the joint  
3 biannual on-site/off-site there is still a requirement  
4 for biannual exercise for the licensee with the  
5 requirement that they offer off-site agencies the ability  
6 to participate.

7 All right. You've probably already have  
8 discussed this as far as the inspection. I just wanted  
9 to reinforce the resident inspector will typically  
10 remain on site for a period of 6 to 12 months after  
11 it's permanently shut down.

12 Inspection program will continue and comprise  
13 of two major elements: The baseline programmatic  
14 inspections as well as discretionary inspections  
15 themselves for cause. Inspection program remain in  
16 place until license is terminated.

17 CHAIRMAN VICTOR: Can I just stop you before you  
18 talk about this last slide?

19 MR. ANDERSON: Yes.

20 CHAIRMAN VICTOR: Because this last slide I'm  
21 really looking forward in terms of the regulatory  
22 process, which is great, and I'm glad NRC is doing  
23 this. But I want to stop while it's fresh and see if  
24 members of the CEP have questions about the regulatory  
25 process and exemption process as it will pertain, you

1 know, to what we're about to experience here. Is there  
2 any questions people would like to -- Bill Parker?

3 MR. PARKER: What time -- what type of events do  
4 you consider in addition to the spent fuel pool leaks?

5 MR. ANDERSON: The events we talked about before is  
6 the licensee is required to look at which design-based  
7 accident occur in Chapter 15 of their update safety  
8 evaluation --

9 MR. PARKER: Can you --

10 MR. ANDERSON: -- which one of those are  
11 applicable.

12 MR. PARKER: Can you give me some examples?

13 MR. ANDERSON: Yeah, they were what I have  
14 previously talked about was the cask drop fuel handling  
15 accidents.

16 MR. PARKER: Thank you.

17 MR. ANDERSON: And the potential gas or liquid  
18 release.

19 CHAIRMAN VICTOR: When you review these exemption  
20 requests, what are -- what are the major problems that  
21 or flags for you that require that you go back to the  
22 licensee, in this case, Edison, and get new information  
23 on, or are these all pretty much everybody knows how to  
24 do it now?

25 MR. ANDERSON: Well, again, they're following the

1 model and primarily was used because somewhat out of  
2 necessities is looking at the most recent exemptions we  
3 granted, which were Zion. Again, we've advanced  
4 somewhat in what we look at, we have new staff members,  
5 like myself, looking at these exemptions. So, of  
6 course, whenever you're doing something new, you're  
7 going to look at it with a questioning attitude --

8 CHAIRMAN VICTOR: Like, what are the two or three  
9 things?

10 MR. ANDERSON: Generic things mostly. A lot of the  
11 exemptions will come in and they'll make generic  
12 statements and our RAI's will ask for specifics or we  
13 will ask, as I mentioned before, things that might deal  
14 still with requirements for off-site agencies regarding  
15 notifications.

16 If we see that a notification has been  
17 eliminated where, for a hypothetical plant, there may  
18 be two states that are notified and now it's only the  
19 host state. Do we have a documentation that there's  
20 agreement with the other state, they don't need  
21 notification.

22 There is an agreement on the time allotted for  
23 the notifications. So we really focus a lot on the  
24 off-site aspects and that there is an agreement for  
25 those aspects, but what we've seen mostly is we've had

1 to request further information on specifics because the  
2 tendency was to use the model.

3 CHAIRMAN VICTOR: Okay. Other questions? Ted  
4 Quinn and Gene Stone.

5 MR. QUINN: Yeah, this is Ted Quinn. You mentioned  
6 inspection program has a baseline --

7 MR. ANDERSON: Yes.

8 MR. QUINN: -- inspection and discretionary. Okay.  
9 First can you state a ballpark, do you have an idea of  
10 how often a discretionary is and, secondly, what kind  
11 of findings have you -- have you found in your  
12 inspections?

13 MR. ANDERSON: I'm going to talk somewhat  
14 second-handed because I do licensing and I'm not in the  
15 inspection arena, but you may have some more idea about  
16 it.

17 MR. WARNICK: Sure.

18 CHAIRMAN VICTOR: Why don't you introduce yourself  
19 in the microphone?

20 MR. WARNICK: I'm Greg Warnick, I'm the senior  
21 resident inspector for the NRC at San Onofre. I've  
22 been at San Onofre since 2008.

23 CHAIRMAN VICTOR: I wouldn't pull that too much  
24 because you're going to end up pulling the table down.

25 MR. WARNICK: All right. Thank you. So I'm the

1 primary individual performing these inspections with  
2 support from our regional office in Region 4.

3           The core procedures or the primary procedures  
4 we look at are things like spent fuel pool safety,  
5 corrective action program, radioactive waste shipping,  
6 radioactive waste removal. I've spent a number of  
7 hours this last month watching resin removal, I think  
8 it was talked about. That's a potential area that we  
9 could have this design-basis accident where there is a  
10 spill, so that's something we focus on to make sure  
11 that they're following the procedures, doing everything  
12 they need to.

13           We haven't identified at San Onofre any issues  
14 yet. Some minor observations, which are documented in  
15 our inspection reports that are published quarterly,  
16 but throughout the industry, those are the types of  
17 things we look at.

18           We come out do inspections every quarter while  
19 there's still a resident inspector at the site, like  
20 myself. I observe daily activities and do inspections  
21 into those areas to make sure they're following the  
22 rules, regulations, and their decommissioning plans.

23           CHAIRMAN VICTOR: Okay. Thank you very much.

24           MR. QUINN: Can I ask you, how long are you staying  
25 and how often will you come back?

1 MR. WARNICK: It's typically a year, as we saw  
2 there. But the bottom line basis is when there is not  
3 a need for a full-time presence. There's not enough  
4 activities of -- of regulatory significance.

5 We've determined there is still enough  
6 activities of regulatory significance, therefore, I'm  
7 still at the site. At some point, when the decision is  
8 made that there's no longer a need to have a full-time  
9 presence, the resident will be pulled away and then  
10 inspectors from the region, which could include myself,  
11 would come back about once every other month for a  
12 week, but it's really activity based. When they move  
13 into fuel handling, we'll definitely come during those  
14 high-risk periods to make sure they're doing it right.

15 CHAIRMAN VICTOR: Gene Stone. And then I think  
16 we're going to move on. Gene.

17 MR. STONE: Joe, considering Elmo Collins's recent  
18 statement about how the NRC failed to look at the steam  
19 generator issue in the best way possibly, how -- can  
20 you tell me now at this juncture during the  
21 decommissioning, can you tell me what the regulations  
22 are? What does the NRC demand in way of mitigation  
23 plan for an accident with a dry cask?

24 MR. ANDERSON: I do not have -- I can look at it  
25 right now. I do not have details on mitigation for dry

1 cask. I can look that up and get back to you, but I  
2 don't want to talk out of hand. Specifically, in this  
3 exemption we're looking at the pool, so I don't have a  
4 lot of detailed information, but I can look it up and  
5 get back to you.

6 MR. STONE: Because we need that answer by  
7 October 14th our meeting on -- it would be very  
8 helpful.

9 MR. ANDERSON: Okay. I will --

10 CHAIRMAN VICTOR: We'll pull it together and we're  
11 going to have a chance in October 14th to talk to the  
12 actual vendors about that. Thank you ver much.

13 I'm sorry. Please.

14 MR. KRAMER: Yeah, Larry Kramer. Thank you. You  
15 looked at accidents, but do you look at someone  
16 deliberately trying to do something and cause damage  
17 and cause an incident of more severe than what you're  
18 look at here?

19 MR. ANDERSON: Well, that would be looked at would  
20 be under physical security which, again, it's a  
21 separate area which we use as -- as part of support for  
22 what we're proposing as far as approval, secured  
23 physical security, you have to look at a number of  
24 areas, part of it is that. Basically, come to a  
25 conclusion they have high assurance that they can

1 defend those areas of the plant that are in need of  
2 physical protection, in this case, the spent fuel pool.

3 CHAIRMAN VICTOR: And later --

4 MR. ANDERSON: So that wouldn't be specifically  
5 looked at in EP, emergency planning, it would be  
6 security.

7 CHAIRMAN VICTOR: And later are you going to talk  
8 more about physical security, Jeremy, later on?

9 MR. KIRCHNER: Just in the briefer sense that there is  
10 agreements in place.

11 CHAIRMAN VICTOR: Yeah. Why don't you, Tom --  
12 thank you very much, Joe. Thanks to all of the members  
13 for the --

14 MR. PALMISANO: May I ask Joe to just mention the  
15 interim staff guidance at the bottom, because I'm going  
16 to talk about that and this is an important point that  
17 the NRC has followed.

18 CHAIRMAN VICTOR: Okay.

19 MR. ANDERSON: All right. I'll do it really quick.  
20 One of the things because -- and just for clarity, an  
21 interim staff guidance is an NRC internal document that  
22 really provides guidance to staff members, how to  
23 perform a certain regulatory activity.

24 Because at that time we didn't have specific  
25 regulations that were governing the

1 decommissioning-type aspect of EP, my staff developed a  
2 draft interim staff guidance to try to capture based on  
3 that precedent and what we saw from the prior  
4 rulemaking on how we should do these exemption reviews.

5           We did provide that out for -- as public for  
6 two reasons: One, to let licensees know how we were  
7 proposing to do the review and to get public comment.  
8 We will be finalizing it probably towards the end of  
9 this year, and what it's intended to do is reflect the  
10 exemptions as they pertain to Kewaunee and how we went  
11 about doing the review of the Kewaunee defueled  
12 emergency plan.

13           CHAIRMAN VICTOR: Okay. Thank you very much. Tom?

14           MR. PALMISANO: Okay. Thank you. Let me grab the  
15 slide deviser. Thank you. Okay. Manuel, if you can  
16 take me to the first slide, please.

17           So while I wait for the slide to get teed up,  
18 good evening again. I'm Tom Palmisano. I'm going to  
19 discuss some more specifics about the San Onofre  
20 defueled emergency plan that we have proposed.

21           Let me touch on a couple of topics quickly:  
22 First, to reiterate, we're continuing under the  
23 operating plant emergency plan, so the emergency plan  
24 that would recognize accidents that could occur in the  
25 reactors of power all the way through issues with spent

1 fuel and dry cask storage in terms of the emergency  
2 plan are in today's plan and we maintain staffing  
3 accordingly.

4 The proposed plan is under review. And I will  
5 touch on -- remind me, I'll touch on the physical  
6 security aspect because that's a separate plan that is  
7 still in place as well as there are triggers from the  
8 emergency plan based on security events.

9 So, first, we open this with Chris Thompson,  
10 reiterating our decommissioning principles of safety,  
11 stewardship, and engagement. I would mention on the  
12 engagement, the SONGScommunity.com website that David  
13 mentioned has been overhauled and it's continuing over  
14 the next two weeks to make it even more user-friendly,  
15 so we do encourage anybody who is interested to go on  
16 that website for more information, so we would  
17 appreciate that.

18 On this page, I'm showing you you've seen me  
19 use this format before. The top is kind of the basis  
20 for the emergency plan. What's down below is probably  
21 most important. It's a plan for responding to  
22 emergencies: One aspect is minimize damage to  
23 property; a more important aspect is off-site response  
24 organizations maintaining emergency plans to implement  
25 off-site measures in the event of the beyond design

1 bases event that Joe Anderson has talked about.

2 It also covers how we managed on-site  
3 mitigation activities and protect our employees in the  
4 event of an accident, it covers conditions when the  
5 used nuclear fuel is stored in the ISFSI or the  
6 independent spent fuel storage or the dry cask system  
7 as well as in the spent fuel pool.

8 And for the few remaining possible events, and  
9 this is important, and this is what the exemptions are  
10 about, pre-preplanned off-site response measure or  
11 pre-planned response measures are maintained for on-site  
12 areas only. The concept here is when the plant has been  
13 shut down for a number of months, and you heard 60 days,  
14 you heard a number of months after that, we've been shut  
15 down for over 30 months, the fuel has decayed to the  
16 point where the radiological hazard of a release is  
17 significantly reduced.

18 The probability of an event is very low. So  
19 the concept of a defueled emergency plan is that  
20 pre-planned actions are necessary for on-site  
21 activities, communication activities are still  
22 necessary to alert on-site and off-site agencies, the  
23 NRC, the state, the county, local responders.

24 But preplanned off-site activities are no  
25 longer required because for design basis accidents

1 there was no -- there is no design-basis accidents that  
2 results in a release that can affect the off-site  
3 public, and for the beyond design bases event, which  
4 has been described and I'll talk about, there's more  
5 than 10 hours to mitigate it to prevent it from  
6 occurring.

7 That's the fundamental concept behind the  
8 change to the plan. And we want to be, again, in the  
9 interest of engagement, transparency, and be very clear  
10 with that and answer questions about that.

