

1 SAN ONOFRE DECOMMISSIONING
2 COMMUNITY ENGAGEMENT PANEL MEETING
3 STATE OF CALIFORNIA, MANAGEMENT MEETING
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9 TRANSCRIPT OF VIDEOTAPED PROCEEDINGS

10 SAN CLEMENTE, CALIFORNIA

11 WEDNESDAY, JUNE 27, 2018
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12 Transcript of videotaped proceedings,
13 taken at 140 West Avenida Pico, San Clemente,
14 Casino San Clemente, commencing at 5:30 p.m.,
15 Wednesday, June 27, 2018.
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1 COMMUNITY ENGAGEMENT PANEL MEMBERS:
2 CEP CHAIRMAN - DR. DAVID G. VICTOR
University of California, San Diego
3
4 VICE CHAIRMAN - DAN STETSON
The Nicholas Endowment
5 CEP SECRETARY - JEROME M. "JERRY" KERN
City of Oceanside
6
7 HON. PAUL WYATT
City of Dana Point
8 DONNA BOSTON
Orange County Sheriff's Department
9
10 RICH HAYDON
California State Parks
11 GARRY BROWN
Orange County Coastkeeper
12
13 VAL MACEDO
Laborers International Union of North America
Local 89
14
15 CAPTAIN MEL VERNON
San Luis Rey Band of Mission Indians
16 HON. LISA BARTLETT
Orange County Board of Supervisors
17
18 HON. STEVE SWARTZ
City of San Clemente
19 HON. MARTHA McNICHOLAS
Capistrano Unified School District Board of
20 Trustees
21 TOM CAUGHLAN
Camp Pendleton
22
23 JIM LEACH
South Orange County Economic Coalition
24 MIKE SAPPINGFIELD
25 ///

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PUBLIC COMMENT PERIOD

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89 19

1 San Clemente, California, Wednesday,

2 June 27, 2018

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4
5 CHAIRMAN DR. VICTOR: Okay. Let's get
6 started. Let's get started. Good evening,
7 everyone. My name is David Victor. I'm the
8 chairman of the Community Engagement Planning
9 Panel. It's a pleasure to be here tonight in San
10 Clemente. There's been a lot of interest in
11 having more meetings in San Clemente, a lot of
12 difficulty in finding a good space, and so I'm
13 glad that So Cal Edison was able to work out an
14 arrangement here with the casino in this fine
15 room. I want to thank, again, the people of San
16 Clemente for welcoming us back.

17 Just, first, a safety moment before we
18 get underway with our meeting, should there be a
19 need to evacuate the room, there are doors on
20 almost every wall, and they are all exits to go
21 out of any of these doors, and you'll go to the
22 outside fairly quickly. So this room is amenable
23 to the quick exit.

24 We have officers in attendance this
25 evening from the San Clemente station of the

1 Orange County Sheriff's Department. I want to
2 thank you for your service. They're here for your
3 safety and please be supportive of them.

4 I hope everybody navigated parking.

5 Parking is incredibly difficult here, I have now 05:35:35
6 learned firsthand. Also, I want to, on behalf of
7 everyone who drove up from San Diego, I want to
8 thank the Del Mar Fair for delivering to us
9 traffic that is worthy of Bangkok, so I guess
10 anybody coming from San Diego will be here maybe 05:35:48
11 tomorrow.

12 As you came in, there were a number of
13 information booths just outside here. Those will
14 be open during the break, and so if you want to
15 visit those during the break, they're always very 05:36:05
16 interesting and lots of different groups at times
17 asked for booths. If you have a booth that would
18 like to share information that's relevant to this
19 process, please let us know so we can get you a
20 booth as well. 05:36:18

21 The Community Engagement Panel is set up
22 as a two-way conduit between the owners of the
23 plant, the operator in particular, So Cal Edison
24 and the communities, plural, that are affected by
25 the decommissioning process so that Edison can 05:36:33

1 learn more about what the communities care about,
2 and the communities can learn more about what's
3 going on with the decommissioning process and ask
4 questions and raise agenda items, and that's what
5 we've been doing for our several years in 05:36:48
6 existence.

7 The next slide, the next slide magically
8 appeared. This is just an overview of our agenda.
9 Tonight is -- just about done with the first item,
10 we'll go as is custom into our updates. A lot has 05:37:01
11 happened since our last meeting, so we want to
12 give some updates, and then from there go into the
13 update on the plant itself from Tom Palmisano.

14 Tonight's topic is Defense-in-Depth. That's the
15 phrase that Gene Stone kind of focused us on, is 05:37:18
16 how do you know that the process of maintaining
17 the spent fuel at the SFC spent fuel pad, how do
18 you know that there's integrity in that process,
19 what are the layers of defense, and that's been a
20 work in progress. And so every year we have at 05:37:32
21 least one meeting that in a central way addresses
22 that topic, and tonight is one of those meetings.
23 We'll have a break, then we'll have the public
24 comment period.

25 If you would like to a make a public 05:37:42

1 comment, sign up on the sheet, which was as you
2 came in, so if you didn't sign up, you can go out
3 one of the many exits, you can go out, sign up
4 again, and/or do that during the break, and then
5 we will read out names from that list. 05:37:55

6 If you don't want to make a public
7 comment tonight, or you're at home, many millions
8 of you watching with a barrel of popcorn at home
9 as we are live-casted on the Web, you can send us
10 comment at this e-mail address 05:38:10
11 nuccomm@songs.sce.com. We may want to get a more
12 elegant e-mail address at some point, and those
13 will become part of the official record. The
14 reason that is important is because all major
15 questions that come up, get answers. If they 05:38:23
16 don't get answers tonight, they get answers
17 formally, and we keep track of that process.
18 Please do send in your comments if you're not here
19 tonight, or if you're here and you don't want to
20 speak for any reason. 05:38:39

21 The material for tonight, there's a big
22 slide deck, apparently is our custom, the big
23 slide deck that was shared with the Community
24 Engagement Panel last week. It's also posted on
25 SongsCommunity.com, and the meeting materials 05:38:50

1 include public information about public
2 transportation. There are several pages every
3 time we seem to do this very well, that we have
4 some slides that are impossible to read, and so
5 you have copies of those slides on your chairs or 05:39:06
6 wherever you're sitting along with the agenda for
7 tonight.

8 For those panel members as you raise
9 questions, please just state your name for those
10 watching on the live stream. And if you want to 05:39:20
11 get on the agenda to make a comment as the topics
12 come up you can put your flag up. I guess if you
13 want to make a comment on something that somebody
14 just talked about, you can use two fingers, and
15 after that we're not going to have a more 05:39:33
16 complicated scheme for asking for the floor.

17 Seems like we can organize ourselves at that
18 point. The public comment period I've already
19 mentioned, and tonight Dan Stetson and Paul Wyatt
20 are going to team up to keep track of the comments 05:39:48
21 and organize them for responses to the extent we
22 have time tonight, and please do send in any
23 comments into that e-mail address within five
24 business days at the end of the meeting so we can
25 make them part of the public record. 05:40:01

1 Okay. I want to go to the first agenda
2 item that we have tonight. This is the general
3 updates of the Community Engagement Panel. I'm
4 going to say a couple words first about the
5 legislative situation, so next slide, please. 05:40:12

6 Since the last meeting, the House has
7 passed legislation authored by John Shimkus from
8 Illinois and many co-authors that is about the
9 modifying the Nuclear Waste Act. I would say that
10 most of that Act is about opening Yucca Mountain 05:40:29
11 and making sure that Yucca Mountain is -- can be
12 licensed and so on. As we've discussed many times
13 in this group, the politics of changing federal
14 law in this area, especially in the Republican
15 party, require putting Yucca Mountain in the 05:40:45
16 center of it. You can like it or not like it. I
17 think it's not a good idea, but we have to be
18 realistic. So that legislation has a lot of
19 information in it about Yucca Mountain. It allows
20 federal law to be changed in a way that would also 05:40:58
21 make possible consolidated interim storage or
22 monitored retrievable storage, that term of art
23 has become, and that's very important to us
24 because that is the root to get the spent fuel out
25 of San Onofre into a site in New Mexico or a site 05:41:14

1 in West Texas or possibly some other site that is
2 monitored and managed in a serious way, and it
3 then can co-locate spent fuel from San Onofre,
4 from Diablo Canyon, from other plants, especially
5 closed plants, so we're not stranding this fuel at 05:41:31
6 lots of different sites. We spent a lot of time
7 on this issue. I met with some folks earlier
8 today from Senator Feinstein's office. The next
9 step is in the senate. The politics in the senate
10 for years and years and years everyone blamed 05:41:42
11 Harry Reed for not making progress on this
12 problem, because Harry Reed didn't want Yucca
13 Mountain to open in Nevada. Once again, we have a
14 senator from Nevada who is the problem, it's not
15 Harry Reed anymore, but it's Senator Heller. 05:41:53
16 Mitch McConnell has said he will not move anything
17 on this topic before the November election,
18 because Senator Heller faces a very difficult
19 election. And like that or not like that, that's
20 reality, and so nothing is going to happen in the 05:42:10
21 senate until after the fall election. That's
22 going to affect the appropriation process that
23 I'll talk about in just a moment.

24 I think there's an open question as to
25 whether in the so-called Lame Duck session so 05:42:20

1 after the November election and before the new
2 congress is sworn in whether the senate will get
3 to this topic, because there are a lot of things
4 being left. Congress, as you've noticed, is in
5 gridlock, all of Washington is in gridlock, and so 05:42:33
6 a lot of things are being left in the Lame Duck
7 session, and I would say that the odds compared
8 with a year ago, the odds of us getting a change
9 in federal law have gone down, not to zero, but
10 they've gone down. 05:42:46

11 Why do we care about this? We care about
12 this, because later this year we as a panel, and I
13 would say all of us in different plants around the
14 country were concerned about this need to take a
15 closer look at if we're not going to get a change 05:42:57
16 in federal law, then how far along will these
17 projects in New Mexico and in West Texas continue
18 to operate without seeing the need for a change in
19 federal law and changes in liability rules and a
20 variety of other things. If it does look like 05:43:14
21 it's going to change in federal law, then very
22 quickly we need to focus on different things, we
23 need to mobilize support around getting the
24 funding for transportation, rail cars, we need to
25 mobilize the planning process in California and 05:43:23

1 other places so that there's a serious scheme in
2 place to figure out how you would actually move
3 the spent fuel to San Onofre to New Mexico or West
4 Texas or to some other site. So that's all in the
5 process. We'll, I think, have a little better 05:43:38
6 sense later this year, and so we'll update again
7 on this topic at the next meeting.

8 Next slide, please. The appropriations
9 process. This is how the government gives itself
10 money. The appropriations process is stalled in 05:43:51
11 similar ways. It's moving its way through.

12 There's another threat of a government shutdown in
13 September, so there's been a lot of attention to
14 that issue. I would say this is a complicated
15 picture. The most important part of this is that 05:44:05

16 the senate version of appropriations is stuck for
17 the same political reasons that I was talking
18 about earlier, and so it's really hard to get a
19 lot of money through for Yucca Mountain, given the
20 situation for Senator Heller in Nevada. I wish we 05:44:18

21 were not all hostage to Nevada politics, but we
22 are, and that's where we are right now, and I'll
23 have a better sense. My assumption appropriations
24 will go through, and frankly, none of this is
25 relevant for consolidated arm storage until we 05:44:31

1 have a change in federal law.

2 Next slide, please. So two groups of us
3 have visited Holtec factory in Pittsburgh, outside
4 Pittsburgh. I visited and accidentally landed in
5 not Philadelphia -- no, that's the problem, I 05:44:48
6 accidentally landed in Philadelphia, and it's in
7 Pittsburgh, and I drove overnight to Pennsylvania,
8 and I can report firsthand that Pennsylvania is a
9 very large state.

10 Dan, you want to give your impressions 05:44:58
11 since you were on one of these visits.

12 MR. STETSON: Sure. Thanks, David.

13 Good evening, everyone. After the Shim
14 issue came to light, I had a lot of questions for
15 Southern California in terms of how it happened, 05:45:11
16 what exactly took place. After my fourth tour of
17 the facility here in San Onofre, I think they got
18 tired of me asking questions, and so they said,
19 Dan, would it be better if we sent you back to
20 where they actually make these things, and I 05:45:23
21 readily agreed, so they put together -- they were
22 very good, and they put together two groups as
23 David just described. So we flew in and Marni was
24 with me, and we spent a half a day touring the
25 facility, started in the morning, and we really 05:45:35

1 went through all stages of the manufacturing,
2 everything from the receiving materials, how they
3 bring them, they roll them, they weld them, the
4 peening process, every single step of the way they
5 walked us through. The Holtec was very open to 05:45:51
6 any question we had, and we had a lot of
7 questions. They were very open and answered every
8 single question we had. In particular, I wanted
9 to know about -- it still didn't quite make sense
10 to me how the shim hole thing broke, and when they 05:46:06
11 walked us through and showed us the peening
12 process, then it became clear to me what actually
13 happened with the shims, and when they go through
14 the peening process, they can't show you on the
15 slide because it's proprietary information, but 05:46:19
16 the places where it hit are very, very small, and
17 I don't know how many of them there are but
18 probably thousands of them as they turn the
19 canister, but with that, the canister actually
20 moves a little bit so they had to put it upon a -- 05:46:33
21 somewhat of an incline, and this put pressure on
22 the shims, and that was the one, recent, that in
23 this particular case broke. And then I asked why
24 wasn't it found during the inspection process,
25 which they showed us, and they have a very 05:46:49

1 detailed inspection process; however, the peening
2 is an extra step that none of the other canisters
3 go through, and so now they've added additional
4 inspection to make sure that if in case -- because
5 many of these canisters are still being 05:47:05
6 manufactured the same way for some of their other
7 clients. We saw canisters that were, of course,
8 being shipped here, and we saw them being really
9 shipped -- prepared and shipped all over the
10 country. For me, I think it was very eye-opening, 05:47:18
11 and I think it was for everyone else concerned.

12 Thank you.

13 CHAIRMAN DR. VICTOR: Thank you. I
14 wanted to say two things about this, first,
15 there's going to be a lot more attention to this 05:47:28
16 later when Tom Palmisano gives his update, and so
17 we're going to be able to ask a lot of questions.
18 We asked a huge number of questions and asked for
19 some calculations, which I think are going to be
20 shown about worst case scenarios if the shims are 05:47:39
21 not in the right place, so we're going to have a
22 chance to talk about more of the technical part of
23 this later in tonight's meeting. I was encouraged
24 that they want to figure out what people need to
25 know and want to know, and they invited us in 05:47:54

1 there. I will say that if anybody else goes on
2 one of these trips, I would strongly recommend
3 landing in Pittsburgh.

4 Are there any other comments or questions
5 about the Holtec visits in particular? 05:48:07

6 I want to see if any other members, I
7 think those are the major updates that we wanted
8 to have here. I don't think there are any other
9 slides for the update. I wanted to see if the
10 other members of the Community Engagement Panel 05:48:21

11 wanted to provide updates. You know, we're in
12 election season right now. I would certainly hope
13 everyone who is asking candidates about their
14 views are also asking the candidates about what
15 their views are with regard to consolidated 05:48:33

16 interim storage in the House and Senate versions
17 of this legislation, because we need to keep
18 pressure. This is ultimately a political problem.

19 Any other comments people would like to
20 make? 05:48:46

21 Okay. Next slide, please. So we're now
22 going from hear Tom Palmisano who is going to give
23 us some updates about the industry and about the
24 plant.

25 But before we get to the main part of 05:48:57

1 tonight's meeting, which is about

2 Defense-in-Depth, Tom, the floor is yours.

3 MR. PALMISANO: Thank you very much, and

4 good evening, everybody. We appreciate the

5 turnout, and I will come back to the shim issue. 05:49:11

6 First, in terms of industry updates, a

7 couple things to add to the discussion that David

8 just had on the legislative picture. We were

9 following closely as are the members of the CEP,

10 what is going on with what is called consolidated 05:49:21

11 interim storage. This is the plan to potentially

12 license and build interim storage spent fuel

13 facilities in West Texas or New Mexico. Certainly

14 not a slam dunk is going to happen. There are

15 pros and cons on both sides of that, but it does 05:49:37

16 provide an alternative if there's continued delays

17 in the government opening a long term repository,

18 and we've talked for four years now. The real

19 important thing we want to focus on is eventually

20 moving spent fuel out of San Onofre to a more 05:49:52

21 appropriate location than this area. So we're

22 watching this closely. I'm going to talk about

23 the New Mexico project first. This is a

24 Holtec/Eddy-Lea Alliance. Some of you may

25 remember we had a principal from the New Mexico 05:50:06

1 Eddy-Lea Alliance, John Heaton come out and talk
2 to us last year along with a representative of
3 Holtec. They have filed their license
4 application. The NRC has about a three-year
5 process to review and consider whether to issue a 05:50:19
6 license. They're starting environmental scoping
7 for the environmental impact statement. They've
8 had scoping meetings. The environmental impact
9 statement will be developed really for the next
10 year, rough schedule, and this is the NRC 05:50:32
11 schedule. And then preliminary the NRC would show
12 if this is approved, the license would be issued
13 about July of 2020. So the facility is not
14 authorized to be constructed other than just some
15 ground clearing until the license is actually 05:50:47
16 issued.

17 So background, it is near Carlsbad and
18 Hobbs, New Mexico formed in 2006 under an
19 Economical Development Act. There's a thousand
20 acres the Eddy-Lea Alliance has title to. And you 05:50:59
21 can see the dates the NRC application was filed
22 March 2017, and they accepted and they commenced
23 the review in February 2018. This is near the DOE
24 facility called the Waste Isolation Pilot Plant,
25 which is a high level waste disposal facility the 05:51:17

1 government uses for DOE waste. So in this general
2 area, and I think one of the national labs is
3 nearby, so there's a fair amount of understanding,
4 and again, it doesn't mean it's all fully
5 supported. There are pros and cons, but that's 05:51:32
6 what this project is about. I meet regularly with
7 the principals of this to keep an eye on this to
8 see if this does develop something that's a viable
9 option for us in the future.

10 I'm going to move onto the next interim 05:51:44
11 storage project. This one is in West Texas. This
12 one actually started with a group called Waste
13 Control Specialists. So in West Texas, Waste
14 Control Specialists operates a low level rad waste
15 disposal facility under the state of Texas. And 05:52:01
16 so several states ship low level waste to, and we
17 ship low level waste. There's three categories of
18 low level waste, A, which is the very lowest, then
19 B and C waste. This takes our B and C away.
20 We've dealt with these folks for a number of 05:52:14
21 years.

22 They announced, and in terms of
23 background, they started about a year earlier on a
24 venture to open up a consolidated interim storage,
25 filed a license application, and then the owner of 05:52:26

1 Waste Control decided to put it up for sale, so
2 they put their application on hold, they have now
3 been acquired, and they've partnered with Orano,
4 which is a spinoff of the old Areva Group, so
5 they've informed the NRC and the public that 05:52:41
6 they're going to restart the licensing, so the NRC
7 is going to redo the environmental scoping, so
8 that's expected to start. If this is approved,
9 they would anticipate a license 2021 or 2022.
10 Again, because this is cited where there's an 05:52:54
11 existing low level rad waste facility, there's
12 some positive aspects to this facility. The State
13 of Texas already actually owns that rad waste
14 facility. These folks operate it, so there may be
15 some synergies there. So, again, I met with the 05:53:08
16 principals of Orano. I'm waiting to meet the
17 principals of the new joint venture interim
18 storage partners, and we will keep in close touch
19 and track, so we can keep the panel updated on
20 those two projects. 05:53:20

21 CHAIRMAN DR. VICTOR: Can I just ask you,
22 Tom, as you have conversations with them, I think
23 we need to begin the process of finding out from
24 them how far they're going to go if we don't have
25 a change in federal law. Because maybe the stars 05:53:32

1 align with the next congress, but if not the
2 congress, that's two more years, and maybe they
3 think this can all be done without a change in
4 federal law. I've heard pretty much the opposite
5 from everybody, the federal government in so far 05:53:45
6 as people having any idea what's going on in the
7 federal government, and I'm just concerned about
8 this. We need to start gathering that information
9 and understand --

10 MR. PALMISANO: I plan at the next 05:53:57
11 meeting to come and talk a little bit more about
12 that, that is really an issue, for everybody's
13 information. In this country we have actually
14 already permitted a consolidated interim storage
15 facility for spent fuel called Private Fuel 05:54:07
16 Storage situated in Utah. It's actually licensed
17 but has never been built for a variety of reasons
18 largely political, if you will, and some local
19 opposition, which is appropriate, but, again, the
20 NRC knows how to license this. The question I 05:54:20
21 think is really going to come down to federal law,
22 DOE support, funding, and who takes title to spent
23 fuel.

24 CHAIRMAN DR. VICTOR: Okay, thanks.

25 MR. PALMISANO: Our commitment is to 05:54:29

1 support any reasonable and safe way to move fuel
2 out of San Onofre, whether it's a permanent
3 repository, one of these two projects or something
4 not yet on the horizon, so we continue to follow
5 all of these, thank you. 05:54:42

6 Any other questions on this before I move
7 on? Yes?

8 MS. McNICHOLAS: Just to clarify, the one
9 in Utah is already licensed but not built?

10 MR. PALMISANO: Licensed but never built. 05:54:55

11 MS. McNICHOLAS: And these two are in the
12 processes of getting licensing but already have
13 some rad storage? In both cases --

14 MR. PALMISANO: In the West Texas case
15 they're already storing low level rad waste. In 05:55:03
16 the New Mexico case the Eddy-Lea Alliance owns the
17 property. There was no rad waste storage there,
18 but nearby is the DOE, geological repository, but
19 that's separate, but it's nearby. So in that area
20 they are already disposing of high level waste on 05:55:22
21 the DOE site.

22 MS. McNICHOLAS: The reason Utah isn't
23 being constructed is political, is that it?

24 MR. PALMISANO: A couple reasons, and I
25 was part of a couple utilities that were involved 05:55:33

1 in this; we were never able to get the access
2 rights for the transportation corridor. The local
3 tribe whose land it was on was supportive, this
4 was a revenue source for them. Other groups
5 opposed it, and the state of Utah opposed it, and 05:55:48
6 basically with federal government through the
7 Bureau of Land Management, Bureau of Indian
8 Affairs we were not able to get the access rights,
9 and the other thing, they were conditioned before,
10 couldn't be built, we had to have a number of 05:55:59
11 subscribers signed up to store their fuel there.
12 For a variety of reasons, we couldn't get over
13 those obstacles.