11 The interim staff guidance: The reason I  
12 thought this was important is we talked about today's  
13 regulations and requirements are written for operating  
14 plants, so we have had to look at past precedent. I was  
15 actually involved in Big Rock Point in '98 with that  
16 defueled emergency plan.

17 The NRC has done a good job with writing  
18 interim staff guidance for their staff, which they're  
19 finalizing and providing it to us to give us an  
20 understanding of what would be expected in a defueled  
21 emergency plan, so it has been very useful and helpful.

22 Everything has to be a site specific submittal  
23 and analysis, so it's not just a cookie cutter  
24 exercise, but the staff guidance is important. We  
25 still have to show that we meet the EPAs protective

1 action guidelines at the site boundary and the beyond  
2 design bases accident of the zirconium fire we have to  
3 show that it would not reach the temperature in fewer  
4 than 10 hours, and I'll show you what our times are in  
5 a minute.

6           So, what's the difference? Some come with  
7 different terminology, but I'll just recap this. In an  
8 operating reactor and the plan we're under today  
9 envision accidents that can be very severe, that can  
10 happen very quickly with the reactor at full power  
11 resolve in a significant damage to a hot core, a core  
12 that has just been operating with a lot of short-lived  
13 radioactivity, high-energy, high-pressure systems, 560  
14 degrees, 2,000 pounds that, if released, there's a lot  
15 of driving force to drive it out to the environment.

16           And if all the multiple barriers designed in  
17 an operating nuclear plant were to fail, you could  
18 drive a significant radiological release, which could  
19 affect the public. And that's the basis for things  
20 that would escalate from notice of an unusual event to  
21 an alert to a site area emergency and a general  
22 emergency. Those are the four classifications in the  
23 operating plan.

24           Just some examples: The reactor cooling  
25 system, one of the big pipes breaks in half with the

1 reactor at full power, okay, the plant is designed to  
2 handle that, the emergency plan would envision things  
3 go wrong and go wrong again and you have a significant  
4 release.

5 I won't try to touch on every one, but  
6 significant accidents that can happen to the reactor at  
7 power. In a permanently defueled reactor, first of  
8 all, the reactors, they're not only out of service,  
9 they have been permanently defueled. There is no fuel  
10 in the reactors, they no longer can operate.

11 Those systems in most of those accidents that  
12 today's plant is based on simply can't happen because  
13 there's no fuel in the reactor. What is remaining as a  
14 primary risk is associated with nuclear fuel stored in  
15 the spent fuel pool.

16 Now, there's a couple of things to mention and  
17 we talked about -- well, we heard on the NRC slides  
18 about in the spent fuel pool, we'll talk about loss of  
19 cooling accident, I'll give some times in a minute.  
20 You know, if I went and shut off the normal cooling  
21 system, how quickly would it heat up from 85 degrees to  
22 212 and start boiling away.

23 You could have a loss of water or loss of  
24 inventory slow or rapid. So, what does that mean? You  
25 could drop something on the fuel, no leakage of water,

1 but if you drop something heavy, I could drop an  
2 individual fuel bundle while moving it, that's called a  
3 fuel handling accident or I can tip a cask over, you  
4 know, this is a many tons cask and damage, say, a dozen  
5 assemblies, those are all within the design basis for a  
6 defueled/decommissioning plan that we need to analyze  
7 site specific and show that, should that occur, the  
8 release does not affect the public. There would not be  
9 enough radioactivity release given how old our fuel or  
10 how long our fuel has decayed to affect the public.

11 CHAIRMAN VICTOR: Tim.

12 MR. PALMISANO: How is risk reduced? Spent fuel  
13 is at atmospheric pressure and low temperature 85 degrees,  
14 the heat source is low and significant mitigation time.

15 Is there a question?

16 MR. BROWN: So this is -- this is really what is a  
17 key item for, at least, folks in my community and  
18 constituents is the complete understanding and, to me,  
19 this is the heart of it is why you're asking for the  
20 exemptions and, ultimately, what is the risk of the  
21 community at large?

22 Because from what you're outlining it isn't  
23 the thing that's radioactive, it's the disbursal  
24 method, how -- how it can become, I guess, distributed  
25 through a high pressure or other items like that?

1 MR. PALMISANO: Right.

2 MR. BROWN: And from what -- because I read this,  
3 and so on a permanently defueled reactor it's not that  
4 it's any more or less radioactive, although, it's  
5 half-life, it's just that it's not so -- it doesn't  
6 have the propensity towards a huge explosive reaction  
7 that could drive it into a lot of rad -- it's just more  
8 dangerous to those on-site? I'm understanding that  
9 correctly?

10 MR. PALMISANO: Yeah, let me rephrase that. The  
11 hazard is significantly reduced. First of all, it is  
12 significantly less radioactive. All the short-term  
13 fusion products, they've decayed very quickly and they  
14 are virtually gone. We've been shut down over 30  
15 months.

16 So, you know, the fuel is significantly less  
17 radioactive than it was in January 2012 when we were  
18 operating the unit 3 and we had just shut down unit 2.  
19 So the amount of short-term radioactivity -- and I  
20 don't want to minimize, long-term radioactivity is  
21 still there and it's important, but it is significantly  
22 reduced, compared to an operating plant, that's one  
23 issue.

24 Secondly, you don't have the energy, the  
25 driving force to disperse it quickly into the

1 atmosphere, think of it that way. Again, an operating  
2 reactor of 2,000 pounds and 560 degrees has a lot of  
3 energy to drive material out into the environment, a  
4 spent fuel pool at atmospheric pressure and 85 degrees has  
5 very little energy to drive it -- yeah, and negative  
6 pressure and ventilation systems.

7 But even if I don't create a ventilation  
8 system, there is very little energy to drive anything  
9 out of the building much less so off-site. So that's  
10 essentially what it is.

11 MR. BROWN: Is that essentially what's guiding this  
12 request then, just the difference between a defueled and  
13 an operating reactor?

14 MR. PALMISANO: Yes. What drives this request is,  
15 we look at what the hazards are. We start with "What's  
16 the risk to the public?" You know, first and foremost,  
17 this is about public health and safety and the risk to  
18 the public.

19 With the spectrum of accidents that could  
20 occur at power with a short-lived radioactivity that  
21 could be released to power, those two are gone. So,  
22 what drives the request is what's changed the plan,  
23 changed the requirements to match the hazard that's  
24 there today and focus our efforts and our staffing on  
25 that, that's what drives the change in the plan.

1 MR. BROWN: Okay.

2 MR. STONE: Tom, while the fuel pools are still  
3 full at this point, is it really pertinent to -- is it  
4 really safe to not have our safety plan fully intact  
5 until all of the fuel is out of the fuel pools into the  
6 dry cask? Because --

7 MR. PALMISANO: Yes, it is. It's absolutely safe or  
8 we wouldn't be proposing it and it's under review.  
9 Again, the hazard is significantly reduced, the  
10 radioactivity is significantly less and, more  
11 importantly, you don't have the energy of an operating  
12 reactor or a pressurized reactor system to drive it  
13 out.

14 MR. STONE: Yes, but if we had a fire, say, we had  
15 a rapid loss and oxygen got to the rods, wouldn't still  
16 be possible to have a fire in which case then that  
17 would easily spread?

18 MR. PALMISANO: That's the design basis -- beyond  
19 design bases event that Joe Anderson just talked about.  
20 The criteria the NRC applies is, you have to show more  
21 than 10 hours before it would initiate. I'm about to  
22 show you our time.

23 CHAIRMAN VICTOR: Yes, let's let you get to those  
24 calculations because I think understanding those  
25 calculations is going to be crucial for us.

1 MR. PALMISANO: So as Joe Anderson said, all the  
2 analysis and justification has to be site specific.  
3 The interim staff guidance, the regulations can lay out  
4 generally what we have to demonstrate, but it's got to  
5 be demonstrated site specific.

6 Our spent fuel pools are very robust. The  
7 Mark I containment design that was this referenced plan  
8 study, I have managed two of those plans, that's a very  
9 different older containment system. It's an older  
10 spent fuel pool system not nearly as robust as what we  
11 have in San Onofre.

12 We're designed for earthquakes and external  
13 events, each spent fuel pool has 500,000 gallons of  
14 water, which cools the fuel. The next bullet -- in more  
15 than five days, if I turn off the cooling today, the  
16 loss of cooling discussion that was on the NRC slide,  
17 it would take more than five days to heat up from 85  
18 degrees to 212 degrees.

19 Now, that's a slow developing event. That  
20 gives you some feel for how low an energy condition  
21 that spent fuel is in 30 months after shutdown. We  
22 have multiple sources of water and capability to fill  
23 the spent fuel pool to make up for a slow or fast leak  
24 or to spray the pools, and we have significant security  
25 protection control, so let me come back, I think, it

1 was Larry Kramer's point there.

2 The physical security plan is -- is separate  
3 and think about it in parallel to the emergency plan.  
4 The physical security plan today is the same plan that  
5 existed for the operating reactor and will continue to  
6 meet the same requirements that existed.

7 It's focused on the spent fuel pool and the  
8 dry cask storage, which has been included before. The  
9 operating reactors are no longer fueled, so they're not  
10 in play, but it's the same physical security  
11 requirements, so the same depth of protection provided  
12 from a security standpoint and the operating phase will  
13 continue in the decommissioning phase for the spent  
14 fuel pools and the dry cask storage situation.

15 And the linkage between the two, we have  
16 initiating events in the emergency plan that should  
17 what would be called a hostile action occur, it  
18 triggers escalation in the emergency plan, so the plans  
19 are linked appropriately as they have been for a number  
20 of years.

21 The zirconium fire -- and before I get to the  
22 zirconium fire, let me just talk about some other  
23 things in the emergency plan, the operating plan  
24 emergency plan had classifications based on what was  
25 happening to the reactor, what was happening to the

1 spent fuel pool, what could happen to the ISFSI, it had  
2 triggers due to events occurring starting within the  
3 plant, it had triggers based on external events, such  
4 as an earthquake or a tsunami or severe weather.

5 The defueled emergency plan has similar  
6 categories: What is out of the defueled emergency plan  
7 are things related to the reactor and the associated  
8 system, but it has triggering events related to the  
9 spent fuel pool, related to the ISFSI, related to  
10 security, related to external events.

11 So on one of the two license amendment requests  
12 there's what's called emergency action level table,  
13 those are the trigger points, which you enter the  
14 emergency plan, so it's very similar triggering events  
15 based on external events and other things that could  
16 occur in a defueled plant.

17 So the zirconium fire, I want to spend a  
18 little bit of time on this because the bottom line on  
19 the design basis events we talked about: This is the  
20 loss of cooling, the loss of inventory, the loss of  
21 water, this is the fuel handling accident, this is the  
22 cask drop; those are unique to the fuel pool or the  
23 external events or the security threats.

24 We can show that 30 months after shutdown, we  
25 meet all the EPA Guidelines for protecting the off-site

1 public and we meet the NRC's draft interim and staff  
2 guidance for what they would consider for an exemption.

3 So where does the zirconium fire come in?  
4 This was described as a beyond-design basis event --  
5 event, so, you know, the plants are designed, this  
6 could occur, so show me that you can protect the fuel,  
7 protect the public, et cetera, for a design basis  
8 event.

9 So now you postulate a beyond design bases  
10 event. Don't know how it may happen, a rapid loss of  
11 water, whatever, the limiting beyond design bases event  
12 the NRC has told us we need to meet and they've told  
13 all the licensees this is the spent fuel pool is  
14 drained.

15 The spent fuel pool is drained, it doesn't  
16 matter how it happens, it doesn't matter how quickly it  
17 happens, it's drained, maybe there's three feet of  
18 water in the bottom that prevents air naturally  
19 circulating around the fuel assembly, that's the worst  
20 case.

21 So that leads to this question about the  
22 zirconium fire: How hot is your fuel? How long have  
23 you been shut down? How quickly can you reach that 900  
24 degrees centigrade temperature where the zirconium  
25 reaction would occur to start what's called the

1 zirconium fire. It's a serious event, but it's got to  
2 be shown that you've got more than the required time.

3 So it's beyond design basis, it doesn't matter  
4 how it occurs, no air cooling is credited, we've got to  
5 show that we've got greater than 10 hours; that's the  
6 NRC's guidance.

7 For San Onofre very specifically in August  
8 2013, we exceeded the 10-hour requirement; meaning, we  
9 had 10 hours or more before we would reach the 900  
10 degrees C. So, in August of 2013, because neither  
11 reactor had operated since January 2012, the fuel had  
12 been decayed long enough, we met that requirement over  
13 a year ago.

14 In October 2014, today, in that worst-case  
15 analysis, we have more than 17 hours to mitigate, so we  
16 more than meet the NRC requirement for adequate time to  
17 take action to mitigate.

18 Then if I do a more realistic calculation and  
19 credit air cooling and realize this worst-case analysis  
20 with the three foot of water in the pool assumes any  
21 heat given off by these fuel assemblies doesn't go  
22 anywhere, it just all goes right back into the fuel and  
23 heats it up. It's called the adiabatic heat up case,  
24 very conservative. It doesn't credit any heat  
25 dissipation.

1           If I credit just air circulation, air cooling,  
2   today our fuel will never reach that temperature, so  
3   with a more realistic analysis of what might really  
4   happen, we have -- we have adequate margin. We never  
5   even reach the temperature that that is the trigger  
6   point for the NRC's criteria.

7           CHAIRMAN VICTOR: Can I ask you two questions, Tom:  
8   Are we confident in the 900 degree number, why the use?  
9   So I assume somebody's, like, been rechecking it and  
10   using a slide rule on it and making sure it's robust.

11           And the second is: Are these calculations  
12   peer-reviewed or what's the system for making sure the  
13   calculations are right?

14           MR. PALMISANO: Yeah. First of all, we are very  
15   confident the number that that's the number which the  
16   sustained chemical reaction would occur that would be  
17   the zirc required. There's some lower temperatures  
18   where their clad would start to relax and so there's a  
19   variety of temperatures, that that's the ultimate  
20   temperature. We're very confident.

21           CHAIRMAN VICTOR: I start to relax before 900  
22   degrees.

23           MR. PALMISANO: Yeah, I understand. It's based on  
24   serious research by national labs -- national labs that  
25   the NRC has sponsored over the years, so it's

1 well-based. And, Joe, I don't know if you want to add  
2 anything to that?

3 MR. ANDERSON: It's part of the most recent  
4 consequent study that was also verified as well as the  
5 verification of the site specific calculation, that is  
6 something that the NRC will provide or are responsible  
7 in --

8 CHAIRMAN VICTOR: Okay. So you're going to  
9 provide -- you'll provide us with the calculations?

10 MR. ANDERSON: We will also do the review of those  
11 calculations and ask questions.

12 CHAIRMAN VICTOR: Okay. Thank you.

13 MR. PALMISANO: So we've had the calcs done by a  
14 competent vendor, we've had the calcs checked by  
15 another vendor, we check it ourselves, then we submit  
16 it for review and approval, and they, the NRC, has to  
17 check themselves.

18 CHAIRMAN VICTOR: Thanks.

19 MR. PALMISANO: So the calculation is validated.  
20 Yes, sir?

21 MR. QUINN: Yeah. I'd like -- this is Ted Quinn.  
22 I'd like to ask Joe the basis for the 10 hours, is a  
23 human factor study, usually, it's a movement of people,  
24 it's equipment available? How did you arrive at 10  
25 hours?

1 MR. ANDERSON: The 10 hours we basically took from  
2 the precedent that was established in the past and was  
3 proposed in that initial rulemaking as a rational time  
4 frame, is really what they used. There was no  
5 detail technical analysis because there are, again, so  
6 many variables designed at the plant how you staff.

7 So we looked at the 10 hours, we tried to  
8 determine, "Okay, what -- what is the scenario driving  
9 it? What are the factors involved?" And, again, we  
10 looked at it, saw, we were looking at a highly  
11 conservative adiabatic of all the scenarios we looked  
12 at highly conservative.

13 We did not take credit from the initiating  
14 event to reach that period of time, so we got to the  
15 point of "How conservative are you?" We felt 10 hours  
16 was still appropriate and consistent to keep as the  
17 threshold.

18 CHAIRMAN VICTOR: Are you concerned about the  
19 numbers?

20 MR. QUINN: No, no. I just -- normally, it's like  
21 a tech spec value, which Tom deals with every day.  
22 It's a tech spec value, it's like diesel generators and  
23 the starting times -- right? -- seven days.

24 MR. ANDERSON: Yes.

25 MR. QUINN: So I didn't know if the 10 hours had a

1 basis.

2 MR. ANDERSON: No, we're -- the 10 hours didn't  
3 have that detail of basis. You're looking at versus  
4 something where we're looking at the spent fuel pool  
5 mitigation strategies. We're looking at how long it  
6 takes them to implement these type of activities.

7 CHAIRMAN VICTOR: Okay.

8 MR. ANDERSON: We're looking at staffing as far as  
9 staffing studies and the collateral duties, so we're  
10 looking at it in those aspects.

11 CHAIRMAN VICTOR: Garry Brown.

12 MR. PALMISANO: And I'll touch more on that in a  
13 minute, Ted, when I get to our specific strategies.

14 Yes, sir?

15 MR. STONE: Tom, this is Gene Stone. The question  
16 that I see when I look at this chart is, "Okay. I  
17 understand the 10 to 17 hours, but how many hours is it  
18 going to take to resolve the issue if we get to that  
19 point? How long do we have and what is the process and  
20 what do we do if that worst-case scenario?"

21 MR. PALMISANO: Sure. Good comment. So on the  
22 next slide, and I'll get to -- give you the time frame  
23 in a minute. So if we wind up in any scenario where  
24 we've got to add water to the pool, whether it's a slow  
25 drain or rapid drain, or this instantaneous situation

1 where we have a drained pool with this worst case  
2 adiabatic, we have a number of systems today and through  
3 the time the pools will be in service that we will maintain.

4 We'll have normal -- today we have normal  
5 spent pool cooling and fuel systems that are  
6 immediately connected to add water to the pool. We  
7 have 1.5 million of on-site storage of water today to  
8 immediately start adding water to the pools.

9 We also have back-up pumps, electric-driven  
10 fire pumps and diesel fire pumps that we have part of  
11 the mitigating strategy. We have connections on, if  
12 the normal equipment were out of service, that we would  
13 connect some of the normally installed fire pumps to  
14 provide water to the pool.

15 Also since 9/11, we've had portable equipment  
16 available. We have portable pumps stored in diverse  
17 locations that we can move to connect to provide water  
18 to both either spent fuel pool or both.

19 So we've got that equipment staged on site.  
20 It's pre-staged or near the connection points,  
21 diverse, so we can add water to the pools.  
22 Additionally, we can bring in off-site support, a fire  
23 pumper truck from Camp Pendleton. Our connections are  
24 designed to just mate up to a fire truck and start  
25 pumping water into the pools.

1           So we have plenty of redundancy and ability to  
2 put water in the pools quickly. And as we go through  
3 the decommissioning process, in the future we'll talk  
4 about spent fuel pool islanding as we get off the normal  
5 systems. The replacement systems will have the same  
6 features designed into that, and our plan is to  
7 maintain that capability while the pools are in  
8 service.

9           CHAIRMAN VICTOR: Dan Stetson.

10          MR. STETSON: Thank you, Tom. The 1.5 million  
11 gallons, are those -- is that a reservoir in case we  
12 have a leak?

13          MR. PALMISANO: It's in various tanks -- various  
14 tanks, so we've used an operational base, demineralized  
15 water storage tanks, other water tanks that we have on  
16 site that we maintain.

17          MR. STETSON: Okay. So this is in addition to the  
18 500,000?

19          MR. PALMISANO: This is in addition to what's in  
20 the pools. Think of this as supply water or what we  
21 would call make up water to the pools.

22          MR. STETSON: Thank you.

23          MR. KRAMER: No wonder we have a drought, you've  
24 got 2 million gallons of water on site.

25          MR. PALMISANO: We've been hoarding it. And I

1 should mention, we also have multiple sources of  
2 electrical power ring today, and as we put in the  
3 decommissioning power ring that you heard me talk about  
4 we're engineering that to have multiple sources of  
5 electrical power, including continued diesel back up to  
6 power the equipment for the fuel pools and they add  
7 water to the pools.

8 MR. STONE: Tom, how difficult is it to put out a  
9 zirconium fire? Does that still burn while it's under water?

10 MR. PALMISANO: We're talking about preventing in  
11 that 10-hour time frame or in our case is 17-hour time  
12 frame. I'm not talking about distinguishing it.

13 MR. STONE: No, I understand that. I'm just -- I'm  
14 just saying if we reach to that point where we have to  
15 deal with it and use these emergency methods that  
16 you're talking about, how easy is it to put out the  
17 zirconium fire? Does it burn under water?

18 MR. PALMISANO: Gene, the pool is dry. The  
19 scenario was the pool is dry.

20 MR. STONE: I understand that.

21 MR. PALMISANO: So we add water to the pool.

22 MR. STONE: But I'm talking about putting water  
23 into the pools, does that put out the fire?

24 MR. PALMISANO: The -- to give you a precise  
25 answer, I'll have to get back to you on that to get

1 into what's called Class D or Special Fire. I'll have  
2 to get back to you on that.

3 MR. STETSON: I have a question just really  
4 quickly: You pick the zirconium cladding fire, is  
5 this -- in a spent fuel scenario, is this considered to  
6 be the worst case scenario?

7 MR. PALMISANO: This is the beyond-design base  
8 scenario?

9 MR. STETSON: And is this the only one? Is this --  
10 you know, is this why you picked this one?

11 MR. PALMISANO: This is the limiting one the NRC  
12 has identified through studies. There were, you know,  
13 the early 2000 studies, the studies that were updated  
14 after Fukushima as a limiting beyond design bases  
15 event. Again, we're designed for the design basis  
16 event and have to show we have adequate time to avoid  
17 the beyond design bases event.

18 MR. STETSON: Okay.

19 CHAIRMAN VICTOR: You've been in the industry for a  
20 long time, does that -- as the limiting beyond design  
21 bases event, does that sound right to you? Is that  
22 what would worry you the most? Or is there something  
23 else that is your Halloween event?

24 MR. PALMISANO: Well, no. Typically, the way the  
25 industry has evolved, we started with design basis

1 events and then over the years, particularly, say,  
2 after 9/11, we started thinking beyond design bases  
3 where your normal systems that you're designed to cope  
4 with things are unavailable.

5 We've put in what was called B.5.b or today,  
6 mitigating strategy license commitments to stage  
7 equipment that you could use for beyond design bases  
8 events. It's one of these very unlikely things, which  
9 should it occur, you need to have the equipment  
10 pre-staged to cope.

11 But it's not specific in terms of what it  
12 might be, so your equipment it's got to be portable and  
13 flexible, so that's the concept of beyond design bases,  
14 that's the concept. That's why there's no definition  
15 of how this pool might wind up drained and nobody  
16 realizes it's draining. It's there and it heats up,  
17 that's why it's considered beyond design bases.

18 CHAIRMAN VICTOR: But it seems like a reasonable  
19 out of limit to you --

20 MR. PALMISANO: I think it bounds it. I think --  
21 you know, we as well as the other decommissioning  
22 plants, and the other operating plants can show for the  
23 design basis events were designed and have equipment  
24 and systems and training of people to mitigate them, to  
25 cope with them, to protect the public and the workers,

1 then you take it one step beyond design bases  
2 event.

3 In this case, the criteria is, you've got to  
4 prevent it from occurring and that takes a minimum of  
5 10 hours and we have 17 hours, and so that's the  
6 concept.

7 CHAIRMAN VICTOR: And, Joe, are you guys looking at  
8 other possible design base -- beyond design events or  
9 is this it?

10 MR. ANDERSON: These are the ones that were  
11 identified through the consequence study. But, again,  
12 in what the approach we're looking at, here's a lot of  
13 what the agency is doing now and how we look at  
14 beyond design bases events, especially after Fukushima  
15 in the events of Fukushima. What -- get a better  
16 understanding of what they are and what reasonable  
17 measures should be taken to prepare to respond to  
18 those.

19 MR. PALMISANO: Yeah. And in our case of a  
20 decommissioned plant, the game in town is really the  
21 spent fuel pool, so the strategies are focused around  
22 the spent fuel pool and the ability to add water and  
23 cool that.

24 CHAIRMAN VICTOR: Bill? Bill Parker and then --

25 MR. PARKER: Tom, what you've been describing are

1 responses to what I'll call technical accidents. How  
2 do you incorporate into your planning deliberate and  
3 malicious acts of sabotage by individuals who have  
4 authorized access?

5 I don't mean attack from outside where you're  
6 protective forces provide a barrier, but from  
7 authorized individual who has access to the facility  
8 and the knowledge of all the systems. How do you  
9 design against those types of sabotage?

10 MR. PALMISANO: That's designed in terms of the  
11 security plan and the screening and access process for  
12 people. Okay. So, you know, you've got a physical  
13 security plan, which is designed, let's say, for an  
14 external event.

15 Also, there are aspects of the plan not every  
16 employee can go into every area of the plant. You'd  
17 need to have a need, you need to go through background  
18 screening, you're under behavioral observation, so the  
19 employees at the plant are pretty highly screened, you  
20 know, before they're ever given access.

21 There's areas in the plant, say, that are  
22 vital areas more restricted than protected areas that  
23 you only have access if you have a need. And, again,  
24 you're subject to pretty intense screening and periodic  
25 re-screening and behavioral observation, so we have

1 those types of controls in place to make sure that we  
2 really do not have a credible insider threat, in a  
3 sense.