14 MS. McNICHOLAS: Is that a potential
15 location for us if things got moving? 05:56:11

16 MR. PALMISANO: Really, I don't see that
17 going forward at all. We've maintained the
18 license dormant, but I'm part of a call every
19 couple -- quarterly to talk about that. We see
20 that will probably just fade away. 05:56:22

21 MS. McNICHOLAS: Okay, thank you.

22 MR. PALMISANO: We don't think we can
23 overcome the opposition.

24 CHAIRMAN DR. VICTOR: I will say two
25 things about this, one, is that one is the 05:56:31

1 difference is there's support from the state, the
2 county in Texas, the support from the state of
3 New Mexico, all the politics in New Mexico are
4 more volatile than they are in Texas, well,
5 they're volatile in Texas but for other reasons. 05:56:42

6 This is the entire logic behind why from the very
7 beginning as a Community Engagement Panel has
8 learned about these issues, we've emphasized the
9 value of consolidated storage from multiple sites,
10 because we lose and if there's a monopoly, then 05:56:57
11 the monopoly doesn't perform.

12 MR. PALMISANO: Right.

13 CHAIRMAN DR. VICTOR: That's the problem
14 with Yucca, that's the problem with private field
15 storages. The more the better for us. 05:57:02

16 MR. PALMISANO: Well, in a minute I'm
17 going to give you an update on our expert team
18 we've put together. The chair of the team is a
19 gentleman named Tom Isaacs, and at some point I
20 hope to introduce him to you. He spent a long 05:57:14
21 time in DOE, was part of getting the waste
22 isolation pilot plant, and what he advised me on
23 is he said you need to be ready, Tom, because you
24 can't predict when the window of opportunity is
25 going to open, nor can you predict what it's going 05:57:28

1 to be. He said you don't know if it's going to be
2 New Mexico, West Texas, some other option. He
3 said what -- tell them in a nice five-year window
4 where the politics lined up with the need for the
5 DOE, and they were able to act. So his advice is 05:57:41
6 be ready, get your fuel in canisters, figure out
7 the shipping, when the facility opens so you're
8 ready to be a customer. More to come on that.

9 CHAIRMAN DR. VICTOR: We should let you
10 go on. 05:57:55

11 MR. PALMISANO: Thank you.

12 Real quickly, rail car development, so
13 one of the things is how do we ship it. This is
14 the DOE concept, so there's two ways this is going
15 to move. By law, the Department of Energy is 05:58:04
16 responsible for taking this fuel and transporting
17 it off our site to a disposal site, or it can be
18 shipped privately. A couple years ago we had Jack
19 Edlo in who shipped spent fuel around the world
20 for DOE and for others. This is the DOE concept, 05:58:19
21 a rail car. A couple meetings ago I showed you
22 how the Navy nuclear fuel is moved on a similar
23 rail car. So this is actually the prototypes
24 being fabricated by AREVA for DOE. They've been
25 asked to do a cost estimate, you can see, for the 05:58:34

1 number of cars. Basically a transport cask and
2 when we were back at Holtec with Dan and David and
3 this group, we saw these being built. Holtec is
4 building a couple of these transport casks right
5 now, and this is what the car that would hold the 05:58:47
6 casks in, and there's buffer cars on each end on a
7 dedicated train. That's the DOE's concept.

8 Okay. I'll move into a decommissioning
9 update, unless there's anything more on the
10 industry update? Okay? 05:59:03

11 MR. SWARTZ: Basically, are we firm that
12 the caskets [sic] that we currently have at Holtec
13 will fit inside?

14 MR. PALMISANO: Oh, yeah.

15 MR. SWARTZ: There's been issues on 05:59:20
16 those.

17 MR. PALMISANO: We have three types of
18 casks in use on-site. We have two types of AREVA
19 casks, okay, both hold 24 assemblies, different
20 canisters. And we have a Holtec canister. All 05:59:31
21 three are licensed for transport, all three have
22 approved transport casks that are licensed and, in
23 fact, all being built. We're confident. Yes.

24 CHAIRMAN DR. VICTOR: I think the bigger,
25 and it's a very important question, the bigger 05:59:44

1 issue is that they're building one right now for
2 testing, and one of these cars plus end pieces --

3 MR. PALMISANO: One of these cars, yes.

4 CHAIRMAN DR. VICTOR: And so when we get
5 through the testing program through the next two
6 years, question is, who is going to pay for others

05:59:57

7 and so I again today put this question to the
8 folks at Senate Appropriations. There's a lot of
9 e-mail traffic back and forth with Ted Quinn,

10 Steve Majares, and me that's all on

06:00:10

11 songscommunity.com about this issue. I would love
12 this to be our big problem, because that would
13 mean we've got a change in federal law now, and we
14 can now move the spent fuel.

15 Garry Brown.

06:00:27

16 MR. BROWN: Tom, just kind of a point of
17 clarification and all the consolidated interim
18 storage we're talking about is basically the
19 concrete bunker style that we've built here?

20 MR. PALMISANO: Right.

06:00:37

21 MR. BROWN: We're not talking about any
22 repository or anything underground?

23 MR. PALMISANO: Right. It's all interim
24 storage. It would be similar to the one in New
25 Mexico. It would look like the Holtec system,

06:00:50

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1 only truly below grade in that vicinity.

2 MR. BROWN: Right.

3 MR. PALMISANO: But, again, it's not a
4 deep ecological repository, like Yucca Mountains
5 or the Waste Isolation. 06:00:59

6 MR. BROWN: I guess, my second question
7 is, and you would certainly know, is we get tons
8 of studies from all over coming on, and we all
9 understand this is political on Yucca Mountain and
10 Harry Reed didn't want it, but in recent years 06:01:12
11 I've seen studies that say that that underground
12 repository, which is basically a salt cake,
13 actually would prove -- it has proven to be
14 pervious and actually from a geological standpoint
15 would not be an adequate safety, and water could 06:01:29
16 ultimately end up in the Colorado River.

17 MR. PALMISANO: Do you want to say
18 something about that?

19 CHAIRMAN DR. VICTOR: Why don't you
20 defend the Colorado River? 06:01:38

21 MR. PALMISANO: There's legitimate
22 disagreement about whether Yucca Mountain is
23 appropriate. I don't think Yucca Mountain itself
24 is salt structure.

25 MR. BROWN: Right. 06:01:49

1 MR. PALMISANO: Salt is more pervious
2 than moisture. The conclusion was Yucca Mountain
3 is suitable and can be made suitable is undergoing
4 NRC licensing. I'm not versed enough tonight to
5 try to argue it either way, Garry. So I'm glad to 06:02:04
6 talk further about that.

7 MR. BROWN: I'm not advocating anything.
8 I know there's questions if it's geologically
9 suitable.

10 CHAIRMAN DR. VICTOR: When we talk about 06:02:15
11 consolidated interim storage, we're talking about
12 building -- having the same facility we have here,
13 but --

14 MR. BROWN: I understand. I just thought
15 the audience had to know. 06:02:22

16 CHAIRMAN DR. VICTOR: Politically you
17 have to talk about -- pretend that you care about
18 Yucca Mountain. I mean, Yucca Mountain is nuts.
19 I mean, by the time they're going to be able to
20 accept deliveries -- maybe that was a political 06:02:31
21 statement, but by the time they're going to be
22 able to accept deliveries, if everything goes well
23 from the licensing process is 2030, 2035, and
24 they're going to be slow because all the fuel has
25 to be repackaged. Meanwhile there's all kinds of 06:02:44

1 technological innovation going on for deep bore
2 hole storage, could be that it ends up not being
3 Yucca, it could be something else, but what we
4 care about is a responsible program to get the
5 spent fuel out of here. 06:02:55

6 MR. PALMISANO: That's when we'll be
7 ready for the window of opportunity, because I
8 can't predict which of these may come to fruition
9 but when something does open up, we want to be
10 ready. 06:03:07

11 MR. BROWN: Thank you.

12 MR. PALMISANO: I'll move on.
13 Decommissioning update, very briefly, our
14 decommissioning principle is Safety Stewardship
15 and Engagement, and, again, we very much 06:03:15
16 appreciate you coming out as part of the
17 engagement. This is our simple depiction of our
18 decommissioning plan. What I show you -- and you
19 have this on your seat, so it's a little more
20 readable. Up here is ISFSI is the Independent 06:03:28
21 Spent Fuel Storage Installation. Hopefully that's
22 the last time I'll say that. I'll call it the dry
23 fuel storage facility. This is now constructed,
24 and I'll give you an update on the offload
25 campaign in a minute. So all this is complete. 06:03:44

1 The decommissioning general contractor, you may
2 remember a couple of meetings ago when we had the
3 on-site manager Matt Marston from SONGS
4 Decommissioning Solution come in. They have been
5 selected, they are immobilized, and they are early 06:03:54
6 in their planning activities for the actual
7 decontamination and dismantlement of the plant.
8 And then the key piece we've got some breaking
9 news today CEQA, California Environmental Quality
10 Act review, this is really where the critical path 06:04:07
11 lies for those of you who are familiar with
12 project management. We need two things I'll talk
13 more about in a minute, but basically we need a
14 coastal development permit issued by the Coastal
15 Commission. That will then allow us to enter into 06:04:22
16 the next phase, which is about an 8- to 10-year
17 period to actually decontaminate and demolish what
18 you see above grade at the plant. So that's the
19 current decommissioning plan.

20 So then we go into the extended period 06:04:34
21 waiting to remove fuel from the site like we have
22 just talked, then we will complete the final
23 restoration from the Navy requirements following a
24 NEPA process at that point. So that's the big
25 picture plant that we talked about really for the 06:04:46

1 last four years.

2 Next slide in response to a lot of
3 comments and some well-founded criticism we
4 redesigned the SONGS Community Website. We are
5 anxious to make this more usable for you. We post 06:04:59
6 a lot of information there, a lot of the
7 correspondence between CEP members and the public
8 is there. So we've just redesigned this to make
9 it more user friendly, so I'm anxious to get
10 continued feedback on this. We're now going 06:05:12
11 through and cleaning up some old documents that
12 aren't pertinent decommissioning, so please give
13 us your feedback as we start to -- we rolled this
14 out just last week. So use this site, we're
15 anxious to get feedback, so please. 06:05:23

16 CHAIRMAN DR. VICTOR: Thank you. The old
17 one was not user-friendly.

18 MR. PALMISANO: This is much better. It
19 does have ways to find documents. We're working
20 on giving you some easy ways to find documents. 06:05:34
21 Our folks have worked very hard and try to be
22 responsive to your comments. I thank them for
23 that.

24 Let me give you an update on the fuel
25 transfer process. If you remember, we started 06:05:43

1 this back in 2014 showing you this is the onsite
2 fuel storage. We have 50 canisters that were
3 previously loaded with unit 1, 2, and 3 fuel.
4 Unit 1 for ISFSI commissioning, units 2 and 3 from
5 operations. And we had 2,668 fuel assemblies and 06:05:59
6 the two spent fuel pools, and we needed below 73
7 of the new canisters and combined with 50 at the
8 end of the day in mid-2019, we'll have 123
9 canisters loaded with spent fuel stored off-site.
10 We started this process in January, as I reported 06:06:19
11 in March, we continue. We now loaded 20
12 canisters, so you can see we're just keeping the
13 numbers updated here. We post a monthly progress
14 report on the SONGS Community Website, and we
15 certainly welcome you to take a look at all of our 06:06:33
16 progress.

17 This is a picture of the newer dry cask
18 storage facility, and this is the vertical below
19 grade Holtec UMAX facility. There's 75 spaces, 73
20 will be used for fuel canisters. One will be a 06:06:48
21 spare, and one we're going to place a test
22 canister to allow us to test our inspection
23 capability and our aging management programs.

24 The stars show you where the loaded
25 canisters are, and we'll keep this updated again. 06:07:00

1 This will be on our Website as well. We'll update
2 this every month as we go along. And the key
3 thing -- and we talked about this before, and this
4 gets back to the question we just talked about,
5 readiness for transportation, do transportation 06:07:16
6 canisters exist. Here's the picture for all of
7 our spent fuel canisters. The 50 canisters that
8 have been loaded are in the first two rows. The
9 units 2 and 3, there are 33 of those canisters.
10 By the end of 2019, all 33 will be eligible to 06:07:32
11 ship. And I should explain, there's two time
12 frames to put spent fuel in canisters or to ship
13 them. It's got to come out of the reactor, and
14 typically sit in the spent fuel pool, the water
15 pool for five years typically. Then when it's 06:07:45
16 eligible, it will go in the canister. That allows
17 the heat load to decay and the radioactivity to
18 decay. Then it typically has to wait a period of
19 time before it could be shipped across public
20 roads. For these canisters, it's typically 06:07:59
21 15 years. So with the fuel that's been loaded
22 into these, we will meet all the requirements by
23 end of 2019. So those are shippable. By the end
24 of 2019 the transportation cask has been licensed,
25 AREVA is building them, and it's a matter now of a 06:08:15

1 place to ship it and the rail capability to ship
2 it. Unit 1, the old unit 1 fuel is an interesting
3 story and it's different. Unit 1 operated until
4 1992, it was the first plant on the site. Its
5 fuel assemblies use stainless steel materials 06:08:27
6 instead of newer materials we used in units 2 and
7 3. It actually has to cool for 38 years before it
8 can go over the road. This is why although unit 1
9 ceased operating in '92, we go all the way out to
10 2030 before the last of that fuel is eligible to 06:08:46
11 be shipped across the road.

12 Now, the Holtec system, the newest
13 system, actually 67 of the 73 canisters will be
14 eligible to ship as late as 2020. It's a newer
15 system, it's a heavier shielded system, so it 06:09:01
16 needs a shorter time, if you will. A few
17 canisters because of the fuel assembly will take
18 just a little longer. But you can see by 2030,
19 everything is available to ship and virtually over
20 the next several years the majority of this is 06:09:15
21 able to ship. This, again, the advice we get to
22 be ready when the window of opportunity opens,
23 whenever it may be, make sure you're ready to go.

24 Before I get onto permitting, are there
25 questions on the status of the spent fuel offload 06:09:29

1 or the eligibility to transport?

2 Okay, I got a lot to cover today, so I'm
3 going to keep moving along, so, please, ask
4 questions. Environmental permitting, so this is
5 important. We've been waiting for a while for the 06:09:43
6 State Lands Commission to issue the draft
7 environmental impact report. Pleased to report
8 that was issued today for public comment. So on
9 the State Lands Commission Document, so we'll
10 point you to their Website. They issued that 06:09:56
11 today. I'm going to show you some tentative dates
12 they've given us. But, again, they drive the
13 process. Then the next thing we'll need after the
14 State Lands Commission certifies the EIR, we will
15 then need a coastal developmental permit 06:10:12
16 separately issued by the California Coastal
17 Commission, they agreed to rely on the
18 environmental impact review that the State Lands
19 Commission does. So it's basically a joint agency
20 process. This is important to -- so you can get 06:10:22
21 on the Website, take a look at the document, there
22 are meetings coming up that the State Lands
23 Commission will hold and they will invite public
24 comments so please make sure that word is
25 disseminated clearly and loudly. This is a 06:10:34

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1 tentative schedule. They have now hit the late
2 June and they issued the draft EIR. Public
3 comment period, again, 60-day duration. This is
4 what they control. I anticipate that closing in
5 late August. Then they will -- October of 06:10:50
6 mid-2018 will likely submit a Coastal Development
7 permit application after the EIR through public
8 comments and close to being done. And then mid to
9 late November the State Lands Commission issue
10 comments like they issued in the final EIR. We 06:11:10
11 would anticipate a December 2018 State Lands
12 Commission meeting where they will decide whether
13 or not to certify the EIR. So that's an important
14 milestone for us, and it's an important milestone
15 for the public and for the Community Engagement 06:11:24
16 Panel. And then the Coastal Commission will
17 proceed with their process I'd estimate sometime
18 in the first quarter, that's the best information
19 I have. I want to make sure you're well aware of
20 this. 06:11:33

21 Questions from the panel on this?

22 CHAIRMAN DR. VICTOR: I want to ask maybe
23 Dan or Garry or Mike about your view of the
24 schedule and what we could do to be helpful?

25 MR. STETSON: Thank you, David. 06:11:46

1 Quick question, Tom. I understand
2 there's going to be two public meetings. Have the
3 dates been set and where --

4 MR. PALMISANO: I understand there's
5 going to be two public meetings in the vicinity 06:11:53
6 here. I believe the dates are set. I don't have
7 them. I'll see on a break if they've been
8 announced yet.

9 MR. STETSON: Okay. And the locations,
10 please? 06:12:03

11 MR. PALMISANO: Since they're State Lands
12 Commission meetings, not ours, I want to make sure
13 they issue the dates and the meeting location.
14 Let me see what I can find on the break.

15 CHAIRMAN DR. VICTOR: We need to push 06:12:07
16 awareness of the meetings, this panel.

17 MR. PALMISANO: We'll disseminate it as
18 soon as it's on their Website. Other questions on
19 this?

20 CHAIRMAN DR. VICTOR: Anyone else? 06:12:19

21 MR. PALMISANO: An important process,
22 important for public engagement, so please pay
23 attention to this and get on the Website and take
24 a look at this.

25 Decommission and dismantlement, I'm going 06:12:29

1 to touch on this just briefly. I want to mention
2 that decommissioning general contractor SONGS SDS
3 is mobilized in the planning phase. Very quickly,
4 I showed you a video, I think, last meeting, a
5 3-minute video of how the building conceptually 06:12:43
6 will come down. Basically, if you look at what we
7 look at, like today, here's unit 3, here's unit 2,
8 here are the two dry cask storage facilities, and
9 here is the switch yard. At the end of the
10 roughly 8- to 10-year D & D period, 06:12:59
11 decommissioning and dismantlement, or
12 decontamination and dismantlement, we would expect
13 everything above grade to be cleared with the
14 exception of the switch yard will remain and the
15 dry fuel storage facility will remain. The sea 06:13:10
16 wall will remain in place protecting those
17 structures. That's what we envision the site to
18 look like after the first phase of the D & D
19 process in about an 8- to 10-year period. In a
20 future meeting we'll bring SDS to talk more as we 06:13:27
21 get closer to the start of that process.

22 I'm going to move on to some follow-up
23 questions that I got from the panel and that. Any
24 questions on this? Are we doing okay on time?

25 CHAIRMAN DR. VICTOR: We are where we 06:13:42

1 are.

2 MR. PALMISANO: Okay, yes, sir. So we
3 had a number of follow-up topics here. I've got a
4 number of topics here that I want to update the
5 panel and the public on, and they're important 06:13:52
6 topics. I will touch on each of them in a
7 reasonable amount of depth, certainly be able to
8 answer questions.

9 First of all, we had a question, I think,
10 from the panel last time about the nature of the 06:14:03
11 passive cooling, and in this case we're talking
12 the UMAX system, the vertical system. This is the
13 new one. But it's basically the same for the
14 horizontal system. So this is a sealed canister.
15 So the spent fuel is inside the stainless steel, 06:14:16
16 welded steel canister sealed from the environment,
17 filled with helium. That's the same way in both
18 systems, the horizontal and the vertical system.
19 In this case, the way passive cooling works, on
20 the outside of this little schematic are inlet 06:14:31
21 vents, there's actually four of them, I show
22 three. Cool air flows in and down the outside.
23 There's basically -- think of it as two concentric
24 cylinders here. There's a stainless steel
25 cylinder on the outside, the cool air flows down, 06:14:47

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1 and there's an opening down at the bottom that's
2 called a divider shell, and the cool air then
3 flows up around the outside of the canister and
4 the heat just radiates out, the air picks up the
5 heat through natural circulation, and exhausts out 06:15:00
6 the top of the center vent. That's the nature of
7 the passive cooling that the panel asked about in
8 this system.

9 So the fuel is always isolated from the
10 environment. First of all, fuel assemblies and 06:15:10
11 fuel pins, that's where the fuel pellets are, the
12 stainless canister filled with helium and then
13 welded, and then the air flows around the outside,
14 nothing radioactive is on the outside. Typically
15 we've 20 of these loaded now and we measure the 06:15:26
16 temperatures, there's about a 33-degree rise from
17 the cool inlet air to the air coming out the top.
18 So this just functions naturally, just natural
19 circulation. The beauty of this system in all
20 these dry cask storage systems, no electrical 06:15:39
21 power is needed, no water supply is needed, no
22 pumps, et cetera. It just passively dissipates
23 heat. So that's the follow-up answer. Questions
24 from the panel on that?

25 Okay. 06:15:53

1 CHAIRMAN DR. VICTOR: Garry Brown.

2 MR. BROWN: I recently learned that when
3 this is all operating passively that the
4 temperature of the canister will remain about
5 400 degrees? 06:16:05

6 MR. PALMISANO: You're talking the
7 outside temperature, that's the fuel temperature
8 inside, possibly.

9 MR. BROWN: The heat differential is
10 what's making the air flow. 06:16:18

11 MR. PALMISANO: No, the heat differential
12 of the air flow is only about 30 to 40 degrees.
13 The fuel inside could be up to, say, 2- to 3- to
14 400 degrees centigrade. 400 degrees centigrade is
15 the limit for the fuel. But all that heat is 06:16:24
16 dissipated, and I'll show you a cross section of
17 the canister in a minute. Basically, the outside
18 of the canister is not 400 degrees. The air
19 flowing by picks up the heat so the temperature
20 difference I'm talking about is the air on the 06:16:35
21 outside.

22 MR. BROWN: What do you think that will
23 be?

24 MR. PALMISANO: It's a 30- to 40-degree
25 rise, we measure it. 06:16:42

1 MR. BROWN: Okay.

2 MR. PALMISANO: When I see, let's say,
3 75 degrees or 65 degrees going in, I see
4 95 degrees, 100 degrees coming out. Those of you
5 who have toured it, you can actually feel the warm 06:16:53
6 air flowing out.