4 CHAIRMAN VICTOR: I am hearing -- we should let you  
5 go on, but I'm hearing from many of the comments  
6 tonight that I think people would like to learn more  
7 about security plan, obviously, done in a way --

8 MR. PALMISANO: Sure.

9 CHAIRMAN VICTOR: -- that we can discuss this in a  
10 non-classified context, but let's talk about how we can  
11 learn more about that and provide you some feedback.

12 MR. KRAMER: I'd like to ask you a couple of  
13 questions.

14 MR. STONE: He just has to --

15 MR. PALMISANO: Just a second.

16 MR. KRAMER: It's only been a couple of minutes:  
17 Off the wall question, you keep the boron level about  
18 2,000 PPM, I think. Any effect if you would reduce the  
19 boron level to zero?

20 MR. PALMISANO: In terms of diluting the pool  
21 completely, for example, there is a minimal dilution.  
22 Let's see now. Randall, let me ask you --

23 MR. KRAMER: It just strikes me if you're filling  
24 it with fresh water, the water level is going to go  
25 through.

1 MR. PALMISANO: I think in the criticality -- I am  
2 thinking of the criticality analysis.

3 RANDALL: Design margin, it'll be okay.

4 MR. PALMISANO: Yeah. What I'm recalling, and I'm  
5 answering this off the top of my head, so we'll be glad  
6 to get back to you, if the pool is analyzed with a  
7 certain boron level, you know, and really you start --  
8 you've got fresh fuel in the pool, typically, before  
9 you refuel after a refueling outage, the boron is there  
10 for margin, the racks themselves have some neutron  
11 absorbing capability.

12 So, if I remember correctly the analysis of  
13 the dilution event or even if we had to refill the dry  
14 pool, we'd still stay subcritical, but why don't we  
15 take that as an action and give you a more thorough  
16 answer?

17 CHAIRMAN VICTOR: And boron is the stuff that's in  
18 the water that makes it look blue; right?

19 MR. PALMISANO: Well, you know --

20 MR. STETSON: That's chlorine.

21 MR. PALMISANO: The radiation -- the radiation  
22 effect makes it look blue. Boron is there to absorb  
23 neutrons.

24 CHAIRMAN VICTOR: Gene Stone, last question  
25 briefly, then we ought to move on.

1 MR. STONE: Okay. Joe, this is kind of a comment  
2 directed at you: 3/11 should have taught us, and  
3 hopefully, I know the NRC has written a report about  
4 it, but we have to seriously consider beyond design  
5 bases accidents. I mean, would you agree with that?  
6 Is the NRC taking appropriate actions to ensure that  
7 happens on site?

8 MR. ANDERSON: I would definitely agree with it and  
9 I think that's part of the philosophy we looked at --

10 MR. STONE: Right.

11 MR. ANDERSON: -- in looking at what possible  
12 events could we have that would be in that beyond  
13 design bases realm. One of the biggest differences from  
14 the prior exemptions that we had granted is the prior  
15 exemptions took credit for 10 hours that there be an  
16 ability to take mitigative actions.

17 We are actually wanted to see what those  
18 mitigative actions are and that you have staffing  
19 equipment in place and how long it would take to do it.  
20 So we, again, looked more forward, tried to learn some  
21 of these lessons learned and just didn't take it for  
22 granted that it would happen.

23 MR. STONE: Right. So you would agree that it is  
24 appropriate for this community to be looking at beyond  
25 normal accidents and, actually, it's due diligence to

1 be looking at the possibility of beyond design  
2 accidents?

3 CHAIRMAN VICTOR: I don't think Joe can give us  
4 advice on what to do, but it certainly is appropriate that  
5 we do this as part of the overall what the community  
6 wants to know about and, I think, people should know  
7 what the extreme -- extreme events are and the  
8 preparedness for that. It sounds like that's what's  
9 we're hearing from you.

10 MR. PALMISANO: Yeah, and --

11 CHAIRMAN VICTOR: We should let you continue on.

12 MR. PALMISANO: Yes, thank you.

13 CHAIRMAN VICTOR: So we don't run out of time.

14 MR. PALMISANO: And just for clarity, it's been a  
15 condition of the San Onofre operating license for over  
16 a decade, Gene, to have mitigating system strategies in  
17 place for beyond design basis events beyond -- based on  
18 9/11 that continues, Gene, will continue in the defueled  
19 tech specs and the defueled emergency plan as we're  
20 referencing.

21 MR. STONE: I just didn't want it -- I wanted it to  
22 be clear that it is appropriate to be looking at these  
23 things.

24 MR. PALMISANO: Sure.

25 CHAIRMAN VICTOR: Absolutely.

1 MR. PALMISANO: And our RAI responses, which are  
2 posted publicly in the NRC website describe a lot of  
3 this. So the bottom line conclusion: Today, October  
4 2014, we have more than 17 hours to take action in the  
5 most limiting beyond design basis scenario.

6 With our equipment, both normal and the  
7 portable equipment we have, we can be refilling these  
8 fuel pools within two hours. So and we walked through  
9 that scenario, how to break out the equipment. Within  
10 two hours, we can be adding water to the pools well  
11 earlier than that 17-hour limit or, more importantly,  
12 the 10-hour limit.

13 So the inter-jurisdictional planning  
14 committee, I'm not going to talk a lot this -- a lot  
15 about this because Mr. Kirchner is going to talk about  
16 this in a minute.

17 But as Joe Anderson said, this really has been  
18 held up as a model for the industry in terms of how a  
19 licensee, a utility, should and could cooperate and  
20 partner with local authorities to assure adequate  
21 public health and safety and emergency plan  
22 implementation. So I won't go into detail there  
23 because that's coming up.

24 Real quickly, responsibilities: I really want  
25 to emphasize that much of what's in the emergency plan

1 does not change. Okay. The key thing that does change  
2 is what's called pre-planned off-site actions. We're  
3 still responsible for notifying agencies, working with  
4 agencies to communicate what's going on site and the  
5 off-site agencies are responsible for taking the  
6 appropriate actions to protect the health and safety of  
7 the public.

8           Given that the reactors are permanently out of  
9 service and the fuel has been decayed so long, the  
10 design basis events don't occur quickly enough or  
11 should they occur don't result in a release that  
12 affects the public and we've already talked about the  
13 beyond design bases event fairly thoroughly.

14           I won't go through all these slides in the  
15 interest of time. You're going to have a copy. They  
16 will be posted on SONGSCommunity.com. If they start with  
17 SONGS, we as a licensee, still have the same  
18 responsibilities to classify events, mitigate the  
19 condition on site, protect personnel, asses/monitor  
20 radiological conditions, notify federal, state, and  
21 local agencies and then coordinate on-site support for  
22 fire security rescue and first aide.

23           Orange County, San Diego County really continue  
24 with the same responsibilities they've had as does the state  
25 level, as does the NRC. And then goes further on into,

1 you know, Camp Pendleton, Homeland Security, FBI. But  
2 the key point I want to leave you with, this is a change.

3 It is not implemented yet. We're six months  
4 away probably at the earliest prior to receiving  
5 approval. We're in the middle of the NRC review  
6 process. It is based on the current condition of the  
7 plant, the future condition of the plant, and the  
8 defueled emergency plan provides the appropriate level of  
9 protection for on-site and off-site personnel. That's  
10 what I wanted to leave you with.

11 CHAIRMAN VICTOR: Thank you very much, Tom. Let me  
12 see if there are other comments or questions. Garry  
13 Brown.

14 MR. BROWN: Tom, I have a question on -- and maybe  
15 I'm just not connecting the dots. In Joe's discussion,  
16 I heard him say that the number one threat would be  
17 sudden breach of the pool and a sudden draining of the  
18 pool, and so I'm assuming that would be a major breach  
19 if you have that condition.

20 Then, I see that the mitigation for that is to  
21 fill up the pool and you say -- you have the equipment  
22 to fill it up, but what about if the pool doesn't hold  
23 water?

24 MR. PALMISANO: Oh, you just have to continue  
25 filling it, you know, from the various water sources.

1       Ultimately, you bring in another water sources.

2               MR. BROWN:   So in a short time you'd go through  
3       your million and a half gallon reservoir?

4               MR. PALMISANO:   Well, you flood around -- you flood  
5       around the pool and essentially refill it.   And, again,  
6       when -- I think you've been at the plant.   You know,  
7       this pool is encased and a significant concrete  
8       building, so you've --

9               MR. BROWN:   Right.

10              MR. PALMISANO:   -- a steel liner, you've got, you  
11       know, concrete walls that are 5-foot thick around it  
12       and heavily reinforced.   So you need to postulate  
13       a significant breach.   But also, as you refill that,  
14       it's -- it's hard to conceive what would actually  
15       prevent you from re-flooding and maintaining the pool  
16       flooded, and you might have to continue adding water,  
17       there is no doubt, but we have that capability.

18              MR. BROWN:   Right.   And in your third bullet point  
19       on that same slide was basically if you -- air-cool it  
20       with air, it would never reach that degree.   Is there a  
21       way or do you have a plan to, if the breach was such or  
22       you couldn't put enough water sustained enough time,  
23       would there be any air-cooling of it?

24              MR. PALMISANO:   Well, again, that cooling with air,  
25       I'll say bluntly, hypothetical beyond design bases

1 scenario where the pool is empty and I have no way to  
2 put water in it. Again, I've got up to 17 hours before  
3 it would reach that temperature under the conservative  
4 calc. If I do a more realistic calc of just normal air  
5 cooling in the building with normal ventilation, it  
6 never gets to that temperature, so that's what that is  
7 designed to convey. Okay. So --

8 MR. BROWN: And you have the ability and the  
9 capacity to do that, to just get air in there?

10 MR. PALMISANO: Well, yes, the normal ventilation  
11 system, and more importantly, I've got multiple ways  
12 and paths -- flow paths to put water in the pool.

13 MR. BROWN: Okay.

14 MR. PALMISANO: Which is really what you would do.  
15 You never want to sit there with the pool drained and  
16 depending on air cooling, that's just designed to show  
17 you in that worst case a realistic calc you would never  
18 reach the temperatures. What you really need to think  
19 about is the strategy as to refill it and maintain  
20 water above the fuel.

21 CHAIRMAN VICTOR: Okay. We have questions from the  
22 Larry -- Larry Kramer first.

23 MR. KRAMER: Under local agencies, you list the two  
24 counties. Are the city still involved or not?

25 MR. PALMISANO: Let me defer to Jeremy on that.

1 Yes, they are. I just kept the slide pretty simple and  
2 apologize for not touching on this issue.

3 CHAIRMAN VICTOR: Why don't we hold that until we  
4 hear from you. Larry Rannals from Camp Pendleton.

5 MR. RANNALS: I'm Larry Rannals. Comment for  
6 either Joe or Tom. Despite the fact whether an  
7 exemption, an EP exemption, is going to be granted or  
8 not granted, has there ever actually, in the history of  
9 the industry, has there been a zirconium fire in a  
10 spent fuel pool?

11 MR. ANDERSON: No.

12 MR. PALMISANO: No.

13 CHAIRMAN VICTOR: No.

14 MR. STETSON: Anywhere in the world?

15 MR. PALMISANO: Not to my knowledge, at any power  
16 reactor plant, no.

17 MR. BROWN: And I do have one last question, and I  
18 apologize, because I just always assumed there's a  
19 million different things, you know, that could happen,  
20 if this is the worst case scenario, is there anything  
21 else that raises this level of concern in terms of what  
22 could physically happen in that pool other than the  
23 zirconium having an issue?

24 MR. PALMISANO: No, I would say when that's  
25 postulated, it's the worst case beyond design bases,

1 that's probably the conservative worst case example.

2 CHAIRMAN VICTOR: Okay. Excellent. Thank you very  
3 much, Tom. This has been tremendously helpful and  
4 specially hearing the two presentations, yours and  
5 Joe's back to back.

6 Jeremy Kirchner is going to now talk with us  
7 about the inter-jurisdictional issues. So, Jeremy, the  
8 floor is yours.

9 MR. KIRCHNER: Thank you very much. My name is  
10 Jeremy Kirchner. I'm the emergency services  
11 coordinator for the city of Dana Point, I'm also the  
12 chairperson of the Inter-jurisdictional Planning  
13 Committee, and thank you very much for inviting me  
14 tonight.

15 I'll talk just briefly about what the IPC is.  
16 Again, IPC, Inter-jurisdictional Planning Committee,  
17 it's a lot of words so I may switch between acronyms.

18 We were established in 1982 and meet monthly.  
19 And our entire purpose, our sole existence is to  
20 prepare and plan for an emergency at San Onofre. We're  
21 a partnership between government and private industry  
22 and I'll show you a lot of the agencies are involved,  
23 in a couple of more slides. But these seals will show  
24 you the primary agencies involved.

25 And we are dedicated to ensuring public health

1 and public safety, both the safety of the public and of  
2 our emergency workers. The way we do that is through  
3 developing plans, procedures, and policies, and then  
4 training and exercising those plans.