7 MR. BROWN: Okay.

8 MR. PALMISANO: Basket shims, okay, so
9 this is an important issue. This is an issue we
10 talked about for the first time in March because 06:17:04
11 it had just been discovered. This was the purpose
12 of the visits to Holtec. You may have seen the
13 shims that we set up outside, but I do have the
14 shim here, so I can show you exactly what we're
15 talking about. So as I go through this, I'll 06:17:16
16 refer to these, and you are welcome at a break to
17 take a look at these. Let me get this out of the
18 way so nobody trips over this.

19 So, first of all, where are the shims
20 located, so MPC, multipurpose canister, meaning 06:17:35
21 storage and transportation holds 37 fuel
22 assemblies. This cutaway is a cutaway of the
23 sealed stainless steel backed canister. So
24 inside -- too fast. Inside is an aluminum
25 basket -- you'll see a picture of it in a minute, 06:17:55

1 that holds 37 fuel assemblies, each individual
2 shell. The arrows I'm showing here are just
3 helium circulation inside the canister. The
4 canister is filled with about 60 pounds of helium.
5 Why helium? Number one, it's an excellent 06:18:11
6 conductor of heat, it's better than air. It's an
7 inert atmosphere, no corrosion. So typically all
8 vendors use helium inside their canisters, that's
9 what we use in the horizontal one, we use in the
10 vertical one. 06:18:23

11 The advantage of the vertical system, the
12 helium -- the heat just radiates out of these fuel
13 assemblies through the aluminum basket, through
14 the steel shell, through the helium, and it
15 conducts heat nicely. The nice thing about the 06:18:33
16 vertical one, you also get what they would call
17 thermal syphoning, you get a little internal
18 circulation. And basically helium will flow down
19 on the outside of this basket and up through the
20 fuel assembly, so you get a little circulation. 06:18:47
21 It turns out, calculationaly [sic], that's not
22 the majority of the heat flow. And the way Holtec
23 designed these, let me go forward to make a little
24 more sense. This is the basket that holds the 37
25 assemblies. So you've got basically, let's say, a 06:19:03

1 rectangular-shaped basket and a round canister.
2 So to fill out the edges of the structural
3 support, there are these aluminum shims, so this
4 is anodized aluminum. These are actually 15-foot
5 tall. So the basket is 15-foot tall, the shims 06:19:17
6 are. So the principle purpose of these shims is
7 really lateral support for that fuel basket. It's
8 freestanding, so it can expand. It expands more
9 than the steel canister, so it's freestanding, a
10 little looseness so it expands when it heats up. 06:19:31
11 So principally these provide support. There's 32
12 shims and 24 of them are hollow, because this
13 allows hot helium at the top to then flow down
14 through a hollow canister on the periphery and
15 then come out the bottom, and then circulates back 06:19:48
16 up through the fuel basket. Again, it turns out
17 this is maybe only 10 to 15 percent of the heat
18 transfer capability. Even without any
19 circulation, this radiates sufficient heat to keep
20 the fuel cool. 06:20:00

21 With -- the problem that occurred was
22 related to a design change they made to the shims.
23 This is the original shim design and originally 30
24 of our canisters were built with this design and
25 you can see how the bottom is basically just a 06:20:14

1 notch cut out to let the helium out. Holtec made
2 a change to basically go to a flat cut with three
3 pins. Gives them more open space, if you will,
4 for helium to circulate. The problem that
5 occurred the way our canisters were fabricated 06:20:30
6 when they're horizontal and all put together and
7 they're rolled through this peening process, which
8 I'll talk about in a minute, several of these pins
9 were damaged. We found one broken off on site,
10 and that's what I talked about last time, several 06:20:45
11 were bent.

12 Now, we inspected 20 canisters, over 1500
13 pins, and we found about 2 and a half percent
14 showed signs of damage. So it was not a prevalent
15 problem, but enough of a problem that it was 06:20:57
16 unacceptable. Unfortunately, as I talked in
17 March, we found this after we loaded four
18 canisters with this design. So we talked quite a
19 bit about where we were headed then, and can
20 report the results of that. 06:21:09

21 So what we've done, first of all, what I
22 told you in March based on our preliminary
23 reviews, we were confident those four canisters
24 met all storage safety requirements. That has, in
25 fact, been confirmed. That analytical work that 06:21:22

1 David Victor referred to, Holtec has done a
2 structural analysis, even if all three of these
3 pins were gone and virtually the canisters sat
4 flat with no opening at the bottom, again, this is
5 a 15-foot long shim still provides adequate 06:21:37
6 structural support, pins aren't needed for
7 structural support. The real question is if these
8 shims were sitting down flat and stops helium
9 circulation, does that affect the temperature,
10 okay, and the answer is: not significantly. 06:21:52

11 So let me give you some numbers, and I'll
12 try not to get too technical, but when the
13 original design of really both of these canisters
14 designs, the NRC limit is 400 degrees centigrade,
15 what is called the peak clad temperature, 06:22:07
16 basically, the hottest fuel rod at the hottest
17 location. You've got to show that it stays below
18 that. The original design would allow 44
19 kilowatts of heat load, basically that's the
20 amount of heat. And the analysis the NRC reviewed 06:22:18
21 and approved showed the canister with helium
22 recirculation stayed 33 degrees below the limit,
23 and that was an extreme heat load. The NRC
24 conservatively reduced that by 35 percent for
25 20 percent so when they licensed it, they're only 06:22:35

1 licensed for up to 35 kilowatts of heat load
2 which, again, would bring your temperatures down
3 even farther.

4 So our situation, what did we know about
5 the four canisters? Let me go back a picture or 06:22:49
6 two. I reported before, the four canisters were
7 inspected from the top and all these shims were at
8 proper elevation, meaning all the shims had at
9 least one pin underneath them standing up. None
10 of the shims were at the point where all the pins 06:23:04
11 were gone and sitting down flat. We saw no broken
12 pins in the four canisters that were loaded. So
13 we have good assurance that the pins were not
14 failed. I can't guarantee there isn't one that is
15 bent or broken that we didn't see. 06:23:17

16 So we said, what would be the worst case
17 if these 24 hollow shims for some reason all were
18 broken, sitting flat, and, again, none of them
19 were, but if they were, what would that mean? So
20 what we did, we had Holtec run an analysis that we 06:23:28
21 reviewed, and we had a third party engineering
22 firm review, we said, okay, let's assume 38
23 kilowatt heat load, well above the limit, and it
24 calculated with no helium recirculation, we still
25 had 52 degrees centigrade margin to the NRC limit. 06:23:50

1 And in our case, these four canisters the maximum
2 is only 28 kilowatts, so we're an even 26 percent
3 below the number we analyzed for.

4 So the bottom line from a heat removal
5 capacity and a structural capacity, if there is a 06:23:59
6 problem with the shim in one of these four
7 canisters, we have no evidence there is, but
8 assuming there is that we missed, these canisters
9 are safe, they meet all storage requirements -- or
10 safety requirements for storage. 06:24:12

11 I would note that other sites reviewed
12 this and continue to use the shim pin design. We
13 talked to Holtec and basically, other than those
14 four canisters, they are refurbishing all the
15 canisters that were not yet loaded to go back to 06:24:26
16 the original design, which, in our opinion, is a
17 more robust physical design, not prone to a pin
18 bending or breaking. You'll get a chance to take
19 a look at these. I'm going to lay them down. I
20 ask you just to be safe when you take a look at 06:24:38
21 these, please. Although they're aluminum, there's
22 still a little bit of weight to them.

23 CHAIRMAN DR. VICTOR: So this is an
24 important topic. I want to see if anybody has any
25 comments. We're -- you have a lot of slides still 06:24:45

1 to cover --

2 MR. PALMISANO: Right.

3 CHAIRMAN DR. VICTOR: -- but this is very
4 important, so I want to pause and see if anybody
5 has any comments. I'm sure there will be public 06:24:52
6 comments on this as well, and we'll come back to
7 this.

8 MS. McNICHOLAS: So how many of those
9 shims are there in any one canister?

10 MR. PALMISANO: There's 32 in any one 06:25:03
11 canister.

12 MS. McNICHOLAS: Okay. And so 32
13 basically times three pins is about 100?

14 MR. PALMISANO: So basically there's 88
15 pins total. There are solid shims or eight solid 06:25:13
16 shims that have two pins, and then the 24 hollow
17 shims have three pins. So a total of 88 pins in
18 each canister.

19 MS. McNICHOLAS: Okay. And what -- I
20 thought you said they saw about a 2 and a half 06:25:21
21 percent failure rate?

22 MR. PALMISANO: What we did is we took 20
23 canisters that had been fabricated and peened that
24 were still in the factory or on site that hadn't
25 been loaded. We went down with a camera and 06:25:32

1 looked at each of the 88. And we saw -- I don't
2 have the specific numbers. I think we saw several
3 bent several and several broken, all totaled 20
4 canisters, over 1500 pins we saw about a 2 and a
5 half percent rate of something being bent or 06:25:47
6 damaged.

7 MS. McNICHOLAS: Okay. So that's kind of
8 what we would expect in the ones that are already
9 loaded, possibly?

10 MR. PALMISANO: So the ones that were 06:25:54
11 already loaded, what we do know all the shims were
12 at the right elevation, so none of them had no
13 pins underneath.

14 MS. McNICHOLAS: Right.

15 MR. PALMISANO: And we did not see 06:26:01
16 looking down, we didn't snake the camera down
17 because we weren't aware of the problem, but we do
18 inspect it from the top, and that's how we found a
19 broken pin in another canister, we didn't see any
20 broken pin. So if I were to assume something, 06:26:11
21 that's why we did the analysis assuming we missed
22 something and there's a damaged pin, we've got to
23 assume that.

24 MS. McNICHOLAS: Right.

25 MR. PALMISANO: So we said, what would be 06:26:19

1 the worst case? Let's say all 88 pins were
2 broken, and all these shims just sat down three
3 and a half inches.

4 MS. McNICHOLAS: Right.

5 MR. PALMISANO: There's no effect on the 06:26:27
6 structural or heat removal capability.

7 MS. McNICHOLAS: Right. I was just
8 trying to get an idea of what -- it will be an
9 incredible statistical improbability for that to
10 happen or even the 2 percent of 88 pins, the 06:26:37
11 chances of all three of them being on one shim, I
12 mean, it's still a probability?

13 MR. PALMISANO: Yeah, but we would have
14 seen that because the shim could very clearly --
15 it's got to sit at a certain elevation. We video 06:26:48
16 that and, yeah, that's --

17 CHAIRMAN DR. VICTOR: I think that's a
18 very important point. I want to just underscore
19 something what we asked Holtec to do and you've
20 now reported on this slide here, we might want to 06:26:57
21 translate it into more plain English.

22 MR. PALMISANO: Right, right.

23 CHAIRMAN DR. VICTOR: We asked them to
24 calculate if everything broke --

25 MR. PALMISANO: Right. 06:27:04

1 CHAIRMAN DR. VICTOR: -- what would be
2 the heat removal capability and would any of the
3 fuel assemblies come close to exceeding the peaked
4 allowable temperature, and the answer was no.
5 That's the most extreme case if everything is 06:27:20
6 broken, which of course, it's statistically in the
7 same odds that people think they're going to win
8 the lottery. It happens, we wanted to know what
9 the extreme case was.

10 Seems to me that, Tom, that since all the 06:27:35
11 analysis has been done to figure out what those
12 worst case scenarios are and what the best case
13 scenario is with nothing bent or broken, and then
14 you've been able to calculate the temperature that
15 is at the canister edge from that, can't we just 06:27:50
16 measure that temperature a few times so that we
17 can be confident that the canister is not in the
18 worst case scenario but is in what you think the
19 statistically likely scenario, is it feasible?

20 MR. PALMISANO: Well, I have to think 06:28:08
21 about that because a canister edge temperature
22 doesn't tell you that much about the fuel
23 temperature inside.

24 CHAIRMAN DR. VICTOR: No, I understand
25 that. But the point is that once one has done the 06:28:16

1 math, the heat transfer calculation, which is
2 relatively straightforward, then you can figure
3 out what the canister edge temperature could be.
4 We can take this offline, but I think -- I know
5 and what I've heard from the people in the 06:28:26
6 community is people -- you can't now see inside
7 those canisters, so they want to know how do we
8 know what's going on inside the canisters, and
9 this is one way to find out.

10 MR. PALMISANO: What I'll do, I can't 06:28:35
11 commit to that because I don't know the
12 feasibility, but what I will think about if I
13 assume a practical case of one or two shims
14 sitting completely down, is there any significant
15 difference. What we have found working with 06:28:45
16 Holtec is the bulk of the heat transfer occurs
17 just through the helium and metal without the
18 recirculation. Let me ask Holtec what the
19 sensitivity is to see if that is a fruitful
20 exercise. 06:28:59

21 CHAIRMAN DR. VICTOR: Thank you.

22 MR. PALMISANO: Okay. Ready for me to
23 move on?

24 CHAIRMAN DR. VICTOR: Yes.

25 MR. PALMISANO: Okay. Conclusions, we, 06:29:06

1 Holtec, and a third party have confirmed they meet
2 all safety requirements for storage. The
3 inspection showed no problem with those four
4 canisters, subject to the fact that there may be a
5 damaged pin we couldn't see. We've loaded well 06:29:15
6 below the design limits, and all the other
7 canisters are going back to the original shim
8 style and Holtec is doing this across their
9 product line for future customers and all current
10 customers, and we're active in overseeing that 06:29:29
11 refit.

12 Okay. That's the status with the shim
13 issue at this point. So I'm going to move on and
14 talk about the experts team. If you recall, we
15 announced that we had agreed to solicit a team of 06:29:43
16 outside experts to assist us in really developing
17 a strategic plan for developing alternatives for
18 off-site storage and a conceptual transportation
19 plan.

20 First I want to talk about the experts. 06:29:52
21 We've had one in-person meeting and several phone
22 meetings. Kris Cummings is a nuclear engineering
23 expert. He's been a former designer of dry
24 storage canisters. Tom Isaacs, a long time DOE
25 guy who is part of not only Yucca Mountain Waste 06:30:07

1 Isolation Pilot Plant but has worked
2 internationally in siting repositories for high
3 level waste.

4 Gary Lanthrum who is a transportation
5 expert. Allison MacFarlane, you remember her, 06:30:27

6 chairman of the NRC. She came and spoke in 2015
7 after she left the NRC. She and Tom Isaacs are
8 our experts in siting and licensing. Rick Moore,
9 another transportation expert. Rick has been
10 instrumental in working with the states from 06:30:40

11 Hanford and Idaho, down to New Mexico with the
12 Waste Isolation Pilot Plant working on all the
13 transportation protocols and emergency protocols
14 for high level waste shipments to the existing DOE
15 New Mexico facility. And Dr. Josie Piccone 06:30:55

16 retired NRC senior executive with a lot of
17 expertise in radiation monitoring and detection.

18 Very good panel. We've met with them,
19 like I say, in person and now a couple times
20 they've been very helpful as they've gotten 06:31:07

21 started. Their key roles are to advise us on
22 facilitating the offsite storage of spent fuel,
23 and transportation of used fuel. The specific
24 thing we provide a monthly status report on the
25 Website on this, is first identifying and 06:31:22

1 advancing alternatives for offsite storage. We
2 have asked basically what can we do first as an
3 owner/operator, more largely as communication
4 panel, members of the public to advance
5 alternatives for offsite storage. We think this 06:31:38
6 is important, again, what the window of
7 opportunity might be, but we need to know what we
8 can do to help beyond what we've already done to
9 continue the effort to find a place to move this
10 fuel to in a reasonable time frame. 06:31:52

11 The second piece is a conceptual
12 transportation plan. We said basically what it
13 would be to conceptually transport spent fuel from
14 SONGS to some other location in the southwest. We
15 obviously picked that because of Yucca Mountain, 06:32:07
16 New Mexico, West Texas, just to be practical. No
17 matter which of those locations, you're generally
18 dealing with the same rail routes. Maybe barge is
19 a possibility bringing it over to the gulf and up
20 by rail through Texas. Anyway, they're going to 06:32:18
21 advise us on what conceptual transportation
22 planning would look like.

23 The first priority is first a strategic
24 plan. Until we have a place to ship it, the rest
25 really is somewhat of an academic exercise, and 06:32:31

1 then the second priority would be the conceptual
2 transportation plan. That's the status on the
3 expert team.

4 Are there questions from the panel that I
5 can answer related to that one? 06:32:40

6 CHAIRMAN DR. VICTOR: I don't think so.

7 MR. PALMISANO: Thank you.

8 The extreme events workshop, we're going
9 to talk about this. We've had a petition from
10 several members of the public. We've met with 06:32:51

11 them a bit to try to understand what we can do
12 here, and what we're working with the CEP

13 leadership on would be a workshop. If you

14 remember, some of you were involved with us in

15 2014. We actually had about two or three 06:33:02

16 workshops where we can talk in depth on one topic,

17 instead of me hopping around on so many topics

18 like I typically do.

19 So our concept is a workshop where we can
20 talk about what extreme events could affect the 06:33:13

21 dry fuel storage facility and could release

22 radioactivity. There's a certain set of events

23 the NRC requires us to analyze and design and

24 build for, but what if an event occurred beyond

25 that, what would it mean to the public, what is 06:33:29

1 the chance of really releasing significant
2 radioactivity and what would that mean to the
3 public. And this is something beyond just utility
4 we're talking about. This would involve some
5 other people with expertise on these types of 06:33:38
6 events or these types of consequences. So we're
7 working on the concept of a workshop with the
8 people who are interested in this and it probably
9 is targeted for later this year for a chance to
10 really plan this well, recruit the right people to 06:33:51
11 talk on the right topics.

12 Is there anything you --

13 CHAIRMAN DR. VICTOR: No, I just want to
14 say a number of us have spent a lot of time on
15 this. I want to thank Roger Johnson and others in 06:33:59
16 the community for focusing on this important
17 issue. This is a hard thing to talk about because
18 some of the extreme events can't really be
19 discussed in a non-classified way, so we are going
20 to, I hope with the help of the experts group that 06:34:13
21 you mentioned just a moment ago with the NRC,
22 Nuclear Regulatory Commission, National Academy of
23 Sciences, and some other folks and active members
24 of the community involved in helping to shape this
25 agenda, what we wanted to do is get a sense of 06:34:28

1 what are the potential extreme events, what can we
2 talk about in a stylized way because the details
3 are classified, what can we talk about in a full
4 way and have the whole thing anchored in science
5 so that we're not talking about wild scenarios, 06:34:41
6 but we are talking about extreme scenarios that
7 are connected to reality or a potential reality.
8 So getting all that right is really, really
9 tricky, but we have a planning -- we're going to
10 put together a planning meeting this summer, and a 06:34:51
11 lot of spade work has to happen.

12 I think it would be important for Edison
13 to put out a little concept note that is kind of
14 the basic philosophy and what's going to happen in
15 the process and so on and so forth. All that is 06:35:02
16 transparent and we'll get that on the Website.

17 MR. PALMISANO: We will take that action.
18 I'm thinking we may do that after the planning
19 meeting when we get a little more definition, but
20 we'll work with you and Roger and others to kind 06:35:11
21 of scope this, if you will, because we've got to
22 line up the right people. We've already spoken to
23 the NRC. They'll support with adequate notice.
24 They're only one piece of the story.

25 CHAIRMAN DR. VICTOR: Okay, thanks. 06:35:24

1 MR. PALMISANO: I'm going to move on. So
2 one of the things in terms of natural events,
3 there was some specific questions about
4 protections against Tsunamis particularly. So the
5 dry fuel storage facility is protected by a 28 06:35:36
6 foot sea wall. So when the plant was built and
7 licensed by the NRC for operation and spent fuel
8 storage, the plant had to be analyzed for extreme
9 natural events, whether it's an earthquake a
10 Tsunami, in the Midwest maybe tornado, a variety 06:35:52
11 of events, straight line winds, so in our case the
12 Tsunami estimate at the time is 27-foot for what
13 the NRC would tell you is a perfect storm. So
14 this high tide, this wind-driven stage, this is
15 maximum rainfall, and then a Tsunami occurs. So 06:36:07
16 it stacks up about the highest water level you can
17 when a Tsunami occurs.

18 It's estimated to be 27 feet and the sea
19 wall is 28 feet. So the sea wall protects the
20 site. Further research, if you remember over the 06:36:22
21 last two years we've had Dr. Neal Driscoll in
22 talking about some research the Public Utility
23 Commission and the California Energy Commission
24 had us do for faults, particularly offshore. So
25 he's done some significant work, and we had 06:36:32

1 several meetings where we've discussed this and
2 reported this, that in reality the maximum
3 credible Tsunami in the San Clemente area is more
4 realistically around 10 feet. And he looked at
5 both Tsunamis originated from basically far afield 06:36:48
6 earthquakes where you have a large Tsunami that
7 travels the ocean, the nature of the underwater
8 structures or the underwater topography basically
9 breaks up the energy long before it hits the
10 shore. Different from Japan where Fukushima was, 06:37:01
11 you had a different type of topography under the
12 sea. And in near term the falls don't lend
13 themselves to the large landslides you would need
14 to generate a large Tsunami with a near term
15 fault. I'm not as eloquent or knowledgeable as 06:37:16
16 Dr. Driscoll who can point to that material. He
17 did a fine job educating all of us on that, I
18 think.

19 What if -- okay, so extreme events, what
20 if the systems are inundated. Both systems we use 06:37:26
21 are designed to be fully submerged. The AREVA
22 system, the original system can be submerged by a
23 50 foot head of water above it, the Holtec system
24 even 125 feet of water. And submerging in water
25 actually the canisters cool more effectively. So 06:37:43

1 the Tsunami recedes, the water drains out, and the
2 Holtec system, water evaporates or would be pumped
3 out, but basically they're both qualified to be
4 submerged and licensed on that basis.

5 CHAIRMAN DR. VICTOR: Dan, did you have a 06:37:58
6 comment on this?

7 MR. STETSON: I did.

8 Thank you, Tom. If, let's say, for
9 instance, the AREVA is under 60 feet of water,
10 what happens? 06:38:06

11 MR. PALMISANO: If it's under 60 feet of
12 water, so now you're beyond a credible event, I
13 would have to tell you how much margin is in
14 there, and I don't have that at my fingertips.

15 MR. STETSON: Okay. 06:38:18

16 MR. PALMISANO: Okay. Again, the water
17 tends to cool the canisters. I don't know if it's
18 a pressure issue on the concrete, so I'll have to
19 get back to you on that.

20 MR. STETSON: Thank you. 06:38:27

21 CHAIRMAN DR. VICTOR: New slide.

22 MR. PALMISANO: Next slide I'm going to
23 go on to is monitoring of the dry cask storage
24 systems. First of all, for the dry cask storage
25 systems, the existing one and the one we're 06:38:37

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1 loading, they're monitored -- first of all,
2 they're monitored continuously by security. I've
3 got that as the second to last bullet. Continuous
4 security monitoring, video cameras, low light
5 capability. So they're monitored for intrusion. 06:38:51
6 Daily visual inspections of the facility, the
7 structure, the air vents to make sure they're
8 clear, the radiological monitoring is to move the
9 fuel canister from the building and put it in
10 place in the structure. We do a full radiological 06:39:05
11 survey after we place each canister. They are
12 monitored for temperature. The AREVA system has
13 an installed temperature monitoring. The Holtec
14 system we monitor for temperature after we place
15 the canister. And once all 73 are done, we'll 06:39:20
16 install the permanent equipment which has constant
17 readout for temperature.
18 And then we do on a regular basis
19 quarterly radiation surveys. When we're all done,
20 they're monitored quarterly for radiation. So 06:39:32
21 that's the monitoring that's in place today for
22 the dry cask storage facility itself. We
23 additionally do radiation monitoring around the
24 perimeter of the site and offsite, and I'll talk
25 more about that in a minute. 06:39:45

1 So I'm going to move on off the dry cask
2 monitoring itself unless there's a question on
3 that? Okay.

4 So we had a question last time about what
5 radiological reports are required. We're going to 06:39:58
6 talk a bit about is realtime monitoring
7 appropriate of radiation measurements and all good
8 questions. So first we want to tell you what's
9 currently available. I will tell you upfront that
10 these are not written for -- easily for a general 06:40:10
11 audience. And what we will do is we're working on
12 a new report that we would post regularly on the
13 SONGS Community to report the monitoring results
14 that we do. We want to make sure when we do
15 monitoring, it's filed annually with the NRC, 06:40:21
16 we'll identify where it's available to you, and
17 then we will point to them on our Website
18 specifically. And we are redesigning a report
19 that is a little simpler and will be updated more
20 regularly on our Website. 06:40:35

21 CHAIRMAN DR. VICTOR: Thank you for doing
22 that, by the way, because we've had lots of people
23 asked, Where do we get the information, and the
24 NRC is not the most user-friendly institution on
25 the planet. And the reports are opaque. And so 06:40:47

1 thank you for taking the reports and taking the
2 essence of the information and making them into
3 English.

4 MR. PALMISANO: We've got some work to
5 do. What I'm going to show you is what the NRC 06:40:56
6 report looks like in one case. There's two
7 fundamental reports that we file annually. Now,
8 this monitoring is done continuously -- I'm sorry.

9 CHAIRMAN DR. VICTOR: Steve, did you want
10 to -- 06:41:04

11 MR. SWARTZ: Yeah, this was covered a
12 lot, a big topic last time we met regarding 24/7
13 monitoring that the public has access to.

14 MR. PALMISANO: Right.

15 MR. SWARTZ: I just wondered if you're 06:41:15
16 going to be covering that somewhere in this? It
17 keeps coming in pieces, so if you are going to be
18 covering that here --

19 MR. PALMISANO: I'm going to touch on
20 that a bit. We're going to talk about that more 06:41:26
21 in the future, but I will touch on that.

22 CHAIRMAN DR. VICTOR: Let me just say
23 where we are. You're creating an incentive for
24 people not to ask too many questions, because,
25 Tom, right now is going through a handful of major 06:41:35

1 questions that have come up in the last few
2 meetings, which there hasn't been one place with
3 an answer, and so we're going through all of these
4 follow-up topics, and the upper right-hand corner,
5 but we are still getting into the main kind of 06:41:46
6 more sustained topic, which is the
7 Defense-in-Depth.

8 MR. PALMISANO: So I'll pick up my pace,
9 thank you.

10 Oh, real quickly. These are the two 06:41:54
11 reports, one is called a Radiological
12 Environmental Operating Report. This basically
13 takes measurements around the plant in the
14 environment out to a certain radius to see if
15 there's any detectable radioactivity from the 06:42:04
16 operation or decommissioning of SONGS. It's been
17 in place for the life of the plan. The other is a
18 radioactive effluent release. This monitors any
19 gaseous or liquid release as release. We monitor
20 that, we report that. Again, this has been in 06:42:21
21 place for as long as the plant has operated.

22 Very quickly -- I'm just going to go very
23 quickly so we get to more of the main topics. You
24 can see effluence, as I said, looks at liquids and
25 gasses. Environmental operating samples air, 06:42:31

1 water, soil, vegetation. There's dosimeters that
2 read radiation doses out at the perimeter out at
3 the site and in the community. And then we
4 collect that data, report annually to the NRC.

5 This is an example out of the radiological 06:42:45
6 monitoring. You can see some concentric circles
7 where we monitor and take samples. This is an
8 example what I'm showing you here, and this is
9 hard to read, there's a page on your chair, you're
10 looking at a couple of what are called TLDs, 06:42:57
11 Thermoluminescent Dosimeters, device that measures
12 radiation, how much radiation dose is
13 accumulating.

14 What you see here, ND is non-detectable.
15 So you can see at these locations and these areas, 06:43:10
16 there's been no detectable radiation due to
17 SONGS', in this case, decommissioning activities
18 in the year 2017. We have this data for the life
19 of the plant. I'm going to be quick so we can get
20 onto the main topics. 06:43:23

21 CHAIRMAN DR. VICTOR: So I want to talk
22 now for just a couple slides here, a couple weeks
23 ago some folks went to the plant, did a walking
24 tour of the plant and posted some things on social
25 media, the essence of which was that there was 06:43:34

1 radiation spewing everywhere, and it was
2 dramatically worse than anyone could have
3 imagined, and I read all that, and I couldn't
4 believe it was true because that would be a
5 violation of federal law and would be reportable, 06:43:45
6 and it's inconsistent with the way the plant has
7 been operated. And so it seemed to me very
8 important to go get some data and to understand
9 what's going on. And it happens that one day
10 prior Gene Stone, who had spoken with us last time 06:43:58
11 about crowdsourcing, monitoring, gave me an idea,
12 which is to go buy one of Gene Stone's radiation
13 monitors, Geiger counter, and so I went and bought
14 one of these. It turns out it's a kit, so it took
15 four and a half hours to solder this together, 06:44:15
16 something I have not done for 30 years, but turns
17 out it's a little bit like riding a bicycle. And
18 I think one of the geniuses of what Gene Stone has
19 done is he's posted his data up and shown people
20 what the numbers are. And so I want to walk 06:44:29
21 through these numbers so that -- we're going to
22 have a discussion in the community about how much
23 monitoring, how much should be crowd-sourced, and
24 that's an important discussion to have.
25 But if we have that discussion, we need 06:44:39

1 to have that discussion anchored in some sense of
2 what the numbers mean. So here's the measurement
3 on the same site $\mu\text{Sv/h}$ 0.97 micro Sievert, so
4 roughly a micro Sievert per hour is the flow of
5 radiation. When the Geiger counter operates it 06:44:55
6 clicks, so it's 324 counts per minute.

7 So we can go to the next slide. It
8 happened that on Sunday I had go to Washington for
9 a meeting and come back, so I decided to bring --
10 apparently TSA allows this, I discovered 06:45:09
11 firsthand, bring this on the plane and flew from
12 here to Washington.

13 So next slide. This is the reading. I
14 figured if I took it out in the middle of my
15 flight that I would probably be zip-tied to my 06:45:23
16 chair and not allowed to leave the aircraft or
17 leave in custody, so this is in the bathroom you
18 can see the courtesy. This is two and a half
19 micro Sieverts per hour inside the bathroom
20 huddled down inside an airplane at high altitude. 06:45:40
21 Why? Because at higher altitudes the cosmic
22 radiation, the normal background radiation is two
23 and a half times the level that Gene has measure
24 at the actual standing right next to the place.

25 So next slide. I happen to be at the 06:45:52

1 White House, I measured the White House. Turns
2 out the White House is not very radioactive at
3 0.09 or 0.1, which is typical background radiation
4 so there must be some other explanation for all
5 the Tweets coming out of the White House. 06:46:06

6 Next slide. This is from the flight
7 home. This happens to be actually flying over
8 Eastern New Mexico. Same deal, 2, 2 and a half
9 micro Sieverts per hour.

10 Next slide. This is a picture of the 06:46:21
11 plant taken where I took the next slide
12 measurement, which was taken about an hour and a
13 half hour ago on the way up here, which is 0.105,
14 and at the break you can take a look at this.

15 Please don't take it apart, because it took a long 06:46:35
16 time to put together. It's exactly the same
17 reading as in here. So there are important
18 debates for us to have about background radiation
19 elevated radiation and safety, really important
20 debates. But if we're going to have those 06:46:48
21 debates, we need to have them in the context of
22 what real background radiation levels are and what
23 elevated doses are and so on.

24 And I was just a -- concerned about
25 social media reporting about those visits, and it 06:46:58

1 seems to me that we ought to kind of all check our
2 reality about what we're actually seeing and
3 measuring. Thank you.

4 MR. PALMISANO: The numbers at this 0.105
5 in the parking lot, 0.97 micro Sieverts per hour 06:47:13
6 that Gene measured on this, we had our radiation
7 protection personnel with our meters, we had
8 comparable numbers, okay.

9 Again, we're going to come back topic
10 offsite radiation monitoring. One quick update, I 06:47:28
11 talked for the last year about insurance changes.
12 The NRC approved allowing us to reduce insurance
13 coverage. As an operating plant, we have
14 1.5 billion of property coverage, then we had
15 offsite liability at 450 million, a secondary pool 06:47:45
16 13 billion. And although we were allowed to
17 change all coverages, we made no change to onsite
18 coverage, no change to primary offsite liability.

19 We exited the secondary pool. The reason
20 we did is in part of the secondary pool, in a 06:48:03
21 nuclear plant in another part of the country had
22 an accident, we were going to -- we and our
23 customers would be responsible for about
24 \$250 million of their losses and the damages in
25 their area. As a decommissioning plant, we don't 06:48:16

1 pose the threat that an operating plant does. And
2 we felt it was unfair to the customers, quite
3 frankly, to bear the cost of an accident at
4 another plant when really we didn't have any
5 reciprocal risk. What we have done is exited the 06:48:29
6 secondary pool, all the primary coverages stay the
7 same at this point. So that's the insurance
8 update.

9 CHAIRMAN DR. VICTOR: I think that's the
10 end of this segment. Any comments about this kind 06:48:40
11 of rapid fire move through a number of topics?

12 Can I suggest that when you put these up
13 on the site, that there's also on the site lots of
14 questions of the same type, we should find a way
15 to link the answers, questions and answers -- 06:48:51

16 MR. PALMISANO: To the various topics?

17 CHAIRMAN DR. VICTOR: Back to the various
18 slides and update them as they go on, so that the
19 entire site is as informed as these meetings are.

20 MR. PALMISANO: We'll take that action. 06:49:04
21 Now I'm going to talk more about dry cask storage
22 Defense-in-Depth. We've used this little graph
23 before to talk about what you do in the design
24 phase, the fabrication, then operating,
25 maintenance, and security, inspection, and some 06:49:18

1 day remediation if it's needed.

2 This is what's called generally as Aging
3 Management once you have your systems in service.
4 You can see I've put here the dates when we
5 touched -- discussed these topics at the various 06:49:30
6 meetings over the last three to four years for
7 reference. This will be one of the things we'll
8 start to link better so people can get back to
9 that information.

10 Today I'm going to talk about design, 06:49:40
11 fabrication, and inspection. Very quickly, Aging
12 Management, that is the -- the NRC's acronym, all
13 of these systems were initially licensed for
14 20 years, and then you have to apply for the
15 license renewal. When you do, you have to have an 06:49:56
16 approved Aging Management program. Think of that
17 as the maintenance program for your car to assure
18 that it runs and continues to function.

19 So the original system, the AREVA NUHOMS
20 dry cask storage system, its license needs to be 06:50:11
21 renewed by 2023. So we will -- we are actively
22 working now with AREVA on the Aging Management
23 program. The good news is there are similar
24 systems elsewhere in the country already approved.
25 So we've got a good template. This programs talks 06:50:24

1 about identifying what could degrade, how you
2 inspect for it, and how you potentially mitigate
3 it.

4 The new Holtec HI-STORM system, the
5 vertical system, although theoretically it doesn't 06:50:33
6 have to renew for 20 years, we did agree with the
7 Coastal Commission and then when the ISFSI lawsuit
8 settled, moved that up to 2020 to develop what
9 amounts to an inspection maintenance plan.

10 Although this isn't the NRC's plan, this is the 06:50:46
11 plan we owe to the Coastal Commission. That will
12 talk about how we will inspect and maintain the
13 system in the first 20 years as we wait for the
14 subsequent license renewal period with the NRC's
15 program. It will be very similar. So we're 06:51:00
16 working on both of these currently.

17 Real quickly, I want to shift to the
18 design and fabrication discussion. We've talked
19 about this before, the standard stainless steel
20 canister used in the industry is typically a half 06:51:12
21 inch thick steel and it's a 304 stainless steel.
22 For both systems at San Onofre we picked the
23 higher grade of stainless steel, which is more
24 resistant to corrosion. It's not free of
25 corrosion risk, but it's much more resistant, and 06:51:28

1 we picked a thicker shell, 5/8-inch thick, gives
2 us more margin, also greater strength for seismic
3 concerns.

4 And particularly on the Holtec system we
5 took advantage on some real improvements in recent 06:51:38
6 times. We did a number of things, the real aging
7 or degradation issue was the chloride stress
8 corrosion cracking that we've talked about quite a
9 bit. That's a potential for these canisters, it
10 starts from the outside, and it starts in weld 06:51:53
11 areas where you have what are called high residual
12 stresses from your welding process typically.

13 So we've done a couple things, we and
14 Holtec improved the weld design. They found a way
15 that the NRC approved to weld it with a much 06:52:06
16 narrower weld, which less heat goes in, and you
17 have less of a heat-affected zone, so the weld has
18 less stress in it.

19 We found a rolling technique, where they
20 can roll the crown of the weld when it's done, 06:52:16
21 again, reduce that residual stress. Probably one
22 of the most significant things on the 73 new
23 canisters, we laser-peened all the factory welds,
24 which is everything but the closure weld in the
25 field. What that does if you think of peening 06:52:32

1 with a hammer where you hit something, the outside
2 of the canister after welding could be in a
3 tensile stress, you know, pulling apart. By
4 peening you put it in a compressor stress, and
5 turns out this chloride stress corrosion cracking 06:52:47
6 attacks tensile stress areas. Compressor stress
7 areas are much more immune to it. So this puts
8 all the welds in a compressor stress. This is the
9 peening operation that we saw in the factory.

10 The bottom line is with these 73 new 06:52:58
11 canisters we've done a number of fabrication
12 things to further reduce the susceptibility of
13 chloride stress corrosion cracking.

14 CHAIRMAN DR. VICTOR: Dan Stetson.

15 MR. STETSON: Tom, how thick is the 06:53:08
16 bottom, and how thick are the tops of these,
17 please?

18 MR. PALMISANO: I'll have to look up the
19 bottom thickness, and I may be able to do that at
20 a break. The top is about a 9- to 12-inch thick 06:53:17
21 steel lid, okay. And there's double weld on the
22 top closure.

23 MR. STETSON: Okay. But the base is
24 thicker than 5/8 --

25 MR. PALMISANO: Than the shell, yeah. I 06:53:24

1 just don't have the number off the top of my head.

2 The real issue is the shell. More so than the
3 base when you look at this.

4 MR. STETSON: Thank you.

5 MR. PALMISANO: This is, again, the 06:53:33
6 peening process is proprietary to Curtiss-Wright,
7 but this is basically how a canister is peened.

8 That's a high energy laser, there's a spray of
9 water on there, and it basically boils the water
10 and hits it with a hydraulic peening action. It's 06:53:48
11 pretty impressive.

12 The reason these canisters are horizontal
13 and they are rolled 200 times, there are multiple
14 passes with the laser to get the width of the weld
15 and we did about five passes on each weld to get 06:54:01
16 the compressor stress. The reason -- and those
17 being horizontal rolled that much which is what
18 led to the damage to this pin as opposed to other
19 canisters for other customers who did not elect to
20 do the peening. They were horizontal-rolled maybe 06:54:14
21 ten times for fabrication. Ours are rolled over
22 200 times. So that's really part of the cause of
23 that --

24 CHAIRMAN DR. VICTOR: Can I say before
25 you move on, when we were at the Holtec factory it 06:54:25

1 happened that the engineer who invented the
2 peening process was there. I had a chance to talk
3 with him, and among the other things that they are
4 peening, I gather, are the wing roots of the F22
5 and the F35. 06:54:38

6 MR. PALMISANO: Right.

7 CHAIRMAN DR. VICTOR: And I think for the
8 F22 they've taken the lifetime of the wing from a
9 thousand hours of flight time to 10,000 hours, so
10 I had not understood until he laid this out what a 06:54:47
11 huge impact this peening process has on changing
12 the stress in the welds.

13 MR. PALMISANO: It does. And I should
14 mention the concept of putting compressive stress
15 on we've used for years in the nuclear industry as 06:54:58
16 well as many other industries. The new innovation
17 here is the laser peening. We've done shot
18 peening before, we've done water jet peening,
19 we've done other things. This was needed to deal
20 with the strength and the hardness in these 06:55:09
21 canisters.

22 And Curtiss-Wright has done some very
23 impressive work for the military and other
24 industries. I want to say the statistics on the
25 amount of life they add to the fighter jet wings 06:55:21

1 was amazing.

2 So inspection improvements: We're doing
3 a lot of work on inspection. We have talked quite
4 a bit about inspection, so let me talk about
5 Holtec first. Remember I mentioned we have 75 06:55:32
6 locations in that facility and 73 will house fuel
7 canisters, one will be a spare. We are actually
8 purchasing an empty canister as a test canister.
9 We're going to put an electric heater in it so we
10 can put a lid on it and heat up to the temperature 06:55:47
11 a cask with fuel in it would have, so we can
12 actually monitor on a nonradioactive canister for
13 degradation, we can practice our inspections,
14 et cetera. So that's going to go in service as we
15 complete the offload. So it allows us to monitor 06:56:01
16 it, develop tooling.

17 The other thing we're doing, we've talked
18 about the challenge of any of these systems, how
19 do you get a camera down to inspect, we're in the
20 horizontal system. The Holtec vertical system 06:56:14
21 gives us a lot of opportunity. We're building a
22 special lid that can be put on each location and
23 has inspection access. So it's easy to put a
24 camera down or an inspection tool. So we're doing
25 a number of things that as they come to fruition 06:56:27

1 I'll bring in more pictures to allow us to more
2 easily inspect these new canisters. We're also
3 working on similar technology for the existing
4 canisters.

5 Shifting to the AREVA for a minute. I 06:56:40

6 showed you this about two meetings ago. I just
7 want to bring it back. AREVA has inspection
8 capability today. AREVA is out doing inspections
9 on the system similar to our current horizontal
10 system that are a bit older. They are already in 06:56:56

11 the required inspection stage. So their robotics
12 are available. We showed you -- actually, we had
13 a robot out here. We showed you some photos of
14 it, it goes in through the vents and can look up
15 and see about the lower 30 to 50 percent of the 06:57:08

16 canister. Should you see something on a visual,
17 you then mount a ring on this that does the
18 complete surface of the canister. So it's kind of
19 a staged inspection. If you see nothing, you're
20 done. If you see something, you've got to assess 06:57:20

21 it or quantify it. So they have that ring
22 available today.

23 Holtec is taking a different approach.
24 They're looking for others like EPRI for robotics.
25 Their plan is cameras on long-headed tools with a 06:57:33

1 modified lid to go down and look. They do have a
2 ring that's not only available, they've used it in
3 Europe.

4 So the inspection technology we've talked
5 quite a bit about is important, okay. As we've 06:57:43
6 said, it's being developed, it's not only being
7 developed, it's being deployed today on these
8 systems. Okay. So I've covered a lot.

9 CHAIRMAN DR. VICTOR: Let me see if there
10 are questions -- I know I have a couple questions. 06:58:00
11 I want to see if other folks on the panel have
12 questions or comments that they would like
13 to make.

14 Can you talk a little bit about how often
15 you expect to do a full ring inspection of these 06:58:09
16 canisters, so basically HD video, I assume on
17 every surface, which would then make it possible
18 to --

19 MR. PALMISANO: So the way this will
20 happen, it's like any other complicated use of 06:58:24
21 equipment, first you analyze what your degradation
22 mechanisms are. There's a lot of information
23 about chloride stress corrosion cracking, so we do
24 a very systematic analysis at this facility and
25 this location. Fortunately we've got facilities 06:58:37

1 on the East Coast as well as the West Coast we can
2 draw from.

3 Then we identify a sample of canisters.

4 You don't do all 73 canisters every time. Let's

5 say, and these are hypothetical numbers. Let's 06:58:52

6 say you pick 3 canisters to do initially. You do

7 three canisters, if you see no indications, then

8 you schedule the next three at some point in time,

9 okay. And typically you're doing visuals with

10 high resolution cameras for that, okay. So this 06:59:06

11 is what you lay out that in the case of the Aging

12 Management the NRC has to approve.

13 Then if you see something on a camera and

14 you can't resolve it, it's just a smudge or

15 something, then you have to assess it and this is 06:59:19

16 where you bring the ring out. So you can draw it

17 through the ring, the ring has the ability to take

18 a sample of the material to see if it's salt, for

19 example, has the ability to clean it, has the

20 ability to do, say, an Eddy current exam of the 06:59:34

21 surface.

22 So the ring is higher quality inspection

23 only done if you see something that warrants it,

24 that's the concept.