5           So our mission is very simple: Promote  
6 nuclear power preparedness through agency coordination  
7 and integration of emergency plans. The way that we do  
8 that is we coordinate our planning efforts; we work  
9 together as a group to develop consistent plans that  
10 apply to each of the agencies.

11           We also do the same thing for purchasing of  
12 equipment, and that's radiological monitoring  
13 equipment, anything else we would use in our response  
14 to an emergency at the plant. And that's important  
15 because we want consistent equipment between agencies  
16 and we want everything to be compatible because we will  
17 all be working together in the event of an emergency.

18           We take that planning and there's training,  
19 and the equipment -- I'm sorry -- the planning and the  
20 equipment, and then we train our staff, we train our  
21 responders, our internal staff, other agencies that we  
22 work with. Training is a very big issue for us and  
23 that's one of the biggest things that we do.

24           We use that training and then we drill, we  
25 exercise. We put our plans into play and make sure

1 that they work, and then based on the results of those  
2 drills and exercises, we look at corrective actions,  
3 lessons learned, and we incorporate that back into our  
4 planning efforts, our equipment development, and then  
5 our training.

6 This is the make up of the emergency -- of the  
7 Inter-jurisdictional Planning Committee, excuse me, the  
8 primary members are listed on the left and that's the  
9 three cities that are closest to the plant, the two  
10 counties that are adjacent to the plant.

11 California Department of Parks and Recreation,  
12 because they're a state park lands very near to the  
13 plant and, as I'm sure you know, the plant is located  
14 on Camp Pendleton, so they are a definite primary  
15 stakeholder, and then Southern California Edison is a  
16 member of the IPC also. Those are our primary members.

17 We also have associate members that also have  
18 a role in planning for emergencies at San Onofre; those  
19 are both government and non-government organizations,  
20 again, just like the make up of the IPC primary  
21 members, it's all levels of government, from local  
22 through federal agencies; also the non-governmental  
23 organizations, Red Cross, the school district, which is  
24 government, but not city government.

25 All of the other groups that we work with that

1 are planning partners that help us prepare for our  
2 response to an emergency at the plant.

3 Each of those agencies, the cities, all of the  
4 other organizations we work with, have emergency plans  
5 for their jurisdiction. The basic format of anyone's  
6 emergency plan is there's the basic plan sets up the  
7 initial framework of how to respond to any type of an  
8 emergency.

9 It's an all-hazards plan. It just sets up  
10 "This is how as an organization we'll respond to  
11 whatever the emergency is." We also have specific  
12 sections of our plans that deal with individual  
13 hazards. For example, in my city, City of Dana Point,  
14 our specific annexes, include earthquake, tsunami, and  
15 then we do have an annex for SONGS.

16 Those plans for each jurisdiction are  
17 supplemented by inter-jurisdictional policies that are  
18 developed by the IPC and then applied to all of the  
19 agencies. Those help us establish how we work together  
20 in a response to an emergency at the plant. Excuse me.

21 So some of the key components of our emergency  
22 plans today, where we are right now, as it relates to  
23 an incident at San Onofre. Again, that basic  
24 all-hazards plan sets up the framework of how we would  
25 respond to an incident, and then we have specific

1 planning documents that address different parts of the  
2 response to an emergency at San Onofre general nuclear  
3 power plant and then certain specific breakouts on how  
4 we would handle certain aspects of the response, some  
5 of these actions are taken by individual jurisdiction,  
6 others are taken by multiple jurisdictions or the  
7 entire IPC as a group.

8 CHAIRMAN VICTOR: Can you comment on whether these  
9 things are now changing? Are you planning to change  
10 them?

11 MR. KIRCHNER: Those are the next three slides.

12 This slide is looking at, again, I apologize  
13 for the acronym, but it's the permanently defueled  
14 emergency plan, that's the submittal that's been talked  
15 about tonight.

16 Looking forward at our individual emergency  
17 plans for the public agencies: These are some of the  
18 key elements that'll still be part of our emergency  
19 plans. We still have that basic plan, we still have  
20 specific planning documents for the power plant, for  
21 the independent dose assessment and radiological  
22 monitoring, emergency alert, getting information out to  
23 the public, joint information, all the ways we would  
24 communicate this information out to the public and then  
25 our recovery planning.

1 I've got two more slides for you and then see  
2 if that answers your question. Looking at specific  
3 actions, the things that each of the agencies would do  
4 in response to an event at San Onofre, whatever the  
5 type of event is.

6 For these actions, the procedures that we have  
7 in place by the nature of what it is that we do as a  
8 government, by the nature of the work that the IPC  
9 has done, these are what we have in place now.

10 Law enforcement, I know that was an issue that  
11 came up. Because of where the plant is located, there  
12 are a number of law enforcement agencies, to get back  
13 to your earlier question, that could respond to the  
14 plant.

15 Because San Onofre is actually located on  
16 federal land, the primary law enforcement agency is the  
17 FBI, but they're not as close as a lot of the other  
18 agencies. Both San Diego County, Orange County  
19 Sheriff's Department have a capability of responding to  
20 the plant, California State Parks has more law  
21 enforcement that can respond to the plant, and they're  
22 on a military installation.

23 So there are a lot of opportunities for law  
24 enforcement and those are agreements that Edison is  
25 working out with all the individual agencies. The same

1 thing with Fire and Rescue, Mr. Palmisano talked about  
2 the agreements with Camp Pendleton Fire. Obviously,  
3 there are other fire agencies and for both law and fire  
4 response, additional needs would be met through  
5 existing mutual aid channels that are used every day  
6 for every type of incident throughout the counties.

7 Medical, both on the EMS side, like  
8 paramedics, and then on the hospital side for public  
9 health, those procedures are in place. We have  
10 procedures currently for off-site independent  
11 radiological monitoring, plume modeling, air  
12 sampling, going out in the field and taking actual  
13 samples of what's in the environment.

14 Our emergency operations centers all have  
15 their own activation plans on how each jurisdiction  
16 would respond to an emergency, how we coordinate with  
17 each other. And then for non-emergencies, drills and  
18 exercises, how we validate our plans to make sure those  
19 are to the level that we need them to be, to be able to  
20 respond safely. Decontamination, public information  
21 training; all of these procedures are currently in  
22 place for what we're doing today under our current  
23 plans.

24 The next slide will show what we will have in  
25 place under their permanently defueled emergency plan

1 and it's the same procedures. We have no changes. All  
2 of these capabilities are being maintained by the  
3 agencies of the Inter-jurisdictional Planning  
4 Committee.

5 CHAIRMAN VICTOR: If I compare -- so that's all  
6 staying the same, with the same level of intensity and  
7 so on, if I compare the previous two slides --

8 MR. KIRCHNER: Yes.

9 CHAIRMAN VICTOR: -- which were about the  
10 jurisdictional emergency plan, basically there are tree  
11 activities that you're removing.

12 MR. KIRCHNER: Yes.

13 CHAIRMAN VICTOR: Which is the evacuation time  
14 estimate, the --

15 MR. KIRCHNER: -- reception and decontamination.

16 CHAIRMAN VICTOR: -- reception and decontamination  
17 center and the ingestion pathway exposure, and all of  
18 that derives from what Tom Palmisano briefed us on,  
19 which is that we have this robust estimate now, that the  
20 risks of -- of a spent fuel event and so on are such that  
21 these kinds of scenarios of risks to the public are now  
22 not plausible in any way.

23 MR. KIRCHNER: Correct. And the way that that gets  
24 to our level, at the government level, is those risks  
25 are established by the conditions of the license and the

1 NRC and how the regulatory work is done by the NRC.

2 The NRC regulates what happens on site at the  
3 plant. They regulate nuclear power plants. They do  
4 not regulate local governments, that's a job of FEMA,  
5 Federal Emergency Management Agency. So those two  
6 federal agencies partner to make sure that both the  
7 on-site and the off-site plans are protect -- will  
8 protect the public health and safety.

9 CHAIRMAN VICTOR: Okay.

10 MR. KIRCHNER: FEMA imposes those requirements on  
11 government to make sure that we can do certain things  
12 and one of the ways that's done is through the  
13 establishment of emergency planning zones and other  
14 things that are what is changing.

15 CHAIRMAN VICTOR: And the siren tests?

16 MR. KIRCHNER: I'll get to that in a couple of  
17 minutes.

18 CHAIRMAN VICTOR: Great. Well, I'm just trying to  
19 help you along here.

20 MR. KIRCHNER: I appreciate that.

21 MR. STETSON: We really love those in San Clemente,  
22 so keep those up.

23 MR. STONE: Jeremy, this is Gene. I have a  
24 question for you.

25 MR. KIRCHNER: Yes.

1 MR. STONE: So are you telling me that you have in  
2 place your own monitoring equipment or are you relying  
3 on Edison's monitoring equipment?

4 MR. KIRCHNER: We do not rely on Edison and we  
5 never have. We have independent -- and without going  
6 back to the slide, if you look at some of the associate  
7 members of the IPC, Orange County Fire Authority,  
8 Oceanside Fire Department, and Camp Pendleton Fire  
9 Department wasn't broken out specifically.

10 Those three agencies are currently trained in  
11 place and have drilled for decades on off-site  
12 monitoring. That's a plan that we have in place and  
13 it's done through a function called the off-site dose  
14 assessment center. That it's done completely  
15 independently, using different modeling, different  
16 estimating, different equipment from what's done on the  
17 site.

18 MR. STONE: So if modern technology, being what it  
19 is today, do you have any plans to put that online so  
20 people can watch it themselves?

21 MR. KIRCHNER: It is certainly a possibility.  
22 We've been looking internally about ways to optimize  
23 getting the information back from the field to our  
24 centralized locations. We haven't looked yet at  
25 getting that information out publicly, but it certainly

1 is a possibility.

2 MR. STONE: I would encourage you to do so.

3 MR. KIRCHNER: Okay. Thank you.

4 MR. ALPAY: I have a question.

5 CHAIRMAN VICTOR: Please.

6 MR. ALPAY: Let me address the members here, active  
7 and associate members, I see the school district,  
8 Capistrano Unified is an associate member.

9 MR. KIRCHNER: A very important one, yes.

10 MR. ALPAY: I'd like to think so. I've seen the  
11 prep work been done, but I am just wondering about our  
12 neighbors to the south of the Fallbrook School  
13 District. I mean, it's on base schooling, does the  
14 Marine Corps handle that?

15 MR. KIRCHNER: This was set up in that, again, the  
16 10-mile emergency planning zone and Capistrano Unified  
17 School District is the only district within the 10-mile  
18 radius of the plant. There are capabilities that Camp  
19 Pendleton has. We have not worked directly with that  
20 school district, but there are a lot of capabilities on  
21 base.

22 MR. STONE: Are you saying there's no Fallbrook  
23 school -- school site within 10 miles?

24 MR. KIRCHNER: Correct. I believe that's correct.

25 CHAIRMAN VICTOR: Larry Rannals.

1 MR. RANNALS: Let me -- let me weigh in on that.  
2 We do have, in fact, one Fallbrook K-8 school on Camp  
3 Pendleton closer to the plant than any of the  
4 Capistrano School District schools.

5 MR. KIRCHNER: Okay.

6 CHAIRMAN VICTOR: Is this a contest to get closer  
7 to the plant? I'm happy to lose that one.

8 MR. RANNALS: Yes. It's actually closer than any  
9 school up in Orange County.

10 CHAIRMAN VICTOR: So are they adequately engaged in  
11 whatever this -- in these inter-jurisdictional?

12 MR. RANNALS: Well, they're involved. Camp  
13 Pendleton does have its own emergency response plan  
14 with the accident and the school is involved in that  
15 plan.

16 CHAIRMAN VICTOR: So you're -- it sounds like  
17 you're confident that they're --

18 MR. RANNALS: What I don't know is, I don't know  
19 whether the district is engaged to the same degree that  
20 maybe the Capo School District is.

21 MR. KIRCHNER: The district is not, the base  
22 certainly is.

23 CHAIRMAN VICTOR: So it sounds like the spirit of  
24 John Alpay's question is we ought to check up on that.

25 MR. KERN: I am just going to ask a question,

1 Stuart Mesa Elementary --

2 CHAIRMAN VICTOR: This is Jerry Kern.

3 MR. KERN: -- which is the Oceanside Unified School  
4 District, which is the Oceanside Unified School's most  
5 northern school that's not within the 10 --

6 MR. RANNALS: I think it's outside the 10-mile  
7 radius. I think it's just barely out.

8 MR. KERN: Good. Since my son is the principal of that  
9 school, I'd like to --

10 CHAIRMAN VICTOR: Okay. We should let you say a  
11 couple of words about Community Outreach because we're  
12 very tight on time.

13 MR. KIRCHNER: And just to follow up, we can get a  
14 map of the emergency planning zone to you. It's also  
15 available on a lot of our agencies websites, that would  
16 help clear that up. It is something that will be going  
17 away in the future, but if it would help answer some  
18 questions now.