25 CHAIRMAN DR. VICTOR: The reason I ask is 06:59:45

1 because there's this -- there have been some
2 studies, this EPRI study looking at salt
3 deposition of the Diablo Canyon canisters, and I'm
4 just wondering since the older canisters here are
5 the older horizontal AREVA design -- 06:59:58

6 MR. PALMISANO: Right.

7 CHAIRMAN DR. VICTOR: -- when are you in
8 the position to start looking at those closely
9 that they would be -- kind of time would be up to
10 look at them closely and begin inspecting them? 07:00:06

11 MR. PALMISANO: So right now the target
12 would be 2023.

13 CHAIRMAN DR. VICTOR: So you start
14 looking at all of those canisters in 2023?

15 MR. PALMISANO: By 2023 we will have an 07:00:15
16 approved NRC Aging Management program which will
17 layout the inspection frequency, the inspection
18 mechanisms, and the protocol should you see
19 something. And as we develop that with the NRC,
20 we'll target the first inspection. We have not 07:00:26
21 established that date yet.

22 The other thing is the -- similar to our
23 horizontal system, is in surface at Rancho Seco
24 near Sacramento, which is a retired nuclear plant,
25 they've already done an inspection, came out 07:00:41

1 clean. Calvert Cliffs on the East Coast in
2 somewhat of a marine environment, like we are, has
3 done inspections. So we and the NRC are getting
4 those results. That will all be factored in to
5 what our plans are. 07:00:51

6 CHAIRMAN DR. VICTOR: It would be great
7 when the time is right to know what they've
8 actually learned at Calvert Cliffs. Because, I
9 mean, people are very focused on the marine
10 environment -- 07:00:57

11 MR. PALMISANO: Yes.

12 CHAIRMAN DR. VICTOR: -- and the aging
13 and the marine environment so we want to look at
14 as many analogs as possible that are real. Some
15 people have been paying attention to the Colbert 07:01:04
16 Nuclear Plant in South Africa, but they've been
17 looking at the parts of the plant that has nothing
18 to do with this.

19 MR. PALMISANO: Water storage tank. And
20 we're very sensitive. The reason I talked about 07:01:14
21 the material changes we made, the higher rate
22 steel, the peening process, it's all to make these
23 new canisters as resistant as we can. The older
24 canisters don't have the advantage of peening, but
25 they are the higher rate of material more thick -- 07:01:25

1 thicker material. So we -- it's important to us
2 and it's important to the public, and we
3 understand that. So that's why we'll be talking
4 about this regularly.

5 CHAIRMAN DR. VICTOR: So last comment or 07:01:36
6 really a request, which is you now have in this
7 slide presentation, these different elements of
8 Defense-in-Depth, and this meeting you've been
9 filling in some parts of it, more questions about
10 that. At other meetings you've filled in other 07:01:49
11 parts of it. I think it would be helpful to start
12 to have an evergreen deck, as it were, something
13 which is about --

14 MR. PALMISANO: We can build that.

15 CHAIRMAN DR. VICTOR: -- all the elements 07:01:59
16 of it, and what we know, what we don't know, where
17 things are being developed so that people can
18 understand this is a schematic, what's happening,
19 what the different layers look like. That what
20 seem like -- 07:02:09

21 MR. PALMISANO: We'll do that. If you
22 look at what I jumped back to with all the dates
23 where we covered these topics, we know a lot more
24 today about inspection than we did two years ago.
25 We've made a lot of advances. We've got the 07:02:16

1 redesign inspection lid being built by Holtec for
2 us. So we will build an evergreen deck that we
3 can simply update.

4 CHAIRMAN DR. VICTOR: I just go back to
5 what we did back in 2014 when you were making the 07:02:26
6 decision about which vendor to select, I think
7 because of the work of this panel, you, in
8 addition to selecting a vendor, you selected a
9 much more aggressive aging management program.

10 MR. PALMISANO: Yes. 07:02:41

11 CHAIRMAN DR. VICTOR: You joined this
12 EPRI research program, so all of these different
13 elements of it, but it seems like our goal here is
14 to be the best on the planet, really, in doing
15 Defense-in-Depth, so everybody looks to this as 07:02:51
16 the model.

17 MR. PALMISANO: Our commitment, we will
18 store fuel safely, we will maintain these
19 canisters, we will inspect them appropriately, do
20 the best job to maintain the spent fuel in a safe 07:03:01
21 condition here as we prepare for transport.

22 And much of what we talked about, the
23 weld redesign, the peening, the weld rolling, all
24 came as a result of discussions here with the
25 panel and the public. 07:03:12

1 CHAIRMAN DR. VICTOR: Thank you. Any
2 other comments? So let me say, we're going to
3 take a ten-minute break but before everybody gets
4 up, I received a text to say there are 39 people
5 already signed up, and I'm sure others will sign 07:03:24
6 up. The clock will be at the normal three
7 minutes. If you want to speak less than three
8 minutes, that allows other people to speak. We
9 will run over a little bit to allow as many people
10 to speak as possible along with some responses. 07:03:35
11 So please sign up if you want to, but we have a
12 greater demand for those slots than we've ever had
13 before.

14 MR. PALMISANO: You are welcome to look
15 at these, but be careful if you decide to handle 07:03:47
16 them.

17 CHAIRMAN DR. VICTOR: And please don't
18 swipe them.

19 (Recess taken from 7:03 until 7:16.)

20 CHAIRMAN DR. VICTOR: First on the 07:16:34
21 speaker card tonight is Gene Stone. Folks at home
22 have gone and gotten another barrel of popcorn.
23 Let's settle down here so they can see the other
24 half of our show. Very quickly, we had data
25 during the break. Tom Palmisano. 07:16:56

1 MR. PALMISANO: Yes. I was asked a
2 question how thick the top lid is and how thick
3 the lower plate is on those canisters. The top
4 lid, like I said, is 9 to 12 inches -- 9 inches
5 thick, the lower plate is 3 inches thick. The 07:17:08
6 canister wall is the 5/8 inch thick.

7 CHAIRMAN DR. VICTOR: Thank you very much
8 for that.

9 Gene Stone, the floor is yours.

10 GENE STONE: I'm not sure I should admit 07:17:20
11 to that, but I'm Gene Stone for Residents
12 Organized for a Safe Environment. I want to thank
13 Tom and the staff for letting me come out on June
14 12th and take a reading there at the ISFSI pad.

15 After that it brought to question in my mind how 07:17:32
16 do I understand these readings. I'm an artist, I
17 didn't quite know exactly what it meant, so I
18 called Marvin Resnicoff, and I called Sean Bonner,
19 and I called Dan Skipe from Med Cam -- Medcom.com
20 and talked to them about it. 07:18:00

21 The first thing that should be said is
22 I'm not trying to sell Safecast. These were
23 provided to us, and the big monitor, the solar
24 monitor outside was provided by Safecast
25 themselves. But what I am suggesting is that we 07:18:12

1 do an early warning detection, and that should be
2 independent, realtime radiation monitoring that
3 goes onto a Website that's open to the public,
4 but -- and you mentioned earlier, David, if we're
5 going to have any chance for people to understand 07:18:35
6 the realities, they have to understand the
7 information. I hope this CEP will join with my
8 efforts to provide a symposium on understanding
9 nuclear radiation and how to read the --
10 understand the information that's coming out, I 07:18:55
11 think it's very important. If you were to ask all
12 of us here in the audience, we would all have some
13 different level of understanding of nuclear waste
14 radiation and what's coming out of the canisters
15 today. 07:19:11
16 So, again, I'm looking forward to your
17 support of working together and putting this
18 meeting together and I've already called several
19 people. I'm suggesting that California Edison
20 have their radiation experts here and that we have 07:19:20
21 some independent people to speak up as well, and
22 we talk about this very important topic.
23 Here in California you can't even sell a
24 house or buy one if it doesn't have a carbon
25 dioxide monitor. So there is no reason in the 07:19:41

1 world that we should have a nuclear waste dump
2 without realtime monitoring that we can all expect
3 to have access to, so to keep the community calm,
4 to -- so that they understand what's going on, and
5 along with that, again, I stress the educational 07:19:58
6 piece is a must. So, you know, Tom mentioned up
7 there, if you saw that one slide, that they do
8 quarterly monitoring. And I know that the NRC
9 comes onto its own from time to time, and they
10 give that place a thorough monitoring as well. 07:20:23
11 But the only way that we can prevent a nuclear
12 accident here with the canisters is to provide
13 realtime monitoring that can catch it early.

14 And in my piece of paper, my e-mail
15 address that I sent to you all earlier, I think 07:20:41
16 that I explained it pretty well, but I'm willing
17 to answer any questions.

18 CHAIRMAN DR. VICTOR: Thank you very
19 much, Gene Stone.

20 GENE STONE: And here's mine, David, too. 07:20:51
21 Congratulations for getting one.

22 CHAIRMAN DR. VICTOR: Thank you.
23 Next is Ray Lutz and then Madge Torres.
24 Thank you, Gene Stone.

25 RAY LUTZ: Hello. Ray Lutz with Citizens 07:21:05

1 Oversight. I got six things I want to say, so I'm
2 going to say them fairly quickly. First of all,
3 all the notes and questions that you guys asked
4 when you went on your trip, I would appreciate
5 getting those notes and a report of what you 07:21:20
6 learned and provide it to the public.

7 Next the documents that have been deleted
8 from the Website, I would like to know what they
9 are and why you're deleting stuff. So I want a
10 whole list of everything that's been deleted and 07:21:39
11 let us know why you're deleting it.

12 Slide 35 in your presentation, Tom, says
13 that the bolts were analyzed and acceptable for
14 storage. You didn't mention whether they're
15 acceptable for transportation. And you do have to 07:21:59
16 transport these things eventually, so I'm worried
17 that you guys didn't analyze for that. The other
18 thing that you didn't analyze for is that the
19 vents were blocked. Holtec asked to only inspect
20 these things in a request to NRC only once every 07:22:17
21 30 days, instead of once every day, because they
22 argued that the temperature could go up inside to
23 more than a thousand degrees Fahrenheit, because
24 it was an off-normal condition, and that was okay,
25 and it was okay to only inspect them once every 07:22:36

1 30 days. That the vent -- to see if the vents
2 were open. So given that if the vents were
3 blocked, what would happen with the bolts? Was
4 that analyzed? Now, we had a comment by
5 Mr. Victor that you're going to take something off 07:22:58
6 line, I think the reason for public engagement is
7 so that we can learn this stuff. Stuff shouldn't
8 be taken off line. Now, I was able to present
9 HELMS, which is the Hardened, Extended-Life Local
10 Monitored Surface Storage to the Diablo Canyon 07:23:18
11 Safety Committee a couple weeks ago, and they
12 actually were very open to talking about it. This
13 panel here has never even asked me a question
14 about it, nor even invited any kind of
15 presentation more than just three minutes. I got 07:23:36
16 20 minutes up there.

17 This is now before the NRC. They are
18 working on it. I'm going to be talking to Susan
19 Davis, Congresswoman Susan Davis on Monday about
20 new legislation that we can put forward to 07:23:50
21 congress to implement the safety standards that we
22 don't have for a next location. So, please,
23 anyone that would like to comment on the Eddy-Lea
24 site, I'd ask you to send an e-mail to
25 Holteccisfeis@nrc.gov. The comment period is open 07:24:12

1 for a couple more months on the Eddy-Lea site, and
2 the request, this is on our Website, to have
3 better canisters and support the HELMS design
4 philosophy.

5 CHAIRMAN DR. VICTOR: Thank you very much 07:24:25
6 for your comments, Ray Lutz.

7 Next is Madge Torres and then Jeannie
8 Ortiz.

9 MADGE TORRES: The design life of the
10 Holtec canisters is about 40 years if there's no 07:24:39
11 corrosion from salt water. The HELMS proposal can
12 extend the Holtec and AREVA cans life up to a
13 thousand years by enclosing the existing canisters
14 in an exterior, essentially a double hull. The
15 exterior canister can be easily monitored for a 07:24:57
16 pressure change indicating -- which would indicate
17 a radioactive leak at all times by a 24/7 external
18 monitor for radioactivity.

19 Once the canisters are transported to the
20 extended short-term facility, such as the Holtec 07:25:15
21 owned property in New Mexico, if there is a
22 radiation leak on the can's interior cask using
23 the HELMS design an alarm triggered and the
24 exterior cask can be replaced saving us all from a
25 radioactive incident. So I'm asking that everyone 07:25:37

1 in this room take an action on this request.
2 Please write a comment or send an e-mail to the
3 Nuclear Regulatory Commission about the facility
4 being created right now and being approved by the
5 Nuclear Regulatory Commission, ask that they -- 07:26:02
6 that any facility that they approve be large
7 enough that the exterior canister proposed by
8 HELMS can be accepted because that may be the
9 solution to a radioactive problem that will last
10 hundreds of thousands of years, much longer than 07:26:29
11 the 40-year life proposed by the things that
12 they're planning on entering into a short-term
13 facility. This way we don't have to remove the
14 radioactivity from a defective can, we can just
15 re-enclose. 07:26:47

16 So, please, everyone, find a scratch of
17 paper on almost sheet -- almost every seat and
18 make an e-mail comment to the Nuclear Regulatory
19 Commission asking that they make sure that the
20 holes that are dug or created be large enough to 07:27:03
21 accommodate the exterior canisters, which can be
22 designed following the HELMS criteria. Thank you.

23 CHAIRMAN DR. VICTOR: Thank you very much
24 for your comment. Jeannie Ortiz and Darin
25 McClure. Is Jeannie Ortiz here? 07:27:25

1 AUDIENCE MEMBER: Jeannie Ortiz is not
2 here.

3 CHAIRMAN DR. VICTOR: Okay, thank you.
4 Darin McClure, and then Mary Beth Brangan, I
5 think. 07:27:38

6 DARIN McCLURE: Hi, there. David, you
7 said you made one of these in four and a half
8 hours? Sir, you are savant. It took me an entire
9 day to put this together.

10 CHAIRMAN DR. VICTOR: I got lucky. 07:27:50

11 DARIN McCLURE: But I put two together
12 and that was the second one that took me a day, so
13 how you did it in four and a half hours is
14 absolutely amazing.

15 But I want to speak to your point about 07:27:58
16 taking this onto a plane. And that's awesome that
17 you got such great readings and how accurate it
18 was and how accurate Tom told us these devices
19 were. And, ultimately, we're not worried about
20 300 count on the signal, we just want to know when 07:28:13
21 that count goes up, that's all. That's what the
22 public radiation monitoring is for.

23 At the last meeting we found out that it
24 will take between two and three years to figure
25 out how to repair the damaged can. When did that 07:28:30

1 start?

2 CHAIRMAN DR. VICTOR: What we do in the
3 public comment period is ask the questions, and we
4 collect these things, and get some answers, and
5 then any --

07:28:51

6 DARIN McCLURE: I've been to a lot of
7 these meetings and asked questions that I haven't
8 gotten answers. I was just curious if this takes
9 two to three years to fix, to figure out how to
10 fix the broken can, when did that start? Did that
11 start two weeks ago? Did it start a year ago?
12 How much longer in that two- to three-year time
13 period do we have? Thank you.

07:29:03

14 CHAIRMAN DR. VICTOR: Thank you.

15 Next is Mary -- I can't read your -- is
16 it Mary Beth? Please correct my misreading of
17 your handwriting.

07:29:17

18 MARY BETH BRANGAN: Hi. Mary Beth
19 Brangan from the Ecological Options Network. I'm
20 just wanting to bring out a point about the
21 centralized interim storage. There's so many
22 other things to talk about, but we did make a trip
23 to New Mexico to the NRC scoping hearings, and
24 that was very interesting to see what the people
25 there were concerned about. They really do not

07:29:33

07:29:51

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1 want this. This was an opposed 5 to 1 by the
2 people who showed up at the NRC scoping meetings,
3 and there were five of them throughout New Mexico.
4 And the -- this centralized interim storage is
5 being promoted, as you know, and it may end up 07:30:16
6 being passed this next session, congressional
7 session after the elections, but, however, since
8 the technical problems with Yucca Mountain are
9 just as impossible to overcome as the political
10 opposition to Yucca Mountain in Nevada, a 07:30:43
11 consolidated interim storage plan if it goes
12 forward, may become the de facto permanent
13 facilities, yet the requirements for this
14 centralized interim storage are being designed and
15 formulated for just a few decades, and that's 07:31:04
16 according to a Holtec engineer that I discussed
17 this with in Roswell at the open house there. So
18 if we go forward with this, you're going to have
19 to face the fact that it's going to have to have a
20 design criteria that's for a possible permanent 07:31:36
21 repository, not just for a few decades while
22 they're waiting for Yucca Mountain to open. It's
23 not going to happen. Thank you.

24 CHAIRMAN DR. VICTOR: Thank you very much
25 for your comments. 07:31:56

1 Next is Karl Aldinger and Michael
2 Ravenwood.

3 Karl Aldinger, the floor is yours.

4 KARL ALDINGER: Hi. My name is Karl

5 Aldinger. I am a resident of Fallbrook. 07:32:08

6 Fukushima has taught us that failure to imagine

7 the worst case scenarios will eventually lead to a

8 long-term uncontrolled release into the ocean. We

9 all know that that's happening right now in

10 Fukushima. I think we're all in denial of the 07:32:24

11 fact that that's happening, and that that

12 radioactive isotopes are flooding into the Pacific

13 Ocean. We don't talk about that enough at these

14 meetings. It's been a long time. That was in

15 2011. They do not have a contingency plan for how 07:32:39

16 to stop that.

17 The ocean, which I'm speaking about is

18 now increasingly representing our drinking water,

19 because Carlsbad has Poseidon. Poseidon is a

20 desalination plant. We use that desalination 07:33:01

21 plant to do reverse osmosis, which does not filter

22 radioactive isotopes. Ingested radiation is not

23 comparable to radiation that you get from a plane.

24 It is much different. It's internal, you ingest

25 it, it clings to parts of your body, that's what 07:33:20

1 gives you cancer.

2 So I have a few questions: Since the
3 casks are below grade and we have -- how are we
4 prepared for a situation where the passive cooling
5 space is perpetually flooded with salt water 07:33:37
6 either due to sea level rise or strictly cracks in
7 the concrete?

8 I would have expected the design to have
9 a permanent -- some system in it so that we can be
10 prepared for the point it is constantly being 07:33:53
11 inundated with salt water. We're only in the
12 middle of this process, and I think it's not too
13 late to understand what the minimum changes to the
14 engineering would be. So we've got tubes running
15 down and the complex system that's ready and 07:34:10
16 prepared for cases where that happens. One
17 earthquake could crack all of those, and we could
18 be in a situation where everyone is freaking out.
19 Your tanks are under water in salt water and now
20 we got to start scrambling. 07:34:24

21 My next point was since a different fuel
22 has different availability timelines and moving.
23 I know 2030 is the longest timeline. I would
24 think from a perspective from an outside body
25 looking in who to receive for these interim 07:34:41

1 storage, they would look at us and say, Well, 2030
2 is your latest date, we're not taking you.

3 I don't imagine them saying, Well, good,
4 you had your ducks in a row, it's 2022, let's
5 start moving some of your stuff. It really 07:34:55
6 doesn't put us in a better situation if we still
7 have to keep things here until 2030. So my
8 question is, what engineering could be done to
9 determine a better method, so we can get past the
10 current role that says it's too hot to be moved? 07:35:09
11 That's not a hard and fast physics law; it's
12 regulation that we set on ourselves.

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

15 Next is Michael Ravenwood and then Viraja 07:35:22
16 Prema.

17 MICHAEL RAVENWOOD: Hello. So I just
18 want to thank everybody who is here who is
19 sincerely looking into this issue. This is my
20 first time coming to this gathering, and it does 07:35:42
21 hearten me to some degree to see people asking the
22 kinds of questions that have come up in my mind as
23 I begin to look at this issue. I'm relatively
24 ignorant, frankly, of most of the details, and I'm
25 somewhat heartened by that, and I just want to 07:35:57

1 express my gratitude to all of you who are
2 sincerely looking for solutions that will protect
3 future generations.

4 I want to pull back for a second and just
5 share some of the facts, as I understand them, and 07:36:10
6 hopefully, they'll give a picture to anybody who
7 is watching or anybody who isn't really aware of
8 the issue on a large scale, you know, what it is
9 we're facing. Number 1, the radioactive waste is,
10 you know, by conservative estimate going to be 07:36:29
11 toxic for 250,000 years, approximately, and the
12 casks are only -- if they're going to be stored,
13 they're only going to be good for apparently only
14 10 to 25 years or at least only guaranteed to be
15 good for that long. This is -- this is, of 07:36:46
16 course, an unacceptable situation. I can only
17 pray that everyone is sincerely looking into
18 solutions for this.

19 The location where we're looking to bury
20 these or are currently burying these, I should 07:37:05
21 say, is on a major fault line and I know that
22 from, you know, watching the presentation that
23 other locations are being looked into, but it
24 seems like -- you know, it is hard to understand
25 how this has been -- this actual beginning to bury 07:37:25

1 it in the beach here has been decided upon the
2 best method or best decision to be made, and I'm
3 sure there's not -- I'm not the only one in this
4 situation thinking this way. So, you know,
5 8.5 million people are within the 50-mile plume 07:37:45
6 zone of the plant, meaning all of these people are
7 going to be at risk should any kind of major
8 accident occur, and so, you know, this is sort
9 of -- to some degree I just want to share that I
10 had a few moments of terror, genuine terror 07:38:06
11 listening to the number of years that we have to
12 wait just for it to be safe to handle to move it
13 or things like that.

14 And, finally, you know, it concerns me
15 that responsibility for the waste could move to 07:38:28
16 public hands from that of Southern California
17 Edison if it's buried in the beach. This is what
18 happened, apparently, in Fukushima is that the
19 company there attempted to shift responsibility to
20 that of the public, and so these are concerns that 07:38:45
21 I have and the picture that we're looking at. My
22 time has expired, and I want to make room for
23 other people. So thank you all for hearing me.

24 CHAIRMAN DR. VICTOR: Thank you for your
25 comments and your concerns. 07:39:02

1 Next is Viraja Prema and Ayla Breezy.

2 VIRAJA PREMA: Thank you. I have a few
3 questions from some of the information that was
4 provided this evening, one of which is the
5 timeline for the predicted transfer of the fuel. 07:39:23

6 This beautiful handout that you gave us indicates
7 that the fuel will be removed from the site
8 between -- or perhaps completing in 2035 to 2049.

9 There was another associated slide where
10 it shows the completion of the fuel transfer in 07:39:48

11 2030, and from my understanding, the transfer is
12 dependent upon whether the canisters are viable
13 for transportation. That would require them being
14 inspected, and if the inspection was even
15 efficient enough to notice if there was a crack or 07:40:12
16 an issue, that the technology would exist on site
17 to repair and make the fuel safe for transport.

18 As a mother of two and a human, I would
19 love for it to be crystal clear that there is
20 going to be what is needed on site for these 07:40:39

21 canisters to be able to be moved when their
22 temperature is appropriate and the conditions are
23 appropriate for the location, and thank you for
24 all the work you're doing on that. What I'm not
25 clear on right now is that even going to be 07:40:57

1 possible. It looks like a no end, like a closed
2 loop that this fuel is going to perpetually stay
3 on-site on our coast. If there was water that
4 submerged these canisters even to a minimal depth,
5 and it was surprising to see that the 07:41:22
6 possibilities of how much water they could be
7 submerged in, however, what would happen if there
8 was a crack? Would it go critical?

9 And as far as the monitoring, I'm really
10 glad that you're showing more attention to the 07:41:43
11 monitoring happening on a regular or semi-regular
12 basis. And as the public, and it is our right
13 since we didn't have the choice about whether we
14 wanted this nuclear waste to be stored on site, it
15 should be our free and continued option to be able 07:42:01
16 to know what's happening as far as the radiation,
17 especially since Southern California Edison proved
18 to be not trustworthy based on the prior leak that
19 happened in 2011 and their waiting 17 days before
20 announcing it to the public. 07:42:20

21 CHAIRMAN DR. VICTOR: Thank you very much
22 for your comments.

23 Ayla Breezy and then Pantera Michel.

24 AYLA BREEZY: Thank you, Chairman Victor,
25 and panel for moving the CEP meeting to San 07:42:33

1 Clemente, you heard our request and you honored
2 it, thank you.

3 So I have some questions and if you're
4 able to answer them after the meeting, I would
5 appreciate it. I know Chairman Victor answered my 07:42:41
6 questions last time, and that was helpful. I
7 would like to reiterate what some of my team
8 members have already said, Gene and Darin. I
9 support the independent public realtime radiation
10 monitoring. It will give us quick action and 07:42:53
11 notification time that we need to warn the public
12 and will help keep the community calm, because I
13 know that's our biggest fear.

14 The spent nuclear fuel and its
15 containment must be stored in a manner to be 07:43:08
16 maintained, monitored, and retrievable to prevent
17 hydrogen gas explosions, involve short and long
18 term storage and transport from the December 2017
19 spent nuclear fuel management report to congress.
20 As we learned in the last meeting, Edison 07:43:22
21 indicated that this can't be done with the on site
22 spent fuel pools and that the thin-walled cans
23 don't meet those requirements so since we don't
24 have a method to prevent or stop leaks or
25 explosions but we continue to load the canisters, 07:43:38

1 that is scary, and the Holtec president has
2 admitted that isn't feasible to repair, even if
3 you do find a crack, and that the microscopic
4 through-wall crack would release millions of -- I
5 don't know this word, sorry -- radio nucleotides 07:43:55
6 into the environment.

7 So it calls into question that a hot cell
8 on site would be very helpful to replace
9 thin-walled canisters into thick-walled
10 transportable storage casks. I do support the 07:44:08
11 HELMS design for the Eddy-Lea Energy Alliance.

12 I had some questions on the presentation.
13 I think the aging management is a good idea to
14 start looking at the AREVA cans, but I feel 2023
15 is too long to wait since they're already 15 years 07:44:23
16 old now, so I don't know if it's able to do it
17 sooner than that. It's concerning to me if we --
18 do we have a plan B if the off site storage
19 doesn't become available or legislation doesn't
20 become available or if the transportation plan 07:44:43
21 isn't in place.

22 I appreciate the extreme events
23 workshops, workshops that you're going to host to
24 explore the extreme events and threats because
25 those are our concerns, and I'm wondering if it's 07:44:51

1 possible to invite the geologist Rob Hope to
2 speak. I appreciate you bringing in
3 Dr. Driscoll's science about the Tsunami, but I'm
4 not sure I need to review his materials.

5 And then, lastly, I'm wondering what 07:45:07
6 emergency plan is in place now? I was doing some
7 research and I see that at SONGS there is not a
8 plan in place as it was when the plant was active,
9 and there will be a plan in place once -- if C is
10 complete, so I'm wondering if there's anything 07:45:21
11 that's been addressed to -- in the event of
12 nuclear events and that kind of thing. Thank you.

13 CHAIRMAN DR. VICTOR: Thank you very much
14 for your comments.

15 Next is Pantera Michel, and then we have 07:45:36
16 the Johnson family.

17 PANTERA MICHEL: Thank you. So I'll
18 start with saying that semi-annual reports on
19 radiology is not enough, it's not sufficient, I
20 don't need to explain why. 07:45:57

21 So, Mr. Victor, in your attempts to get
22 some federal laws changes -- changed to get this
23 moved, can you please put that on your list as
24 well that the NRC make that a requirement because
25 they don't. 07:46:10

1 Also, Mr. Palmisano, in the last meeting
2 in March you had mentioned about the four
3 canisters that were faulty and you were telling us
4 that you were saying that they should be fine, but
5 you also mentioned that Edison doesn't have the 07:46:23
6 technology to retrieve the spent fuel and put it
7 back into pools, so how are you -- do you have the
8 technology to do that, because you're saying that
9 all of the waste is going to be removed from the
10 site, and I'm wondering how you're going to -- how 07:46:39
11 Edison is going to handle that. As you said
12 before, that technology does not yet exist to have
13 that retrieved, and it, obviously, needs to.

14 And, finally, I just want to ask also,
15 Mr. Palmisano, will you pledge to us all right now 07:46:55
16 that Edison -- that before Edison begins dumping
17 its radioactive waste into the ocean that you will
18 inform the public before you do so? Thank you.

19 CHAIRMAN DR. VICTOR: Thank you for your
20 comment. 07:47:12

21 Next is Torgen Johnson followed by
22 Lindsay Johnson.

23 Torgen Johnson, the floor is yours.

24 Oh, we have Enzo Johnson and Layse
25 Johnson, excellent, welcome. 07:47:30

1 LAYSE JOHNSON: Good evening, Chairman
2 and panel members, my name is Layse Johnson.

3 ENZO JOHNSON: And I am Enzo Johnson. In
4 2011 when we're 1 and 3 years old our family
5 became aware of the dangerous public safety issue 07:47:44
6 taking place at San Onofre Nuclear Generating
7 Station, only 30 miles from our home in North
8 County
9 San Diego.

10 Now that we're 9 and 11 years old, we're 07:48:01
11 able to speak for ourselves and are asking you
12 panel members to help ensure the safety of
13 children like us for generations to come here in
14 Southern California as well as in New Mexico, the
15 proposed permanent site for long-term radioactive 07:48:19
16 waste storage for our entire nation.

17 LAYSE JOHNSON: I have a friend Paiquea
18 Marquez who is also 11 years old who lives in
19 New Mexico. Like me, she is also very worried
20 about the contamination of our air, water, soil, 07:48:37
21 food, and ocean by radioactive waste, as is
22 children like us as well as all of our descendants
23 to come who will suffer the most if there is an
24 accident with the thin-walled canisters containing
25 spent fuel. Please do not abandon San Onofre's 07:48:52

1 radioactive waste on our beach in San Diego County
2 as it us kids who will inherit this problem if you
3 do not fix it right now.

4 Thank you for listening and doing
5 everything you can to protect our health and our 07:49:05
6 ocean-loving lifestyle here in San Diego and
7 Orange County. I know that you will do the right
8 thing to keep all children here safe from a
9 nuclear waste disaster.

10 Thank you Chairman and panel members. 07:49:20

11 CHAIRMAN DR. VICTOR: Thank you, Enzo and
12 Layse, that's -- you're a terrific well-oiled
13 machine.

14 Torgen Johnson, the floor is yours.

15 TORGEN JOHNSON: My name is Torgen 07:49:42

16 Johnson. I'm an urban planner, father of four.

17 That's the first two. I recently visited New

18 Mexico to speak with individuals, citizens group,

19 and technical experts who represent the New Mexico

20 public opposed to Holtec's consolidated interim 07:49:56

21 storage facility in Lee County. What I found is

22 that neither Holtec nor Southern California Edison

23 are telling the truth about the huge

24 well-organized opposition to San Onofre's waste

25 being dumped on New Mexico. When you couple this 07:50:12

1 with the other Holtec and Southern California
2 Edison's reassurances about nonexistent emergency
3 response procedures for leaking canisters and hot
4 cell in Idaho that was demolished in 2007, it's
5 apparent that there's no viable plan for storing 07:50:28
6 the high level of radioactive waste safely in San
7 Onofre, nor a viable plan for moving the waste to
8 a safer location that does not involve
9 environmental racism.

10 David, your working climate action 07:50:41
11 certainly acknowledges the moral importance of
12 environmental justice, yet your continued support
13 of dumping high level radioactive waste on first
14 nation communities that have already suffered from
15 nuclear accidents, bomb tests, and cancer-related 07:50:54
16 deaths will amount to a distinguished career taken
17 to oblivion.

18 I want to read a statement from Donna
19 Hancock the director of the Nuclear Waste Program
20 in Southwest Research and Information Center, a 07:51:08
21 nonprofit organization based in Albuquerque,
22 New Mexico that's worked on environmental health
23 and justice issues since 1971. He wanted me to
24 share this with the panel tonight: "New Mexicans
25 do not and will not support commercial spent fuel 07:51:24

1 storage at the Holtec site or elsewhere in the
2 state. New Mexicans and Mescalero tribe members
3 rejected a similar consolidate storage proposal
4 for the Mescalero Apache Reservation in the early
5 1990s. At the five public meetings at the nuclear 07:51:39
6 regulatory commission held in New Mexico between
7 April 30th and May 22nd of this year, the
8 overwhelming number of people spoke strongly
9 against the Holtec proposal. Thousands of people
10 are submitting scoping comments to the NRC against 07:51:56
11 the Holtec proposal. City and county governments
12 are passing resolutions against the Holtec
13 proposal.

14 "New Mexicans do not support unsafe spent
15 fuel storage anywhere. So we would be pleased to 07:52:09
16 discuss how we can mutually support better storage
17 of San Onofre spent fuel. Please feel free to
18 contact me, Don Hancock, Southwest Research and
19 Information Center, 505-262-1862."

20 And I wanted to share another comment 07:52:24
21 here. This is from Leona Morgan from New Mexico,
22 and she's from the Navajo tribe, and I will make
23 it short. "Nuclear Issue Study Group, NISG,
24 requests your involvement to have a real dialogue
25 about how to support each other in this mess the 07:52:39

1 government made. We don't want the high level
2 radioactive waste coming to New Mexico, and we
3 know it's not safe in San Onofre. We appreciate
4 your work, and we hope we can meet this year to
5 start a process to discuss what alternatives may 07:52:54
6 be possible. Thank you," exclamation mark, "Leona
7 Morgan co-coordinator, NISG."

8 Thank you.

9 CHAIRMAN DR. VICTOR: Thank you very
10 much. Share those comments with us by e-mail as 07:53:05
11 well so we can make them part of the official
12 record.

13 Lindsay Johnson and then Gary Headrick.

14 LINDSAY JOHNSON: Good evening. My name
15 is Lindsay Bassett. I am a UC Davis trained 07:53:13
16 biologist, and a mother of four healthy children.
17 I reside in North County San Diego. I'm here
18 tonight to share a statement by Noel Marquez, a
19 friend and resident of southeast New Mexico near
20 the proposed permanent repository for nuclear fuel 07:53:30
21 in the nation. Noel said, "My family and I live
22 on a small farm near Artesia, New Mexico. This
23 area of New Mexico is overburdened not only with a
24 failed WIPP site and Rineco Waste, but also with
25 one of the hottest ozone layers for methane 07:53:47

1 emissions in the U.S. all due to oil and gas
2 industries flaring their gas wells to get to their
3 oil production faster. Nearby Artesia, there are
4 two refineries and the fracking business is
5 booming all in Eddy County. While we tap 07:54:02
6 underground springs for irrigation for farming and
7 oil and gas demands, the reality is we live in the
8 desert with very limited water resources. Up to
9 60 percent of our population is Hispanic, and I
10 feel we are being targeted and sacrificed because 07:54:20
11 of our vulnerability in English proficiency,
12 education levels are low, which the nuclear
13 industry is taking advantage of to disregard our
14 families.

15 "The geology in this area is sinking due 07:54:31
16 to all these extraction industries, which has
17 caused many sink holes including Downtown
18 Carlsbad, New Mexico, due to injection wells for
19 the petroleum industries. There are major dairy
20 industries in this area, and they are against the 07:54:47
21 Holtec plan as are many oil companies. The
22 majority of the people in this area when informed
23 of Holtec, because many do not know and when told,
24 do not want or support the Holtec proposal
25 threatening our livelihoods and children in 07:55:04

1 New Mexico. We have made that clear at the NRC
2 meetings where we were the majority contrary to
3 the public relations propaganda of the nuclear
4 waste industries and Mr. John Heaton, their
5 lobbyist. 07:55:19

6 "My 11-year-old daughter always explains
7 it the best to the NRC. She says, What do you not
8 understand about ecology and the interconnection
9 of all living life? We cannot continue to dump on
10 others because of bad choices made by local 07:55:35
11 officials and their supporters in other states.
12 We value our way of life in New Mexico just like
13 you.

14 "Paiquea, his daughter says, 'radioactive
15 waste is like a microwave oven heating the planet 07:55:51
16 that we have to quit making more and more when
17 there's no permanent solution for safe storage.'

18 "Please be responsible for your choices and
19 don't dump on our families and unborn generations
20 in New Mexico." 07:56:08

21 Thank you, panel members, for listening
22 to Noel Marquez's statement. There are families
23 on both sides of this nuclear waste issue,
24 including my family, both at San Onofre and in New
25 Mexico that want it handled in a more ethical and 07:56:21

1 intelligent manner that gives both communities
2 piece of mind regarding their safety. Thanks.

3 CHAIRMAN DR. VICTOR: Thank you very much
4 for your comment.

5 Next is Gary Headrick and then Dave Rice. 07:56:30

6 GARY HEADRICK: I just want Donna to have
7 a chance to speak. If there's time, I'll go.

8 DONNA GILMORE: We switched places. We
9 both signed up, we're switching.

10 CHAIRMAN DR. VICTOR: Okay. There won't 07:56:40
11 be because we've got 50 people signed up.

12 GARY HEADRICK: Well, if you call her
13 name, I'll go.

14 DONNA GILMORE: Can I start over because
15 we didn't -- 07:56:49

16 CHAIRMAN DR. VICTOR: We'll give you
17 another 12 seconds.

18 DONNA GILMORE: All right. Okay. I want
19 to clear up some of this information, there's no
20 warranty on the Holtec system for cracking, okay, 07:56:58

21 it's for manufacturing defects, so get that out of
22 the way. So this man, Chris Singh, president of
23 Holtec, he goes around saying 100 years,
24 300 years, tens of millions of years, he won't put
25 a dime towards your warranty, there's your 07:57:18

1 credibility there.

2 Now the nuclear waste, technical review
3 board. These are the experts. They are nominated
4 by the National Academy of Science, appointed by
5 the president, they did a December 2017 report 07:57:35
6 that said "spent nuclear fuel and its containment
7 must be stored in a manner to be maintained,
8 monitored, retrievable to prevent hydrogen gas
9 explosions in both short- and long-term storage
10 and transport." 07:57:57

11 That is not currently being done. This
12 is a report to congress. I urge all of you to
13 read it. I have a handout if anybody didn't get a
14 copy. It's on the home page of San Onofre Safety
15 right near the top. There's a short one and then 07:58:11
16 a long one with references for every point. And I
17 don't think congress has looked at this. None of
18 the Holtec systems meet that. We've been trying
19 for years to get Edison to use better containers
20 but to no avail. And these canisters, they cannot 07:58:29
21 be inspected. You cannot find cracks with a
22 camera, you have no way to repair them, and at the
23 last meeting you admitted you can't load them back
24 in the pool. Your license, your NRC license
25 requires that you're able to load canisters back 07:58:47

1 in the pool and you can't do it, and you won't
2 build a hot cell, which is the absolute only other
3 way to do it. We have 15-year-old canisters, you
4 have no idea how many cracks there are, how deep
5 the cracks are. What we know is the two-year 07:59:03
6 Diablo Canyon has all the conditions for cracking
7 right here on the Pacific.

8 Now, the people here need to understand
9 the NRC is not our friend. They are providing
10 cover for this inferior technology. Darrel Dunn, 07:59:17
11 that's with two Ns, Darrel Dunn, NRC material
12 engineer he actually says, We don't have enough
13 humidity in San Onofre for corrosion. That is the
14 only excuse he's got left to try and justify
15 approving these canisters. I mean, this is 07:59:37
16 unbelievable stuff.

17 And regarding Holtecs' plan, the plan is
18 if he receives a canister in New Mexico, he's
19 going to return it to sender if it arrives
20 leaking. There's your plan. Okay. That's all. 07:59:52
21 I'll stop there.

22 CHAIRMAN DR. VICTOR: Thank you, Donna
23 Gilmore.

24 Next up is Dave Rice and then Nina
25 Babiarz. 08:00:03

1 DAVE RICE: Good evening. Thanks for
2 this opportunity to speak to you and for all of
3 your efforts in this. I'm a private citizen, and
4 have lived in the Orange County area for about
5 35 years in the Mission Viejo area, had a career 08:00:19
6 in -- 25 years in corporate technology, part of
7 which involved disaster recovery planning. And we
8 would help companies understand what the risks
9 were for not having their information systems
10 backed up and properly managed in case of any type 08:00:35
11 of accident, and that was a very large industry.
12 When I started looking at what's going on with all
13 of this, and I'm still trying to understand what
14 the issues are. A lot of it seems to boil down to
15 two core things that are missing from the 08:00:52
16 discussion. While I understand the need for
17 talking about getting the -- everything moved and
18 the concern about the canisters, the immediate
19 concern seems to me that as citizens, do we even
20 know what our risk really is. What kind of risk 08:01:10
21 assessment has really been done to say this is
22 what could happen, and if that happens, this is
23 the impact that it might have or could have on us
24 whether we're 5 miles, 10 miles, 50 miles away.
25 So I would strongly encourage, and I love 08:01:33

1 the idea that you're going to have this whatever
2 the events -- the extreme events discussion, I
3 think that's a great step, but I would really
4 encourage before doing that, getting -- engaging
5 somebody, and maybe it's the panel of experts that 08:01:48
6 you have, which are great, but of course they're
7 going to be a little tainted by being your panel
8 of experts, I would encourage getting some outside
9 experts with them to do a simple -- not a simple,
10 but basic risk assessment. I think it's critical, 08:02:01
11 and it's sort of a hinge point on everything else
12 that's going on. And once we have that, then we
13 can really better understand what actions need to
14 be taken to create emergency response capabilities
15 for everybody. Now that's the other piece that 08:02:17
16 seems to be missing is there doesn't seem to be
17 much discussion about if something does happen in
18 these next few years or ten years or whatever,
19 what are folks supposed to do.

20 I think we had a great example a few 08:02:33
21 months ago in Hawaii when you had the false
22 nuclear missile alarm, and nobody had any idea
23 what to do and basically everybody was running
24 along for the hills, and some were tossing their
25 kids in the storm drains. We just don't know, 08:02:49

1 people don't know, and I think that's what the
2 core of a lot of the concerns from the
3 communities, and that's certainly the core of my
4 concern. And it's unacceptable to me to not have
5 specific information and plan for folks to say, 08:03:01
6 This is what you need to do to get protected from
7 radiation should something happen, so I would love
8 to participate in that effort and encourage us to
9 really focus on that.

10 CHAIRMAN DR. VICTOR: Thank you very much 08:03:17
11 for your comment. Next is Nina Babiarz. I just
12 want to mention as Nina is coming up here, we
13 have -- we're supposed to have another 15 minutes
14 of public comment. We're going to let that run a
15 little bit longer, still have a lot of folks on 08:03:30
16 the list. We do want to make sure that even
17 though the whole meeting is going to run a little
18 bit longer that we get some responses tonight.
19 Nina Babiarz the floor is yours, and then Jared
20 Ross. 08:03:39

21 NINA BABIARZ: Well, Pittsburgh is a
22 great city, isn't it, Dr. Victor, and I know
23 because I was living there in 1979 as an
24 engineering construction news reporter for McGraw
25 Hill touring Three Mile Island. I would like to 08:03:49

1 commend this panel tonight for asking more and
2 more questions because anybody with any common
3 sense would have required two things to happen
4 before one can was in the ground, and that would
5 be an aging management system in place and 08:04:03
6 radiation, realtime radiation monitoring and
7 detection so the public would have a right to know
8 what that information is.

9 So let me get this straight, you got the
10 cans in the ground before you develop a way to 08:04:16
11 tell the public if there's a radiation leak and no
12 way to monitor these cans? Well, you know,
13 Dr. Victor, you were talking about the quote,
14 unquote, odds related to the shims, pins
15 playing -- as in playing the lottery. Isn't that 08:04:36
16 how risk is calculated?

17 So when you talk about the odds that
18 might be rare, that reminds of me of my high
19 school biology teacher Mr. Barry who warned all
20 the teenagers going on summer break, It only takes 08:04:52
21 one. And so I would like to follow up this
22 gentleman's comments, because I don't see that
23 there was ever really a professional risk
24 assessment with regard to bearing this waste on
25 the beach where you're proposing and where you're 08:05:12

1 in the process of doing it. All I saw in the
2 documentation was quote, unquote, the plant is
3 closed and the risk is low. And so just because
4 you can, Tom, doesn't mean you should put these in
5 the ground, and just because you can, doesn't mean 08:05:32
6 that it's safe.