19 CHAIRMAN VICTOR: Yeah, but I think also in the  
20 spirit of John Alpay's original question, it would be  
21 helpful to understand whether the school is falling  
22 through the cracks as it were.

23 MR. KIRCHNER: Yes, thank you.

24 MR. STONE: And just to be clear, which school is  
25 the San Onofre K-8, correct, do you know the name of

1 that school?

2 MR. RANNALS: I'm sorry?

3 MR. STONE: The name of that school.

4 MR. RANNALS: Yes, that's San Onofre.

5 MR. STONE: San Onofre; right?

6 CHAIRMAN VICTOR: Ted, did you have a comment?

7 MR. QUINN: Yeah. Can I just ask, how do we  
8 measure your performance? How do we know that you're  
9 doing well or not so well? How do we do that?

10 MR. KIRCHNER: There was a reference on one of the  
11 earlier slides to that biannual exercises and that's  
12 full-scale exercises that are done every two years in  
13 coordination with the plant and all the outside  
14 agencies.

15 MR. QUINN: What have been your records? Has it  
16 gone well?

17 MR. KIRCHNER: Very good, and those are publicly  
18 available.

19 MR. QUINN: Okay.

20 MR. KIRCHNER: The plan is regulated and evaluated  
21 by the NRC. We're evaluated by FEMA and there's some  
22 FEMA representatives here tonight, but those -- we have  
23 done very well. We've had no significant issues, going  
24 back many years in our exercising and those records are  
25 available online, also.

1 MR. BROWN: I have one more question, if that's  
2 okay.

3 CHAIRMAN VICTOR: Tim, Tim Brown.

4 MR. BROWN: Jeremy, along those same lines, you  
5 know, there is a series of private schools, also,  
6 within San Clemente, Catholic schools, Lutheran schools,  
7 and other ones. How do you coordinate with those student  
8 bodies? Is that done through Capo?

9 CHAIRMAN VICTOR: No. That's certainly available,  
10 and they're in a good position to know where some of  
11 the schools are, but we do reach out to them  
12 individually, not as much as the whole IPC, but at each  
13 city's level.

14 MR. BROWN: Okay.

15 MR. KIRCHNER: And Edison is big partner in that, too,  
16 that we reach out to those schools, encourage them to  
17 do emergency planning, make sure they're aware of it,  
18 there's a model private school emergency plan that we  
19 distribute to those schools, and we encourage them to do  
20 that and we're in communication as much as they would  
21 like us to be.

22 MR. BROWN: Thank you.

23 CHAIRMAN VICTOR: Donna Boston.

24 MS. BOSTON: Thank you. Jeremy, maybe you can  
25 discuss a little bit about the change for off-sites as

1 it relates to our FEMA regulation, because as far as I  
2 understand it, when the plant is subject to different  
3 regulation post-decommission, the FEMA regulations  
4 don't offer us much in terms of being able to grade our  
5 performance, and I know that has been one thing that  
6 our county leaders have frankly enjoyed, the fact that  
7 we are graded on our performance and it offers us a bar  
8 that we have to demonstrate our capability.

9 MR. KIRCHNER: We absolutely are, and the  
10 evaluators that have come out for our exercises are  
11 both FEMA staff, contract staff that have expertise in  
12 this industry and that's been a very nice thing, to be  
13 evaluated by some of the best in the country and some  
14 of the best in the world on our performance.

15 Going forward, as the licensing changes and  
16 its emergency planning zone essentially goes away, the  
17 FEMA requirements for outside agencies also go away.  
18 We don't have those requirements, we don't have the  
19 exercise requirements and it also means we don't have  
20 the evaluation.

21 We have committed, as the members of the IPC,  
22 to continue doing a lot more than the nothing that  
23 would be required of us. We will have plans in place,  
24 we'll have training. I shouldn't say "nothing." There  
25 are still requirements for law enforcement and some

1 other things to be trained by Edison on certain site  
2 specific procedures.

3 But the FEMA requirement placed on us  
4 essentially go away. We've committed to continuing a  
5 lot of these things we talked about tonight. The  
6 evaluation is something we haven't completely looked at  
7 yet. We're not required to participate in the biannual  
8 exercises that will continue. The plant is required to  
9 invite us.

10 My expectation is, we will continue to play at  
11 some level and we would try to work out the evaluation  
12 either with local evaluators, other experts we can  
13 find, or other things to be determined.

14 CHAIRMAN VICTOR: Okay. We should take one minute  
15 and cover items on public education outreach.

16 MR. KIRCHNER: Sure.

17 CHAIRMAN VICTOR: Thanks.

18 MR. KIRCHNER: One of the other big things we do is  
19 just getting information out to the public and  
20 Education Outreach, that's a big part of it. There's  
21 some things we do jointly as IPC, some things we do  
22 individually as agencies, and we do it in a variety of  
23 ways: Get information out on printed materials, online  
24 materials, electronic formats.

25 And the information that we share has both a

1 nuclear and an all-hazards focus because this is not the  
2 only hazards that we face. One of the things or two of  
3 the things we do jointly as an IPC is a community  
4 newsletter that's mailed out every year, and then the  
5 second, as you mentioned or asked about, is the annual  
6 sirens test.

7           This mailer should look -- well, not this one  
8 specifically, but a siren test mailer should look  
9 familiar to a lot of people here. hopefully, you  
10 received them yesterday or today. The annual siren  
11 test for this year is next Wednesday the 15th, so that  
12 is something to look forward to, but it's an important  
13 test of our procedures.

14           CHAIRMAN VICTOR: I'm happy it's not during our  
15 meeting on the 14th.

16           MR. KIRCHNER: It is 10:00 a.m. to noon. I think  
17 the meeting is in the afternoon, correct. Some of the  
18 things we do specifically within each -- each agency  
19 electronic information, again, websites, social media,  
20 other ways to get information out.

21           Community meetings are a big thing for all of  
22 us. Any chance we get to speak to a group, community  
23 organizations, homeowners association, Boy Scouts  
24 troops, any chance we get, we try to share information,  
25 again, nuclear and non-nuclear information.

1           Emergency expos and fairs are another example,  
2           and the Community Emergency Response Team or the CERT  
3           Program, which is training that all three of the cities  
4           do to provide preparedness information at an individual  
5           level to help people save themselves, protect  
6           themselves and their family. Sir?

7           MR. BARTLETT: Can I just add very quickly? Do you  
8           have all employees or do you also have volunteers?

9           MR. KIRCHNER: Yes, the CERT is a volunteer program  
10          for our three cities, so that's members the community.

11          MR. BROWN: We have a very robust circle, 175  
12          certified, you know, CERT members.

13          MR. BARTLETT: Good.

14          MR. BROWN: Who volunteer in the community or  
15          are certified for it or plan for that type of event.

16          MR. KIRCHNER: And just as the government work  
17          together, the CERT Program is really, no offense, but  
18          led by the San Juan Capistrano CERT Program are doing a  
19          lot of training and exercising joint together.

20                 In just a few months ago, there was a joint  
21          CERT exercise between our three cities and Laguna Beach  
22          and that gets our volunteers a chance to work together  
23          because we know, in a larger event, that could happen,  
24          too.

25          CHAIRMAN VICTOR: Okay. Any other questions people

1 have for Jeremy before we break? Gene Stone?

2 MR. STONE: Jeremy, thank you for doing this type  
3 of work. Could you speak to us for just a moment and  
4 stress how each community member should take  
5 responsibility for finding out about this information  
6 and how they should -- might want to prepare an  
7 emergency plan of their own?

8 MR. KIRCHNER: Thank you. You're letting me get to  
9 my very last slide.

10 MR. STONE: Okay.

11 MR. KIRCHNER: And that is a couple of great  
12 resources that are available both in Orange County and  
13 San Diego County. Ready OC and Ready San Diego are  
14 great websites that have personal preparedness  
15 information, and I really encourage everyone to  
16 register for Alert OC, Alert San Diego to receive phone  
17 and email notifications in case of an emergency.

18 Those are two great things people can do.  
19 CERT is an excellent program for personal preparedness.  
20 There are a lot of good resources out there. And,  
21 really, I do hope people would take that time and that  
22 energy to prepare themselves because, as I said,  
23 San Onofre is one hazard, there are many other hazards,  
24 and we want people to be prepared.

25 CHAIRMAN VICTOR: Can I ask you one last question?

1 It seems like a lot of the communication and outreach  
2 is, your organization and the affiliates telling folks  
3 about what's going on and that's just tremendously  
4 important.

5 How do you know the other way around, how do  
6 you know what the public wants? For example, maybe the  
7 public wants these siren tests as expeditiously as  
8 possible to no longer happen and there may be  
9 other things the public wants. How do you get that  
10 information?

11 MR. KIRCHNER: When we do public meetings and  
12 presentations, we do get a lot of questions and it  
13 never gives as much feedback as we would like. But we  
14 do a pulse of certain communities.

15 We try to just talk to the public as much as  
16 we can and that's one of the benefits of being small  
17 cities, again, speaking from the city perspective is  
18 that we can, between the emergency planning folks or  
19 elected officials, other city staff, we do think we  
20 have a bit of a sense of what's on people's mind. We  
21 would always like more information and encourage people  
22 to reach out to us definitely.

23 CHAIRMAN VICTOR: Okay. Thank you very much.  
24 Anything else? Okay. Well, thank you very much to  
25 Jeremy, to Joe, to Tom for this exceptionally helpful

1 set of presentations and discussions.

2 We're going to take a 5-minute break right now  
3 and come back for the public comment period. A  
4 reminder, that if you'd like to make a -- a comment  
5 that you should sign up with the list, which I think is  
6 out of the door, so we can get you on the agenda.

7 Thank you.

8 (A brief recess was taken.)

9 CHAIRMAN VICTOR: Okay. We may have a brief for  
10 the normal public comment period that will give CEP  
11 members sometime to comment on the comments that they  
12 liked and then we may also break early.

13 But first is Ray Lutz followed by Richard  
14 Gardner. Ray, the floor is yours.

15 MR. LUTZ: Thank you. Ray Lutz with Citizens  
16 Oversight. Thank you for letting us have public  
17 comment this time and I encourage you to do it at every  
18 meeting.

19 I'd like to go back two meetings when we did  
20 not have public comment and follow up on a comment by  
21 Tim Brown regarding that it's no big deal to demolish  
22 one of these things because you're going for -- you're  
23 not trying to build it, you're taking it out and you're  
24 going for getting the property back to its pristine  
25 state.

1           When, in fact, just the opposite is true.  
2       It's much more difficult to take out a nuclear plant than  
3       it is to put it in because all of the material that  
4       you're putting is not radioactive yet. And it's safe,  
5       you can transport it around, you can probably eat it.  
6       It won't hurt you.

7           But when you're taking it out, you have to be  
8       extremely careful with all of this material, so it  
9       isn't an easy thing. And so his remark sort of sloughs  
10      that off as nothing. I want you to really look at that  
11      carefully. It is not a simple matter to take this  
12      material out when you're taking a plant down.

13          And since we didn't have public comment that  
14      night, I couldn't make that comment that day, and  
15      that's the reason I have to bring it up two meetings  
16      later, so I would like to request that you have public  
17      comment so we don't have to go back two meetings to  
18      figure out what it was that was said.

19          The fuel pools, there was a comment made,  
20      "There's never been a problem with fuel pools." I beg  
21      to differ, the number 4 fuel pool at the Fukushima  
22      plant is now in extreme danger of failing. They have  
23      308 fuel assemblies removed out of 1,533.

24          It is something that at any earthquake that  
25      happens could take that building down, and I'm

1 encouraged that they're actually making progress on it.  
2 Helen Caldicott said that this Building 4 was the  
3 biggest potential catastrophe facing humanity right  
4 now; that's how big it is.

5 A fuel pool, the biggest catastrophe facing  
6 humanity, not the rest of the three reactors that are  
7 already melted, but this one fuel pool, so to think  
8 that it's just at ground level, no problem, again,  
9 wrong because there's a big cliff right next to it.

10 The water can easy flow out of those fuel  
11 pools. It's not like it's just because it's at grade  
12 it's going to keep the water from flowing out. It  
13 flows right out like nothing. Just as if it was up at  
14 the third story like the Fukushima No. 4.

15 Thank you for hearing my comments.

16 CHAIRMAN VICTOR: Okay. Thank you very much. And  
17 I just want to remind everybody that the comments that  
18 Ray Lutz made pertain to an earlier meeting that we had  
19 about the environmental impact assessments of removing  
20 the plant, and that meeting was a special meeting, it  
21 was workshop in preparation for one of the regular CEP  
22 meetings, so the workshops have not had public comment  
23 period.

24 Although, we're actually going to do something  
25 different at the meeting we have next week. The

1 regular meetings, every regular meeting of the CEP has  
2 public comment and we've been quite studious about  
3 that. Richard Gardner and then Ace Huffman.