7 CHAIRMAN DR. VICTOR: Let her speak --

8 NINA BABIARZ: And I would like to get
9 something straight too, Mr. Palmisano, you're
10 telling me that the good news tonight is that a 08:05:44
11 Tsunami might be coming and with regard to the
12 exit insurance, it's unfair for the customer to be
13 paying. Well, I think it's unfair to the customer
14 to be left uninsured. So Public Watchdogs is
15 proud to be funding this realtime radiation 08:06:00
16 monitoring, and all in this room should stay
17 posted because we're going to accelerate that
18 process, the public has a right to know. And
19 there's something more that's broken in this room
20 than a bolt and that's trust. 08:06:14

21 CHAIRMAN DR. VICTOR: Thank you for your
22 comments.

23 Next is Jared Ross and then Charles
24 Langley. Jared Ross the floor is yours. Jared
25 Ross here? Jared Ross is not here. Charles 08:06:30

1 Langley and then Katie Day.

2 CHARLES LANGLEY: Hi, I'm Charles Langley
3 with Public Watchdogs, and I wondered if the
4 people that are on this panel, if you're aware of
5 what happens to the water in the spent nuclear 08:06:51
6 fuel pool when it becomes too irradiated, and the
7 reason I ask is because we have learned that it's
8 flushed out to sea. So when the water gets too
9 irradiated in the spent fuel pool, it's flushed
10 out into the ocean under a policy called dilute 08:07:14
11 and discharge, and we think it's a reasonable
12 request of Southern California Edison to let the
13 public know when the facility is dumping
14 radioactive waste into the Pacific Ocean.

15 I would like to ask you -- 08:07:41

16 CHAIRMAN DR. VICTOR: Please let him
17 speak.

18 CHARLES LANGLEY: I would like to ask
19 you, Mr. Palmisano, if you would be willing to
20 commit publically tonight to letting the public 08:07:51
21 know in advance of when the facility is going
22 through this necessary process of diluting and
23 discharging nuclear waste into the Pacific? And I
24 would like also to see a more public explanation
25 of exactly how this is done, what kind of plumbing 08:08:11

1 is available to do that, how far it goes out to
2 sea, et cetera, would you be willing to do that,
3 sir?

4 CHAIRMAN DR. VICTOR: Why don't you
5 finish your comments and we'll make sure we get 08:08:20
6 that back.

7 CHARLES LANGLEY: I'm finished with my
8 comments. Would you be willing to do that, sir?

9 CHAIRMAN DR. VICTOR: Thank you very
10 much. The next is Katie Day. 08:08:22

11 CHARLES LANGLEY: Would you be willing to
12 do that, sir

13 CHAIRMAN DR. VICTOR: Mr. Langley, we're
14 not antagonizing people on the stand, okay. We're
15 just giving public -- 08:08:32

16 CHARLES LANGLEY: I'm not antagonizing,
17 I'm just asking.

18 CHAIRMAN DR. VICTOR: And we're going to
19 ask him at the end of the public comment as is our
20 process, every single meeting, okay? 08:08:35

21 CHARLES LANGLEY: Okay.

22 CHAIRMAN DR. VICTOR: Thank you very
23 much, sir.

24 Next is Katie Day, and then after Katie
25 Day is Mandy Sackett. 08:08:44

1 KATIE DAY: Good evening, panel members
2 and attendees. My name is Katie Day, and I'm the
3 staff scientist for the Surfrider Foundation.
4 Surfrider is opposed to permanent or long-term
5 storage of high level radioactive waste at the 08:08:57
6 recently deactivated SONGS. This is due to the
7 plant's proximity to the coast line,
8 susceptibility to geological stability and
9 location within a densely populated area.
10 Surfrider is advocating to remove the waste as 08:09:09
11 quickly and safely as possible and to have the
12 waste transported away from the coast to a secure,
13 geologically stable, but consent-based location
14 with an established timeline.
15 We also encourage Edison to take stronger 08:09:22
16 efforts to maximize safety and minimize risk to
17 the local community and environment while the
18 storage remains on the coast. The requests that
19 we have made and continue to make to Edison
20 include increasing efforts to prevent against 08:09:36
21 exposure to coastal hazards as the 316 all-steel
22 canister is prone to corrosion, especially once
23 inundated or directly exposed to salt water, even
24 with peening. Immediately developed thorough
25 contingency plans in the event that something goes 08:09:53

1 wrong. After the recent shim debacle it's clear
2 that the waste -- that once the waste goes into a
3 canister, there is no secure way yet developed or
4 proved to remove it, as we've heard multiple times
5 this evening. To develop and use monitoring 08:10:03
6 techniques to catch potential issues as soon as
7 possible including 24/7 temperature and radiation
8 monitoring at the air vents of every canister
9 enclosure capsule as soon as its loaded, not
10 waiting until all 73 canisters are loaded before 08:10:17
11 you start doing continual monitoring.

12 Another concern is regarding water
13 quality from years of discharges through an ocean
14 outfall. Edison is not required, again as we've
15 heard this evening, to alert the public when 08:10:32
16 releasing toxic and radioactive pollutants into
17 the ocean even though they're being released
18 through an outfall in close proximity to heavily
19 utilized world-renowned surf breaks in California
20 State parks. We've also found out that Edison is 08:10:44
21 not required to and has never tested the surf zone
22 in surrounding marine environment for the
23 concentrations of these toxic and carcinogenic
24 substances that have been released now for
25 decades. It's only just been assumed that 08:10:58

1 dilution has been planned for all of these years.
2 The only ocean monitoring that occurs around the
3 outfall is for temperature, DO, and hydrogen. We
4 request that an extensive ocean monitoring program
5 be designed to test the concentration of toxic 08:11:09
6 chemicals and metals at surf breaks in proximity
7 to these outfalls during decommissioning. It's
8 unsettling to know that this wasn't required as
9 part of the initial permit. All in all, we
10 request that Edison implore the precautionary 08:11:21
11 principle, go beyond the bare minimum requirements
12 to truly protect the ocean environment, marine
13 wildlife, and the millions of people that share
14 this coastline.

15 CHAIRMAN DR. VICTOR: Thank you very 08:11:32
16 much. Thank you very much for your comments,
17 Katie Day. Next is Mandy Sackett and then Denise
18 Erkeneff.

19 MANDY SACKETT: Tough to follow. Hi,
20 Chair Victor and panel, Mandy Sackett Surfrider 08:11:46
21 Foundation, resident of San Clemente. So as
22 you've heard, ensuring that 3.6 million pounds of
23 spent nuclear waste at SONGS are safely relocated
24 continues to be a top priority for Surfrider in
25 Southern California. Key aspect of our campaign 08:12:02

1 is focused on advancing the necessary federal
2 solutions and legislation that is needed in order
3 to get spent fuel off the coast, and I would like
4 to elaborate on that, a little bit more on that
5 tonight. So ultimately it is the federal 08:12:18
6 government that needs to take responsibility by
7 designated safe interim and long-term
8 repositories. As Chair Victor alluded tonight,
9 the federal government is the only entity that has
10 the power and funding to solve the nation's 08:12:33
11 nuclear waste storage issues and get spent fuel
12 removed from San Onofre. Congress needs to take
13 action to secure a location for a geologic
14 repository deep underground that isolates this
15 radioactive storage from our biosphere. Surfrider 08:12:46
16 supports consent-based siting for interim and
17 long-term storage solutions. It is critical that
18 solutions for interim and permanent storage be in
19 consultation with the affected communities and
20 with the public and environmental review process. 08:13:02
21 And the Johnson family eloquently highlighted that
22 tonight.

23 We believe that spent storage or fuel
24 transportation should be exempt -- should also not
25 be exempt from any environmental review processes. 08:13:17

1 We cannot hang our hats and hope that Texas or
2 New Mexico consolidated interim storage sites work
3 out. There's no indication that San Onofre will
4 have preference or what the storage capacity will
5 be. We have to push for sensible legislation. We 08:13:34
6 need legislation that not only authorizes new
7 contracts for concept-based interim consolidated
8 storage facilities but also requires the siting of
9 a final resting place and a mandatory timeline for
10 waste transport and permanent storage. 08:13:47

11 And the feds should also utilize a panel
12 of experts on nuclear waste hazards and
13 transportation to address these issues. So along
14 that vein we've been on the road asking cities and
15 counties and also state agencies to send letters 08:14:04
16 to their federal representatives requesting
17 legislation with those specific parameters. So
18 I'm going to hand it over to Denise Erkeneff, our
19 South Orange County chapter manager to talk about
20 those efforts. 08:14:15

21 CHAIRMAN DR. VICTOR: Great. Thank you
22 very much.

23 Next is Denise Erkeneff and then Wendy
24 Morris.

25 Denise, the floor is yours. 08:14:21

1 DENISE ERKENEFF: Hi. Good evening,
2 panel. Thank you for hosting this meeting in
3 San Clemente tonight, and thank you for your
4 collective participation.

5 Just to touch on what we're doing 08:14:30

6 locally, regionally, and federally. I'm with the
7 local South Orange County Surfrider Foundation
8 chapter and work alongside my counterparts at our
9 headquarters and also with our San Diego chapter.

10 So thus far we have the City of San Diego, Aliso 08:14:47

11 Viejo city manager, City of Carlsbad, and the City
12 of Imperial Beach who have sent letters into our
13 regional and federal representation demanding the
14 measures that Mandy described earlier. And also

15 at our request, the California Coastal Commission 08:15:07

16 did send a letter to the NRC requesting a federal
17 solution and a focus on that. We plan to continue
18 this campaign one by one, city by city, regionally
19 to get buy-in and local governments to continue to

20 put formal responses together to their 08:15:26

21 representation so that they know that we have --
22 they know that our city governments are also
23 paying attention and focused on the federal
24 solution collectively.

25 Finally, we have established a really 08:15:41

1 good working relationship with our federal
2 representation including Senator Harris's office,
3 a representative is here tonight from her office,
4 local and regional elects, and also our OC
5 supervisor, Lisa Bartlett who travels to D.C. 08:15:59
6 probably once a month talking about the need for
7 federal legislation. And, you know, this includes
8 nuclear experts also at NRDC that we work
9 collectively with to design the appropriate
10 legislation and move that forward as needed. We 08:16:16
11 will, as usual, collectively send you our meeting
12 notes, so that it can be part of the public
13 record, and for the panel to make any responses
14 necessary. Thank you so much.

15 CHAIRMAN DR. VICTOR: Thank you very much 08:16:29
16 for your comment. Can also ask that you, when the
17 time is right, and it might be now, to also share
18 those various letters that you've been exchanging
19 with the City so we can exchange those inside the
20 panel, that would be terrific. 08:16:41

21 DENISE ERKENEFF: Certainly, we will
22 forward all of that correspondence to the panel.

23 CHAIRMAN DR. VICTOR: We committed the
24 Internet to lots of information moving around.

25 Wendy Morris and George Allen. Wendy 08:16:50

1 Morris? George Allen?

2 Sarah Brady and then Jackson Hinkle.

3 GEORGE ALLEN: Hi. I've worked in San

4 Onofre for here 35 years. I do radiation

5 protection, surveys, and what you guys said 08:17:10

6 tonight was very spot-on, because I was a little

7 upset about falsities, such as you guys do say

8 that we're letting out radioactive waste

9 unmonitored, not a true statement. Why you say

10 that, that's your freedom, you can say what you 08:17:24

11 want.

12 I just want to touch on one thing, just

13 to bring it to a graphic, we're talking about

14 milli -- micro rem, like what you say on your

15 meter, this is what we use at San Onofre, 10 micro 08:17:35

16 rem is a dose you might get driving by the

17 freeway, you get 10 micro rem here. The total

18 exposure for that is about 100 millirem per year.

19 But as a person living in Southern California you

20 get 610 millirem, so you're not getting 08:17:51

21 significantly anything in San Onofre.

22 So the question that Roger Johnson asked,

23 is it safe to live next to a nuclear plant that

24 has no emergency or no accident, it's just as safe

25 to live here as it is next to a nuclear plant. 08:18:08

1 What if all these engineers do their job right,
2 what if we didn't have an accident, what if the
3 fuel is there for 20 more years, that could
4 happen, but anyway, it's safe as it is right now
5 with no accident, it's no different background 08:18:27
6 radiation at the sound boundary as it is here. I
7 appreciate you guys doing your own research and
8 having your own meters to verify that.

9 CHAIRMAN DR. VICTOR: Thank you very
10 much. 08:18:40

11 You may have just sold some more of Gene
12 Stone's meters.

13 Sarah Brady and Jackson Hinkle.

14 SARAH BRADY: Hello Board and community
15 members. My name is Sarah Brady. I'm an 08:18:52
16 Encinitas native and third generation member of
17 the San Onofre surfing club. As an undergrad
18 student at UC Santa Cruz, I have been studying
19 current issues at San Onofre with my previous
20 teacher Daniel Hirsch through his nuclear safety 08:19:04

21 nonprofit organization called Committee to Bridge
22 the Gap. From all that I have researched, the
23 events that I've attended and friends and
24 communities members that I've spoken with, my
25 current understanding is that right now we are 08:19:16

1 presented with two bad options: storing nuclear
2 waste on the beach of San Onofre or forcing it
3 onto another community in Texas or New Mexico that
4 doesn't want it.

5 As you all know the current storage site 08:19:27
6 is located about a hundred feet from the ocean of
7 San Onofre State surfing beach. This is the beach
8 where my dad taught me to surf and where he
9 learned to surf as a kid too. The storage site is
10 a mere 40 feet above sea level, and anyone who 08:19:41
11 spends time at San Onofre knows that the beach is
12 eroding rapidly. Storing nuclear waste close to
13 the ocean in the face of sea level rise and
14 climate change is extremely irresponsible. In
15 addition the current storage site is approachable 08:19:54
16 from the ocean as well as from the publicly
17 accessible state park, making it more vulnerable
18 to a possible terrorist attack. Anyone with
19 common sense can see that the current situation is
20 a terrible mistake. 08:20:06

21 The other option that has been discussed
22 would require shipping the waste twice rather than
23 once, first from San Onofre to another interim
24 storage site in Texas or New Mexico, and then,
25 again, to its final destination at a federal 08:20:17

1 repository. Shipping nuclear waste across the
2 country is extremely dangerous both in terms of
3 risk of accident and in terms of risk of a
4 terrorist attack, and it would have to be shipped
5 either through San Diego or through Orange County 08:20:30
6 and Los Angeles.

7 Furthermore, residents near by the
8 proposed interim storage sites in Texas and New
9 Mexico already expressed their opposition to this.
10 It is our moral responsibility not to dump our 08:20:41
11 burden on someone else. We need a third less bad
12 option, which I believe is moving the waste
13 further east on Camp Pendleton where it can be
14 safely stored, monitored, and defended. One
15 example of such a possible storage site would be 08:20:55
16 the Mesa site. The Mesa is a piece of land across
17 the I-5 Freeway from the current storage site.
18 Edison has leased and used this land in the past.
19 This site is 120 feet above sea level, 80 feet
20 higher than the current storage site and far above 08:21:10
21 the level of expected sea level rise from climate
22 change. It is essentially not visible from the
23 freeway because a hill blocks it out of sight, and
24 canisters could be transferred on Edison service
25 roads that goes underneath the freeway and next to 08:21:23

1 the Mesa site.

2 In a process of relocating the fuel
3 alternatives storage methods should be explored,
4 such as indoor storage with thick-wall canisters
5 that can be monitor, inspected, and repaired 08:21:34
6 should damage occur. This is the most ethical
7 option because we would not be dumping the waste
8 on another community or storing it excessively
9 close to the ocean.

10 Although we all want this waste off the 08:21:44
11 beach, we have morale responsibility to not
12 hastily push our burden onto someone else. I
13 understand why Pendleton would not want this waste
14 on their land, but it is already on their land and
15 in the least defensible part of it. So we need to 08:21:58
16 move it somewhere better. I want to ask everyone
17 here tonight to consider this third, least bad
18 option of moving the waste further back into Camp
19 Pendleton where it could be better protected
20 against a possible terrorist attack and would not 08:22:12
21 be vulnerable to sea level rise. Thank you for
22 your time.

23 CHAIRMAN DR. VICTOR: Thank you very much
24 for your comment.

25 We're going to take couple a more 08:22:22

1 comments. We're well past the hour mark for
2 public comment. I also want to make sure there's
3 time to respond to some of the comments, so we're
4 going to go way past the end -- normal end of the
5 meeting, but we'll take a couple more comments. 08:22:34
6 Jackson Hinkle and then Ron Rodarte.

7 JACKSON HINKLE: Thank you all for being
8 here tonight. My name is Jackson Hinkle, I'm
9 18 years old, and I'm a candidate for San Clemente
10 City Council. I would first like to address 08:22:45
11 Dr. David Victor, your nice little show you put on
12 earlier. You were giving an example of using
13 Gene's device on a plane, you were showing the
14 high radiation levels of a high level -- a high
15 altitude and then you took it back to San Onofre 08:23:05
16 and you took it next to the canisters and showed
17 that that same reporting device showed lower
18 levels of radiation at the plant itself. And then
19 you also noted that we should be weary as a public
20 of fake social media posts that were put out last 08:23:23
21 week, I'm assuming you're referring to mine, but
22 I'm not going to say for certain, about high
23 levels of radioactive waste being flushed into the
24 ocean as well as released in a gaseous state into
25 our atmosphere. 08:23:45

1 I would like to point out that neither of
2 those releases could have been monitored by that
3 device when you tested it a few days ago. When I
4 was on a tour of the plant a couple weeks ago,
5 Tom, your team mentioned that Edison hasn't 08:24:01
6 actually released any radioactive material or
7 radionuclides into the ocean or into the air for a
8 past few months, and that's because Edison does
9 what is known as batch releases. So they're given
10 a certain amount of radioactive material to 08:24:19
11 release into the ocean and into the air in a given
12 12 months, but instead of releasing that material
13 in small amounts throughout those 12 months, which
14 isn't really a good thing either, they choose to
15 wait three to four months and release large batch 08:24:39
16 releases into the ocean, into the air, again given
17 that neither of those releases have been done in
18 months, I would like to point out that your
19 readings really don't show anything to the public.
20 It was a nice propaganda show, but they really 08:24:56
21 don't mean anything.

22 I have 30 seconds left. I would also
23 like to point out that I was fortunate enough to
24 meet some of the residents of Hobbs, New Mexico
25 when I was at the National Grass Roots Radioactive 08:25:11

1 Summit on Nuclear Waste in Chicago, Illinois
2 earlier this year, and they're viciously opposed
3 to the interim storage of nuclear waste in Hobbs
4 or in Lee County. There's already
5 disproportionally high cancer rates in Lee County 08:25:31
6 compared to the U.S. and the rest of New Mexico as
7 well as disproportionally high infant mortality
8 rates in the county as well. Thank you.

9 CHAIRMAN DR. VICTOR: Thank you very much
10 for your comments. 08:25:42

11 Next and last will be Ron Rodarte, and
12 then we're going to organize some responses to
13 some of the questions and lay out a plan going
14 forward.

15 Ron Rodarte. 08:25:51

16 RON RODARTE: Hello, CEP panel. Thank
17 you for holding this event in the San Clemente
18 Casino. It's kind of relevant in that casino
19 economics drives our world into a very, very
20 difficult time at this time. We can't expect 08:26:08

21 governments, society, or economics to pull us out
22 of any difficulty we put ourselves into. The fact
23 is that responsibility in these days has become
24 very compartmentalized. It goes to one event, one
25 other person, one other panel, and everyone thinks 08:26:30

1 in these terms of responsibility the other panel,
2 the other person, the other corporation has the
3 answer, they have it handled; they don't. In all
4 reality, everybody is expecting someone else to
5 field the ball. When these questions are asked by 08:26:47
6 the public, it must be heard, it must be followed
7 up on, even though there seems to be someone
8 saying, no, we have that underhand, we already
9 have that. There's a responsibility here that
10 goes beyond being the panel. It's getting the 08:27:01
11 trust of the people in a time when trust is a
12 really very rare commodity.

13 So as we enter this era of economic
14 instability and probably social demise on a grand
15 scale, be aware of the responsibility placed upon 08:27:20
16 the panel, and look at the community as your
17 advisors, because they will likely be the judges
18 of future events. Thank you.

19 CHAIRMAN DR. VICTOR: Great. Thank you
20 very much or your comment. 08:27:32

21 I'm going to ask Paul and Dan to lead a
22 discussion, I think probably principally with Tom
23 and others on some of the major questions, and
24 I'll chyme in at the end there. The floor is
25 yours. 08:27:45

1 MR. STETSON: Tom, a question came up
2 with reference to the canisters that may have a
3 broken bolt in them, are they certified and able
4 to be transported?

5 MR. PALMISANO: Yeah, the question is 08:27:57
6 with the broken shim pin. I talked quite a bit
7 about safety in storage. We've also reviewed the
8 transportability. The canisters are horizontal
9 when they're transported, so there is no helium
10 recirculation or filled with helium. So the 08:28:07
11 helium recirculation path is not an issue, not
12 accredited. We've reviewed with Holtec and the
13 third party with the transportation license and
14 for the transportation gas, those four canisters
15 are expected to be transportable as is with no 08:28:23
16 physical work needed. So that's the answer to the
17 question.

18 HONORABLE PAUL WYATT: One repeated
19 question came to be external canisters, can -- are
20 the HELM -- if they were put in external HELM 08:28:37
21 canisters, can they be transported and stored in
22 those canisters or have that capability?

23 MR. PALMISANO: The question -- I'm
24 somewhat familiar with the HELMS proposal that's
25 undergoing, you know, consideration by the NRC, I 08:28:53

1 don't know where they stand, is the question,
2 could we backfill the HELMS system to SONGS?

3 HONORABLE PAUL WYATT: Basically, there
4 were a number of questions about being able to
5 insert the existing canisters inside an external 08:29:04
6 canister and can it be transported inside an
7 external canister?

8 MR. PALMISANO: Certainly you could the
9 existing canister and inserted into something
10 similar to the HELMS concept. I haven't looked at 08:29:15
11 the transportability of the HELMS concept. I
12 would suggest we wait for the NRC to go through
13 the process. I would encourage comment and
14 participation in that process, but I'm not
15 well-versed enough to answer that question. 08:29:29

16 HONORABLE PAUL WYATT: Thank you.

17 MR. STETSON: There were a number of
18 questions with reference to risk assessment and
19 emergency planning, Tom, and maybe, Donna, do you
20 want to chime in on this as well. 08:29:38

21 MR. PALMISANO: Yeah, let me start with
22 emergency planning. So we currently have an
23 emergency plan that is approved by the NRC. It
24 was reduced after the plant ceased operating after
25 several years the NRC has criteria. But the plant 08:29:51

1 has had an emergency plan, has one today, and will
2 have one in the future. Today's emergency plan is
3 to focus that events that can affect the spent
4 fuel either in the pools or in the canisters. In
5 the future when all the spent fuel is in the 08:30:07
6 canisters, the emergency plan shifts to the
7 canister system. The plan is approved by the NRC,
8 has criteria when the plan is entered, criteria
9 when we notify state and county and local
10 authorities as well as the NRC. We can spend an 08:30:21
11 entire workshop on that as we did in 2015 on
12 emergency planning.

13 And let me -- Donna, would you like to
14 say anything?

15 MS. BOSTON: Sure. Each city actually 08:30:31
16 has a risk assessment for their city as does the
17 county for the unincorporated county area. So
18 every city is required to have a general plan, and
19 they have a safety element of their general plan.
20 Inside that safety element it connects with their 08:30:44
21 state mandated emergency operations plan. Every
22 city has a plan. Each of the three cities that
23 are part of the inter-jurisdictional planning
24 committee are -- they have San Onofre specific
25 emergency plans, and we've been doing this for a 08:31:02

1 number of years.

2 Now, let me say, though, that it is
3 important to continue this process. We took the
4 step in partnership with Edison to make sure we
5 continued emergency planning in the absence of 08:31:15
6 federal guidelines. So understand that Edison has
7 supported your local emergency planning, because
8 if you look across the nation, it's not federally
9 supported. So Edison took a strong stance and
10 continued funding for our emergency programs. 08:31:32
11 Without Edison's funding of our programs, because
12 it's only legislated for an operating nuclear
13 plant, without their funding, we would not have
14 our emergency coordinators, we would not have our
15 emergency operations plans, we would not have 08:31:47
16 equipment to monitor our community members.

17 So they took that step and made sure that
18 we could continue that effort, and we all felt
19 that that was very important, and we had continued
20 it. The County of Orange does have a San Onofre 08:31:59
21 specific emergency operations plan. Now, again,
22 that is geared at our emergency operations to go
23 in and assist, possibly prove something safe for
24 our community members.

25 So as we move forward, I did hear that 08:32:15

1 you are interested in the radiological monitoring,
2 right, and that would be something we're
3 interested in as well to make sure that we have
4 the ability to help interpret results with an
5 independent perspective, because the County is 08:32:31
6 your health -- public health level of government.
7 That's our job, right. So we have the public
8 health officer. The health officer has a role in
9 that to be that independent assessment. And so
10 currently we still maintain the ability to 08:32:48
11 monitor, independently monitor for radiation. We
12 have teams that go in and assist and make sure
13 that we are looking at our own readings should
14 something occur, and we also have something called
15 an Offsite Dose Assessment Center team that will 08:33:07
16 go in and independently validate our results. So
17 that's important to note that we have those
18 things. It's very important, and they're very
19 important to continue moving forward.

20 CHAIRMAN DR. VICTOR: I think a clear 08:33:23
21 action item tonight is we need to pull together
22 all the different elements of radiological
23 monitoring. There was some comments about the
24 need for more reports, be careful what you ask
25 for, from the Nuclear Regulatory Commission, but 08:33:30

1 it seems to there's a difference between the
2 reports and the monitoring but people
3 fundamentally want is more information and more
4 organized information who's doing what, so let's
5 pull all that together as an action item, and then 08:33:43
6 at a future meeting, maybe the next meeting, lay
7 out what the monitoring schemes are, what might be
8 improved, the value of different kinds of extra
9 monitoring that I think could be helpful.

10 HONORABLE PAUL WYATT: There was also -- 08:33:58

11 MR. PALMISANO: And just on the comment
12 on risk assessment, so what underlies an emergency
13 plan starts with the plan comes what are the
14 risks. As the risks change, we the reactors are
15 retired and de-fueled, the risk shifts to spent 08:34:07
16 fuel pool. The risk is we're focused more on
17 spent fuel pool and dry cask storage. There is
18 underlying risk assessment that drives what the
19 emergency plan is and drives the connection to the
20 counties. 08:34:23

21 MS. BOSTON: Right. And the plan has
22 their risk assessment, and the county has theirs,
23 and city has theirs. And understand that your
24 governments, our job is worst case scenario.
25 Okay, we're not bound to the NRC. Our job is to 08:34:37

1 go to work on your worst day.

2 CHAIRMAN DR. VICTOR: Let's come back to
3 this issue in a more systematic way, because this
4 is very important. Let's go through a few more
5 questions here. I want to compose a couple at the 08:34:52
6 end.

7 HONORABLE PAUL WYATT: So there was a
8 number of questions about --

9 CHAIRMAN DR. VICTOR: Steve Swartz, did
10 you want to comment on this? 08:34:56

11 MR. SWARTZ: Yeah, I do.

12 CHAIRMAN DR. VICTOR: It's on.

13 MR. SWARTZ: Is it on? All right. At
14 the end of the last meeting I was extremely
15 encouraged by what appeared to be an enthusiasm 08:35:07
16 from everybody that we're going to set up some
17 type of monitoring for the public to have access
18 to, and it was really -- I mean, I was just high
19 on the concept that we got Edison and we got the
20 panel and we've got everybody else that said it's 08:35:28
21 a great idea, we're going to move forward. I am
22 disappointed that we're here today at this
23 meeting, and it doesn't appear to have been much
24 movement, and I would like to see -- I would like
25 to see, you know, some timeline concepts beyond 08:35:48

1 the decades that we're dealing with as far as
2 radiation, but some timeline concepts of where we
3 just simply want the public to be able to pull up
4 a site and see a meter and see a schedule on the
5 other side interpreting what that meter says, and 08:36:06
6 they can look at it, and they can go up and have
7 their breakfast and go to work or school and not
8 be concerned. But there's a large segment of our
9 community that we see in these meetings that are
10 extremely concerned about what's going on there, 08:36:24
11 and it can be so easily rectified by sticking a
12 meter in the air.

13 CHAIRMAN DR. VICTOR: Understood
14 completely. There's a lot of agreement on a lot
15 of things. I'm just trying to make sure that we 08:36:42
16 can finish by breakfast. Let's tee up that
17 conversation in a systematic way. I think that
18 some of the non-movement that you're not seeing is
19 because they're doing lots of monitoring and
20 what's not clear to me at least is what actually 08:36:58
21 is being monitoring -- monitored on a regular
22 basis, not just what the reports are, and then
23 what extra could be done and what's the value of
24 the extra work. Some folks are reluctant to have
25 false alarms, witness what we saw in Hawaii about 08:37:12

1 the Korean non-missile attack, and yet the people
2 also want to have realtime information. So that's
3 the informed conversation we need to have with all
4 this information on the table organized in a
5 systematic way. And that's part of our ongoing 08:37:25
6 attention to the Defense-in-Depth, so I completely
7 agree.

8 HONORABLE PAUL WYATT: There was a number
9 of questions to deal with blocked vents and how
10 they were sort of detected and how frequently they 08:37:36
11 needed to be inspected, can you respond to that?

12 MR. PALMISANO: Yeah. Very simply, for
13 example, with the existing AREVA dry fuel storage
14 there's installed temperature monitoring, so we
15 monitor the temperature real time that will be 08:37:51
16 installed on the new vertical system as we
17 complete it, because as the machines go over, I
18 can't put the instruments there. So they are
19 monitored for temperature every time a canister is
20 loaded, we check it. We continue monitoring for 08:38:06
21 the first week, we inspect all the vents daily and
22 feel the hot air coming out. So there's
23 monitoring, we would detect a vent that's blocked,
24 and we'll have our permanent instrumentation in
25 place as we complete the facility. 08:38:19

1 CHAIRMAN DR. VICTOR: Let's put a couple
2 more questions to the panel and then we need to
3 wrap up. We are already quite late.

4 MR. STETSON: Tom, there were a number of
5 questions with reference to spent fuel pools in 08:38:30
6 terms of the discharges from those, could you
7 review what that process is and also a special
8 interest in terms of what the notifications to the
9 public are.

10 MR. PALMISANO: Yeah. And what we'll do, 08:38:46
11 we have discharged radioactivity, typically
12 gaseous or liquid for all the years the plant has
13 operated. That is what's documented in these
14 reports as we've referred to. I'll be glad to
15 come in and explain what we've done, what we do 08:38:55
16 currently. As the one gentleman mentioned, we
17 discharge very little now. What wasn't brought
18 out that I need to come in and explain, for
19 example, water that's discharged is purified and
20 cleaned up to a very low level of radioactivity 08:39:09
21 and other contaminants and discharged in
22 accordance with strict limits. So it's just not a
23 wholesale discharge of untreated water, okay. So
24 I need to come in and explain, the plumbing was
25 asked for how this works, as well as how we 08:39:22

1 process this, and what we'll do is we'll come in
2 and talk about it in the future just like we've
3 kept the public informed through these meetings
4 about when we're loading spent fuel, we'll find a
5 way to talk about during the course of 08:39:35
6 decommissioning when we would expect to release
7 water.

8 CHAIRMAN DR. VICTOR: Okay. That was the
9 specific question from Charles Langley --

10 MR. PALMISANO: Right. 08:39:44

11 CHAIRMAN DR. VICTOR: -- and it's a fair
12 one, which is it possible to pledge zero discharge
13 and also related is it possible to pledge when
14 these discharges happen and what are the content
15 of them? 08:39:54

16 MR. PALMISANO: No, zero discharge is not
17 possible. We will discharge water periodically as
18 we have and as we do now and I will come and I
19 will explain how we will keep the public informed.

20 CHAIRMAN DR. VICTOR: Okay. Let's 08:40:03
21 organize that conversation similar to this other
22 monitoring conversation so we understand all the
23 parts and also how it's going to change over time,
24 presuming as the spent fuel pools are finished,
25 okay. 08:40:11

1 MR. PALMISANO: Right.

2 HONORABLE PAUL WYATT: Yes, there were a
3 number of comments made that New Mexico and most
4 likely Texas have rejected -- were no more
5 interested in having the waste there than we are 08:40:22
6 having it here. The question being, are we
7 prepared in the reality that we may permanently
8 have to store this waste if we can't move it to
9 those locations and knowing how we would deal with
10 that? 08:40:36

11 MR. PALMISANO: Well, you know, I
12 mentioned when I was giving the update on both New
13 Mexico and Texas, they're controversial. There's
14 no doubt people are against that, and I think
15 those comments are certainly valid, there are some 08:40:45
16 people who are for it. I can't tell you what the
17 split is. There's no clear path today whether
18 it's a deep geological repository, an interim
19 storage, et cetera. So we need to put in place
20 aging management plans about how these canisters 08:41:01
21 are maintained. I can bring in the NRC's
22 conclusions about long-term storage of fuel at
23 sites after plans have continued operated. This
24 quite frankly is a problem beyond San Onofre that
25 will have to be dealt with nationwide. This fuel 08:41:15

1 has to be moved at some point somewhere or it's
2 got to be maintained offsite.

3 MR. STETSON: Tom, a question came up or
4 actually a comment about warranty on the
5 canisters, does Holtec or AREVA have any 08:41:27
6 warranties on the --

7 MR. PALMISANO: I will have to go back
8 and pull the AREVA contract.

9 MR. STETSON: Okay. Thank you.

10 MR. PALMISANO: Holtec provides a
11 warranty, as does AREVA. I will have to look up
12 the specific content -- contract about warranty

13 AUDIENCE MEMBER: We can't hear you. Can
14 you speak up.

15 MR. PALMISANO: Oh, I'm sorry, yeah. 08:41:39
16 Thank you. I will have to go back and look at the
17 Holtec contract to answer the specific question
18 about warranty about cracking. It's a fair
19 question, and I will look that up and bring that
20 answer back. 08:41:54

21 CHAIRMAN DR. VICTOR: But the reality is,
22 you're on site and you have -- you're the backstop
23 on this all --

24 MR. PALMISANO: Well, we're responsible
25 under the NRC license to maintain the fuel. 08:42:00

1 CHAIRMAN DR. VICTOR: That's not lost in
2 translation.

3 HONORABLE PAUL WYATT: And then related
4 to that, there was a question or a number of
5 questions about can cracks be detected and can 08:42:10
6 they be repaired?

7 MR. PALMISANO: First of all, detected, I
8 would disagree with the comment, yes, they can be
9 detected. You start with the visual examination.
10 Remember I put up the slide with that inspection 08:42:23
11 ring as the next step should you see something
12 visually, that you've got to do a more intrusive
13 look at a potential crack, and we have examined
14 stainless steel components for years in these
15 power plants in different configurations, 08:42:38
16 different radiation levels to detect cracking.
17 Mitigation has to be talked about. We're working
18 on mitigation from crack repairs to encapsulation,
19 and in terms of the waste to mitigate a potential
20 crack. And that's part of that mitigation that 08:42:52
21 we'll be talking about over time.

22 CHAIRMAN DR. VICTOR: One or two more and
23 then we have one last slide and then we're going
24 to close.

25 MR. STETSON: Tom, is it possible to use 08:43:02

1 the spent fuel to the Mesa?

2 MR. PALMISANO: It's an interesting
3 concept, and many of you who were not with us in
4 2014 and 2015 missed that discussion. The Mesa is
5 not part of the NRC license, so today we have no 08:43:13
6 authority to store spent fuel there. So what
7 would it take to move it to the Mesa, number one,
8 the Navy would have to agree, which they've told
9 us they don't want it elsewhere on Camp Pendleton
10 at this point. 08:43:27

11 Number two, we would have to apply for a
12 new NRC license, and essentially it would be a
13 consolidated interim storage facility on The Mesa.
14 Theoretically, it's possible. Without the
15 landowner permission, it's not feasible. It would 08:43:38
16 add years to the situation. And, again, many of
17 you may not remember the discussions there was a
18 lot of encouragement from some knowledgeable
19 people who feel moving the spent fuel out of the
20 pools as soon as you practically can is the right 08:43:53
21 thing to do and the safest thing to do in
22 decommissioning. That's what drives us to the
23 current facility. That's why committed to finding
24 as reasonable a solution to move it off site. The
25 Mesa does not appear to be a viable option for us 08:44:05

1 at this point. And we've talked to the Navy at
2 fairly senior levels about that.

3 CHAIRMAN DR. VICTOR: I just want to
4 check, Tom Caughlan from Camp Pendleton, you agree
5 with that assessment? 08:44:15

6 MR. CAUGHLAN: Yeah. The Marine Corps is
7 on record saying they would like to get the fuel
8 off site as quickly as possible, and the entire
9 operation shut down and return to training as
10 quickly as possible. That's the reason that Camp 08:44:25
11 Pendleton exists. It never was intended to be a
12 nuclear plant or a nuclear storage site. It's
13 there to train marines. And to do that, we don't
14 have nearly enough land as it is. So the idea
15 that the Marine Corps came up with is let us 08:44:41
16 advance and support the removal of this nuclear
17 waste from the site, from the base, and get it
18 into its permanent storage area in accordance with
19 the safe rules of the NRC and industry safe
20 practices and all that stuff. The Marine Corps is 08:45:00
21 not -- we're not nuclear experts. You know,
22 we're -- we fight the nation's battles and go off
23 an expeditionary stuff.

24 MS. McNICHOLAS: Thank you.

25 MR. CAUGHLAN: It's best in the Marine 08:45:16

1 Corps' view if we don't retain the nuclear fuel
2 anywhere near the cities or the coast and move it
3 to where it was intended to go, which as you
4 already heard from Tom's first comments was
5 intended to be the Yucca Mountain site, which is 08:45:36
6 bound up in the Nevada politics.

7 So our record is pretty clear, we would
8 like it off the base as quickly as possible, which
9 I think is what everybody wants is out of the
10 area, and then into some safe, licensed, 08:45:51
11 appropriate permanent storage center.

12 CHAIRMAN DR. VICTOR: Thank you very
13 much. One last question.

14 HONORABLE PAUL WYATT: Yes. One of your
15 slides talked about submersing the canisters in 08:46:03
16 water, and one of the -- all canisters could take
17 50 feet of water and Holtec canisters 125 feet.
18 But the question came up about long-term
19 submersion, what happens if the canisters were in
20 salt water for a longer period of time? 08:46:18

21 MR. PALMISANO: Well, I think also the
22 question was, what if it was over 60 feet for the
23 AREVA system, that, I didn't have an answer to.
24 Realistically the canisters are not designed to be
25 under water forever, okay. They're analyzed 08:46:33

1 for -- it's situated such that even the maximum
2 Tsunami does not inundate and continue to keep the
3 site under water. It's anticipated to be a
4 transient event where the water drains back, then
5 the canister system would have to be expected and 08:46:49
6 the canister is rinsed out.

7 I should mention this, the way the
8 Coastal Commission viewed this when they permitted
9 the Holtec system, the permit is valid for
10 20 years, we're required to go back in 2035, and 08:47:00
11 at that time the intent of the Coastal Commission
12 is if the fuel is not relocated off site or if
13 there's no clear path to, they're going to
14 revisit, is this in an appropriate location. So
15 they factored that into issuing the current permit 08:47:15
16 for the Holtec system. This has to be revisited,
17 and that's based on future sea level rise,
18 et cetera

19 CHAIRMAN DR. VICTOR: Very quickly.

20 MR. STETSON: Tom, would they have the 08:47:25
21 authority to require you to move it if that's the
22 case?

23 MR. PALMISANO: They have authority over
24 the permit. The problem is you get into federal
25 jurisdiction with NRC. If there is no location to 08:47:35

1 store it in, they would certainly have the
2 authority to require me to relocate it on the
3 current property where the NRC license is. This
4 is one reason remove the rest of the plant, free
5 up some opportunities if it's relocated on site. 08:47:50

6 It's not clear that they would have authority to
7 say to put it elsewhere on Pendleton or elsewhere
8 in California. I don't think they would have that
9 authority.

10 MR. STETSON: Thank you. 08:48:01

11 CHAIRMAN DR. VICTOR: Thank you very
12 much.

13 MR. PALMISANO: I'm not a lawyer, though,
14 so --

15 CHAIRMAN DR. VICTOR: Well, I will say 08:48:04
16 that at 8:50 p.m. I'm not going to begin a
17 conversation about the particular behavior of the
18 California Coastal Commission in 2035.

19 Can we just -- I wanted to show the last
20 slide here, which is a preview for topics that 08:48:13
21 we're thinking about for future CEP meetings and
22 invite additional comments about those topics, it
23 includes the transportation, practices and
24 planning, the extreme events. It's currently
25 being thought of as a workshop because that gives 08:48:27

1 us more flexibility to focus in on that and focus
2 the way public comment can interact with experts,
3 and then one potentially on consolidated interim
4 storage and legislation, although we have to see
5 how that unfolds this fall in congress. 08:48:41

6 I will say we're -- we would like to meet
7 with the expert panel at some point, and it might
8 be that that's in the context of the discussions
9 around transportation. And we did hear many
10 comments tonight as we often do about these repair 08:48:48
11 strategies, what's repairable, what happens,
12 what's the timeline from detecting a potential
13 problem to repairing it, what do you need to have
14 on site versus what can be brought in. It seems
15 like those questions of response strategies need 08:49:06
16 to be packaged together along with our discussions
17 of monitoring and so on so we have a similar
18 conversation about that.

19 MR. PALMISANO: And I appreciate that.
20 And our priority has been first inspection because 08:49:16
21 there were a lot of questions about inspectable so
22 we made a lot of progress on that. Now we're
23 moving onto mitigation repair strategies.

24 CHAIRMAN DR. VICTOR: Thank you.

25 So we had some answers tonight. There 08:49:24

1 are still many more comments. Some people did
2 send in some additional information. Those of you
3 who did not have a chance to speak tonight, please
4 send us your comments as well. If anybody else on
5 the panel would like to make any further comments? 08:49:37
6 Garry Brown.

7 MR. BROWN: Yes, Dave. At the last
8 meeting there were a lot of questions about
9 community response, what do people do. I know as
10 I go into the community and I talk to people, I 08:49:45
11 think their biggest thing is if there is a
12 problem, what am I supposed to do? And in 2014 or
13 '15, Donna, I think you kind of had a presentation
14 on the coordinated effort of various agencies and
15 cities, county, state, you know, I think we 08:50:05
16 should -- I don't know if that comes under extreme
17 events, but I think we should talk about what is
18 the plan for the community.

19 MS. BOSTON: So real quickly, two things,
20 and it's a teaser for the workshop, okay, two 08:50:18
21 things, every single person in this room should go
22 and spend ten minutes and register for Alert OC if
23 you live in Orange County. And if you live in San
24 Diego County, you should register with Alert San
25 Diego. That is your emergency notification, that 08:50:37

1 is how the City will call you, that is how the
2 County will call you and give you emergency
3 direction for any kind of emergency.

4 AUDIENCE MEMBER: To do what?

5 MS. BOSTON: So Alert OC. We will tell 08:50:49
6 you what to do. That is our job, and that is the
7 system we will use, so if you want to be informed,
8 you register with Alert OC. We'll also overlay
9 social media, we do that as well. If you go and
10 watch any of the fires, you'll see it in action. 08:51:03
11 So, number 1, go to Alert OC and register your
12 address and any other area of interest, your kids'
13 schools, whatever, any area that you want to know,
14 and you want an emergency notification on, you
15 register with Alert OC if you're in Orange County. 08:51:18
16 Alert San Diego in San Diego County. Make sure
17 you do that, otherwise you may not be notified in
18 an emergency. And chances are it's going to be a
19 wild land fire this season, it's coming.

20 Number 2, go to Ready OC, and I think 08:51:34
21 Ready San Diego has Ready San Diego, and that is a
22 Website that covers every kind of emergency, and
23 it has what to do before, during, and after.

24 CHAIRMAN DR. VICTOR: Great. Thank you
25 very much. You all have been very patient with 08:51:50

1 us, and a lot of material to cover and a lot of
2 public comment, and still didn't get through all
3 the public comment. Please do drive home safely.
4 Thank you the people of San Clemente for hosting
5 us.

08:52:05

6 (WHEREUPON THE PROCEEDINGS WAS ADJOURNED
7 AT 8:52 P.M.)

8 (CERTIFICATE OF COURT OFFICER ATTACHED ON
9 FOLLOWING PAGE HEREOF.)

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CERTIFICATE

OF

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I further certify that I am neither
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IN WITNESS WHEREOF, I have this date
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