4 MR. GARDNER: I'm Richard Gardner from Capistrano  
5 Beach. I'll start off by thanking everybody for coming  
6 and giving your time to this worthy cause and specially  
7 the City of San Juan Capistrano for opening this  
8 facility to everyone.

9 I'm here primarily to say that at some point  
10 your function in terms of the work for decommissioning  
11 will sunset and at about that time there will be a  
12 dawning that the -- the turbine building at the  
13 San Onofre nuclear generating station will then be  
14 transformed into ocean desalination facility.

15 The intake structures and outfalls will be  
16 used and we will have a 50 to 100 million gallons per  
17 day ocean "desalter" on the coast, providing water  
18 primarily for South Orange County, which does not have  
19 another source outside of our imported water.

20 I thought a lot about the plant and I thought  
21 about the years that I spent there and I think this  
22 transition could happen. It's a challenging  
23 engineering concept and maybe it's not appropriate for  
24 someone like Southern Cal Edison to try to do that kind  
25 of work that would result in a transition.

1                   However, the work that has been done for the  
2 Marine Corps by RBF on an ocean desalter at the Santa  
3 Margarita water shed area may be the kind of thing  
4 that's needed. I believe the first step would be a  
5 feasibility and fatal flaw analysis that has to occur  
6 immediately so that we don't screw you up and impact  
7 decommissioning effort that's being done by the NRC and  
8 by SCE.

9                   Because if I said "We're going to take the  
10 turbine buildings as is once they're, you know, cleaned  
11 up, we want the switch gear remain in place. We want  
12 the motor control centers," we're not going to use,  
13 obviously, the turbine generator can be removed, but we  
14 go through the process of condensers can be taken out,  
15 but there'll be plenty of room for the RO membranes.

16                   And so we will lay it out in the existing  
17 structure and then proceed with the new intake  
18 structures, which could be sand filters within the  
19 14-foot diameter piping systems, so there wouldn't be  
20 impacts environmental.

21                   It's a lot of work going on. The bottom line  
22 is, it could be federally supported through the Bureau of  
23 reclamation to assist with the agencies, like MWDOC,  
24 which is the Municipal Water District of Orange County,  
25 or perhaps this would be the first facility where the --

1 the Metropolitan Water District would take the  
2 leadership role.

3 CHAIRMAN VICTOR: All right. Thank you very much.

4 MR. GARDNER: Thank you.

5 CHAIRMAN VICTOR: Ace Hoffman and then Marni Magda.

6 MR. HOFFMAN: All right. Thank you for the  
7 opportunity to speak. I took some notes, so I'm going  
8 to try to ask some questions from them. First of all,  
9 Tom, I guess was the NRC guy. And, Tom, the two of you  
10 made a really good case for closing Diablo Canyon  
11 and Palo Verde, pointing out all the ways that  
12 San Onofre is now safer than it was when it was  
13 operating.

14 Well, we knew that, that's why we tried to get  
15 you to close it. But we're still not safe. I wonder  
16 what a "beyond design bases accident" is. Does it  
17 include an airplane strike? Because I don't think  
18 you're going to be able to keep water on that pool if  
19 there's a 747 sitting on top of it with a bunch fire  
20 going everywhere.

21 When Gene asked what could start a fire, the  
22 basic answer was, "Well, I'll have to get back to you."  
23 Well, what can start a fire? A terrorist can start a  
24 fire, an airplane can start a fire, and I think there's  
25 a few other things that could start a fire.

1           NRC, 9/11 happened, and you stopped worrying  
2 about decommissioning the reactors? Isn't that  
3 backwards, Joe? Right? The NRC guy. Yeah. 13 years  
4 later. You finally get into it.

5           Okay. Well, let's not do that again. Right  
6 now we're putting off all of the long-term decisions  
7 about spent fuel storage. Are we going to use an  
8 interim site or what? And let's not put those off.  
9 The BRC accomplished nothing. We're going to have to  
10 do better than that.

11           Speaking of what happens in mitigation, the  
12 IPC, before the plant was closed, a variety of us  
13 activists went and talked to people involved in the  
14 emergency planning around the county, around a couple  
15 of counties, and to a man, to a woman, to a person,  
16 they did not know anything.

17           Every time we tried to ask a simple question,  
18 it was always, "Well, you'd have to talk to either San  
19 Onofre about that where the experts are or talk to the  
20 Nuclear Regulatory Commission." They didn't know what  
21 an alpha particle was or a beta particle or anything,  
22 so I don't see how the emergency planning people can do  
23 their job if they don't understand, the firemen don't  
24 understand what kind of fire they're going to face if  
25 there is a fire at a spent fuel pool or in a dry cask.

1           The students at these 10-mile limit, 11-mile  
2     limit, they don't understand what they're going to  
3     face. This people all have to be educated and that's a  
4     big task. I'd like to see that happen.

5           The zirconium burns, it releases hydrogen,  
6     which explodes. That stuff is very dangerous and we  
7     need to be very careful of it, and that looks like all  
8     my notes in 19 seconds. I've never done that before.  
9     Thank you very much.

10          CHAIRMAN VICTOR: Okay. Thank you very much, Ace.  
11     Marni Magda and then Donna Gilmore.

12          MS. MAGDA: Thank you very much for this evening  
13     and for being here, Joe Johnson, from the Nuclear  
14     Regulatory Commission. I'm very, very concerned that  
15     we're talking about it's safer now. I do understand  
16     after our three years of this that the most dangerous  
17     is the reactor dome, but it is also defense-in-depth  
18     the most clearly trying to keep it safe.

19                 But what we've shown tonight is that everyone  
20     is backing off on safety and at the time then we are  
21     also planning to leave spent fuel for 100 years or  
22     more, 60 allowed indefinitely until it's taken  
23     somewhere else in casks that only last 20 years until  
24     they're inspected.

25                 If the aluminium starts to have corroding, we

1 go into more and more danger. I'm asking even just  
2 right now with the spent fuel pools, I know it goes  
3 reactor, dome, spent fuel, and then supposedly dry  
4 storage. I don't think any of it's safe.

5 Elmo Collins came out here and gave us what  
6 was defense-in-depth when he arrived right after  
7 Fukushima to tell us everything was adequate. What he  
8 was really doing was letting us know it wasn't adequate.  
9 The reactor domes were at 7-0.

10 The five terrace on the ground was the only  
11 protection against terrorists and we really didn't have  
12 a great game plan on fire because last year we had to  
13 evacuate buildings with people in them from a fire on  
14 in place there.

15 I'd like to know the 1.5 million gallons of  
16 water that makes it seem to safe that we can reduce all  
17 of our safety here, what are their Richter scale safety  
18 against earthquake, what happens if the horrible case  
19 of we've got an earthquake and fire at the same time  
20 and we have to start dealing with evacuation and not  
21 having a plan for these spent fuel pools.

22 I continued to ask the Nuclear Regulatory  
23 Commission to really look at America's plan. We have  
24 to have been neglecting safety in this industry for so  
25 long and you have done nothing to make us feel safe.

1           Everything you said tonight about the  
2 zirconium fire, if there is a fuel pool leak, you're  
3 just going to pour water in until it's okay. We're not  
4 being told what -- I don't believe they can be put out.  
5 That's what I heard in Fukushima.

6           We don't know how to put out a zirconium fire.  
7 We are playing with forever here. It's not like an oil  
8 spill or if the earthquake hits and takes out the  
9 California aqueduct, we will have 18 months without  
10 water in Southern California. What are we going to do  
11 when we lose that water and we have the other horrors  
12 happening all at the same time? Thank you.

13           CHAIRMAN VICTOR: Okay. Thank you very much.

14           Donna Gilmore and then Gary Hedrick.

15           MS. GILMORE: Donna Gilmore. I think the best  
16 emergency plan is prevention because anybody that lives  
17 anywhere around these counties know we can hardly get  
18 out of town, let alone have there be an emergency so,  
19 you know, I am just giving that up.

20           So we need to prevent it, and the way to  
21 prevent it is to make sure that we're getting the best  
22 product and I do not feel that we are getting that.  
23 The pools need to be emptied, but they need to put --  
24 you put in something that can be inspected, that's not  
25 going to crack within the expected life, and that we

1 have a mitigation plan, if something goes wrong with  
2 the canister, we have plan in place.

3 Edison's planning to destroy the spent fuel  
4 pools, that may be the only option we have to replace a  
5 fail canister. In Germany and Fukushima, in Japan,  
6 they put their casks, they used thick cask where we're  
7 being proposed half inch to 5/8th inch thin casks.

8 These thick casks, they put them in hardened  
9 buildings that have more environmental protection,  
10 which is what we need in our coastal environment. We  
11 all know how metals work around the cost. These things  
12 are no different.

13 And the hardened buildings that predict for  
14 more external types of attacks and events, so I think  
15 this -- we need to be looking internationally and just not  
16 focus on what we've been doing for what used to be a  
17 requirement for short-term storage. It's no longer a  
18 requirement for short-term storage.

19 And the NRC is not getting on this. They wait  
20 for the industry to come recommend something. They're  
21 not being proactive. They said that's not their job  
22 and we're looking to make a purchasing decision here  
23 before the NRC has even done their aging management  
24 plan. I think we've got things backwards here.

25 And there's nothing more important than the

1 decision that you're going to make on what to do with  
2 fools -- pool -- "fool" sounds better, doesn't it? --  
3 to do with that pool, so let's make sure we're picking  
4 the best for Southern California.

5 I think we all believe we deserve the best.  
6 We can set the standard for the nation. This 400  
7 million dollars that you're getting ready to spend, you  
8 have your choice of what's out there in the world.  
9 They would all want to bid on this job, and I don't  
10 feel like if we're not looking internationally, we're not  
11 looking for the best product.

12 And so far, I haven't been able to get Edison  
13 to allow another company to bid that has what's been  
14 known as better technology by a whole number of people,  
15 so that's my -- thank you.

16 CHAIRMAN VICTOR: Okay. Thank you very much,  
17 Donna. Gary Headrick and then Pat Bearden.

18 MR. HEADRICK: Good evening. My name is Gary  
19 Headrick, I represent San Clemente Green, and we are very  
20 concerned and we have been for a long time about  
21 information we've gotten from FEMA, from the IPC, from  
22 Edison, NRC, and the unfortunate experience from our  
23 point of view in the public has been every time we've  
24 been told we're fearmongers, we're naive, we're  
25 uninformed, it's turned out that we were right.

1           And that's not to say we're right and you're  
2 wrong. The point is, when someone's wrong they need to  
3 fess up to it. And if you mess up, fess up, and we  
4 need to start taking care of these problems instead of  
5 having this very serious problem that we're dealing  
6 with when there is a lack of confidence in our  
7 institutions.

8           You know, you can talk about secret service,  
9 you can talk about financial industry, that regulators that  
10 have failed us. You know, I know you're doing the best  
11 you can to protect us in an emergency, but to say that  
12 we have not had a problem -- we had a false alarm on a  
13 siren at 3:00 or 4:00 in the morning not too long ago,  
14 and the whole system backfired.

15           The reverse 911 was overwhelmed, people  
16 couldn't get news because it wasn't really an  
17 emergency, but it's panic time. There has been  
18 problems with the system. You don't know what they are  
19 until it has been tested, and the public itself is not  
20 involved in this exercises.

21           I think we need to be more involved and be  
22 more confident in what you're telling us. The NRC, you  
23 know, the recent article about like Elmo Collins  
24 saying, "Yeah, you know, we kind of -- we, as the NRC  
25 are at fault for not having looked more closely at the

1 steam generators."

2 Well, he's out of the business now. We need  
3 to hear that from people making decisions now. We need  
4 some honesty. We need some integrity because -- not  
5 because anyone's a bad person or anything, but this is  
6 such a serious situation that when you speak to us now  
7 at meetings like this and we don't have confidence in  
8 what you're saying, then it's meaningless.

9 We need to know that we can trust what you're  
10 saying you're going to do what you're going to do and  
11 involve us until we're confident in what you're saying  
12 because we really want to believe you.

13 We have -- we're all in this together,  
14 honestly. And I don't think there is -- I've never met  
15 anyone in this years of experience that I've got thrown  
16 into this that I don't respect or that hasn't shown me  
17 respect, but we have to look at the total picture and  
18 understand that there is a tremendous void of  
19 confidence from the public and you need to look at  
20 yourselves and tell us things that may be hard for you  
21 to say but it will restore confidence. And I encourage  
22 you to look at yourselves and be honest with the  
23 public.

24 CHAIRMAN VICTOR: Thank you very much, Gary.

25 Pat Bearden. And, Pat, you're the final

1 comment of the evening.

2 MS. BEARDEN: Hi, my name is Pat Bearden. I'm a  
3 resident of San Juan and this is the first time I've  
4 attended one of the meetings that you've had as far as  
5 giving information to the public.

6 The one thing that I'm really concerned about  
7 is the water source that you have at San Onofre. I  
8 don't know if that was addressed in the past about  
9 where is your source of water that you're storing to  
10 use in the pools and how is that replenished as it's  
11 utilized, and how likely is that water source to be  
12 contaminated by radioactive waste, and how would that  
13 be addressed if it did happen?

14 So I'm wondering what is your system of being  
15 alerted to a water leak and how rapidly are you able to  
16 respond to something like that? Look at L.A. with  
17 all of the water pipe problems that they've had with  
18 breakage in the streets. So, what is the life  
19 expectancy of the current piping that you have as your  
20 water system? Okay. Thank you.

21 CHAIRMAN VICTOR: Excellent. Thank you very much  
22 and welcome to this meeting. So we have time now  
23 seeing no other people that would like to make a public  
24 comment, we have time for any comments if members of  
25 the CEP would like to make, questions you'd like to

1 raise before we close. Tim Brown?

2 MR. BROWN: Yeah, David. In the comments, some  
3 folks asked some questions that I think would be  
4 relevant just --

5 CHAIRMAN VICTOR: Okay.

6 MR. BROWN: -- as a little bit of an aside. And  
7 perhaps, Tom, why don't we start with the last speaker  
8 first. Cathy asked the question about the source of  
9 the water for the plant and how do they ensure that  
10 they're not contaminated or they'll always have  
11 continued fresh supply. Can you speak about the  
12 desalination abilities in the plant and how that works  
13 in terms of the earthquakes and defense-in-depth.

14 MR. PALMISANO: Well, we don't -- we don't take --  
15 we don't desalinate ocean water for make up water to the  
16 plant. We're off the city water supply system.

17 MR. BROWN: Okay.

18 MR. PALMISANO: So, you know, that's the source of  
19 water. The million and a half gallon they talked about  
20 stored on site in the various tanks. As we retire  
21 systems in the plant, we would to have bring in  
22 temporary equipment to make up to those tanks.

23 But this is many, many years worth of water  
24 capability contact on site, so we have adequate water  
25 supplies, tanks are inspected, tanks are monitored,

1 systems are inspected. You know, this system was  
2 designed for operating plant that use lots water every  
3 hour. We're in a very stagnant condition now, just  
4 periodically making up to the pool.

5 CHAIRMAN VICTOR: There was a question about the  
6 seismic rating of the tanks in effect.

7 MR. PALMISANO: There are various tanks. Some of  
8 them are seismically designed, some are make up water  
9 tanks that are not necessarily seismically designed, so  
10 that's one we can answer in writing on the website in a  
11 little more detail.

12 CHAIRMAN VICTOR: Okay. Thank you. Do you have  
13 other questions?

14 MR. BROWN: There were. Ms. Magda was concerned  
15 about the safety and are we truly safer now? And so  
16 just to reiterate for Jeremy, are we -- are we in terms  
17 of safety planning, we're operating as if it sounded as  
18 if we're operating as a fully operating nuclear power plant  
19 in terms of our emergency responses. Is that accurate?

20 MR. KIRCHNER: We're maintaining a lot of  
21 capabilities and -- well, at the moment we still are  
22 required to because of the current state of the  
23 license. As that changes and the federal requirements  
24 for us go away, we will still maintain I think more  
25 capabilities than probably just about anywhere else in

1 the country surrounding a decommissioning power plant.

2 MR. BROWN: And just, Tom, really quickly, there  
3 was that question about, "Is it safer now?" and from  
4 the presentation I think, I don't -- maybe you can  
5 address that.

6 MR. PALMISANO: Well, you know, when Joe Anderson  
7 started talking about safety is somewhat of a perception,  
8 as well. We can measure things in 1 every 10 million  
9 years or something in terms of events.

10 In thinking in terms of probability events or  
11 consequence events, the number of events that can occur  
12 are much reduced, the consequences of the events are much  
13 reduced, the issue is the spent fuel pool, so in  
14 sense, you can say there are fewer things that can  
15 happen that can affect the public, but there's still  
16 some important things that we need to protect against.  
17 So we can't lose sight of that.

18 And one comment, just to close the loop on your  
19 earlier, the question about leakage monitoring, we do  
20 monitor the spent fuel pool continuously for leakage,  
21 so there is lots of systems still in service that  
22 monitor.

23 CHAIRMAN VICTOR: And, Dan, did you want to follow  
24 up on this?

25 MR. STETSON: Sure. Tom, again with reference to

1 the water supply, my understanding of currently water  
2 is pumped in through the ocean conduits and then  
3 circulated around the pool.

4 MR. PALMISANO: Right.

5 MR. STETSON: But the plan is early next year to  
6 stop that and to switch to a different self-contained  
7 system?

8 MR. PALMISANO: Right. Now, that water system is  
9 what cools, ultimately removes the heat from the pool,  
10 that's not the source of make up water that we were  
11 talking about earlier.

12 So the plans are we're putting in an alternate  
13 cooling system that will not require ocean cooling for  
14 the spent fuel pool. That system will come online  
15 probably second to early third quarter of next year,  
16 but based on my current schedule, that's one of several  
17 things that we need to do to reduce and ultimately  
18 eliminate the ocean and requirement for ocean water.

19 CHAIRMAN VICTOR: Jim Leach, did you want to follow  
20 up?

21 MR. LEACH: Yes, thank you. Jim Leach. I want to  
22 ask Jeremy a question in regard that we had a question  
23 from the audience relative to -- it wasn't a question  
24 but a comment, what kind of program does the -- does  
25 your group have, your collaborative group have in terms

1 of testing the system, having drills, utilizing all of  
2 the resources that you listed in your presentation?

3 How often does that happen? And I mean, you  
4 know you test the sirens. I hear them myself, but what  
5 else -- what else goes on around that?

6 MR. KIRCHNER: A lot of different things do. I  
7 mentioned the evaluated exercise that we do every two  
8 years, that is the culmination of -- well, it's really  
9 a two-year exercise program. Siren testing is done  
10 and that's handled by Edison, but it's done daily,  
11 quarterly, and annually.

12 MR. LEACH: Right.

13 MR. KIRCHNER: Many other elements of our emergency  
14 planning program are tested in the same way. We have  
15 training that's continual, exercise at various levels,  
16 some may be nuclear related, some are not.

17 But in talking about that all hazards  
18 emergency plan and our basic planning function, a lot  
19 of the things that we would do, generally, in a  
20 response to a San Onofre incident apply to many other  
21 incidents.

22 So we have a comprehensive training program of  
23 which San Onofre is part of it, but each of the  
24 jurisdictions and together as a whole test different  
25 elements of those plans throughout that two-year

1 process and it culminates in the large-scale exercise.

2 MR. LEACH: Thank you. Dave, if I may just to  
3 build on what Jeremy said earlier, I've gotten involved  
4 in Alert OC, Ready OC, and Alert San Diego. And Ready  
5 San Diego I'm not as familiar with. I'm sure they're  
6 very similar programs and, like yourself, I'd encourage  
7 everybody to sign up for that. It's very simple to do and  
8 it's a tremendous, tremendous asset to have at our  
9 fingertips.

10 MR. STETSON: Agree. Thank you.

11 CHAIRMAN VICTOR: Thank you.

12 MR. BROWN: Only two final questions that were  
13 raised was considering, Ace had a question or, at  
14 least, a point about terrorist attacks or airplanes  
15 striking the building. Could you just in terms of  
16 where the pools are located, for the folks here, could  
17 you just talk about that type of incident and is a plan  
18 prepared for it?

19 MR. PALMISANO: Well, first of all, with respect to  
20 terrorism, and here's where you couple this physical  
21 security plan along with the infrastructure the  
22 federal government provides in terms of intelligence,  
23 as well, with the emergency plan.

24 So the physical security plan is designed for  
25 a certain threat that the NRC specifies we must meet

1 and we demonstrate that on a regular basis. The  
2 buildings are very robust, especially the spent fuel  
3 pools, so they're physically well-designed, well  
4 protected, the elements that protect it or that are  
5 designed to withstand the expected earthquakes in the  
6 area also serve as well form the physical security  
7 standpoint.

8           So, again, very robust, coupled with physical  
9 security plan together and that's the protection. Now,  
10 as you talk about airplane impacts, you get into some  
11 events that are difficult to predict what may happen,  
12 and this is what some of the lessons on the 9/11.

13           So all the nuclear plants in the country  
14 post-911 were required, and it's part of -- this is  
15 some of what we alluded to earlier with the mitigating  
16 strategies license condition, we all had to put in  
17 place equipment and they were spread in diverse areas  
18 that in the event of something like an airplane impact,  
19 okay, that would destroy some of your installed  
20 equipment designed to deal with accidents, that you  
21 have other equipment that was not affected by the  
22 impact that you can mobilize to cope with the accident.

23           It's difficult to predict how that may  
24 proceed, but that's what all the nuclear plants were  
25 required to do. We have that equipment we'll maintain

1 that equipment, that will be a requirement going  
2 forward that the NRC continuous to hold us to.

3 MR. BROWN: I had a question, which is correlated  
4 with that, is -- the final question correlated with  
5 that is, Mr. Lutz had mentioned that the fuel pool  
6 being up high on a cliff or on that type of  
7 topographical area made it more susceptible to draining  
8 or to that kind of challenge. I guess, to answer,  
9 could you just comment on that?

10 MR. PALMISANO: Well, it's not up on a cliff. I  
11 mean, you know, I'm quite frankly not sure exactly what  
12 he's alluding to. The fuel pool itself where the  
13 active fuel is is set below grade for the basic  
14 grade of the plant site. I'm familiar with the  
15 Fukushima design. I've managed other plants where the  
16 fuel pool is elevated 90 feet up in the air. This is a  
17 different scenario.

18 MR. BROWN: That's all the questions I had.

19 CHAIRMAN VICTOR: Thank you. Tim, other questions  
20 or comments people would like to raise? Larry? Larry  
21 Kramer.

22 MR. KRAMER: Yeah, mine is just -- thank you very  
23 much for doing this here. I don't know how often  
24 you're going to be meeting and whether you've got to  
25 move around or not, but you're sure welcome to come

1 here as often. I love it's convenient. I don't know  
2 if it's convenient for everybody else so.

3 CHAIRMAN VICTOR: It looks like we didn't leave too  
4 much of a mess last time because you've allowed us back  
5 and we're grateful for that and, in fact, we're so  
6 grateful, we're going to be back next week.

7 MR. KRAMER: I like it.

8 CHAIRMAN VICTOR: Donna Gilmore raised some comments  
9 about the casks and there would be much more attention  
10 to that issue at the meeting next week on the 14th, the  
11 day before the siren test, at 10:00 a.m. here.

12 We're going to do something a little bit  
13 unusual there, which is we are mindful that, wherever  
14 possible, we want to have public comment discussion, so  
15 we're going to have a public discussion period after we  
16 have presentations from the two leading cask vendors.

17 I need you to bear with me, please. These  
18 cask vendors are in the middle of possibly being  
19 awarded one of the largest contracts in their history  
20 for the casks here and they have agreed to do something  
21 unbelievably unusual.

22 I've never heard of it being done at any other  
23 facility, which is to right in the middle of that process  
24 have a public meeting to talk about what  
25 defense-in-depth really means over the long haul.

1 I'm enormously grateful to them. I've worked  
2 with them very closely to make sure this is not a  
3 commercial event, this is a factual event about what  
4 the different casks systems can do for the long haul.

5 And I've let them know that we're going to  
6 have questions organized around themes from the public  
7 and some opportunity for some back-and-forth. But I'm  
8 going to moderate that very carefully because that's  
9 the deal we made with them to allow them in this very  
10 commercial setting to have a non-commercial talk and  
11 discussion.

12 If it were not for the CEP raising questions  
13 about this, nothing like this event would be happening,  
14 and so this is hopefully a demonstration and one of  
15 many quarters where the CEP is being responsive to the  
16 kinds of questions that the community has raised.

17 I want to thank all of you for spending your  
18 evening with us. I wish you to drive home safely and I  
19 look forward to seeing many of you next week here on  
20 October 14th. Thank you.

21

22 (Whereupon the Community Engagement Panel  
23 meeting concluded at 8:38 P.M.)

24

25

\* \* \* \* \*

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

## REPORTER'S CERTIFICATE

I, the undersigned Certified Shorthand Reporter in and for the State of California, do hereby certify:

That the foregoing proceedings were taken down by me at the time and place therein set forth, at which time the witness was put under oath by me;

That the testimony of the witness and all objections made at the time of the proceedings were recorded stenographically by me and were thereafter transcribed under my direction; that the foregoing is a true record of the testimony and of all objections made at the time of the proceedings.

I further certify that I am neither counsel for nor related to any party to said action, nor in any way interested in the outcome thereof.

The dismantling, unsealing, or unbinding of the original transcript will render the Reporter's certificate null and void.

IN WITNESS WHEREOF, I have subscribed my name on this date, THURSDAY, OCTOBER 23, 2014.



---

CARLOS R. HICHO  
CSR NO. 13111